

November 24, 2004

Mr. Scott Bradley  
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4820 University Square  
Huntsville, Alabama 35816-1822

**SUBJECT: Seneca Army Depot Activity  
Quarterly Groundwater Monitoring, Ash Landfill  
Round 23 – August 2004**

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Dear Mr. Bradley:

Parsons Engineering Science, Inc. (Parsons) is pleased to submit electronic and hardcopy versions of the Round 23 – August 2004 Groundwater Monitoring Report for the Ash Landfill at the Seneca Army Depot Activity in Romulus, New York.

This work was performed in accordance with Delivery Order 10 as described in the Parsons Contract DACA87-02-D-0005.

Parsons appreciates the opportunity to provide you with this report. Should you have any questions, please do not hesitate to call me at (617) 457-7905 to discuss them.

Sincerely,



Todd Heino, P.E.  
Program Manager

cc: S. Absolom, SEDA  
R. Battaglia, USACE – NY District  
K. Hoddinott, USACHPPM  
C. Boes - AEC



November 24, 2004

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**SUBJECT: Seneca Army Depot Activity  
Quarterly Groundwater Monitoring, Ash Landfill  
Round 23 – August 2004**


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Dear Mr. Vazquez / Mr. White:

Parsons Engineering Science, Inc. (Parsons) is pleased to submit the Round 23 – August 2004 Groundwater Monitoring Report for the Ash Landfill at the Seneca Army Depot Activity in Romulus, New York. Seneca Army Depot's EPA site ID number is NY0213820830 and its New York identification number is 8-50-006.

Should you have any questions, please do not hesitate to call me at (617) 457-7905 to discuss them.

Sincerely,



Todd Heino, P.E.  
Program Manager

cc: C. Bethoney, NYSDOH  
S. Absolom, SEDA  
S. Bradley, USACE  
R. Battaglia, USACE – NY District  
K. Hoddinott – USACHPPM  
C. Boes - AEC



00586

**QUARTERLY GROUNDWATER MONITORING REPORT  
ASH LANDFILL  
ROUND 23 – AUGUST 2004**

Prepared for:

SENECA ARMY DEPOT ACTIVITY  
ROMULUS, NEW YORK  
And  
U.S. ARMY ENGINEERING & SUPPORT CENTER  
HUNTSVILLE, ALABAMA

Contract # DACA87-02-D-0005

Prepared by:

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November 2004

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## REFERENCES

EPA, Final USEPA Region II Low Stress (Low Flow) Ground Water Sampling Standard Operating Procedure, Division of Environmental Science and Assessment, March 20, 1998 (EPA, March, 1998).

EPA, Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water. EPA/600/R-98/128. September 1998.  
**<http://www.epa.gov/ada/reports.html>** (EPA, September, 1998).

Parsons, Feasibility Memorandum for Ground Water Remediation Alternatives Using Zero Valence Iron Continuous Reactive Wall at the Ash Landfill, August, 2000. (Parsons, August 2000, *Draft*)

Hach Technical Support, email correspondence, November 2004.  
**<http://www.hach.com>** (Hach, 2004)

## 1 INTRODUCTION

This report summarizes results of Round 23 - August 2004 groundwater sampling and monitoring event completed at the Ash Landfill Operable Unit (Ash Landfill OU) at the Seneca Army Depot Activity (SEDA) in Romulus, New York. The goal of groundwater monitoring at the Ash Landfill OU is to monitor the extent of the well-defined chlorinated ethene contaminant plume present at this operable unit and to monitor and evaluate the effectiveness of the existing zero valent iron (ZVI) reactive barrier, also known as the permeable reactive barrier (PRB). This work was performed in accordance with the requirements of Delivery Order 0010 of Contract DACA87-02-D-0005.

Historic groundwater data have been combined with new information and data collected during the Round 23 – August 2004 sampling event to evaluate flow characteristics and chemistry in the shallow groundwater aquifer at the Ash Landfill. **Section 2.0** provides a summary of the quarterly monitoring activities performed, **Section 3.0** provides a summary of monitoring results and data interpretations, and **Section 4.0** presents conclusions drawn from the Round 23 - August 2004 sampling and monitoring event.

### 1.1 **SITE BACKGROUND**

The Ash Landfill OU site was initially estimated to encompass an area of approximately 130 acres at the SEDA. This larger area was investigated to ensure that previously unidentified waste disposal areas were not overlooked. Following the completion of the remedial investigation (RI), the area of the Ash Landfill OU was refocused to encompass an area of approximately 23 acres. This area overlays five known, historic Solid Waste Management Units (SWMUs) in the area including: the Ash Cooling Pond (SEAD-3), the Ash Landfill (SEAD-6), the Non-Combustible Fill Landfill (NCFL, SEAD-8), the Refuse Burning Pits (SEAD-14), and the Abandoned Solid Waste Incinerator Building (SEAD-15). SEAD-14 is also known as the Debris Piles. The Ash Landfill (SEAD-6) includes a groundwater plume, comprised mainly of chlorinated ethene compounds, that emanates from the area of the northwestern side of the original ash landfill SWMU (SEAD-6).

A non-time critical removal action, also known as an interim remedial measure (IRM), was conducted by the Army between August 1994 and June 1995 in accordance with requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Only soils within the portion of the original ash landfill SWMU known as the “Bend in the Road” were excavated and treated. Soil within this area was identified as the source of groundwater contamination during the RI. The IRM consisted of excavation and thermal treatment of volatile organic compounds (VOCs) impacted soils using the Low Temperature Thermal Desorption (LTTD) process. The objectives of the IRM were to thermally treat VOCs and polycyclic aromatic hydrocarbons (PAHs) in soils at two source areas near the “Bend in the Road” where sampling identified elevated concentrations of VOCs and PAHs. The IRM thermal treatment project provided a positive benefit for the long-term remedial action

by minimizing the continued leaching of VOCs into groundwater and by preventing further human and wildlife exposure to VOC contaminated soils.

In December 1998, a 650-foot long PRB was installed approximately 100 feet east of the railroad tracks that run roughly parallel to the property line along the west side of the Ash Landfill OU. The PRB was installed as a demonstration project to show whether the ZVI PRB technology could effectively reduce the concentrations of chlorinated ethenes contained in the migrating groundwater through reductive dechlorination. The PRB was constructed by placing a mixture of 50 percent ZVI reactive granules and 50 percent sand into a trench that was excavated to bedrock (depth varying from 7 to 14 feet) and measuring 14 inches wide by 650 feet long. Monitoring wells installed upgradient, downgradient and within the bounds of the wall are used to monitor the continuing migration of the identified plume and the effectiveness of treatment achieved by the PRB.

## **2 QUARTERLY MONITORING ACTIVITIES**

Activities related to the Round 23 – August 2004 sampling event at the Ash Landfill OU included a comprehensive gauging of monitoring wells for groundwater elevations and the collection of groundwater samples for analysis. Analyses performed on the samples included field measurement of well stabilization, natural attenuation and other physical parameters, as well as laboratory analysis by a contract laboratory. The select analytical laboratory was certified by the State of New York Department of the Health, has New York State's CLP accreditation, and is also certified by the US Army Corps of Engineer's (USACE's) Omaha District for the analysis of samples. A detailed description of the field and analytical activities completed as part of the Round 23 event is provided below.

### **2.1 GROUNDWATER ELEVATION MEASUREMENTS**

Parsons personnel measured depth to groundwater at 51 site wells on August 23 and 24, 2004. The depth to groundwater at well MWT-2 was measured on August 27, 2004 prior to sampling and this data was merged with the other 51 values, and all were used to define groundwater contours. The depth to groundwater at MWT-3 was not measured due to the presence of bees.

### **2.2 GROUNDWATER SAMPLING**

Parsons personnel performed groundwater sampling at the Ash Landfill OU between August 25, 2004 and August 30, 2004. Groundwater samples were collected from 14 site monitoring wells and 11 PRB monitoring wells, resulting in a total of 25 sampling locations. The monitoring locations sampled are listed in **Table 2-1**. As noted in **Table 2-1**, the planned sampling of well MW-53 could not be completed due to insufficient groundwater yield. **Table 2-1** also records the collection of the following quality assurance/quality control (QA/QC) samples: two duplicates, two pairs (four samples total) of matrix spikes (MS) and matrix spike duplicates (MSDs), two rinse blanks, and three trip blanks. Two additional QA/QC samples were collected at monitoring locations MWT-3 and PT-12A (sample



numbers TR2157MRD and ARD2250MRD, respectively) and sent, along with two trip blanks (sample number ARD0040MRD and TR0056MRD), to the Omaha District of the USACE for analysis of select parameters as indicated in **Table 2-1**.

Groundwater samples were collected in accordance with the U.S. Environmental Protection Agency's (EPA's) Region II low flow groundwater purging and sampling procedure (EPA, March, 1998). All monitoring wells were initially purged using a QED Well Wizard® bladder pump and dedicated Teflon® tubing that was connected to a flow-through cell. A Horiba U-22 Water Quality Monitoring System (Horiba, Ltd., Kyoto, Japan) was used to monitor the stabilization of groundwater quality in the well by measuring the following parameters: pH, temperature, specific conductivity, oxidation-reduction potential (ORP), dissolved oxygen (DO), and turbidity. These parameters were recorded at regular intervals during preliminary well purging. Wells were sampled once one of the following conditions occurred: 1) stabilization was achieved; or 2) upon recovery of sufficient groundwater volume within any well that was pumped to dryness during preliminary purging. Stabilization of groundwater quality was assessed in accordance with EPA Region II Guidance on low flow sampling procedures, which says stabilization is achieved once three consecutive readings of pH for the purge water are within  $\pm 0.1$  standard units, consecutive readings of specific conductivity are within  $\pm 3\%$ , sequential readings of turbidity and DO measurements are within  $\pm 10\%$ , and consecutive ORP measurements are within  $\pm 10$  millivolts (mV). Final groundwater quality parameter values were recorded prior to the completion of purging, immediately prior to collection of groundwater samples for laboratory analyses. The final recorded parameter values reflect groundwater quality at the time of sampling. Upon completion of well purging, the flow-through cell was removed from the sampling configuration to reduce the potential for sample cross-contamination or contaminant volatilization and the necessary sample volumes were collected.

### 2.3 GROUNDWATER ANALYSES

Physical and chemical determinations and analyses performed on the collected groundwater samples from the 25 sampling locations included in the Round 23 – August 2004 sampling event are identified in **Table 2-1**. The Round 23 – August 2004 monitoring represents a modified reduced monitoring round, and it is used in conjunction with results from prior sampling rounds to assess the effectiveness of the PRB. A full round of groundwater elevations were recorded and additional monitoring wells were sampled as part of this monitoring event to fully assess the groundwater flow at the site and to evaluate whether the contaminate plume is circumventing the PRB along its southern edge. Typically reduced monitoring event rounds are used to monitor PRB performance, while full rounds are used to define the limits of the trichloroethene (TCE) plume and to allow for preparation of an isoconcentration plan.

Samples collected for field measurements were analyzed as follows: a Model DR/700 colorimeter (Hach Company, Loveland, CO) was used to measure hydrogen sulfide and ferrous iron levels via methods 8131 and 8146, respectively (Hach, 2004); a Model AL-APMG-L test kit (Hach Company,

Loveland, CO) was used to measure alkalinity and carbon dioxide content via methods similar to 8203 and 8205 (Hach, 2004); and, as noted above, a Horiba U-22 Water Quality Monitoring System (Horiba, Ltd., Kyoto, Japan) was used to measure pH, temperature, specific conductivity, ORP, DO, and turbidity. **Appendix A** contains a copy of email correspondence with Hach Technical Support.

Samples collected for laboratory analysis were sent to Chemtech Consulting Group, Inc. (Chemtech, Mountainside, NJ). As noted in **Table 2-1**, two different EPA recommended methods of analysis for volatile organic compounds (VOCs), EPA 524.2 and SW-846 Method 8260B, were used. Samples collected from monitoring wells within and near the PRB were analyzed via EPA Method 524.2, which has a lower detection limit for all analytes determined and can separately determine cis-1,2-dichloroethene (cis-1,2-DCE) from trans-1,2-dichloroethene (trans-1,2-DCE). Cis-1,2-dichloroethene is an important indicator of the degradation of higher chlorinated solvents. Samples collected from locations further up-gradient or down-gradient of the PRB were analyzed using EPA SW-846 Method 8260B. Compound identification is more certain via SW-846 Method 8260B, but the detection limits are also higher and this method has less ability to separate cis-1,2- and trans-1,2-DCE

### **3 QUARTERLY MONITORING RESULTS**

#### **3.1 GROUNDWATER ELEVATION CONDITIONS**

Prior to collection of groundwater samples, a snapshot of water levels at 52 monitoring wells around the Ash Landfill OU was obtained and recorded. Groundwater elevations were calculated for the Round 23 – August 2004 sampling event based on the snapshot data and are presented in **Table 3-1**. The groundwater level within wells MWT-3, MW-51D, and PT-24 were not measured due to presence of bee nests within the wells; wells PT-15, MW-34, and MW-39 could not be located; and the lock for well MW-58D was jammed and could not be opened.

The groundwater elevation data were used to prepare a site-wide groundwater contour map for the Ash Landfill OU for the Round 23 event, and this map is presented in **Figure 3-1**. The 632 foot contour line presented in **Figure 3-1** is estimated based on the surrounding well, exclusive of well MW-28. Data for MW-28 was excluded from the 632 foot contour line estimation process because it appears that the field data collected is either incorrect or there is some localized unknown phenomena occurring at this site. Reported depth to groundwater data for MW-28 results in the calculation of a groundwater elevation at this location of 631.8 feet, but all surrounding wells immediately up- and down-gradient show higher elevations. Parsons assessment of the broader data set in the area of MW-28 suggests that groundwater flow directly up-gradient of the PRB is very dynamic and that the 632 foot contour line runs parallel to the length of the PRB but does not cross the PRB, as would be suggested by the data from MW-28. Parsons assessment also suggests that the groundwater flow direction is generally to the west-southwest with an average horizontal hydraulic gradient of approximately 0.02 <sup>ft</sup>/<sub>ft</sub>.

Groundwater elevation data for wells at the Ash Landfill OU between 1995 and August 2004 are tabulated in **Appendix B**. **Table 3-1** presents a summary of the historic maximum and minimum measured elevations at wells for the 1995 to August 2004 time period. Based on a review of the historic data for the 55 monitoring wells listed in **Table 3-1**, the average variation in groundwater elevation at the site is 6.43 feet and the maximum-recorded variation in groundwater elevation is 13.52 feet (MW-50D).

**Figure 3-2** presents groundwater elevation data for select key wells across the Ash Landfill OU over time (October 1999 to present day). Generally, these data show that the groundwater elevation at the Ash Landfill OU varies seasonally with low groundwater conditions occurring during late summer/early fall and high groundwater conditions occurring during the spring. However, as is shown in **Figure 3-2**, groundwater elevation data from Round 23 event are generally higher than have been seen during prior late summer/early fall monitoring events. Only one prior late summer/early fall monitoring event, September 1996, had higher groundwater elevations with almost two-thirds of the measured groundwater elevations being the highest recorded for August/September time period; the remaining third were from Round 23 sampling event.

Groundwater flow down-gradient of the PRB flows west-southwest away from the PRB. The 630 and 628 foot contour lines are not dynamic like the 632 foot contour line; they are smooth lines that deflect to the south-southeast in the area between monitoring wells PT-25, MW-31, MW-35D, and MW-36 as seen in **Figure 3-1**. Insufficient groundwater elevation data was collected to interpolate the 625 foot contour line with confidence.

**Figure 3-3** presents the competent shale topography map of the site. Bedrock appears to influence the groundwater flow along the west-southern edge of the site; all contour lines between 635 and 628 feet bend to the south-southeast in the area of monitoring wells MW-32, MW-30, MW-31, MW-36, MW-33, and PT-25. This area overlies the bedrock feature, shown in **Figure 3-3**, that places MW-32 at the highest point in the immediate area and MW-36 as the lowest point. The bedrock slopes to the south-west corresponding to the bend in the groundwater contour lines in the adjacent area south of the PRB.

### 3.2 GROUNDWATER MONITORING RESULTS

Results of the Round 23 groundwater monitoring event are summarized in **Tables 3-2** through **3-5** as follows: **Table 3-2** presents field measurements; **Table 3-3** presents laboratory analytical results for all monitoring locations; **Table 3-4** presents laboratory analytical results for QA/QC field duplicate samples; and, **Table 3-5** presents laboratory analytical results for QA/QC field and trip blanks. In keeping with the Paperwork Reduction Act of 1995, abbreviated laboratory reports presenting analytical results from Chemtech are presented in **Appendix C**. Copies of sample Chains of Custody records are included with the laboratory reports. Complete laboratory reports with all laboratory internal QA/QC data are available upon request. **Appendix D** presents the Data Validation sheets for Round 23 sampling event and alterations made to the data.

### **3.2.1 Field Measurements**

Results of the Round 23 event field determinations from all monitoring locations are presented in **Table 3-2**. As noted above, field measurements of pH, specific conductivity, turbidity, DO, and ORP are used during well purging to assess and indicate groundwater quality stabilization. Most of these field measurements, in addition to carbon dioxide, ferrous iron, hydrogen sulfide, and alkalinity, are also used to monitor potential for natural attenuation of trichloroethene (TCE). The results of ferrous iron, ORP, and pH are used to monitor the extent of iron oxidation within the ZVI PRB.

### **3.2.2 Laboratory Analytical Results**

Results of chemical analyses for all monitoring locations are presented in **Table 3-3**. VOC determinations are used to identify, map, and track the TCE plume. Nitrate, sulfate, and total organic carbon (TOC) data are used, along with select field measurements as noted above, to monitor potential for natural attenuation of TCE. Calcium, manganese, magnesium, potassium, and sodium data are used to monitor changes in geochemistry. Samples collected in the Round 23 monitoring event were not analyzed for the following parameters: chloride, nitrate, sulfate, and TOC.

### **3.2.3 QA/QC**

Data for field duplicate samples are presented in **Table 3-4**, which also summarizes the calculated Relative Percent Difference (RPD) for each parameter identified. Based on the RPD analysis, the sample results were well within normal QA/QC acceptance criteria. The only parameters exhibiting significant variance were 1,1,1-trichloroethane and methane in duplicate samples from monitoring location MW-44A. In both cases, the noted variance results because the analyte is reported as an estimated value in one of the duplicate pair members while it was not detected in the other member of the pair.

Analytical results for QA/QC field and trip blank samples are presented in **Table 3-5**. Analytes detected at concentrations less than three times any applicable detection in a field or trip blank were qualified as estimated (J).

## **3.3 DATA INTERPRETATIONS AND PRESENTATIONS**

### **3.3.1 Round 23 TCE and DCE Occurrence**

**Table 3-6** provides a summary of data from only those monitoring locations where detectable levels of VOCs, determined either via analytical method EPA 524.2 or SW-846 Method 8260B, were reported. Twenty locations exhibited detectable levels of VOCs. Based on historical monitoring and the well-defined chlorinated ethene contaminant plume observation of chlorinated VOC compounds at these

locations is anticipated. Most of the other VOC compounds observed have historically been detected at the Ash Landfill OU, although not all consistently, and are generally intermixed with the contaminant plume. The only exception was carbon disulfide, which was detected in PT-24 for the first time, and historically had been detected only once at well FH-S, down-gradient of PRB, during the August 2001 sampling round.

Reported concentrations, including non-detect levels, of trichloroethene (TCE) and cis-1,2-dichloroethene (cis-1,2-DCE), the primary contaminants at the Ash Landfill OU, are shown spatially in **Figure 3-4**. As depicted in **Figure 3-4** and summarized in **Table 3-6**, TCE was detected at seventeen sample locations and exceeded the New York State Ambient Water Quality (NYSAWQ), Class GA groundwater standard of 5 µg/L at the following ten locations: MW-28, MW-44A, MW-46, MWT-1, MWT-3, MWT-7, MWT-9, PT-12A, PT-17, and MW-22. Eight of the ten locations exceeding the NYSAWQ groundwater standard for TCE are located up-gradient of the PRB. Two locations (MWT-3 and MWT-9) are located down-gradient of the PRB. MWT-9 has historically contained elevated levels of TCE, and MWT-3, with TCE detected at 5.5 µg/L, has historically contained levels of TCE at or near the GA standard of 5 µg/L. As shown in **Figure 3-4**, TCE concentrations down-gradient of the PRB are lower than those recorded up-gradient of the PRB.

Cis-1,2-DCE was detected at eighteen locations and exceeded the NYSAWQ Class GA standard of 5 µg/L at seventeen of those sample locations, as depicted in **Figure 3-4** and summarized in **Table 3-6**. Five of the locations where cis-1,2-DCE was detected at levels exceeding the GA groundwater standard (MWT-3, MWT-6, MWT-9, MW-56, and PT-24) are down-gradient of the PRB; three others (MWT-2, MWT-5, and MWT-8) are located within the PRB. MWT-9 was the only well to have higher cis-1,2-DCE concentration than up-gradient wells. Given cis-1,2-DCE is a daughter product of the reductive dechlorination of TCE, elevated concentrations of cis-1,2-DCE are anticipated in areas where degradation of TCE contamination is occurring.

The maximum concentrations of TCE and cis-1,2-DCE detected in groundwater during the Round 23 – August 2004 monitoring event, 960 µg/L and 2,600 µg/L, respectively, were detected at well PT-12A. Previously well MW-44A had the highest detected cis-1,2-DCE concentrations for Round 22 – March 2004 with PT-12A having the highest TCE detected levels. The shift in highest detected levels was influenced by the relatively high groundwater levels for late summer/early fall for this monitoring event. The TCE equivalent of the combined concentrations of detected chlorinated ethenes [trichloroethene, dichloroethene (cis-1,2- and trans-1,2- or total 1,2-) and vinyl chloride; tetrachloroethene (PCE) has not historically been detected at the Ash Landfill OU] at each monitored location for Round 23 – August 2004 are illustrated in **Figure 3-5**. TCE equivalents were determined by dividing the detected concentration of each chlorinated ethene by its molecular weight, multiplied by the molecular weight of TCE. **Appendix E** provides an example calculation along with individual ethene and TCE equivalent data for the Round 23 – August 2004 monitoring event. As previously noted, the reduced monitoring

round does not provide sufficient data to create an accurate isoconcentration plan of the TCE plume. The plan will be updated during the next full monitoring round.

### **3.3.2 Effectiveness of ZVI PRB**

During the Round 23 – August 2004 sampling event, samples were collected from three 3-tiered well clusters that transect the existing PRB. The three well clusters are as follows: MWT-1, -2, and -3 (northern); MWT-4, -5, and -6 (middle); and MWT-7, -8, and -9 (southern). The tiered wells are up-gradient (MWT-1, -4, and -7), within (MWT-2, -5, -8), and down-gradient (MWT-3, -6, -9) of the PRB. Monitoring these well clusters allows for an evaluation of the PRB's effectiveness at enhancing the attenuation of chlorinated ethenes contained in the groundwater at the Ash Landfill OU.

**Figures 3-6, 3-7, and 3-8** present the concentrations of TCE, cis-1,2-DCE, and the TCE equivalent of the total chlorinated ethenes detected across each of the three transects, respectively. For the northern and middle transects, the TCE equivalent concentration decreases by approximately 70% as the plume flows from the up-gradient side to the down-gradient side of the PRB. For the southern transect, the TCE equivalent concentration increases by approximately 20% and DCE concentrations increase 275% across the transect of the wells MWT-7, -8, and -9 as the plume flows down-gradient. Although cis-1,2-DCE concentrations at MWT-3 and MWT-6 are generally decreasing compared to respective up-gradient wells MWT-2 and -5, the contaminant's concentrations at MWT-9, which is also down-gradient of the PRB, continue to increase. Breakthrough of the PRB may be occurring along the southern edge of the PRB where buried debris discovered and disturbed during the installation of the PRB may be responsible for higher than anticipated hydraulic conductivity in this area. This finding is more thoroughly discussed in the Feasibility Memorandum for Groundwater Remediation Alternatives Using Zero Valence Iron Continuous Reactive Wall at the Ash Landfill (Parsons, August 2000, *Draft*) Based on these decreases in the TCE equivalent concentration across the northern and middle transects, the PRB appears to be functioning as the design specifications indicated for degradation of TCE. However, the southern transect of the PRB shows elevated concentrations of TCE and cis-1,2-DCE within and down-gradient of the wall which suggests that treatment is occurring but is incomplete. This finding will be assessed and addressed as part of the pending remedial action for this site following finalization of Record Of Decision.

**Table 3-7** details the natural attenuation parameters measured in the monitoring wells up-gradient, within, and down-gradient of the PRB. This table indicates the marked decreases of ORP and DO in the wells within the PRB and the marked increase in methane along each transect through the PRB. Each of these findings are positive indications of natural attenuation resulting from groundwater interaction with the PRB. DO was not detected in MWT-4; however MWT-5, within the PRB, detected DO at 1.52 mg/L which decreases to 0.18 mg/L in MWT-6. Ethene and ethane concentrations were fairly consistent across the PRB during the Round 23 – August 2004 monitoring event; however a small decrease in CO<sub>2</sub> was noted in the northern and southern transect, while the middle transect had a

noticeable increase in CO<sub>2</sub>; generally an increase in CO<sub>2</sub> is indicative of natural attenuation conditions.

#### **4 SUMMARY AND CONCLUSIONS**

In summary, the Round 23 – August 2004 groundwater monitoring and sampling event indicates:

1. Groundwater flow direction and horizontal gradients are consistent with data previously collected in the Ash Landfill OU.
2. Degradation of chlorinated ethenes is occurring as the contaminant plume interacts with the PRB.
3. Monitoring indicates that the most concentrated portion of the chlorinated ethene plume passes through the southern end of the PRB. Any proposed additional treatment concentrated in this area would be beneficial.

**TABLE 2-1  
GROUNDWATER SAMPLING MATRIX - ROUND 23 - AUGUST 2004  
QUARTERLY GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY**

Location	Sample ID	QC Code	Field Parameters										Analytical Laboratory Parameters			
			pH	Spec Cond	ORP	DO	Turbidity	H <sub>2</sub> S	Fe <sup>+2</sup>	Alkalinity	Temp	CO <sub>2</sub>	VOC	VOC	Methane/ Ethane/ Ethene	Metals (Ca, Na, K, Mn, Mg Only)
													EPA 524.2	SW 8260B		
<b>Site Monitoring Wells <sup>(1)</sup></b>																
MW-28	ARD2257	SA	X	X	X	X	X	X	X	X	X	X		X	X	X
MW-30 (alternate use MW-28)	Insufficient water															
MW-31	ARD2256	SA	X	X	X	X	X	X	X	X	X	X		X	X	X
MW-32	ARD2255	SA	X	X	X	X	X	X	X	X	X	X		X	X	X
MW-36	ARD2258	SA	X	X	X	X	X	X	X	X	X	X		X	X	X
MW-44A	ARD2246	SA	X	X	X	X	X	X	X	X	X	X		X	X	X
MW-46	ARD2247	SA	X	X	X	X	X	X	X	X	X	X		X	X	X
MW-53	ARD2248	SA	X	X	X	X	X	X	X	X	X	X		X	X	X
MW-56	ARD2249	SA	X	X	X	X	X	X	X	X	X	X		X	X	X
PT-12A	ARD2250	SA	X	X	X	X	X	X	X	X	X	X		X	X	X
MW-22	ARD2251	SA	X	X	X	X	X	X	X	X	X	X		X	X	X
PT-23	ARD2245	SA	X	X	X	X	X	X	X	X	X	X		X	X	X
PT-24	ARD2252	SA	X	X	X	X	X	X	X	X	X	X	X		X	X
PT-25	ARD2259	SA	X	X	X	X	X	X	X	X	X	X		X	X	X
<b>Permeable Reactive Barrier Monitoring Wells <sup>(1)</sup></b>																
MWT-1	TR2160	SA	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MWT-2	TR2158	SA	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MWT-3	TR2157	SA	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MWT-4	TR2156	SA	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MWT-5	TR2155	SA	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MWT-6	TR2154	SA	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MWT-7	TR2153	SA	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MWT-8	TR2152	SA	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MWT-9	TR2151	SA	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MWT-10	TR2150	SA	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MWT-11	TR2149	SA	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<b>QA/QC Samples</b>																
Duplicate (MWT-1)	TR2159	SA	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Duplicate (MW-44A)	ARD2253	SA	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MS (MWT-1)	TR2159MS	MS	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MSD (MWT-1)	TR2159MSD	MSD	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MS (MW-44A)	ARD2253MS	MS	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MSD (MW-44A)	ARD2253MSD	MSD	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<b>MRD Samples</b>																
MWT-3	TR2157MRD	MRD	X	X	X	X	X	X	X	X	X	X	X	X	X	X
PT-12A	ARD2250MRD	MRD	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Trip/ Blank	TR0056MRD	MRD												X		
Trip/ Blank	ARD0046MRD	MRD												X		
<b>Rinsate and Trip Blanks Associated with VOC/CLP sample</b>																
Rinsate	ARD0049	FB												X	X	X
Rinsate	TR0057	FB												X	X	X
Trip/ Blank	ARD0046	TB												X		
Trip/ Blank	TR0055	TB												X		
Trip/ Blank	TR0056	TB												X		

1 - Sampled according to EPA Region II low flow sampling procedures

MS - Matrix Spike

MSD - Matrix Spike Duplicate

QC = Quality Control

ORP = Oxidation Reduction Potential

DO = Dissolved Oxygen

H<sub>2</sub>S = Hydrogen Sulfide

Fe<sup>+2</sup> = Ferrous Iron

CO<sub>2</sub> = Carbon Dioxide

VOC = Volatile Organic Compounds



**TABLE 3-1  
GROUNDWATER ELEVATION DATA - ROUND 23 - AUGUST 2004  
QUARTERLY GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY**

Monitoring Well	Top of Riser Elevation (ft)	Round 23 - August 2004					Historical Data			
		Date Measured	Saturated Thickness (ft)	Depth to Groundwater (ft)	Water Level Elevation (ft)	Total Depth (ft)	Groundwater Elevation (ft)			Well Depth (ft)
							Maximum	Minimum	Range	
PT-11	658.22	8/23/04	13.33	5.98	652.24	19.31	654.03	647.72	6.31	19.55
PT-12A	652.15	8/23/04	4.40	8.05	644.10	12.45	649.02	642.20	6.82	13.38
PT-15	637.76		could not be locate				637.76	627.38	10.38	19.50
PT-16	637.51	8/24/04	6.63	4.24	633.27	10.87	634.85	629.83	5.02	11.04
PT-17	640.14	8/23/04	6.23	5.2	634.94	11.43	635.85	629.05	6.80	11.65
PT-18	656.68	8/23/04	5.03	6.62	650.06	11.65	652.28	646.30	5.98	11.70
PT-19	645.26	8/23/04	5.51	5.94	639.32	11.45	643.61	635.01	8.60	11.70
PT-20	647.28	8/23/04	3.93	7.7	639.58	11.63	642.34	636.83	5.51	11.80
PT-21A	647.73	8/23/04	11.62	8.53	639.20	20.15	643.84	637.01	6.83	19.46
MW-22	648.61	8/23/04	2.61	9.15	639.46	11.76	644.30	637.47	6.83	11.81
PT-23	641.58	8/24/04	5.13	6.67	634.91	11.80	638.14	632.35	5.79	12.08
PT-24	636.40		Bees prevented measurement				632.76	627.80	4.96	11.88
PT-25	637.09	8/23/04	4.98	6.85	630.24	11.83	633.51	625.58	7.93	12.03
MW-27	639.32	8/23/04	4.00	6.35	632.97	10.35	634.88	630.09	4.79	10.54
MW-28	637.21	8/23/04	4.95	5.4	631.81	10.35	633.05	628.71	4.34	10.39
MW-29	637.31	8/24/04	4.36	5.94	631.37	10.30	632.54	627.30	5.24	10.54
MW-30	640.32	8/24/04	1.71	8.6	631.72	10.31	636.42	629.88	6.54	10.52
MW-31	636.70	8/23/04	4.29	6	630.70	10.29	634.22	626.90	7.32	10.35
MW-32	641.68	8/23/04	2.28	7.93	633.75	10.21	637.84	632.61	5.23	10.37
MW-33	639.56	8/23/04	1.41	8.76	630.80	10.17	635.65	629.72	5.93	10.39
MW-34	632.89		could not be locate				632.89	622.36	10.53	18.15
MW-35D	631.82	8/24/04	53.89	3.31	628.51	57.20	629.59	624.62	4.97	56.64
MW-36	631.79	8/24/04	12.95	3.42	628.37	16.37	629.47	622.26	7.21	16.58
MW-38D	637.90	8/23/04	27.56	4.63	633.27	32.19	635.39	628.99	6.40	32.24
MW-39	659.54		could not be locate				657.84	650.47	7.37	11.89
MW-40	659.30	8/24/04	8.72	5.78	653.52	14.50	655.85	650.16	5.69	14.71
MW-43	657.73	8/23/04	3.52	3.88	653.85	7.40	655.36	650.73	4.63	7.47
MW-44A	653.85	8/23/04	6.00	6.31	647.54	12.31	650.53	642.42	8.11	12.48
MW-45	650.90	8/23/04	4.05	4.1	646.80	8.15	648.80	643.12	5.68	8.34
MW-46	650.41	8/23/04	5.20	6.12	644.29	11.32	648.03	641.12	6.91	11.45
MW-47	628.06	8/24/04	3.64	4.68	623.38	8.32	625.76	619.87	5.89	8.56
MW-48	648.32	8/23/04	6.73	4.65	643.67	11.38	645.57	639.94	5.63	11.50
MW-49D	650.50	8/23/04	31.86	5.76	644.74	37.62	647.62	641.51	6.11	37.54
MW-50D	649.88	8/23/04	53.44	5.47	644.41	58.91	647.40	633.88	13.52	59.66
MW-51D	628.24		Bees prevented measurement				628.24	620.49	7.75	36.87
MW-52D	626.35	8/24/04	55.22	4	622.35	59.22	624.17	618.61	5.56	59.36
MW-53	639.41	8/23/04	3.20	7	632.41	10.20	634.16	629.46	4.70	10.35
MW-54D	639.11	8/23/04	28.20	6.94	632.17	35.14	633.82	628.56	5.26	34.99
MW-55D	639.16	8/23/04	51.07	7.08	632.08	58.15	633.77	627.96	5.81	58.18
MW-56	630.51	8/24/04	2.69	3.62	626.89	6.31	627.58	621.66	5.92	6.88
MW-57D	629.82	8/24/04	32.10	2.82	627.00	34.92	628.13	621.76	6.37	35.09
MW-58D	629.69		Lock jammed by ants in key hole				628.37	623.94	4.43	57.29
MW-59	656.83	8/23/04	7.10	2.75	654.08	9.85	654.93	649.85	5.08	9.10
MW-60	660.15	8/23/04	7.12	2.96	657.19	10.08	658.20	652.23	5.97	9.50
MWT-1	637.24	8/23/04	4.91	5	632.24	9.91	632.96	629.06	3.90	9.75
MWT-2	637.19	8/27/04	4.14	5.3	631.89	9.44	632.27	629.89	2.38	9.55
MWT-3	637.31		Bees prevented measurement				632.35	628.99	3.36	10.00
MWT-4	637.68	8/23/04	6.71	5.57	632.11	12.28	633.18	627.28	5.90	12.43
MWT-5	637.72	8/23/04	5.59	6.23	631.49	11.82	632.45	628.50	3.95	11.95
MWT-6	637.59	8/23/04	6.11	6.21	631.38	12.32	632.38	627.24	5.14	12.28
MWT-7	638.34	8/23/04	7.26	6.2	632.14	13.46	633.50	626.58	6.92	13.97
MWT-8	638.40	8/23/04	5.29	7.02	631.38	12.31	635.90	627.73	8.17	12.55
MWT-9	638.08	8/23/04	5.20	6.77	631.31	11.97	632.70	626.04	6.66	14.14
MWT-10	636.07	8/23/04	4.68	4.12	631.95	8.80	632.46	629.55	2.91	8.95
MWT-11	635.90	8/23/04	5.86	3.94	631.96	9.80	634.13	626.92	7.21	9.95

**TABLE 3-2  
FIELD MEASUREMENTS - INDICATOR PARAMETERS  
ROUND 23 - AUGUST 2004  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY**

Well ID	Sample ID	Dissolved Oxygen (mg/L)	Carbon Dioxide (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)	Oxidation Reduction Potential (mV)	pH	Temperature (oC)	Specific Conductance (mS/m)	Turbidity (NTU)	Alkalinity (mg/L)
MW-31	ARD2256	4.85	97.0	0.170	0.026	81	6.44	16.40	0.561	844*	270.0
MW-28	ARD2257	5.88	147.0	-0.040	-0.080	65	6.29	16.60	0.671	7.2	333.0
MW-32	ARD2255	9.45	138.0	0.400	0.102	54	6.55	16.40	0.436	121	499.0
MW-36	ARD2259	0**	75.0	0.040	0.000	-22	6.86	15.00	0.465	48	2000.0
MW-44A	ARD2246 / ARD2253	0.13	220.0	0.090	0.011	25	6.82	17.80	3.3	4.3	426.0
MW-46	ARD2247	0.00	166.0	0.040	-0.155	-99	7.19	18.30	0.571	10.1	330
MW-53	ARD2248	2.49	143.0	0.150	-0.029	-106	7.18	16.20	0.821	8.6	308.0
MW-56	ARD2249	0.00	110.0	0.220	0.022	-106	7.36	17.90	0.412	35.1	235.0
PT-12A	ARD2250	0.16	210.0	0.230	-0.128	-95	7.20	18.50	1.370	2.0	303.0
PT-17	ARD2254	2.46	117.0	0.150	-0.056	-35	6.70	16.40	0.480	73.7	349.0
MW-22	ARD2251	3.45	158.0	0.000	0.000	-92	7.14	18.60	0.980	12.8	330.8
PT-23	ARD2245	0.13	61.0	0.700	-0.029	-124	7.26	16.40	0.597	10.6	294.0
PT-24	ARD2252	0.06	91.0	0.150	-0.056	-73	7.08	16.10	0.475	13	152.0
PT-25	ARD2259	0.00	104.0	0.000	0.022	50	6.43	16.70	0.563	1.5	265.0
MWT-1	TR2159 / TR2160	1.47	241.0	0.040	0.035	66	6.44	16.60	0.516	53.0	331.0
MWT-2	TR2158	0.43	5.0	0.090	0.042	-261	5.88	21.61	0.194	26.2	72.0
MWT-3	TR2157	0.00	116.0	0.630	0.067	-73	7.07	16.80	0.400	26.4	247.0
MWT-4	TR2156	0.00	229.0	0.020	-0.029	128	3.73	15.20	0.617	125.0	313.0
MWT-5	TR2155	1.52	1.0	0.060	-0.029	-66	4.3	19.84	0.136	150	25.3
MWT-6	TR2154	0.18	302.0	-0.020	0.033	-116	3.87	15.21	0.207	0.0	56.0
MWT-7	TR2153	5.82	150.0	0.030	0.000	119	6.08	14.40	0.486	26.7	337.0
MWT-8	TR2152	0.09	2.0	0.080	0.035	-191	9.65	22.90	0.101	0.0	83.0
MWT-9	TR2151	0.00	119.0	0.710	0.093	-85	3.69	15.15	0.402	115	288.0
MWT-10	ARD2150	2.25	3.0	0.030	-0.120	-386	9.98	16.70	0.098	5.0	82.4
MWT-11	TR2149	0.90	104.0	0.140	0.000	22	6.75	21.1	13.120	5.2	218.0

NA = Not Analyzed

\*\* = DO might be off

\* = turbidity metter readings off, water looked cleaner, looked less than 100.

mg/L - milligrams per liter

mV - millivolts

uS/cm - microsiemens per centimeter

NTU - Nephelometric Turbidity Unit

**TABLE 3-3  
RESULTS OF LABORATORY ANALYSIS - ROUND 23 - AUGUST 2004  
QUARTERLY GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY**

Parameter	Units	Maximum Value	Frequency of Detection	Criteria Level	Number of Exceedances	Number of Times Detected	Number of Samples Collected	MWT-1	MWT-1	MWT-11	MWT-2	MWT-3	MWT-4	MWT-5	
								TR2160	TR2159	TR2149	TR2158	TR2157	TR2156	TR2155	
								8/27/04	8/27/04	8/25/04	8/27/04	8/27/04	8/26/04	8/26/04	
							SA	SA	SA	SA	SA	SA	SA	SA	
							ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	
							23	23	23	23	23	23	23	23	
							Value	Value	Value	Value	Value	Value	Value	Value	
							(Q)	(Q)	(Q)	(Q)	(Q)	(Q)	(Q)	(Q)	
<b>Volatile Organic Compounds</b>															
1,1,1,2-Tetrachloroethane	UG/L	0	0%	5	0	0	13	0.22	U	0.22	U	0.22	U	0.22	U
1,1,1-Trichloroethane	UG/L	1.8	15%	5	0	4	27	0.4	J	0.4	J	0.24	U	0.24	U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	27	0.21	U	0.21	U	0.21	U	0.21	U
1,1,2-Trichloroethane	UG/L	0	0%	1	0	0	27	0.24	U	0.24	U	0.24	U	0.24	U
1,1-Dichloroethane	UG/L	5.9	33%	5	2	9	27	0.4	J	0.5	J	0.21	U	0.21	U
1,1-Dichloroethene	UG/L	5.8	11%	5	1	3	27	0.16	U	0.16	U	0.16	U	0.16	U
1,1-Dichloropropene	UG/L	0	0%	5	0	0	13	0.21	U	0.21	U	0.21	U	0.21	U
1,2,3-Trichlorobenzene	UG/L	0	0%	5	0	0	13	0.18	U	0.18	U	0.18	U	0.18	U
1,2,3-Trichloropropane	UG/L	0	0%	0.04	0	0	13	0.28	U	0.28	U	0.28	U	0.28	U
1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	13	0.2	U	0.2	U	0.2	U	0.2	U
1,2,4-Trimethylbenzene	UG/L	0	0%	5	0	0	13	0.24	U	0.24	U	0.24	U	0.24	U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	0.04	0	0	13	0.2	R	0.2	R	0.2	R	0.2	R
1,2-Dibromoethane	UG/L	0	0%	0.0006	0	0	13	0.2	U	0.2	U	0.2	U	0.2	U
1,2-Dichlorobenzene	UG/L	0	0%	3	0	0	13	0.17	U	0.17	U	0.17	U	0.17	U
1,2-Dichloroethane	UG/L	0.4	7%	0.6	0	2	27	0.21	U	0.21	U	0.21	U	0.21	U
1,2-Dichloropropane	UG/L	0	0%	1	0	0	27	0.21	U	0.21	U	0.21	U	0.21	U
1,3,5-Trimethylbenzene	UG/L	0	0%	5	0	0	13	0.22	U	0.22	U	0.22	U	0.22	U
1,3-Dichlorobenzene	UG/L	0	0%	3	0	0	13	0.2	U	0.2	U	0.2	U	0.2	U
1,3-Dichloropropane	UG/L	0	0%	5	0	0	13	0.22	U	0.22	U	0.22	U	0.22	U
1,4-Dichlorobenzene	UG/L	0	0%	3	0	0	13	0.2	U	0.2	U	0.2	U	0.2	U
2,2-Dichloropropane	UG/L	0	0%	0	0	0	13	0.2	U	0.2	U	0.2	U	0.2	U
2-Chlorotoluene	UG/L	0	0%	5	0	0	13	0.5	U	0.5	U	0.5	U	0.5	U
Acetone	UG/L	0	0%	0	0	0	27	5.8	U	5.8	U	1.5	R	1.5	R
Acrylonitrile	UG/L	0	0%	5	0	0	13	0.94	R	0.94	R	0.94	R	0.94	R
Allyl chloride	UG/L	0	0%	5	0	0	13	0.18	U	0.18	U	0.18	U	0.18	U
Benzene	UG/L	1.1	22%	1	1	6	27	0.24	U	0.24	U	0.24	U	1.1	J
Bromobenzene	UG/L	0	0%	5	0	0	13	0.21	U	0.21	U	0.21	U	0.21	U
Bromodichloromethane	UG/L	0	0%	80	0	0	27	0.2	U	0.2	U	0.2	U	0.2	U
Bromoform	UG/L	0	0%	80	0	0	27	0.22	U	0.22	U	0.22	U	0.22	U
Butyl chloride	UG/L	0	0%	5	0	0	13	0.22	U	0.22	U	0.22	U	0.22	U
Carbon disulfide	UG/L	1.1	4%	60 <sup>(1)</sup>	0	1	27	0.18	U	0.18	U	0.18	U	0.18	U
Carbon tetrachloride	UG/L	0	0%	5	0	0	27	0.22	U	0.22	U	0.22	U	0.22	U
Chlorobenzene	UG/L	0	0%	5	0	0	27	0.21	U	0.21	U	0.21	U	0.21	U
Chlorodibromomethane	UG/L	0	0%	80	0	0	27	0.17	U	0.17	U	0.17	U	0.17	U
Chloroethane	UG/L	0	0%	5	0	0	27	0.19	U	0.19	U	0.19	U	0.19	U
Chloroform	UG/L	0	0%	7	0	0	27	0.22	U	0.22	U	0.22	U	0.22	U
Cis-1,2-Dichloroethene	UG/L	2600	78%	5	20	21	27	100		110		0.24	U	16	
Cis-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	27	0.19	U	0.19	U	0.19	U	0.19	U
Dichlorodifluoromethane	UG/L	0	0%	5	0	0	13	0.09	U	0.09	U	0.09	U	0.09	U
Ethyl benzene	UG/L	0	0%	5	0	0	27	0.21	U	0.21	U	0.21	U	0.21	U
Ethyl ether	UG/L	0	0%	0	0	0	13	0.21	U	0.21	U	0.21	U	0.21	U
Ethyl methacrylate	UG/L	0	0%	0	0	0	13	0.25	U	0.25	U	0.25	U	0.25	U
Hexachlorobutadiene	UG/L	0	0%	0.5	0	0	13	0.17	U	0.17	U	0.17	U	0.17	U
Hexachloroethane	UG/L	0	0%	5	0	0	13	0.2	U	0.2	U	0.2	U	0.2	U
Isopropylbenzene	UG/L	0	0%	5	0	0	13	0.2	U	0.2	U	0.2	U	0.2	U
Meta/Para Xylene	UG/L	0	0%	0	0	0	27	0.43	U	0.43	U	0.43	U	0.43	U
Methacrylonitrile	UG/L	0	0%	5	0	0	13	0.33	U	0.33	U	0.33	U	0.33	U
Methyl 2-propenoate	UG/L	0	0%	0	0	0	13	0.17	U	0.17	U	0.17	U	0.17	U
Methyl Tertbutyl Ether	UG/L	0	0%	0	0	0	13	0.37	U	0.37	U	0.37	U	0.37	U
Methyl bromide	UG/L	0	0%	5	0	0	27	0.22	U	0.22	U	0.22	U	0.22	U
Methyl butyl ketone	UG/L	0	0%	0	0	0	27	1.1	U	1.1	U	1.1	U	1.1	U

**TABLE 3-3  
RESULTS OF LABORATORY ANALYSIS - ROUND 23 - AUGUST 2004  
QUARTERLY GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY**

Parameter	Units	Maximum Value	Frequency of Detection	Criteria Level	Number of Exceedances	Number of Times Detected	Number of Samples Collected	MWT-1 TR2160 8/27/04 SA		MWT-1 TR2159 8/27/04 SA		MWT-11 TR2149 8/25/04 SA		MWT-2 TR2158 8/27/04 SA		MWT-3 TR2157 8/27/04 SA		MWT-4 TR2156 8/26/04 SA		MWT-5 TR2155 8/26/04 SA			
								ASH TRENCH 23		ASH TRENCH 23		ASH TRENCH 23		ASH TRENCH 23		ASH TRENCH 23		ASH TRENCH 23		ASH TRENCH 23		ASH TRENCH 23	
								Value	(Q)	Value	(Q)	Value	(Q)	Value	(Q)	Value	(Q)	Value	(Q)	Value	(Q)	Value	(Q)
Methyl chloride	UG/L	0	0%	5	0	0	27	0.11	U	0.11	U	0.11	U	0.11	U	0.11	U	0.11	U	0.11	U	0.11	U
Methyl ethyl ketone	UG/L	0	0%	5	0	0	27	0.94	R	0.94	R	0.94	R	0.94	R	0.94	R	0.94	R	0.94	R	0.94	R
Methyl iodide	UG/L	0	0%	5	0	0	13	0.14	UJ	0.14	UJ	0.14	UJ	0.14	U	0.14	UJ	0.14	UJ	0.14	UJ	0.14	UJ
Methyl isobutyl ketone	UG/L	0	0%	5	0	0	27	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methyl methacrylate	UG/L	0	0%	50	0	0	13	0.53	U	0.53	U	0.53	U	0.53	U	0.53	U	0.53	U	0.53	U	0.53	U
Methylene bromide	UG/L	0	0%	5	0	0	13	0.24	U	0.24	U	0.24	U	0.24	U	0.24	U	0.24	U	0.24	U	0.24	U
Methylene chloride	UG/L	0	0%	5	0	0	27	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2.5	U
Naphthalene	UG/L	0	0%	5	0	0	13	0.17	UJ	0.17	U	0.17	U	0.17	U	0.17	UJ	0.17	U	0.17	U	0.17	UJ
Ortho Xylene	UG/L	0	0%	5	0	0	27	0.21	U	0.21	U	0.21	U	0.21	U	0.21	U	0.21	U	0.21	U	0.21	U
Propionitrile	UG/L	0	0%	5	0	0	13	3.3	R	3.3	R	3.3	R	3.3	R	3.3	R	3.3	R	3.3	R	3.3	R
Propylbenzene	UG/L	0	0%	5	0	0	13	0.24	U	0.24	U	0.24	U	0.24	U	0.24	U	0.24	U	0.24	U	0.24	U
Styrene	UG/L	0	0%	5	0	0	27	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U
Tetrachloroethene	UG/L	0	0%	5	0	0	27	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U
Tetrahydrofuran	UG/L	0	0%	5	0	0	13	0.78	R	0.78	R	0.78	R	0.78	R	0.78	R	0.78	R	0.78	R	0.78	R
Toluene	UG/L	0.5	7%	5	0	2	27	0.22	U	0.22	U	0.22	U	0.5	J	0.22	U	0.22	U	0.22	U	0.22	U
Trans-1,2-Dichloroethene	UG/L	22	48%	5	1	13	27	0.8	J	0.8	J	0.22	U	0.6	J	1.2	J	0.5	J	0.22	U	0.22	U
Trans-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	27	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U
Trans-1,4-Dichloro-2-butene	UG/L	0	0%	5	0	0	13	1.4	R	1.4	R	1.4	R	1.4	R	1.4	R	1.4	R	1.4	R	1.4	R
Trichloroethene	UG/L	960	70%	5	12	19	27	22		22		0.5	J	0.8	J	5.5		3.9		0.24	U	0.24	U
Trichlorofluoromethane	UG/L	0	0%	5	0	0	13	0.09	U	0.09	U	0.09	U	0.09	U	0.09	U	0.09	U	0.09	U	0.09	U
Vinyl chloride	UG/L	94	26%	2	3	7	27	0.14	U	0.14	U	0.14	U	0.14	U	0.3	J	0.14	U	0.14	U	0.14	U
n-Butylbenzene	UG/L	0	0%	5	0	0	13	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
p-Chlorotoluene	UG/L	0	0%	5	0	0	13	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U
p-Isopropyltoluene	UG/L	0	0%	5	0	0	13	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U
sec-Butylbenzene	UG/L	0	0%	5	0	0	13	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
t-Butyl Alcohol	UG/L	0	0%	5	0	0	13	2.2	R	2.2	R	2.2	R	2.2	R	2.2	R	2.2	R	2.2	R	2.2	R
tert-Butylbenzene	UG/L	0	0%	5	0	0	13	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U
Diisopropyl Ether	UG/L	0	0%	5	0	0	13	0.21	U	0.21	U	0.21	U	0.21	U	0.21	U	0.21	U	0.21	U	0.21	U
<b>Metals</b>																							
Calcium	UG/L	462000	100%		0	27	27	121000		146000		106000		16300		95700		143000		6860		6860	
Magnesium	UG/L	183000	100%		0	27	27	14000		16700		12800		8420		13400		17200		6660		6660	
Manganese	UG/L	899	100%	50	14	27	27	24.1		30.4		2.86	J	78.5		191		7.64	J	33.7		33.7	
Potassium	UG/L	59200	100%		0	27	27	1260	J	1490	J	2710	J	1060	J	1570	J	1590	J	1100	J	1100	J
Sodium	UG/L	229000	100%	20000	5	27	27	7520	J	9980	J	19900	J	6440	J	10300	J	24200	J	19400	J	19400	J
<b>Other Analyses</b>																							
Ethane	UG/L	0	0%		0	0	27	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U
Ethene	UG/L	0	0%		0	0	27	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U
Methane	UG/L	2720	41%		0	11	27	0.5	U	0.5	U	0.5	U	2400		102		0.5	U	2720		2720	

**NOTES:**

1. Draft Addendum to June 1998 Division of water TOGS1.1.1

- U = not detected to the limit indicated
- J = reported value is estimated
- UJ = not detected to the estimated limit indicated
- R = result is rejected
- N = tentative identification
- DU = lab duplicate sample

Bold and shade indicates concentration above criteria level

**TABLE 3-3  
RESULTS OF LABORATORY ANALYSIS - ROUND 23 - AUGUST 2004  
QUARTERLY GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY**

Parameter	Units	Maximum Value	Frequency of Detection	Criteria Level	Number of Exceedances	Number of Times Detected	Number of Samples Collected	MWT-6	MWT-7	MWT-8	MWT-9	MW-28	MW-31	MW-32	
								TR2154	TR2153	TR2152	TR2151	ARD2257	ARD2256	ARD2255	
								8/26/04	8/26/04	8/26/04	8/26/04	8/28/04	8/28/04	8/27/04	
							SA	SA	SA	SA	SA	SA	SA	SA	
							ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	
							23	23	23	23	23	23	23	23	
							Value	Value	Value	Value	Value	Value	Value	Value	
							(Q)	(Q)	(Q)	(Q)	(Q)	(Q)	(Q)	(Q)	
<b>Volatile Organic Compounds</b>															
1,1,1,2-Tetrachloroethane	UG/L	0	0%	5	0	0	13	0.22	U	0.22	U	0.22	U	0.22	U
1,1,1-Trichloroethane	UG/L	1.8	15%	5	0	4	27	0.24	U	0.24	U	0.24	U	0.22	U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	27	0.21	U	0.21	U	0.21	U	0.13	U
1,1,2-Trichloroethane	UG/L	0	0%	1	0	0	27	0.24	U	0.24	U	0.24	U	0.2	U
1,1-Dichloroethane	UG/L	5.9	33%	5	2	9	27	0.4	J	0.21	U	0.21	U	0.21	U
1,1-Dichloroethene	UG/L	5.8	11%	5	1	3	27	0.16	U	0.16	U	0.16	U	0.2	J
1,1-Dichloropropene	UG/L	0	0%	5	0	0	13	0.21	U	0.21	U	0.21	U	0.21	U
1,2,3-Trichlorobenzene	UG/L	0	0%	5	0	0	13	0.18	U	0.18	U	0.18	U	0.18	U
1,2,3-Trichloropropane	UG/L	0	0%	0.04	0	0	13	0.28	U	0.28	U	0.28	U	0.28	U
1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	13	0.2	U	0.2	U	0.2	U	0.2	U
1,2,4-Trimethylbenzene	UG/L	0	0%	5	0	0	13	0.24	U	0.24	U	0.24	U	0.24	U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	0.04	0	0	13	0.2	R	0.2	R	0.2	R	0.2	R
1,2-Dibromoethane	UG/L	0	0%	0.0006	0	0	13	0.2	U	0.2	U	0.2	U	0.2	U
1,2-Dichlorobenzene	UG/L	0	0%	3	0	0	13	0.17	U	0.17	U	0.17	U	0.17	U
1,2-Dichloroethane	UG/L	0.4	7%	0.6	0	2	27	0.21	U	0.21	U	0.21	U	0.21	U
1,2-Dichloropropane	UG/L	0	0%	1	0	0	27	0.21	U	0.21	U	0.21	U	0.18	U
1,3,5-Trimethylbenzene	UG/L	0	0%	5	0	0	13	0.22	U	0.22	U	0.22	U	0.22	U
1,3-Dichlorobenzene	UG/L	0	0%	3	0	0	13	0.2	U	0.2	U	0.2	U	0.2	U
1,3-Dichloropropane	UG/L	0	0%	5	0	0	13	0.22	U	0.22	U	0.22	U	0.22	U
1,4-Dichlorobenzene	UG/L	0	0%	3	0	0	13	0.2	U	0.2	U	0.2	U	0.2	U
2,2-Dichloropropane	UG/L	0	0%	0	0	0	13	0.2	U	0.2	U	0.2	U	0.2	U
2-Chlorotoluene	UG/L	0	0%	5	0	0	13	0.5	U	0.5	U	0.5	U	0.5	U
Acetone	UG/L	0	0%	0	0	0	27	5.8	U	1.5	R	5.8	U	5.8	U
Acrylonitrile	UG/L	0	0%	5	0	0	13	0.94	R	0.94	R	0.94	R	0.94	R
Allyl chloride	UG/L	0	0%	5	0	0	13	0.18	U	0.18	U	0.18	U	0.18	U
Benzene	UG/L	1.1	22%	1	1	6	27	0.6	J	0.24	U	0.24	U	0.24	U
Bromobenzene	UG/L	0	0%	5	0	0	13	0.21	U	0.21	U	0.21	U	0.21	U
Bromodichloromethane	UG/L	0	0%	80	0	0	27	0.2	U	0.2	U	0.2	U	0.17	U
Bromoform	UG/L	0	0%	80	0	0	27	0.22	U	0.22	U	0.22	U	0.37	U
Butyl chloride	UG/L	0	0%	5	0	0	13	0.22	U	0.22	U	0.22	U	0.22	U
Carbon disulfide	UG/L	1.1	4%	60 <sup>(1)</sup>	0	1	27	0.18	U	0.18	U	0.18	U	0.21	U
Carbon tetrachloride	UG/L	0	0%	5	0	0	27	0.22	U	0.22	U	0.22	U	0.17	U
Chlorobenzene	UG/L	0	0%	5	0	0	27	0.21	U	0.21	U	0.21	U	0.16	U
Chlorodibromomethane	UG/L	0	0%	80	0	0	27	0.17	U	0.17	U	0.17	U	0.21	U
Chloroethane	UG/L	0	0%	5	0	0	27	0.19	U	0.19	U	0.19	U	0.18	U
Chloroform	UG/L	0	0%	7	0	0	27	0.22	U	0.22	U	0.22	U	0.23	U
Cis-1,2-Dichloroethene	UG/L	2600	78%	5	20	21	27	18		32		150		120	
Cis-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	27	0.19	U	0.19	U	0.19	U	0.19	U
Dichlorodifluoromethane	UG/L	0	0%	5	0	0	13	0.09	U	0.09	U	0.09	U	0.09	U
Ethyl benzene	UG/L	0	0%	5	0	0	27	0.21	U	0.21	U	0.21	U	0.18	U
Ethyl ether	UG/L	0	0%	0	0	0	13	0.21	U	0.21	U	0.21	U	0.21	U
Ethyl methacrylate	UG/L	0	0%	0	0	0	13	0.25	U	0.25	U	0.25	U	0.25	U
Hexachlorobutadiene	UG/L	0	0%	0.5	0	0	13	0.17	U	0.17	U	0.17	U	0.17	U
Hexachloroethane	UG/L	0	0%	5	0	0	13	0.2	U	0.2	U	0.2	U	0.2	U
Isopropylbenzene	UG/L	0	0%	5	0	0	13	0.2	U	0.2	U	0.2	U	0.2	U
Meta/Para Xylene	UG/L	0	0%	0	0	0	27	0.43	U	0.43	U	0.43	U	0.36	U
Methacrylonitrile	UG/L	0	0%	5	0	0	13	0.33	U	0.33	U	0.33	U	0.33	U
Methyl 2-propenoate	UG/L	0	0%	0	0	0	13	0.17	U	0.17	U	0.17	U	0.17	U
Methyl Tertbutyl Ether	UG/L	0	0%	0	0	0	13	0.37	U	0.37	U	0.37	U	0.37	U
Methyl bromide	UG/L	0	0%	5	0	0	27	0.22	U	0.22	U	0.22	U	0.12	U
Methyl butyl ketone	UG/L	0	0%	0	0	0	27	1.1	U	1.1	U	1.1	U	0.58	U

**TABLE 3-3  
RESULTS OF LABORATORY ANALYSIS - ROUND 23 - AUGUST 2004  
QUARTERLY GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY**

Parameter	Units	Maximum Value	Frequency of Detection	Criteria Level	Number of Exceedances	Number of Times Detected	Number of Samples Collected	MWT-6		MWT-7		MWT-8		MWT-9		MW-28		MW-31		MW-32			
								TR2154		TR2153		TR2152		TR2151		ARD2257		ARD2256		ARD2255			
								8/26/04	SA	8/26/04	SA	8/26/04	SA	8/26/04	SA	8/28/04	SA	8/28/04	SA	8/27/04	SA		
							ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH		
							23	23	23	23	23	23	23	23	23	23	23	23	23	23	23		
							Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)		
Methyl chloride	UG/L	0	0%	5	0	0	27	0.11	U	0.11	U	0.11	U	0.11	U	0.16	U	0.16	U	0.16	U	0.16	U
Methyl ethyl ketone	UG/L	0	0%	5	0	0	27	0.94	R	0.94	R	0.94	R	0.94	R	0.92	U	0.92	U	0.92	U	0.92	U
Methyl iodide	UG/L	0	0%	5	0	0	13	0.14	UJ	0.14	UJ	0.14	UJ	0.14	UJ								
Methyl isobutyl ketone	UG/L	0	0%		0	0	27	1	U	1	U	1	U	1	U	0.77	U	0.77	U	0.77	U	0.77	U
Methyl methacrylate	UG/L	0	0%	50	0	0	13	0.53	U	0.53	U	0.53	U	0.53	U								
Methylene bromide	UG/L	0	0%	5	0	0	13	0.24	U	0.24	U	0.24	U	0.24	U								
Methylene chloride	UG/L	0	0%	5	0	0	27	1	U	1	U	1	U	1	U	0.36	U	0.36	U	0.36	U	0.36	U
Naphthalene	UG/L	0	0%		0	0	13	0.17	UJ	0.17	U	0.17	U	0.17	U								
Ortho Xylene	UG/L	0	0%	5	0	0	27	0.21	U	0.21	U	0.21	U	0.21	U	0.17	U	0.17	U	0.17	U	0.17	U
Propionitrile	UG/L	0	0%		0	0	13	3.3	R	3.3	R	3.3	R	3.3	R								
Propylbenzene	UG/L	0	0%	5	0	0	13	0.24	U	0.24	U	0.24	U	0.24	U								
Styrene	UG/L	0	0%	5	0	0	27	0.19	U	0.19	U	0.19	U	0.19	U	0.17	U	0.17	U	0.17	U	0.17	U
Tetrachloroethene	UG/L	0	0%	5	0	0	27	0.34	U	0.34	U	0.34	U	0.34	U	0.2	U	0.2	U	0.2	U	0.2	U
Tetrahydrofuran	UG/L	0	0%		0	0	13	0.78	R	0.78	R	0.78	R	0.78	R								
Toluene	UG/L	0.5	7%	5	0	2	27	0.22	U	0.22	U	0.22	U	0.22	U	0.19	U	0.19	U	0.19	U	0.19	U
Trans-1,2-Dichloroethene	UG/L	22	48%	5	1	13	27	0.22	U	0.22	U	0.22	U	0.5	J	0.25	U	0.25	U	0.25	U	0.25	U
Trans-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	27	0.19	U	0.19	U	0.19	U	0.19	U	0.15	U	0.15	U	0.15	U	0.15	U
Trans-1,4-Dichloro-2-butene	UG/L	0	0%		0	0	13	1.4	R	1.4	R	1.4	R	1.4	R								
Trichloroethene	UG/L	960	70%	5	12	19	27	0.6	J	280		1.8		220		20		0.19	U	0.19	U	0.19	U
Trichlorofluoromethane	UG/L	0	0%	5	0	0	13	0.09	U	0.09	U	0.09	U	0.09	U								
Vinyl chloride	UG/L	94	26%	2	3	7	27	0.14	U	0.14	U	1.9	J	0.3	J	0.11	U	0.11	U	0.11	U	0.11	U
n-Butylbenzene	UG/L	0	0%	5	0	0	13	0.2	U	0.2	U	0.2	U	0.2	U								
p-Chlorotoluene	UG/L	0	0%	5	0	0	13	0.22	U	0.22	U	0.22	U	0.22	U								
p-Isopropyltoluene	UG/L	0	0%	5	0	0	13	0.22	U	0.22	U	0.22	U	0.22	U								
sec-Butylbenzene	UG/L	0	0%	5	0	0	13	0.2	U	0.2	U	0.2	U	0.2	U								
t-Butyl Alcohol	UG/L	0	0%		0	0	13	2.2	R	2.2	R	2.2	R	2.2	R								
tert-Butylbenzene	UG/L	0	0%	5	0	0	13	0.18	U	0.18	U	0.18	U	0.18	U								
Diisopropyl Ether	UG/L	0	0%		0	0	13	0.21	U	0.21	U	0.21	U	0.21	U								
<b>Metals</b>																							
Calcium	UG/L	462000	100%		0	27	27	24800		126000		3840	J	84300		104000	J	78300	J	99700	J		
Magnesium	UG/L	183000	100%		0	27	27	6950		14800		9890		13000		12200	J	10400	J	14400	J		
Manganese	UG/L	899	100%	50	14	27	27	26.6		2.37	J	8.91	J	156		8.72	J	51.3	J	31.1	J		
Potassium	UG/L	59200	100%		0	27	27	1010	J	1200	J	956	J	1670	J	1160	J	1320	J	2450	J		
Sodium	UG/L	229000	100%	20000	5	27	27	17100	J	13300	J	9790	J	12700	J	5870	J	8270	J	13500	J		
<b>Other Analyses</b>																							
Ethane	UG/L	0	0%		0	0	27	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene	UG/L	0	0%		0	0	27	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U
Methane	UG/L	2720	41%		0	11	27	843		0.5	U	1640		408		0.5	U	0.5	U	0.5	U	0.5	U

NOTES:

1. Draft Addendum to June 1998 Division of water TOGS1.1.1

- U = not detected to the limit indicated
  - J = reported value is estimated
  - UJ = not detected to the estimated limit indicated
  - R = result is rejected
  - N = tentative identification
  - DU = lab duplicate sample
- Bold and shade indicates concentration above criteria level

**TABLE 3-3  
RESULTS OF LABORATORY ANALYSIS - ROUND 23 - AUGUST 2004  
QUARTERLY GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY**

Parameter	Units	Maximum Value	Frequency of Detection	Criteria Level	Number of Exceedances	Number of Times Detected	Number of Samples Collected	MW-36	MW-44A	MW-44A	MW-46	MW-53	MW-56	MWT-10
								ARD2258 8/29/04 SA ASH TRENCH 23 Value (Q)	ARD2246 8/29/04 SA ASH TRENCH 23 Value (Q)	ARD2253 8/29/04 SA ASH TRENCH 23 Value (Q)	ARD2247 8/29/04 SA ASH TRENCH 23 Value (Q)	ARD2248 8/28/04 SA ASH TRENCH 23 Value (Q)	ARD2249 8/29/04 SA ASH TRENCH 23 Value (Q)	TR2150 8/30/04 SA ASH TRENCH 23 Value (Q)
<b>Volatile Organic Compounds</b>														
1,1,1,2-Tetrachloroethane	UG/L	0	0%	5	0	0	13							0.22 U
1,1,1-Trichloroethane	UG/L	1.8	15%	5	0	4	27	0.22 U	1.8 J	0.22 U	0.22 U	0.22 U	0.22 U	0.24 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	27	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.21 U
1,1,2-Trichloroethane	UG/L	0	0%	1	0	0	27	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.24 U
1,1-Dichloroethane	UG/L	5.9	33%	5	2	9	27	0.21 U	5.9 J	5.6 J	0.21 U	0.21 U	0.21 U	0.21 U
1,1-Dichloroethene	UG/L	5.8	11%	5	1	3	27	0.2 U	0.41 J	0.2 U	0.2 U	0.2 U	0.2 U	0.16 U
1,1-Dichloropropene	UG/L	0	0%	5	0	0	13							0.21 U
1,2,3-Trichlorobenzene	UG/L	0	0%	5	0	0	13							0.18 U
1,2,3-Trichloropropane	UG/L	0	0%	0.04	0	0	13							0.28 U
1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	13							0.2 U
1,2,4-Trimethylbenzene	UG/L	0	0%	5	0	0	13							0.24 U
1,2-Dibromo-3-chloropropane	UG/L	0	0%	0.04	0	0	13							0.2 R
1,2-Dibromoethane	UG/L	0	0%	0.0006	0	0	13							0.2 U
1,2-Dichlorobenzene	UG/L	0	0%	3	0	0	13							0.17 U
1,2-Dichloroethane	UG/L	0.4	7%	0.6	0	2	27	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,2-Dichloropropane	UG/L	0	0%	1	0	0	27	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.21 U
1,3,5-Trimethylbenzene	UG/L	0	0%	5	0	0	13							0.22 U
1,3-Dichlorobenzene	UG/L	0	0%	3	0	0	13							0.2 U
1,3-Dichloropropane	UG/L	0	0%	5	0	0	13							0.22 U
1,4-Dichlorobenzene	UG/L	0	0%	3	0	0	13							0.2 U
2,2-Dichloropropane	UG/L	0	0%		0	0	13							0.2 U
2-Chlorotoluene	UG/L	0	0%	5	0	0	13							0.5 U
Acetone	UG/L	0	0%		0	0	27	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	5.8 U
Acrylonitrile	UG/L	0	0%	5	0	0	13							0.94 R
Allyl chloride	UG/L	0	0%	5	0	0	13							0.18 U
Benzene	UG/L	1.1	22%	1	1	6	27	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.7 J
Bromobenzene	UG/L	0	0%	5	0	0	13							0.21 U
Bromodichloromethane	UG/L	0	0%	80	0	0	27	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.2 U
Bromoform	UG/L	0	0%	80	0	0	27	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.22 U
Butyl chloride	UG/L	0	0%	5	0	0	13							0.22 U
Carbon disulfide	UG/L	1.1	4%	60 <sup>(1)</sup>	0	1	27	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.18 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	27	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.22 U
Chlorobenzene	UG/L	0	0%	5	0	0	27	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.21 U
Chlorodibromomethane	UG/L	0	0%	80	0	0	27	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.17 U
Chloroethane	UG/L	0	0%	5	0	0	27	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.19 U
Chloroform	UG/L	0	0%	7	0	0	27	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.22 U
Cis-1,2-Dichloroethene	UG/L	2600	78%	5	20	21	27	0.27 U	260 J	250 J	98 J	25 J	2.2 J	6.1 J
Cis-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	27	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Dichlorodifluoromethane	UG/L	0	0%	5	0	0	13							0.09 U
Ethyl benzene	UG/L	0	0%	5	0	0	27	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.21 U
Ethyl ether	UG/L	0	0%		0	0	13							0.21 U
Ethyl methacrylate	UG/L	0	0%		0	0	13							0.25 U
Hexachlorobutadiene	UG/L	0	0%	0.5	0	0	13							0.17 U
Hexachloroethane	UG/L	0	0%	5	0	0	13							0.2 U
Isopropylbenzene	UG/L	0	0%	5	0	0	13							0.2 U
Meta/Para Xylene	UG/L	0	0%		0	0	27	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.43 U
Methacrylonitrile	UG/L	0	0%	5	0	0	13							0.33 U
Methyl 2-propenoate	UG/L	0	0%		0	0	13							0.17 U
Methyl Tertbutyl Ether	UG/L	0	0%		0	0	13							0.37 U
Methyl bromide	UG/L	0	0%	5	0	0	27	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.22 U
Methyl butyl ketone	UG/L	0	0%		0	0	27	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	1.1 U

**TABLE 3-3  
RESULTS OF LABORATORY ANALYSIS - ROUND 23 - AUGUST 2004  
QUARTERLY GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY**

Parameter	Units	Maximum Value	Frequency of Detection	Criteria Level	Number of Exceedances	Number of Times Detected	Number of Samples Collected	MW-36	MW-44A	MW-44A	MW-46	MW-53	MW-56	MWT-10	
								ARD2258	ARD2246	ARD2253	ARD2247	ARD2248	ARD2249	TR2150	
								8/29/04	8/29/04	8/29/04	8/29/04	8/28/04	8/29/04	8/30/04	
								SA	SA	SA	SA	SA	SA	SA	
								ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	
								23	23	23	23	23	23	23	
								Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	
Methyl chloride	UG/L	0	0%	5	0	0	27	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.11 U	
Methyl ethyl ketone	UG/L	0	0%	5	0	0	27	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.94 R	
Methyl iodide	UG/L	0	0%	5	0	0	13							0.14 UJ	
Methyl isobutyl ketone	UG/L	0	0%	5	0	0	27	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	1 U	
Methyl methacrylate	UG/L	0	0%	50	0	0	13							0.53 U	
Methylene bromide	UG/L	0	0%	5	0	0	13							0.24 U	
Methylene chloride	UG/L	0	0%	5	0	0	27	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	1 U	
Naphthalene	UG/L	0	0%	5	0	0	13							0.17 U	
Ortho Xylene	UG/L	0	0%	5	0	0	27	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.21 U	
Propionitrile	UG/L	0	0%	5	0	0	13							3.3 R	
Propylbenzene	UG/L	0	0%	5	0	0	13							0.24 U	
Styrene	UG/L	0	0%	5	0	0	27	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.19 U	
Tetrachloroethene	UG/L	0	0%	5	0	0	27	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U	0.34 U	
Tetrahydrofuran	UG/L	0	0%	5	0	0	13							0.78 R	
Toluene	UG/L	0.5	7%	5	0	2	27	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.5 J	
Trans-1,2-Dichloroethene	UG/L	22	48%	5	1	13	27	0.25 U	2.3 J	2.3 J	4.9 J	0.25 U	0.25 U	0.22 U	
Trans-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	27	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.19 U	
Trans-1,4-Dichloro-2-butene	UG/L	0	0%	5	0	0	13							1.4 R	
Trichloroethene	UG/L	960	70%	5	12	19	27	0.19 U	11	11 J	18	2.4	0.19 U	0.24 U	
Trichlorofluoromethane	UG/L	0	0%	5	0	0	13							0.09 U	
Vinyl chloride	UG/L	94	26%	2	3	7	27	0.11 U	58	41	0.64 J	0.11 U	0.11 U	0.14 U	
n-Butylbenzene	UG/L	0	0%	5	0	0	13							0.2 U	
p-Chlorotoluene	UG/L	0	0%	5	0	0	13							0.22 U	
p-Isopropyltoluene	UG/L	0	0%	5	0	0	13							0.22 U	
sec-Butylbenzene	UG/L	0	0%	5	0	0	13							0.2 U	
t-Butyl Alcohol	UG/L	0	0%	5	0	0	13							2.2 R	
tert-Butylbenzene	UG/L	0	0%	5	0	0	13							0.18 U	
Diisopropyl Ether	UG/L	0	0%	5	0	0	13							0.21 U	
<b>Metals</b>															
Calcium	UG/L	462000	100%		0	27	27	96600 J	462000 J	412000 J	122000 J	121000 J	95200 J	7130 J	
Magnesium	UG/L	183000	100%		0	27	27	14500 J	183000 J	159000 J	16800 J	16100 J	11100 J	8900 J	
Manganese	UG/L	899	100%	50	14	27	27	111 J	432 J	403 J	19.7 J	172 J	44.4 J	13.4 J	
Potassium	UG/L	59200	100%		0	27	27	1550 J	59200 J	50300 J	1050 J	1520 J	1360 J	982 J	
Sodium	UG/L	229000	100%	20000	5	27	27	13000 J	229000 J	185000 J	10000 J	17600 J	10100 J	5630 J	
<b>Other Analyses</b>															
Ethane	UG/L	0	0%		0	0	27	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Ethene	UG/L	0	0%		0	0	27	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Methane	UG/L	2720	41%		0	11	27	0.5 U	0.5 UJ	4.5 J	0.5 U	0.5 U	8.1	509	

NOTES:

1. Draft Addendum to June 1998 Division of water TOGS1.1.1

- U = not detected to the limit indicated
- J = reported value is estimated
- UJ = not detected to the estimated limit indicated
- R = result is rejected
- N = tentative identification
- DU = lab duplicate sample

Bold and shade indicates concentration above criteria level



**TABLE 3-3  
RESULTS OF LABORATORY ANALYSIS - ROUND 23 - AUGUST 2004  
QUARTERLY GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY**

Parameter	Units	Maximum Value	Frequency of Detection	Criteria Level	Number of Exceedances	Number of Times Detected	Number of Samples Collected	PT-12A	PT-17	PT-22	PT-23	PT-24	PT-25
								ARD2250	ARD2254	ARD2251	ARD2245	ARD2252	ARD2259
								8/29/04	8/27/04	8/29/04	8/28/04	8/28/04	8/28/04
								SA	SA	SA	SA	SA	SA
								ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH
								23	23	23	23	23	23
								Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
<b>Volatile Organic Compounds</b>													
1,1,1,2-Tetrachloroethane	UG/L	0	0%	5	0	0	13					0.22 U	
1,1,1-Trichloroethane	UG/L	1.8	15%	5	0	4	27	0.22 UJ	0.22 U	0.22 U	0.22 U	0.24 U	0.22 U
1,1,2,2-Tetrachloroethane	UG/L	0	0%	5	0	0	27	0.13 UJ	0.13 U	0.13 U	0.13 U	0.21 U	0.13 U
1,1,2-Trichloroethane	UG/L	0	0%	1	0	0	27	0.2 UJ	0.2 U	0.2 U	0.2 U	0.24 U	0.2 U
1,1-Dichloroethane	UG/L	5.9	33%	5	2	9	27	0.21 UJ	0.21 U	0.21 U	0.21 U	0.6 J	0.21 U
1,1-Dichloroethene	UG/L	5.8	11%	5	1	3	27	5.8J	0.2 U	0.2 U	0.2 U	0.16 U	0.2 U
1,1-Dichloropropene	UG/L	0	0%	5	0	0	13					0.21 U	
1,2,3-Trichlorobenzene	UG/L	0	0%	5	0	0	13					0.18 U	
1,2,3-Trichloropropane	UG/L	0	0%	0.04	0	0	13					0.28 U	
1,2,4-Trichlorobenzene	UG/L	0	0%	5	0	0	13					0.2 U	
1,2,4-Trimethylbenzene	UG/L	0	0%	5	0	0	13					0.24 U	
1,2-Dibromo-3-chloropropane	UG/L	0	0%	0.04	0	0	13					0.2 R	
1,2-Dibromoethane	UG/L	0	0%	0.0006	0	0	13					0.2 U	
1,2-Dichlorobenzene	UG/L	0	0%	3	0	0	13					0.17 U	
1,2-Dichloroethane	UG/L	0.4	7%	0.6	0	2	27	0.21 UJ	0.21 U	0.21	0.21 U	0.21 U	0.21 U
1,2-Dichloropropane	UG/L	0	0%	1	0	0	27	0.18 UJ	0.18 U	0.18 U	0.18 U	0.21 U	0.18 U
1,3,5-Trimethylbenzene	UG/L	0	0%	5	0	0	13					0.22 U	
1,3-Dichlorobenzene	UG/L	0	0%	3	0	0	13					0.2 U	
1,3-Dichloropropane	UG/L	0	0%	5	0	0	13					0.22 U	
1,4-Dichlorobenzene	UG/L	0	0%	3	0	0	13					0.2 U	
2,2-Dichloropropane	UG/L	0	0%		0	0	13					0.2 U	
2-Chlorotoluene	UG/L	0	0%	5	0	0	13					0.5 U	
Acetone	UG/L	0	0%		0	0	27	1.2 UJ	1.2 U	1.2 U	1.2 U	5.8 U	1.2 U
Acrylonitrile	UG/L	0	0%	5	0	0	13					0.94 R	
Allyl chloride	UG/L	0	0%	5	0	0	13					0.18 U	
Benzene	UG/L	1.1	22%	1	1	6	27	0.32 J	0.2 U	0.2 U	0.2 U	0.24 U	0.2 U
Bromobenzene	UG/L	0	0%	5	0	0	13					0.21 U	
Bromodichloromethane	UG/L	0	0%	80	0	0	27	0.17 UJ	0.17 U	0.17 U	0.17 U	0.2 U	0.17 U
Bromoform	UG/L	0	0%	80	0	0	27	0.37 UJ	0.37 U	0.37 U	0.37 U	0.22 U	0.37 U
Butyl chloride	UG/L	0	0%	5	0	0	13					0.22 U	
Carbon disulfide	UG/L	1.1	4%	60 <sup>(1)</sup>	0	1	27	0.21 UJ	0.21 U	0.21 U	0.21 U	1.1 J	0.21 U
Carbon tetrachloride	UG/L	0	0%	5	0	0	27	0.17 UJ	0.17 U	0.17 U	0.17 U	0.22 U	0.17 U
Chlorobenzene	UG/L	0	0%	5	0	0	27	0.16 UJ	0.16 U	0.16 U	0.16 U	0.21 U	0.16 U
Chlorodibromomethane	UG/L	0	0%	80	0	0	27	0.21 UJ	0.21 U	0.21 U	0.21 U	0.17 U	0.21 U
Chloroethane	UG/L	0	0%	5	0	0	27	0.18 UJ	0.18 U	0.18 U	0.18 U	0.19 U	0.18 U
Chloroform	UG/L	0	0%	7	0	0	27	0.23 UJ	0.23 U	0.23 U	0.23 U	0.22 U	0.23 U
Cis-1,2-Dichloroethene	UG/L	2600	78%	5	20	21	27	2600J	76J	160J	0.27 U	59	0.27 U
Cis-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	27	0.19 UJ	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Dichlorodifluoromethane	UG/L	0	0%	5	0	0	13					0.09 U	
Ethyl benzene	UG/L	0	0%	5	0	0	27	0.18 UJ	0.18 U	0.18 U	0.18 U	0.21 U	0.18 U
Ethyl ether	UG/L	0	0%		0	0	13					0.21 U	
Ethyl methacrylate	UG/L	0	0%		0	0	13					0.25 U	
Hexachlorobutadiene	UG/L	0	0%	0.5	0	0	13					0.17 U	
Hexachloroethane	UG/L	0	0%	5	0	0	13					0.2 U	
Isopropylbenzene	UG/L	0	0%	5	0	0	13					0.2 U	
Meta/Para Xylene	UG/L	0	0%		0	0	27	0.36 UJ	0.36 U	0.36 U	0.36 U	0.43 U	0.36 U
Methacrylonitrile	UG/L	0	0%	5	0	0	13					0.33 U	
Methyl 2-propenoate	UG/L	0	0%		0	0	13					0.17 U	
Methyl Tertbutyl Ether	UG/L	0	0%		0	0	13					0.37 U	
Methyl bromide	UG/L	0	0%	5	0	0	27	0.12 UJ	0.12 U	0.12 U	0.12 U	0.22 U	0.12 U
Methyl butyl ketone	UG/L	0	0%		0	0	27	0.58 UJ	0.58 U	0.58 U	0.58 U	1.1 U	0.58 U

**TABLE 3-3  
RESULTS OF LABORATORY ANALYSIS - ROUND 23 - AUGUST 2004  
QUARTERLY GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY**

Parameter	Units	Maximum Value	Frequency of Detection	Criteria Level	Number of Exceedances	Number of Times Detected	Number of Samples Collected	PT-12A	PT-17	PT-22	PT-23	PT-24	PT-25
								ARD2250	ARD2254	ARD2251	ARD2245	ARD2252	ARD2259
								8/29/04	8/27/04	8/29/04	8/28/04	8/28/04	8/28/04
							SA	SA	SA	SA	SA	SA	SA
							ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH	ASH TRENCH
							23	23	23	23	23	23	23
							Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)	Value (Q)
Methyl chloride	UG/L	0	0%	5	0	0	27	0.16 UJ	0.16 U	0.16 U	0.16 U	0.11 U	0.16 U
Methyl ethyl ketone	UG/L	0	0%	5	0	0	27	0.92 UJ	0.92 U	0.92 U	0.92 U	0.94 R	0.92 U
Methyl iodide	UG/L	0	0%	5	0	0	13					0.14 U	
Methyl isobutyl ketone	UG/L	0	0%	5	0	0	27	0.77 UJ	0.77 U	0.77 U	0.77 U	1 U	0.77 U
Methyl methacrylate	UG/L	0	0%	50	0	0	13					0.53 U	
Methylene bromide	UG/L	0	0%	5	0	0	13					0.24 U	
Methylene chloride	UG/L	0	0%	5	0	0	27	0.36 UJ	0.36 U	0.36 U	0.36 U	1 U	0.36 U
Naphthalene	UG/L	0	0%	5	0	0	13					0.17 U	
Ortho Xylene	UG/L	0	0%	5	0	0	27	0.17 UJ	0.17 U	0.17 U	0.17 U	0.21 U	0.17 U
Propionitrile	UG/L	0	0%	5	0	0	13					3.3 R	
Propylbenzene	UG/L	0	0%	5	0	0	13					0.24 U	
Styrene	UG/L	0	0%	5	0	0	27	0.17 UJ	0.17 U	0.17 U	0.17 U	0.19 U	0.17 U
Tetrachloroethene	UG/L	0	0%	5	0	0	27	0.2 UJ	0.2 U	0.2 U	0.2 U	0.34 U	0.2 U
Tetrahydrofuran	UG/L	0	0%	5	0	0	13					0.78 R	
Toluene	UG/L	0.5	7%	5	0	2	27	0.19 UJ	0.19 U	0.19 U	0.19 U	0.22 U	0.19 U
Trans-1,2-Dichloroethene	UG/L	22	48%	5	1	13	27	22 J	0.46 J	4.4 J	0.25 U	0.4 J	0.25 U
Trans-1,3-Dichloropropene	UG/L	0	0%	0.4	0	0	27	0.15 UJ	0.15 U	0.15 U	0.15 U	0.19 U	0.15 U
Trans-1,4-Dichloro-2-butene	UG/L	0	0%	5	0	0	13					1.4 R	
Trichloroethene	UG/L	960	70%	5	12	19	27	960	210	77	0.19 U	3.4 J	0.19 U
Trichlorofluoromethane	UG/L	0	0%	5	0	0	13					0.09 U	
Vinyl chloride	UG/L	94	26%	2	3	7	27	94	0.11 U	0.11 U	0.11 U	0.14 U	0.11 U
n-Butylbenzene	UG/L	0	0%	5	0	0	13					0.2 U	
p-Chlorotoluene	UG/L	0	0%	5	0	0	13					0.22 U	
p-Isopropyltoluene	UG/L	0	0%	5	0	0	13					0.22 U	
sec-Butylbenzene	UG/L	0	0%	5	0	0	13					0.2 U	
t-Butyl Alcohol	UG/L	0	0%	5	0	0	13					2.2 R	
tert-Butylbenzene	UG/L	0	0%	5	0	0	13					0.18 U	
Diisopropyl Ether	UG/L	0	0%	5	0	0	13					0.21 U	
<b>Metals</b>													
Calcium	UG/L	462000	100%		0	27	27	238000 J	120000 J	188000 J	92100 J	62800 J	81800 J
Magnesium	UG/L	183000	100%		0	27	27	37400 J	12900 J	23400 J	11200 J	8060 J	9350 J
Manganese	UG/L	899	100%	50	14	27	27	899 J	50.6 J	280 J	210 J	78.8 J	52.3 J
Potassium	UG/L	59200	100%		0	27	27	4300 J	1210 J	2100 J	1210 J	1130 J	1020 J
Sodium	UG/L	229000	100%	20000	5	27	27	69900 J	17600 J	44900 J	6090 J	9860 J	8660 J
<b>Other Analyses</b>													
Ethane	UG/L	0	0%		0	0	27	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethene	UG/L	0	0%		0	0	27	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methane	UG/L	2720	41%		0	11	27	8.4	0.5 U	0.5 U	0.5 U	226	0.5 U

**NOTES:**

1. Draft Addendum to June 1998 Division of water TOGS1.1.1

- U = not detected to the limit indicated
- J = reported value is estimated
- UJ = not detected to the estimated limit indicated
- R = result is rejected
- N = tentative identification
- DU = lab duplicate sample

Bold and shade indicates concentration above criteria level

**TABLE 3-4**  
**QUALITY CONTROL - FIELD DUPLICATES - ROUND 23 - AUGUST 2004**  
**QUARTERLY GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**

Parameter	Units	MWT-1				MW-44A					
		TR2160		TR2159	*RPD	ARD2246		ARD2253	*RPD		
<b>Volatile Organic Compounds</b>											
1,1,1,2-Tetrachloroethane	UG/L	0.22	U	0.22	U	-----					
1,1,1-Trichloroethane	UG/L	0.4	J	0.4	J	-----	1.8	J	0.22	U	156.4%
1,1,2,2-Tetrachloroethane	UG/L	0.21	U	0.21	U	-----	0.13	U	0.13	U	-----
1,1,2-Trichloroethane	UG/L	0.24	U	0.24	U	-----	0.2	U	0.2	U	-----
1,1-Dichloroethane	UG/L	0.4	J	0.5	J	22.2%	5.9		5.6	J	5.2%
1,1-Dichloroethene	UG/L	0.16	U	0.16	U	-----	0.41	J	0.2	U	68.9%
1,1-Dichloropropene	UG/L	0.21	U	0.21	U	-----					
1,2,3-Trichlorobenzene	UG/L	0.18	U	0.18	U	-----					
1,2,3-Trichloropropane	UG/L	0.28	U	0.28	U	-----					
1,2,4-Trichlorobenzene	UG/L	0.2	U	0.2	U	-----					
1,2,4-Trimethylbenzene	UG/L	0.24	U	0.24	U	-----					
1,2-Dibromo-3-chloropropane	UG/L	0.2	R	0.2	R	NA					
1,2-Dibromoethane	UG/L	0.2	U	0.2	U	-----					
1,2-Dichlorobenzene	UG/L	0.17	U	0.17	U	-----					
1,2-Dichloroethane	UG/L	0.21	U	0.21	U	-----	0.21	U	0.21	U	-----
1,2-Dichloropropane	UG/L	0.21	U	0.21	U	-----	0.18	U	0.18	U	-----
1,3,5-Trimethylbenzene	UG/L	0.22	U	0.22	U	-----					
1,3-Dichlorobenzene	UG/L	0.2	U	0.2	U	-----					
1,3-Dichloropropane	UG/L	0.22	U	0.22	U	-----					
1,4-Dichlorobenzene	UG/L	0.2	U	0.2	U	-----					
2,2-Dichloropropane	UG/L	0.2	U	0.2	U	-----					
2-Chlorotoluene	UG/L	0.5	U	0.5	U	-----					
Acetone	UG/L	5.8	U	5.8	U	-----	1.2	U	1.2	U	-----
Acrylonitrile	UG/L	0.94	R	0.94	R	NA					
Allyl chloride	UG/L	0.18	U	0.18	U	-----					
Benzene	UG/L	0.24	U	0.24	U	-----	0.2	U	0.2	U	-----
Bromobenzene	UG/L	0.21	U	0.21	U	-----					
Bromodichloromethane	UG/L	0.2	U	0.2	U	-----	0.17	U	0.17	U	-----
Bromoform	UG/L	0.22	U	0.22	U	-----	0.37	U	0.37	U	-----
Butyl chloride	UG/L	0.22	U	0.22	U	-----					
Carbon disulfide	UG/L	0.18	U	0.18	U	-----	0.21	U	0.21	U	-----
Carbon tetrachloride	UG/L	0.22	U	0.22	U	-----	0.17	U	0.17	U	-----
Chlorobenzene	UG/L	0.21	U	0.21	U	-----	0.16	U	0.16	U	-----
Chlorodibromomethane	UG/L	0.17	U	0.17	U	-----	0.21	U	0.21	U	-----
Chloroethane	UG/L	0.19	U	0.19	U	-----	0.18	U	0.18	U	-----
Chloroform	UG/L	0.22	U	0.22	U	-----	0.23	U	0.23	U	-----
Cis-1,2-Dichloroethene	UG/L	<b>100</b>		<b>110</b>		9.5%	<b>260</b>	J	<b>250</b>	J	3.9%
Cis-1,3-Dichloropropene	UG/L	0.19	U	0.19	U	-----	0.19	U	0.19	U	-----
Dichlorodifluoromethane	UG/L	0.09	U	0.09	U	-----					
Ethyl benzene	UG/L	0.21	U	0.21	U	-----	0.18	U	0.18	U	-----
Ethyl ether	UG/L	0.21	U	0.21	U	-----					
Ethyl methacrylate	UG/L	0.25	U	0.25	U	-----					
Hexachlorobutadiene	UG/L	0.17	U	0.17	U	-----					
Hexachloroethane	UG/L	0.2	U	0.2	U	-----					
Isopropylbenzene	UG/L	0.2	U	0.2	U	-----					
Meta/Para Xylene	UG/L	0.43	U	0.43	U	-----	0.36	U	0.36	U	-----
Methacrylonitrile	UG/L	0.33	U	0.33	U	-----					
Methyl 2-propenoate	UG/L	0.17	U	0.17	U	-----					
Methyl Tertbutyl Ether	UG/L	0.37	U	0.37	U	-----					
Methyl bromide	UG/L	0.22	U	0.22	U	-----	0.12	U	0.12	U	-----
Methyl butyl ketone	UG/L	1.1	U	1.1	U	-----	0.58	U	0.58	U	-----
Methyl chloride	UG/L	0.11	U	0.11	U	-----	0.16	U	0.16	U	-----
Methyl ethyl ketone	UG/L	0.94	R	0.94	R	NA	0.92	U	0.92	U	-----
Methyl iodide	UG/L	0.14	UJ	0.14	UJ	-----					
Methyl isobutyl ketone	UG/L	1	U	1	U	-----	0.77	U	0.77	U	-----
Methyl methacrylate	UG/L	0.53	U	0.53	U	-----					
Methylene bromide	UG/L	0.24	U	0.24	U	-----					
Methylene chloride	UG/L	1	U	1	U	-----	0.36	U	0.36	U	-----
Naphthalene	UG/L	0.17	UJ	0.17	U	-----					
Ortho Xylene	UG/L	0.21	U	0.21	U	-----	0.17	U	0.17	U	-----
Propionitrile	UG/L	3.3	R	3.3	R	NA					

**TABLE 3-4**  
**QUALITY CONTROL - FIELD DUPLICATES - ROUND 23 - AUGUST 2004**  
**QUARTERLY GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**

Parameter	Units	MWT-1					MW-44A				
		TR2160		TR2159		*RPD	ARD2246		ARD2253		*RPD
Propylbenzene	UG/L	0.24	U	0.24	U	-----					
Styrene	UG/L	0.19	U	0.19	U	-----	0.17	U	0.17	U	-----
Tetrachloroethene	UG/L	0.34	U	0.34	U	-----	0.2	UJ	0.2	U	-----
Tetrahydrofuran	UG/L	0.78	R	0.78	R	NA					
Toluene	UG/L	0.22	U	0.22	U	-----	0.19	U	0.19	U	-----
Trans-1,2-Dichloroethene	UG/L	0.8	J	0.8	J	-----	2.3	J	2.3	J	-----
Trans-1,3-Dichloropropene	UG/L	0.19	U	0.19	U	-----	0.15	U	0.15	U	-----
Trans-1,4-Dichloro-2-butene	UG/L	1.4	R	1.4	R	NA					
Trichloroethene	UG/L	22		22		-----	11		11	J	-----
Trichlorofluoromethane	UG/L	0.09	U	0.09	U	-----					
Vinyl chloride	UG/L	0.14	U	0.14	U	-----	58		41		34.3%
n-Butylbenzene	UG/L	0.2	U	0.2	U	-----					
p-Chlorotoluene	UG/L	0.22	U	0.22	U	-----					
p-Isopropyltoluene	UG/L	0.22	U	0.22	U	-----					
sec-Butylbenzene	UG/L	0.2	U	0.2	U	-----					
t-Butyl Alcohol	UG/L	2.2	R	2.2	R	NA					
tert-Butylbenzene	UG/L	0.18	U	0.18	U	-----					
Diisopropyl Ether	UG/L	0.21	U	0.21	U	-----					
<b>Metals</b>											
Calcium	UG/L	121000		146000		18.7%	462000	J	412000	J	11.4%
Magnesium	UG/L	14000		16700		17.6%	183000	J	159000	J	14.0%
Manganese	UG/L	24.1		30.4		23.1%	432	J	403	J	6.9%
Potassium	UG/L	1260	J	1490	J	16.7%	59200	J	50300	J	16.3%
Sodium	UG/L	7520	J	9980	J	28.1%	229000	J	185000	J	21.3%
<b>Other Analyses</b>											
Ethane	UG/L	0.5	U	0.5	U	-----	0.5	U	0.5	U	-----
Ethene	UG/L	0.5	U	0.5	U	-----	0.5	U	0.5	U	-----
Methane	UG/L	0.5	U	0.5	U	-----	0.5	UJ	4.5	J	160.0%

NOTES:

\*Formula for Relative Percent Difference (RPD)

Source: p. 921 of <http://www.epa.gov/region02/desa/hsw/clp.pdf>

$$RPD = \frac{|SR - SDR| \times 100}{(1/2)(SR + SDR)}$$

SR = Sample Result of a particular analyte.

SDR = Sample Duplicate Result of a particular analyte.

U = not detected to the limit indicated

J = reported value is estimated

UJ = not detected to the estimated limit indicated

R = result is rejected

NA = Not Applicable, i.e. result rejected or missing result

----- = No difference between results or both non-detect

**TABLE 3-5  
QUALITY ASSURANCE/QUALITY CONTROL - BLANKS - ROUND 23 - AUGUST 2004  
QUARTERLY GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY**

Parameter	Units	TR0057	ARD0049	TR0056	TR0055	ARD0046
		Field Blank (VOA 524.2)	Field Blank (SW8260B)	Trip Blank (VOA 524.2)	Trip Blanks (SW8260B)	
<b>Volatile Organic Chemicals</b>						
1,1,1,2-Tetrachloroethane	UG/L	0.22 U	NA	0.22 U	0.22 U	NA
1,1,1-Trichloroethane	UG/L	0.24 U	0.22 U	0.24 U	0.24 U	0.22 U
1,1,2,2-Tetrachloroethane	UG/L	0.21 U	0.13 U	0.21 U	0.21 U	0.13 U
1,1,2-Trichloroethane	UG/L	0.24 U	0.2 U	0.24 U	0.24 U	0.2 U
1,1-Dichloroethane	UG/L	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,1-Dichloroethene	UG/L	0.16 U	0.2 U	0.16 U	0.16 U	0.2 U
1,1-Dichloropropene	UG/L	0.21 U	NA	0.21 U	0.21 U	NA
1,2,3-Trichlorobenzene	UG/L	0.18 U	NA	0.18 U	0.18 U	NA
1,2,3-Trichloropropane	UG/L	0.28 U	NA	0.28 U	0.28 U	NA
1,2,4-Trichlorobenzene	UG/L	0.2 U	NA	0.2 U	0.2 U	NA
1,2,4-Trimethylbenzene	UG/L	0.24 U	NA	0.24 U	0.24 U	NA
1,2-Dibromo-3-chloropropane	UG/L	0.2 R	NA	0.2 R	0.2 R	NA
1,2-Dibromoethane	UG/L	0.2 U	NA	0.2 U	0.2 U	NA
1,2-Dichlorobenzene	UG/L	0.17 U	NA	0.17 U	0.17 U	NA
1,2-Dichloroethane	UG/L	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,2-Dichloropropane	UG/L	0.21 U	0.18 U	0.21 U	0.21 U	0.18 U
1,3,5-Trimethylbenzene	UG/L	0.22 U	NA	0.22 U	0.22 U	NA
1,3-Dichlorobenzene	UG/L	0.2 U	NA	0.2 U	0.2 U	NA
1,3-Dichloropropane	UG/L	0.22 U	NA	0.22 U	0.22 U	NA
1,4-Dichlorobenzene	UG/L	0.2 U	NA	0.2 U	0.2 U	NA
2,2-Dichloropropane	UG/L	0.2 U	NA	0.2 U	0.2 U	NA
2-Chlorotoluene	UG/L	0.5 U	NA	0.5 U	0.5 U	NA
Acetone	UG/L	12 U	1.2 U	7.4 UJ	9.7 U	1.2 U
Acrylonitrile	UG/L	0.94 R	NA	0.94 R	0.94 R	NA
Allyl chloride	UG/L	0.18 U	NA	0.18 U	0.18 U	NA
Benzene	UG/L	0.24 U	0.2 U	0.24 U	0.24 U	0.2 U
Bromobenzene	UG/L	0.21 U	NA	0.21 U	0.21 U	NA
Bromodichloromethane	UG/L	0.2 U	0.17 U	0.2 U	0.2 U	0.17 U
Bromoform	UG/L	0.22 U	0.37 U	0.22 U	0.22 U	0.37 U
Butyl chloride	UG/L	0.22 U	NA	0.22 U	0.22 U	NA
Carbon disulfide	UG/L	0.18 U	0.21 U	0.18 U	0.18 U	0.21 U
Carbon tetrachloride	UG/L	0.22 U	0.17 U	0.22 U	0.22 U	0.17 U
Chlorobenzene	UG/L	0.21 U	0.16 U	0.21 U	0.21 U	0.16 U
Chlorodibromomethane	UG/L	0.17 U	0.21 U	0.17 U	0.17 U	0.21 U
Chloroethane	UG/L	0.19 U	0.18 U	0.19 U	0.19 U	0.18 U
Chloroform	UG/L	0.22 U	0.23 U	0.22 U	0.22 U	0.23 U
Cis-1,2-Dichloroethene	UG/L	0.24 U	0.27 U	0.24 U	0.24 U	0.27 U
Cis-1,3-Dichloropropene	UG/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Dichlorodifluoromethane	UG/L	0.09 U	NA	0.09 U	0.09 U	NA
Ethyl benzene	UG/L	0.21 U	0.18 U	0.21 U	0.21 U	0.18 U
Ethyl ether	UG/L	0.21 U	NA	0.21 U	0.21 U	NA
Ethyl methacrylate	UG/L	0.25 U	NA	0.25 U	0.25 U	NA
Hexachlorobutadiene	UG/L	0.17 U	NA	0.17 U	0.17 U	NA
Hexachloroethane	UG/L	0.2 U	NA	0.2 U	0.2 U	NA
Isopropylbenzene	UG/L	0.2 U	NA	0.2 U	0.2 U	NA
Meta/Para Xylene	UG/L	0.43 U	0.36 U	0.43 U	0.43 U	0.36 U
Methacrylonitrile	UG/L	0.33 U	NA	0.33 U	0.33 U	NA
Methyl 2-propenoate	UG/L	0.17 U	NA	0.17 U	0.17 U	NA
Methyl Tertbutyl Ether	UG/L	0.37 U	NA	0.37 U	0.37 U	NA
Methyl bromide	UG/L	0.22 U	0.12 U	0.22 U	0.22 U	0.12 U
Methyl butyl ketone	UG/L	1.1 U	0.58 U	1.1 U	1.1 U	0.58 U
Methyl chloride	UG/L	0.11 U	0.16 U	0.11 U	0.11 U	0.16 U
Methyl ethyl ketone	UG/L	0.94 R	0.92 R	0.94 R	0.94 R	0.92 R
Methyl iodide	UG/L	0.14 U	NA	0.14 U	0.14 U	NA
Methyl isobutyl ketone	UG/L	1 U	0.77 U	1 U	1 U	0.77 U
Methyl methacrylate	UG/L	0.53 U	NA	0.53 U	0.53 U	NA
Methylene bromide	UG/L	0.24 U	NA	0.24 U	0.24 U	NA
Methylene chloride	UG/L	1 U	0.36 U	1 U	1 U	0.36 U
Naphthalene	UG/L	0.17 U	NA	0.17 U	0.17 U	NA
Ortho Xylene	UG/L	0.21 U	0.17 U	0.21 U	0.21 U	0.17 U
Propionitrile	UG/L	3.3 R	NA	3.3 R	3.3 R	NA
Propylbenzene	UG/L	0.24 U	NA	0.24 U	0.24 U	NA
Styrene	UG/L	0.19 U	0.17 U	0.19 U	0.19 U	0.17 U
Tetrachloroethene	UG/L	0.34 U	0.2 U	0.34 U	0.34 U	0.2 U
Tetrahydrofuran	UG/L	0.78 R	NA	0.78 R	0.78 R	NA
Toluene	UG/L	0.22 U	0.19 U	0.22 U	0.22 U	0.19 U

**TABLE 3-5**  
**QUALITY ASSURANCE/QUALITY CONTROL - BLANKS - ROUND 23 - AUGUST 2004**  
**QUARTERLY GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**

Parameter	Units	TR0057	ARD0049	TR0056	TR0055	ARD0046
		Field Blank (VOA 524.2)	Field Blank (SW8260B)	Trip Blank (VOA 524.2)	Trip Blanks (SW8260B)	
Trans-1,2-Dichloroethene	UG/L	0.22 U	0.25 U	0.22 U	0.22 U	0.25 U
Trans-1,3-Dichloropropene	UG/L	0.19 U	0.15 U	0.19 U	0.19 U	0.15 U
Trans-1,4-Dichloro-2-butene	UG/L	1.4 R	NA	1.4 R	1.4 R	NA
Trichloroethene	UG/L	0.24 U	0.19 U	0.24 U	0.24 U	0.19 U
Trichlorofluoromethane	UG/L	0.09 U	NA	0.09 U	0.09 U	NA
Vinyl chloride	UG/L	0.14 U	0.11 U	0.14 U	0.14 U	0.11 U
n-Butylbenzene	UG/L	0.2 U	NA	0.2 U	0.2 U	NA
p-Chlorotoluene	UG/L	0.22 U	NA	0.22 U	0.22 U	NA
p-Isopropyltoluene	UG/L	0.22 U	NA	0.22 U	0.22 U	NA
sec-Butylbenzene	UG/L	0.2 U	NA	0.2 U	0.2 U	NA
t-Butyl Alcohol	UG/L	2.2 R	NA	2.2 R	2.2 R	NA
tert-Butylbenzene	UG/L	0.18 U	NA	0.18 U	0.18 U	NA
Diisopropyl Ether	UG/L	0.21 U	NA	0.21 U	0.21 U	NA
<b>Metals</b>						
Calcium	UG/L	1740 U	2030 J	NA	NA	NA
Magnesium	UG/L	341 J	371 J	NA	NA	NA
Manganese	UG/L	0.22 J	0.63 J	NA	NA	NA
Potassium	UG/L	62.6 J	51 U	NA	NA	NA
Sodium	UG/L	867 J	412 J	NA	NA	NA
<b>Other Analyses</b>						
Ethane	UG/L	0.5 U	0.5 U	NA	NA	NA
Ethene	UG/L	0.5 U	0.5 U	NA	NA	NA
Methane	UG/L	0.5 U	0.5 U	NA	NA	NA

NOTES:

U = not detected to the limit indicated

J = reported value is estimated

UJ = not detected to the estimated limit indicated

R = result is rejected

NA = not analyzed

Shading indicates detection of parameter in blank sample. Rejected results not shaded.

**TABLE 3-6**  
**DETECTED VOCs - ROUND 23 - AUGUST 2004**  
**QUARTERLY GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**

Parameter	Units	Groundwater Standards	WELL ID							
			MWT-1 TR2160	MWT-1 TR2159	MWT-11 TR2149	MWT-2 TR2158	MWT-3 TR2157	MWT-4 TR2156	MWT-5 TR2155	MWT-6 TR2154
1,1,1-Trichloroethane	UG/L	5 <sup>(1)</sup>	0.4 J	0.4 J	0.24 U	0.24 U	0.24 U	1.3	0.24 U	0.24 U
1,1-Dichloroethane	UG/L	5 <sup>(1)</sup>	0.4 J	0.5 J	0.21 U	0.21 U	0.2 J	0.5 J	0.4 J	0.4 J
1,1-Dichloroethene	UG/L	5 <sup>(1)</sup>	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
1,2-Dichloroethane	UG/L	0.6 <sup>(1)</sup>	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.4 J	0.21 U	0.21 U
Benzene	UG/L	1	0.24 U	0.24 U	0.24 U	1.1	0.3 J	0.24 U	0.8 J	0.6 J
Carbon disulfide	UG/L	60 <sup>(4)</sup>	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Cis-1,2-Dichloroethene	UG/L	5	100	110	0.24 U	16	34	62	5.5	18
Toluene	UG/L	5	0.22 U	0.22 U	0.22 U	0.5 J	0.22 U	0.22 U	0.22 U	0.22 U
Trans-1,2-Dichloroethene	UG/L	5 <sup>(1)</sup>	0.8 J	0.8 J	0.22 U	0.6 J	1.2 J	0.5 J	0.22 U	0.22 U
Trichloroethene	UG/L	5 <sup>(1,3)</sup>	22	22	0.5 J	0.8 J	5.5	3.9	0.24 U	0.6 J
Vinyl chloride	UG/L	2 <sup>(1,3)</sup>	0.14 U	0.14 U	0.14 U	0.14 U	0.3 J	0.14 U	0.14 U	0.14 U

NOTES:

1. TOGS 1.1.1, June 1998, Class GA Groundwater Standard
2. TOGS 1.1.1, June 1998, Guidance Value
3. USEPA Maximum Contaminant Level (MCL)
4. Draft Addendum to June 1998 Division of water TOGS1.1.1

NL = No Limit to date

J = the report value is an estimated concentration

U = not detected to the detection limit indicated

UJ = not detected to the estimated detection limit

N = tentative identification

DUP = duplicate sample

Shade indicates concentration above action level

**TABLE 3-6**  
**DETECTED VOCs - ROUND 23 - AUGUST 2004**  
**QUARTERLY GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**

Parameter	Units	Groundwater Standards	WELL ID								
			MWT-7 TR2153	MWT-8 TR2152	MWT-9 TR2151	MW-28 ARD2257	MW-44A ARD2246	MW-44A ARD2253	MW-46 ARD2247	MW-53 ARD2248	MW-56 ARD2249
1,1,1-Trichloroethane	UG/L	5 <sup>(1)</sup>	0.24 U	0.24 U	0.24 U	0.22 U	1.8 J	0.22 U	0.22 U	0.22 U	0.22 U
1,1-Dichloroethane	UG/L	5 <sup>(1)</sup>	0.21 U	0.21 U	0.21 U	0.21 U	5.9	5.6 J	0.21 U	0.21 U	0.21 U
1,1-Dichloroethene	UG/L	5 <sup>(1)</sup>	0.16 U	0.16 U	0.2 J	0.2 U	0.41 J	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloroethane	UG/L	0.6 <sup>(1)</sup>	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
Benzene	UG/L	1	0.24 U	0.24 U	0.24 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Carbon disulfide	UG/L	60 <sup>(4)</sup>	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
Cis-1,2-Dichloroethene	UG/L	5	32	150	120	18 J	260 J	250 J	98 J	25 J	2.2 J
Toluene	UG/L	5	0.22 U	0.22 U	0.22 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Trans-1,2-Dichloroethene	UG/L	5 <sup>(1)</sup>	0.22 U	0.22 U	0.5 J	0.25 U	2.3 J	2.3 J	4.9 J	0.25 U	0.25 U
Trichloroethene	UG/L	5 <sup>(1,3)</sup>	280	1.8	220	20	11	11 J	18	2.4	0.19 U
Vinyl chloride	UG/L	2 <sup>(1,3)</sup>	0.14 U	1.9 J	0.3 J	0.11 U	58	41	0.64 J	0.11 U	0.11 U

NOTES:

1. TOGS 1.1.1, June 1998, Class GA Groundwater Standards
2. TOGS 1.1.1, June 1998, Guidance Value
3. USEPA Maximum Contaminant Level (MCL)
4. Draft Addendum to June 1998 Division of water TOGS1.

NL = No Limit to date

J = the report value is an estimated concentration

U = not detected to the detection limit indicated

UJ = not detected to the estimated detection limit

N = tentative identification

DUP = duplicate sample

Shade indicates concentration above action level



**TABLE 3-6**  
**DETECTED VOCs - ROUND 23 - AUGUST 2004**  
**QUARTERLY GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**

Parameter	Units	Groundwater Standards	WELL ID				
			MWT-10 TR2150	PT-12A ARD2250	PT-17 ARD2254	PT-22 ARD2251	PT-24 ARD2252
1,1,1-Trichloroethane	UG/L	5 <sup>(1)</sup>	0.24 U	0.22 U	0.22 U	0.22 U	0.24 U
1,1-Dichloroethane	UG/L	5 <sup>(1)</sup>	0.21 U	0.21 U	0.21 U	0.21 U	0.6 J
1,1-Dichloroethene	UG/L	5 <sup>(1)</sup>	0.16 U	5.8 J	0.2 U	0.2 U	0.16 U
1,2-Dichloroethane	UG/L	0.6 <sup>(1)</sup>	0.21 U	0.21 U	0.21 U	0.21	0.21 U
Benzene	UG/L	1	0.7 J	0.32 J	0.2 U	0.2 U	0.24 U
Carbon disulfide	UG/L	60 <sup>(4)</sup>	0.18 U	0.21 U	0.21 U	0.21 U	1.1 J
Cis-1,2-Dichloroethene	UG/L	5	6.1	2600 J	76 J	160 J	59
Toluene	UG/L	5	0.5 J	0.19 U	0.19 U	0.19 U	0.22 U
Trans-1,2-Dichloroethene	UG/L	5 <sup>(1)</sup>	0.22 U	22 J	0.46 J	4.4 J	0.4 J
Trichloroethene	UG/L	5 <sup>(1, 3)</sup>	0.24 U	960	210	77	3.4 J
Vinyl chloride	UG/L	2 <sup>(1, 3)</sup>	0.14 U	94	0.11 U	0.11 U	0.14 U

NOTES:

1. TOGS 1.1.1, June 1998, Class GA Groundwater Standard
2. TOGS 1.1.1, June 1998, Guidance Value
3. USEPA Maximum Contaminant Level (MCL)
4. Draft Addendum to June 1998 Division of water TOGS1.

NL = No Limit to date

J = the report value is an estimated concentration

U = not detected to the detection limit indicated

UJ = not detected to the estimated detection limit

N = tentative identification

DUP = duplicate sample

Shade indicates concentration above action level

**TABLE 3-7  
MONITORED NATURAL ATTENUATION - PRB  
ROUND 23 - AUGUST 2004  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY**

*Well Grouping I*

Well Location in Relation to PRB	Well ID	Electron Acceptors				Reaction Endproducts						Physical Parameters				
		DO (mg/L)	CO <sub>2</sub> (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)	Methane (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Chloride (mg/L)	ORP (mV)	pH	Temp. (deg. C)	Specific Conductivity (uS/cm)	Turbidity (NTU)
Upgradient	MWT-1	1.47	241	NT	NT	0.04	0.035	1 U	0.5 U	0.5 U	NT	66	6.44	16.60	0.516	53.0
Within	MWT-2	0.43	5	NT	NT	0.09	0.042	2400	0.5 U	0.5 U	NT	-261	5.88	21.61	0.194	26.2
Downgradient	MWT-3	0.00	116	NT	NT	0.63	0.067	102	0.5 U	0.5 U	NT	-73	7.07	16.80	0.400	26.4

*Well Grouping II*

Well Location in Relation to PRB	Well ID	Electron Acceptors				Reaction Endproducts						Physical Parameters				
		DO (mg/L)	CO <sub>2</sub> (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)	Methane (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Chloride (mg/L)	ORP (mV)	pH	Temp. (deg. C)	Specific Conductivity (uS/cm)	Turbidity (NTU)
Upgradient	MWT-4	0.00	229	NT	NT	0.02	-0.029	1 U	0.5 U	0.5 U	NT	128	3.73	15.20	0.617	125.0
Within	MWT-5	1.52	1	NT	NT	0.06	-0.029	2720	1.0 U	1.0 U	NT	-66	4.27	19.84	0.136	150.0
Downgradient	MWT-6	0.18	302	NT	NT	-0.02	0.033	843	0.5 U	0.5 U	NT	-116	3.87	15.21	0.207	0.0

*Well Grouping III*

Well Location in Relation to PRB	Well ID	Electron Acceptors				Reaction Endproducts						Physical Parameters				
		DO (mg/L)	CO <sub>2</sub> (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)	Methane (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Chloride (mg/L)	ORP (mV)	pH	Temp. (deg. C)	Specific Conductivity (uS/cm)	Turbidity (NTU)
Upgradient	MWT-7	5.82	150	NT	NT	0.03	0	1 U	0.5 U	0.5 U	NT	119	6.08	14.40	0.486	26.7
Within	MWT-8	0.09	2	NT	NT	0.08	0.035	1640	0.5 U	0.5 U	NT	-191	9.65	22.90	0.101	0.0
Downgradient	MWT-9	0.00	119	NT	NT	0.71	0.093	408	1.0 U	1.0 U	NT	-85	3.69	15.15	0.402	115.0

Note:

PRB - permeable reactive barrier

"Upgradient" refers to a location immediately upgradient of the PRB.

"Downgradient" refers to a location immediately downgradient of the PRB.

"Within" refers to a location within the PRB

U - not detected to the limit indicated

J - the report value is an estimated concentration

UJ - not detected to the estimated limit indicated

mg/L - milligrams per liter

ug/L - micrograms per liter

mV - millivolts

deg. C - degrees centigrade (C°)

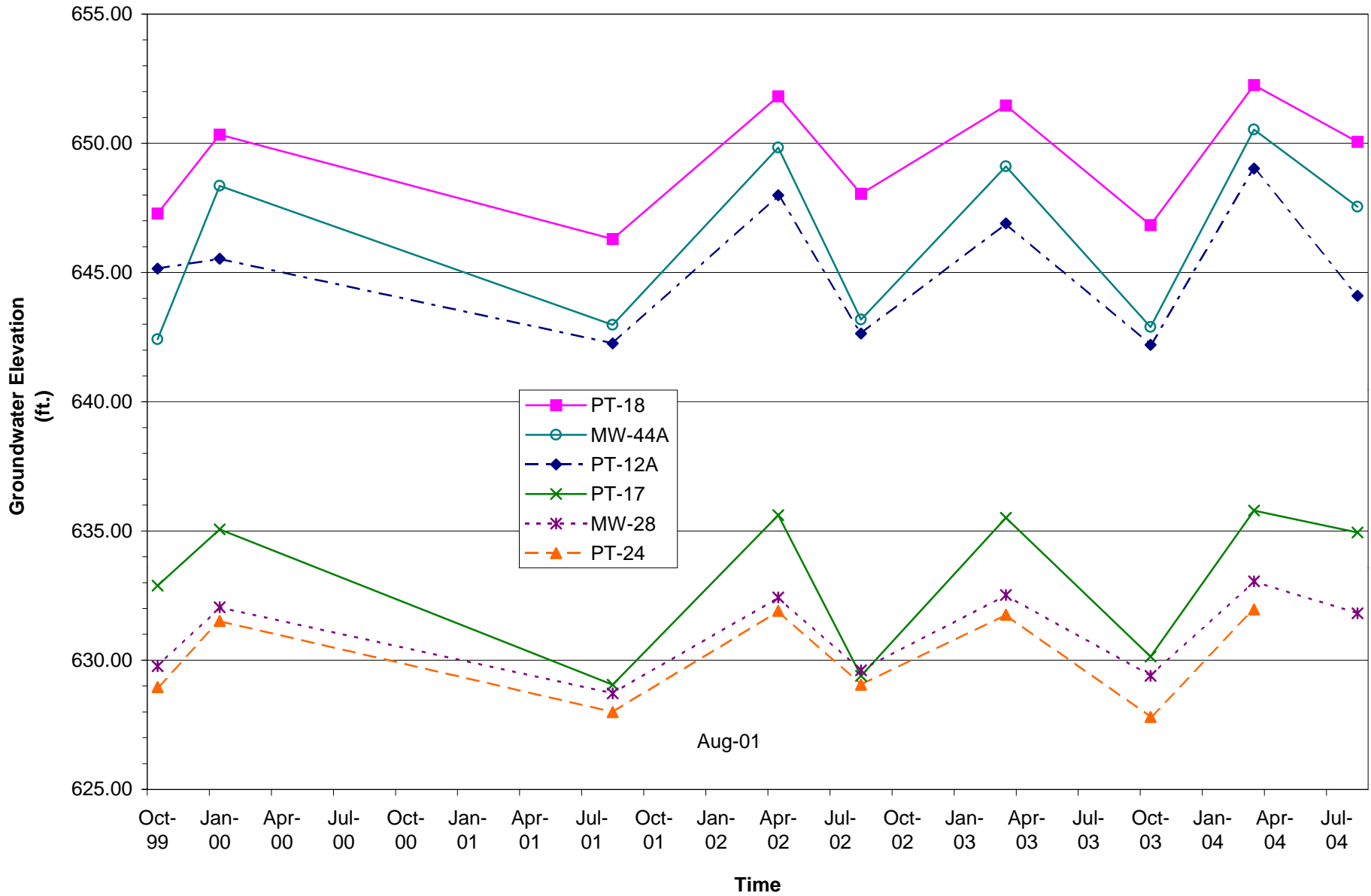
uS/cm - microsiemens per centimeter

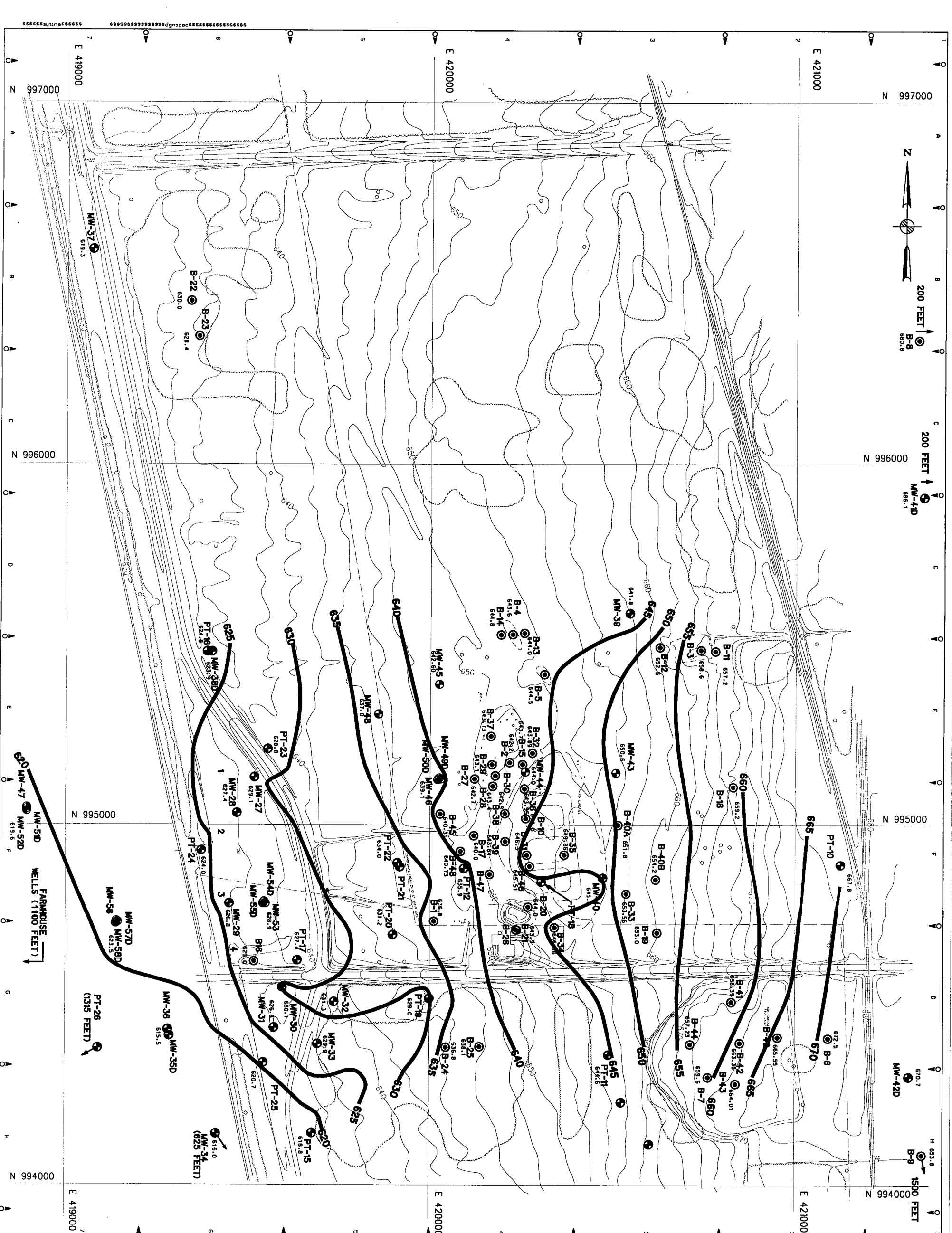
NTU - Nephelometric Turbidity Unit

NT - Not Tested



**FIGURE 3-2  
COMPARISON OF GROUNDWATER ELEVATION VERSUS TIME  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY**





**LEGEND:**

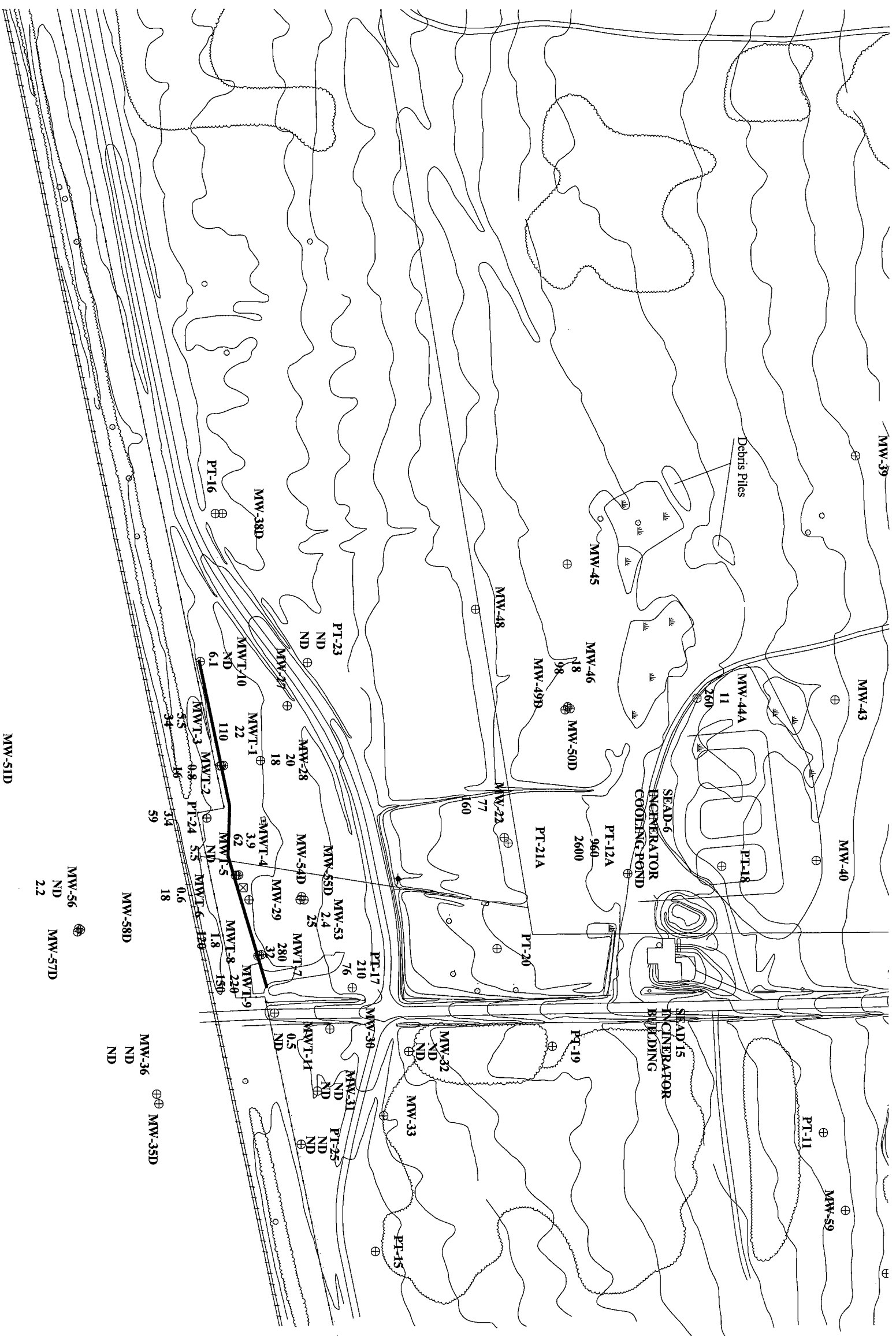
- PAVED ROAD
- DIRT ROAD
- GROUND CONTOUR AND ELEVATION
- TREE
- WETLAND & DESIGNATION
- APPROXIMATE EXTENT OF FILL
- OUTLINE OF FORMER REFUSE PITS IDENTIFIED FROM AERIAL PHOTO
- APPROXIMATE EXTENT OF DEBRIS PILE
- BRUSH
- CHAIN LINK FENCE
- UTILITY POLE
- APPROXIMATE LOCATION OF FIRE HYDRANT
- FUEL OR UNDERGROUND STORAGE TANK
- SURVEY MONUMENT
- SOIL BORING, DESIGNATION AND TOP OF BEDROCK ELEVATION
- MONITORING WELL, DESIGNATION AND TOP OF BEDROCK ELEVATION
- SHALE DEPTH CONTOUR

NO.	DATE	DESCRIPTION	BY	CHECKED
1	11/17/2004	ISSUED FOR BID	GA/KAEJIN	
2	11/17/2004	DRAFT - FIN. RI REPORT	GA/KAEJIN	
3	11/17/2004	DRAFT AM/EECA	GA/KAEJIN	
4	11/17/2004	EMBEEM DRAFT AM/EECA	GA/KAEJIN	
5	11/17/2004	DESIGN OF	GA/KAEJIN	
6	11/17/2004	DESIGN SUPV.	GA/KAEJIN	
7	11/17/2004	DESIGN ENGR.	GA/KAEJIN	
8	11/17/2004	RESP. ENGR.	GA/KAEJIN	
9	11/17/2004	CH.DISC. ENGR.	GA/KAEJIN	
10	11/17/2004	PRJ. MGR.	GA/KAEJIN	

**PARSONS**

CLIENT/PROJECT TITLE  
**SENECA ARMY DEPOT ACTIVITY  
 ASH LANDFILL  
 GROUNDWATER MONITORING  
 ROUND 25 - AUGUST 2004**

SCALE 1" = 250'  
 720447-03000-3-1  
 FIGURE 3-3  
 COMPETENT SHALE  
 TOPOGRAPHY MAP



MW-51D  
MW-47  
MW-52D  
MW-56  
MW-57D  
MW-58D  
MW-36  
MW-35D

**LEGEND**

- PAVED ROAD
- GROUND CONTOUR AND ELEVATION
- WELL LAND & DESIGNATION
- OUTLINE OF FORMER TRASH PITS IDENTIFIED FROM AERIAL PHOTO
- APPROXIMATE EXTENT OF DEBRIS PILE
- BRUSH
- CHAIN LINK FENCE
- UTILITY POLE
- APPROXIMATE LOCATION OF FIRE HYDRANT
- RAILROAD
- 6" WATER MAIN
- $\oplus$  MONITORING WELL W/ DESIGNATION
- TCE
- DCE
- ND NO DETECTION FOR TRICHLOROETHYLENE (TCE) - ug/L
- ND NO DETECTION FOR 1,2-DICHLOROETHYLENE (DCE) - ug/L
- PERMEABLE REACTIVE BARRIER

NOTES:  
GROUNDWATER SAMPLES COLLECTED FOLLOWING EPA REGION II LOW-FLOW SAMPLING PROTOCOL. SAMPLES FOR GROUND WATER QUALITY ANALYSIS COLLECTED FROM AUGUST 24 THROUGH AUGUST 30, 2004.

GROUNDWATER ANALYTICAL DATA BASED ON CONDITIONS AT THE TIME OF SAMPLING. GROUNDWATER CONDITIONS AT OTHER TIMES MAY VARY.



SCALE: 1" = 200'

**PARSONS**

SENECA ARMY DEPOT ACTIVITY  
ASHLAND HILL  
GROUNDWATER MONITORING  
ROUND 23 - AUGUST 2004  
ENVIRONMENTAL ENGINEERING 743155-03300

FIGURE 3-4  
GROUNDWATER ANALYTICAL DATA  
TCE AND DCE CONCENTRATIONS  
ROUND 23 - AUGUST 2004

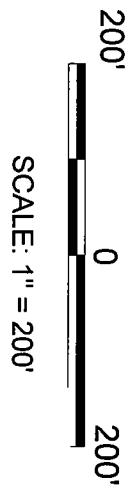


**LEGEND**

- PAVED ROAD
- GROUND CONTOUR AND ELEVATION
- WETLAND & DESIGNATION
- OUTLINE OF FORMER TRASH PITS (IDENTIFIED FROM AERIAL PHOTO)
- APPROXIMATE EXTENT OF DEBRIS PILE
- BRUSH
- CHAIN LINK FENCE
- UTILITY POLE
- APPROXIMATE LOCATION OF FIRE HYDRANT
- RAILROAD
- 6" WATER MAIN
- PERMEABLE REACTIVE BARRIER
- MONITORING WELL W/ DESIGNATION
- TOTAL CHLORINATED ETHENES (TCE) (GIS-1, 2-DCE, TCE AND VC) FROM SAMPLES COLLECTED IN AUGUST 2004
- NO DETECTION

**NOTES:**  
 GROUNDWATER SAMPLES COLLECTED FOLLOWING EPA REGION II LOW-FLOW SAMPLING PROTOCOL. SAMPLES FOR GROUND WATER QUALITY ANALYSIS COLLECTED FROM AUGUST 24 THROUGH AUGUST 30, 2004.

GROUNDWATER ANALYTICAL DATA BASED ON CONDITIONS AT THE TIME OF SAMPLING. GROUNDWATER CONDITIONS AT OTHER TIMES MAY VARY.



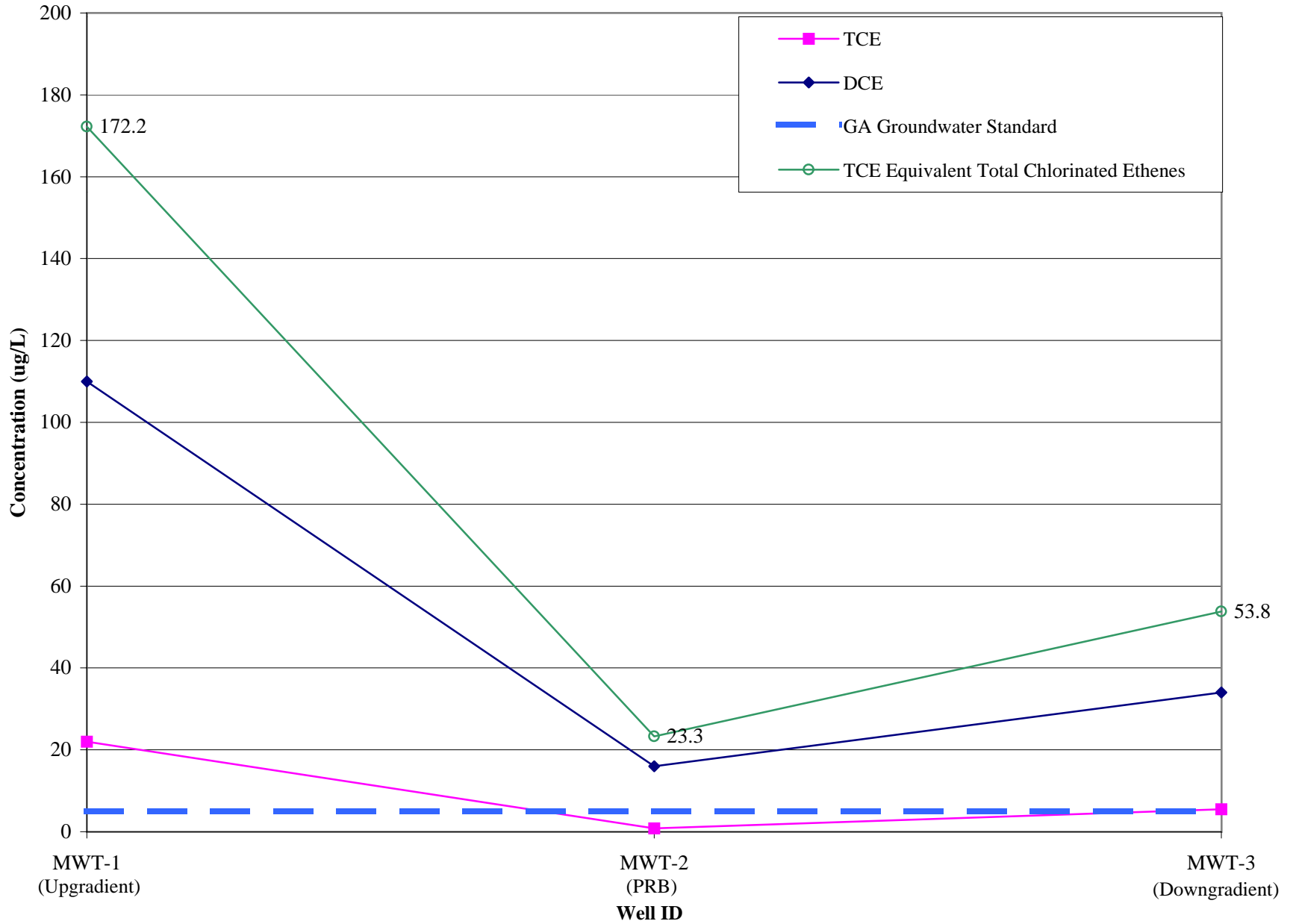
**PARSONS**

SENECA ARMY DEPOT ACTIVITY  
 ASH LANDFILL  
 GROUNDWATER MONITORING  
 ROUND 23 - AUGUST 2004

**FIGURE 3-5**  
 GROUNDWATER ANALYTICAL DATA  
 TOTAL CHLORINATED ETHENES  
 ROUND 23 - AUGUST 2004

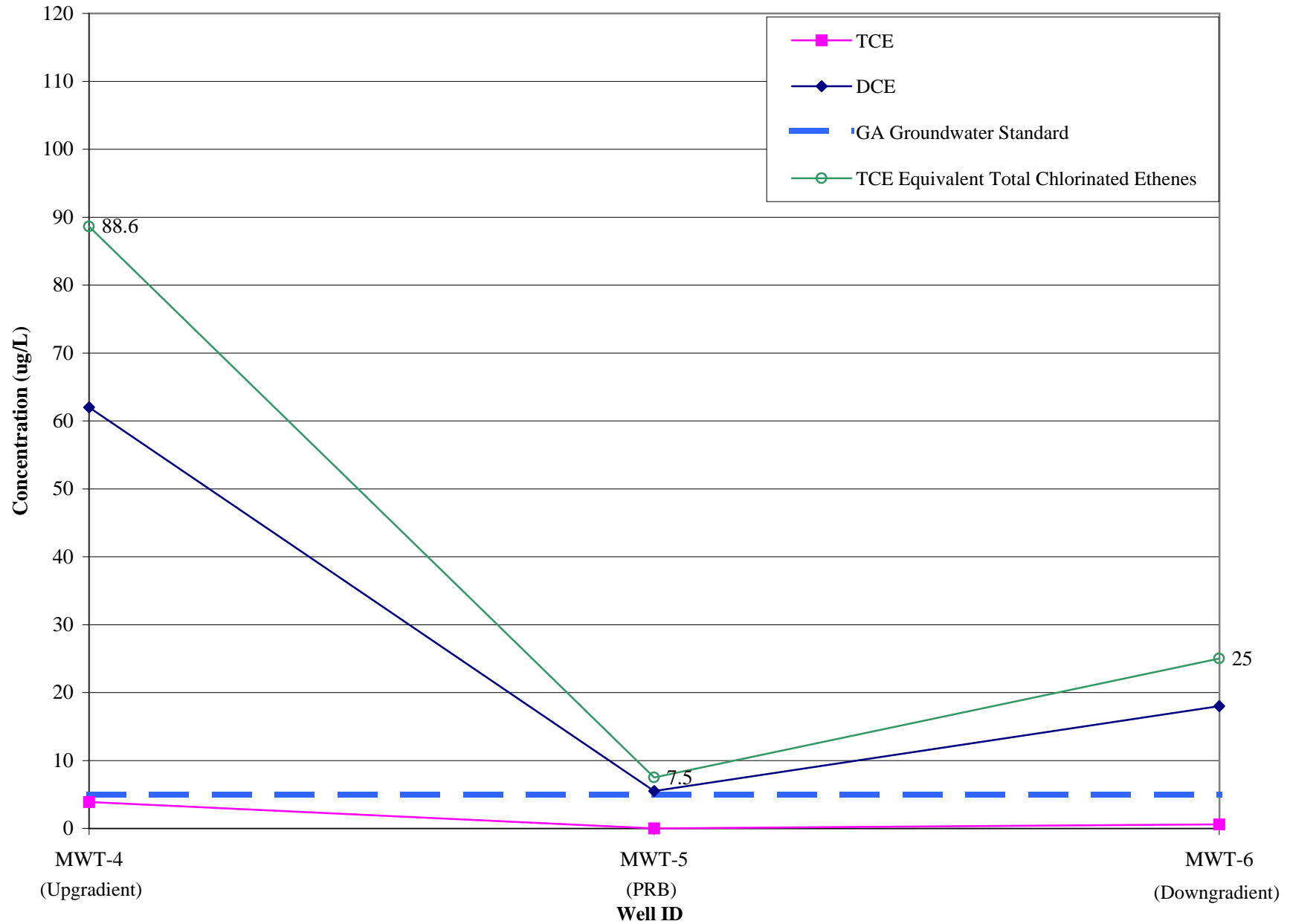
ENVIRONMENTAL ENGINEERING 730769-01/010  
 SCALE: 1 INCH = 200 FEET NOVEMBER 2004

**FIGURE 3-6**  
**CHLORINATED ETHENE CONCENTRATIONS IN PRB WELL TRANSECT - MWT-1, MWT-2, AND MWT-3**  
**ROUND 23 - AUGUST 2004**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**

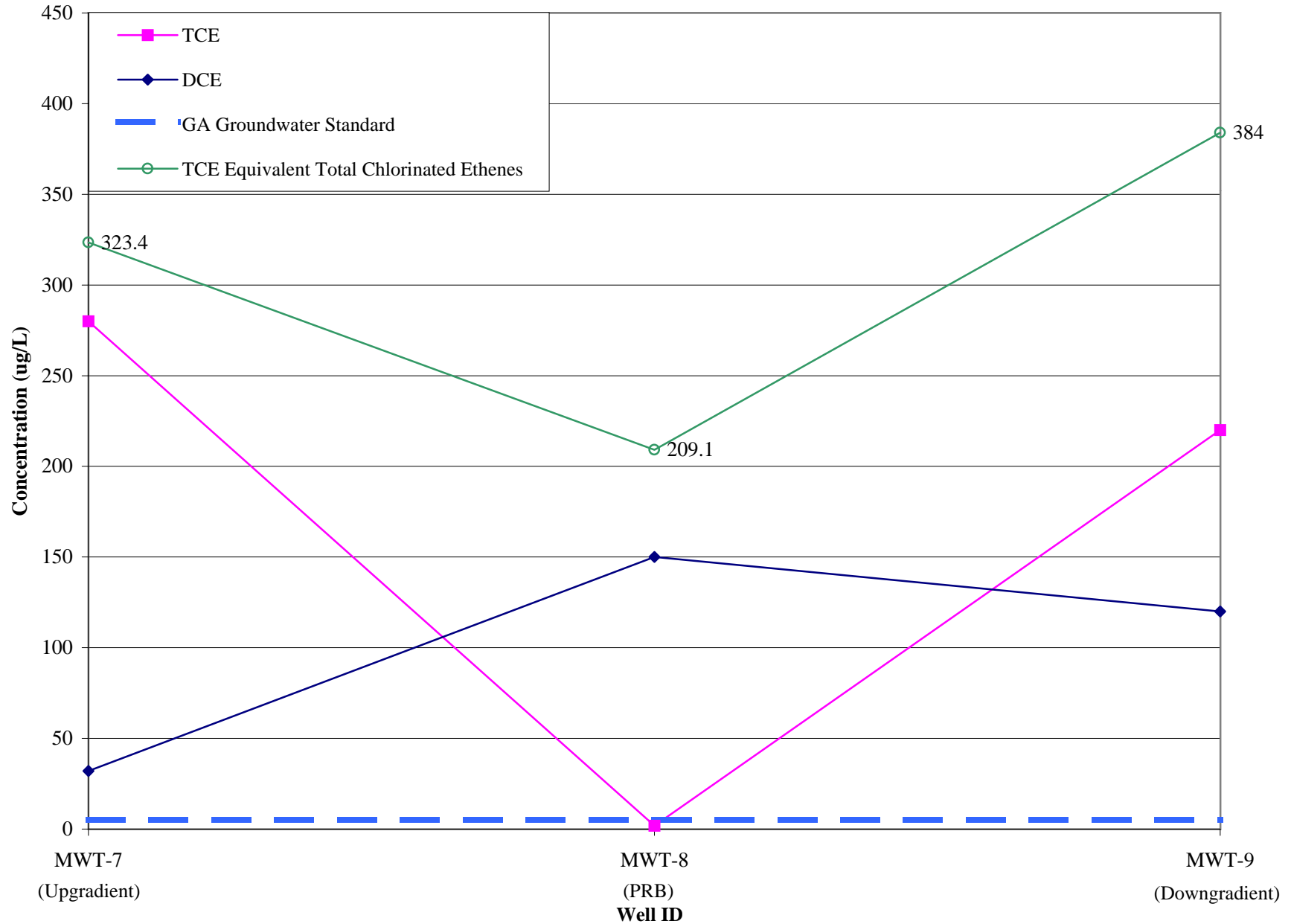




**FIGURE 3-7**  
**CHLORINATED ETHENE CONCENTRATIONS IN PRB WELL TRANSECT - MWT-4, MWT-5, AND MWT-6**  
**ROUND 23 - AUGUST 2004**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**



**FIGURE 3-8**  
**CHLORINATED ETHENE CONCENTRATIONS IN PRB WELL TRANSECT - MWT-7, MWT-8, AND MWT-9**  
**ROUND 23 - AUGUST 2004**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**



**APPENDIX A**

**HACH TECHNICAL SUPPORT EMAIL CORRESPONDENCE  
- NOVEMBER 2004**

From: HachLov Tech Support Help [TechHelp@hach.com]  
Sent: Thursday, November 11, 2004 5:04 PM  
To: Baranek-Olmstead, Brendan  
Subject: RE: Method numbers

Dear Brendan,

The Hach method numbers for ferrous iron and sulfide are 8146 and 8131.  
We do not have method numbers for the drop count titration kits but are similar to method 8203 for alkalinity and 8205 for CO2.

Jenny K  
Hach Technical Support

-----Original Message-----

From: Brendan.Baranek-Olmstead@parsons.com  
[mailto:Brendan.Baranek-Olmstead@parsons.com]  
Posted At: Thursday, November 11, 2004 2:15 PM  
Posted To: Lab Tech Support  
Conversation: Technical Support Request  
Subject: Technical Support Request

Title: Mr.  
First name: Brendan  
Middle name:  
Last name:  
Phone number:  
Phone extension:  
E-mail address: Brendan.Baranek-Olmstead@parsons.com  
Fax:  
Company name: Parsons  
Department/Division:  
Address:  
City: Boston  
State: MA  
Zip/Postal Code: 02110  
Country: US

Industry I am in:  
Engineering  
Parameter(s) I am testing for:

Type of samples I test:

Drinking Water

Surface Water

Well or Residential Water

Instrument I am using:

Model AL-APMG-L and DR/700

Instrument stored program number:

My question:

What are the Method numbers for hydrogen sulfide and ferrous iron levels from DR/700? What are the Method numbers for alkalinity and carbon dioxide content from Model AL-APMG-L?

**APPENDIX B**

**GROUNDWATER ELEVATION DATA**

**APPENDIX B**  
**HISTORICAL GROUNDWATER ELEVATION DATA**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**

Monitoring Well	Top of Riser Elevation (ft)	Round 1 - March 1995			Round 2 - June 1995			Round 3 - Sept 1995		
		Date	Depth to Groundwater (ft)	Water Level Elevation (ft)	Date	Depth to Groundwater (ft)	Water Level Elevation (ft)	Date	Depth to Groundwater (ft)	Water Level Elevation (ft)
PT-11	658.22	03/16/1995	4.28	653.94	06/05/1995	7.2	651.02	09/12/1995	8.39	649.83
PT-12A	652.15				06/05/1995	Destroyed				
PT-15	637.76				06/05/1995	8.2	629.56	09/12/1995	9.73	628.03
PT-16	637.51				06/05/1995	4.68	632.83	09/12/1995	5.36	632.15
PT-17	640.14				06/05/1995	7.87	632.27	09/12/1995	8.66	631.48
PT-18	656.68				06/05/1995	8.24	648.44	09/12/1995	8.81	647.87
PT-19	645.26	03/17/1995	3.1	642.16	06/05/1995	6.33	638.93	09/12/1995	7.57	637.69
PT-20	647.28				06/05/1995	7.69	639.59	09/12/1995	8.83	638.45
PT-21A	647.73				06/05/1995	Destroyed				
MW-22	648.61				06/05/1995	8.92	639.69	09/12/1995	9.74	638.87
PT-23	641.58				06/05/1995	6.95	634.63	09/12/1995	7.94	633.64
PT-24	636.40				06/05/1995	5.41	630.99	09/12/1995	5.64	630.76
PT-25	637.09				06/05/1995	7.2	629.89	09/12/1995	9.84	627.25
MW-27	639.32	03/16/1995	5.13	634.19	06/05/1995	6.85	632.47	09/12/1995	6.74	632.58
MW-28	637.21				06/05/1995	5.93	631.28	09/12/1995	6.12	631.09
MW-29	637.31				06/05/1995	7.38	629.93	09/12/1995	7.78	629.53
MW-30	640.32	03/17/1995	4.1	636.22	06/05/1995	Dry		09/12/1995	10.42	629.9
MW-31	636.70				06/05/1995	6.49	630.21	09/12/1995	8.7	628.00
MW-32	641.68				06/05/1995	8	633.68	09/12/1995	8.9	632.78
MW-33	639.56				06/05/1995	8.76	630.8	09/12/1995	9.62	629.94
MW-34	632.89				06/05/1995	5.93	626.96	09/12/1995	8.9	623.99
MW-35D	631.82				06/05/1995	4.15	627.67	09/12/1995	5.43	626.39
MW-36	631.79	03/16/1995	2.34	629.45	06/05/1995	4.36	627.43	09/12/1995	5.94	625.85
MW-38D	637.90	09/28/1901			06/05/1995	5.23	632.67	09/12/1995	8.91	628.99
MW-39	659.54	10/20/1901			06/05/1995	3.96	655.58	09/12/1995	5.27	654.27
MW-40	659.30	10/20/1901	3.61	655.69	06/05/1995	6.48	652.82	09/12/1995	7.46	651.84
MW-43	657.73				06/05/1995	4.72	653.01	09/12/1995	5.73	652.00
MW-44A	653.85				06/05/1995	Destroyed				
MW-45	650.90	03/17/1995	3.05	647.85	06/05/1995	5.26	645.64	09/12/1995	6.34	644.56
MW-46	650.41				06/05/1995	7.06	643.35	09/12/1995	7.96	642.45
MW-47	628.06	03/16/1995	2.84	625.22	06/05/1995	6.48	621.58	09/12/1995	5.96	622.10
MW-48	648.32	03/17/1995	3.1	645.22	06/05/1995	6.13	642.19	09/12/1995	6.86	641.46
MW-49D	650.50				06/05/1995	7.1	643.4	09/12/1995	7.88	642.62
MW-50D	649.88				06/05/1995	6.88	643	09/12/1995	7.69	642.19
MW-51D	628.24				06/05/1995	6.63	621.61	09/12/1995	6.12	622.12
MW-52D	626.35				06/05/1995	6.12	620.23	09/12/1995	5.68	620.67
MW-53	639.41				06/05/1995	8.45	630.96	09/12/1995	8.94	630.47
MW-54D	639.11				06/05/1995	8.3	630.81	09/12/1995	8.76	630.35
MW-55D	639.16				06/05/1995	8.18	630.98	09/12/1995	8.62	630.54
MW-56	630.51	03/16/1995	2.95	627.56	06/05/1995	4.14	626.37	09/12/1995	4.31	626.20
MW-57D	629.82				06/05/1995	3.79	626.03	09/12/1995	3.7	626.12
MW-58D	629.69				06/05/1995	3.6	626.09	09/12/1995	3.52	626.17
MW-59	656.83	03/17/1995	1.9	654.93	06/05/1995	3.26	653.57	09/12/1995	4.58	652.25
MW-60	660.15	03/17/1995	2.02	658.13	06/05/1995	3.83	656.32	09/12/1995	5.33	654.82
MWT-1	637.24									
MWT-2	637.19									
MWT-3	637.31									
MWT-4	637.68									
MWT-5	637.72									
MWT-6	637.59									
MWT-7	638.34									
MWT-8	638.40									
MWT-9	638.08									
MWT-10	636.07									
MWT-11	635.90									

**APPENDIX B  
HISTORICAL GROUNDWATER ELEVATION DATA  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY**

Monitoring Well	Top of Riser Elevation (ft)	Round 4 - Jan 1996			Round 5 - March 1996			Round 6 - June 1996		
		Date	Depth to Groundwater (ft)	Water Level Elevation (ft)	Date	Depth to Groundwater (ft)	Water Level Elevation (ft)	Date	Depth to Groundwater (ft)	Water Level Elevation (ft)
PT-11	658.22	1/11/96	4.94	653.28	03/14/1996	4.44	653.78	06/20/1996	6.54	651.68
PT-12A	652.15				03/14/1996	7.94	644.21	06/20/1996	7.88	644.27
PT-15	637.76	1/11/96	4.94	632.82	03/14/1996	5.73	632.03	06/20/1996	7.7	630.06
PT-16	637.51	1/11/96	3.18	634.33	03/14/1996	2.66	634.85	06/20/1996	3.2	634.31
PT-17	640.14	1/11/96	6.16	633.98	03/14/1996	5.04	635.1	06/20/1996	6.36	633.78
PT-18	656.68	1/11/96	7.22	649.46	03/14/1996	7.08	649.6	06/20/1996	7.4	649.28
PT-19	645.26	1/10/96	4.14	641.12	03/14/1996	2.62	642.64	06/20/1996	6.27	638.99
PT-20	647.28	1/11/96	6.89	640.39	03/14/1996	6.64	640.64	06/20/1996	6.89	640.39
PT-21A	647.73				03/14/1996	8.16	639.57	06/20/1996	8.47	639.26
MW-22	648.61	1/11/96	8.9	639.71	03/14/1996	8.66	639.95	06/20/1996	8.97	639.64
PT-23	641.58	1/11/96	4.74	636.84	03/14/1996	4.17	637.41	06/20/1996	6.15	635.43
PT-24	636.40	1/11/96	5.08	631.32	03/14/1996	4.48	631.92	06/20/1996	5.07	631.33
PT-25	637.09	1/10/96	5.63	631.46	03/14/1996	4.04	633.05	06/20/1996	6.54	630.55
MW-27	639.32	1/11/96	6.04	633.28	03/14/1996	5.7	633.62	06/20/1996	6.58	632.74
MW-28	637.21	1/11/96	5.66	631.55	03/14/1996	5.23	631.98	06/20/1996	5.76	631.45
MW-29	637.31	1/11/96	6.68	630.63	03/14/1996	6.2	631.01	06/20/1996	6.96	630.35
MW-30	640.32	1/11/96	7.65	632.67	03/14/1996	5.88	634.44	06/20/1996	6.9	633.42
MW-31	636.70	1/11/96	4.88	631.82	03/14/1996	3.38	633.32	06/20/1996	5.86	630.84
MW-32	641.68	1/11/96	6.86	634.82	03/14/1996	5.45	636.23	06/20/1996	7.02	634.66
MW-33	639.56	1/11/96	6.24	633.32	03/14/1996	4.96	634.6	06/20/1996	8.05	631.51
MW-34	632.89	1/10/96	4.72	628.17	03/14/1996	3.16	629.73	06/20/1996	5.33	627.56
MW-35D	631.82	1/10/96	2.89	628.93	03/14/1996	2.38	629.44	06/20/1996	5.33	626.49
MW-36	631.79	1/10/96	2.97	628.82	03/14/1996	2.32	629.47	06/20/1996	3.00	628.79
MW-38D	637.90	1/11/96	3.88	634.02	03/14/1996	3.47	634.43	06/20/1996	4.09	633.81
MW-39	659.54	1/11/96	1.91	657.63	03/14/1996	Frozen		06/20/1996	1.82	Frozen
MW-40	659.30	1/11/96	4.44	654.86	03/14/1996	3.81		06/20/1996	6.2	653.1
MW-43	657.73	1/11/96	Frozen	NA	03/14/1996	Frozen		06/20/1996	3.03	654.7
MW-44A	653.85				03/14/1996	8.93	644.92	06/20/1996	8.05	645.8
MW-45	650.90	1/11/96	Frozen	NA	03/14/1996	Frozen		06/20/1996	3.47	647.43
MW-46	650.41	1/11/96	6.16	644.25	03/14/1996	5.72	644.69	06/20/1996	5.75	644.66
MW-47	628.06	1/11/96	Frozen	NA	03/14/1996	Frozen		06/20/1996	3.6	624.46
MW-48	648.32	1/11/96	3.7	644.62	03/14/1996	Frozen		06/20/1996	4.77	643.55
MW-49D	650.50	1/11/96	6.09	644.41	03/14/1996	5.71	644.79	06/20/1996	5.87	644.63
MW-50D	649.88	1/11/96	6.02	643.86	03/14/1996	5.78	644.1	06/20/1996	6.2	643.68
MW-51D	628.24	1/11/96		628.24	03/14/1996	2.78	625.46	06/20/1996	3.7	624.54
MW-52D	626.35	1/11/96	3	623.35	03/14/1996	Frozen		06/20/1996	3.66	622.69
MW-53	639.41	1/11/96	7.86	631.55	03/14/1996	6.98	632.43	06/20/1996	8.28	631.13
MW-54D	639.11	1/11/96	7.66	631.45	03/14/1996	6.97	632.14	06/20/1996	8.08	631.03
MW-55D	639.16	1/11/96	7.42	631.74	03/14/1996	6.88	632.28	06/20/1996	7.91	631.25
MW-56	630.51	1/11/96	Frozen	NA	03/14/1996	Frozen		06/20/1996	3.01	627.5
MW-57D	629.82	1/11/96	2.42	627.4	03/14/1996	1.91	627.91	06/20/1996	2.2	627.62
MW-58D	629.69	1/11/96	2.2	627.49	03/14/1996	2.25	627.44	06/20/1996	2.09	627.6
MW-59	656.83	1/11/96	2.14	654.69	03/14/1996	Frozen		06/20/1996	1.91	654.92
MW-60	660.15	1/11/96	2.34	657.81	03/14/1996	Frozen		06/20/1996	2.58	Frozen
MWT-1	637.24									
MWT-2	637.19									
MWT-3	637.31									
MWT-4	637.68									
MWT-5	637.72									
MWT-6	637.59									
MWT-7	638.34									
MWT-8	638.40									
MWT-9	638.08									
MWT-10	636.07									
MWT-11	635.90									



**APPENDIX B  
HISTORICAL GROUNDWATER ELEVATION DATA  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY**

Monitoring Well	Top of Riser Elevation (ft)	Round 7 - Sept 1996			Round 8 - Jan 1997			Round 9 - March 1997		
		Date	Depth to Groundwater (ft)	Water Level Elevation (ft)	Date	Depth to Groundwater (ft)	Water Level Elevation (ft)	Date	Depth to Groundwater (ft)	Water Level Elevation (ft)
PT-11	658.22	09/23/1996	6.15	652.07	01/06/1997	4.19	654.03	03/18/1997	4.41	653.81
PT-12A	652.15	09/23/1996	7.31	644.84	01/06/1997	4.25	647.9	03/18/1997	5.85	646.3
PT-15	637.76	09/23/1996	8.04	629.72	01/06/1997	5.05	632.71	03/18/1997	4.59	633.17
PT-16	637.51	09/23/1996	3.62	633.89	01/06/1997	3.02	634.49	03/18/1997	2.93	634.58
PT-17	640.14	09/23/1996	4.99	635.15	01/06/1997	4.7	635.44	03/18/1997	4.75	635.39
PT-18	656.68	09/23/1996	7.44	649.24	01/06/1997	4.97	651.71	03/18/1997	5.55	651.13
PT-19	645.26	09/23/1996	6.34	638.92	01/06/1997	3.18	642.08	03/18/1997	3.34	641.92
PT-20	647.28	09/23/1996	5.92	641.36	01/06/1997	5.74	641.54	03/18/1997	5.72	641.56
PT-21A	647.73	09/23/1996	7.02	640.71	01/06/1997	6.09	641.64	03/18/1997	5.19	642.54
MW-22	648.61	09/23/1996	Not Measured		01/06/1997	6.5	642.11	03/18/1997	6.63	641.98
PT-23	641.58	09/23/1996	5.11	636.47	01/06/1997	3.44	638.14	03/18/1997	3.94	637.64
PT-24	636.40	09/23/1996	4.8	631.6	01/06/1997	4.64	631.76	03/18/1997	4.69	631.71
PT-25	637.09	09/23/1996	6.16	630.93	01/06/1997	3.96	633.13	03/18/1997	3.92	633.17
MW-27	639.32	09/23/1996	5.54	633.78	01/06/1997	5.21	634.11	03/18/1997	5.25	634.07
MW-28	637.21	09/23/1996	5.35	631.86	01/06/1997	5.22	631.99	03/18/1997	5.18	632.03
MW-29	637.31	09/23/1996	6.34	630.97	01/06/1997	6.14	631.17	03/18/1997	6.09	631.22
MW-30	640.32	09/23/1996	7.17	633.15	01/06/1997	4.2	636.12	03/18/1997	4.33	635.99
MW-31	636.70	09/23/1996	5.26	631.44	01/06/1997	2.92	633.78	03/18/1997	2.96	633.74
MW-32	641.68	09/23/1996	7.42	634.26	01/06/1997	4.53	637.15	03/18/1997	4.95	636.73
MW-33	639.56	09/23/1996	7.4	632.16	01/06/1997	4.29	635.27	03/18/1997	4.44	635.12
MW-34	632.89	09/23/1996	4.99	627.9	01/06/1997	3.07	629.82	03/18/1997	3.22	629.67
MW-35D	631.82	09/23/1996	Not Measured		01/06/1997	Not Measured		03/18/1997	Not Measured	
MW-36	631.79	09/23/1996	3.30	628.49	01/06/1997	3.30	628.49	03/18/1997	2.46	629.33
MW-38D	637.90	09/23/1996	4.26	633.64	01/06/1997	3.7	634.2	03/18/1997	3.61	634.29
MW-39	659.54	09/23/1996	2.16	657.38	01/06/1997	2.06	657.48	03/18/1997	1.78	657.76
MW-40	659.30	09/23/1996	4.78	654.52	01/06/1997	3.64	655.66	03/18/1997	3.64	655.66
MW-43	657.73	09/23/1996	3.16	654.57	01/06/1997	2.9	654.83	03/18/1997	3.84	653.89
MW-44A	653.85	09/23/1996	9.66	644.19	01/06/1997	3.74	650.11	03/18/1997	4.7	649.15
MW-45	650.90	09/23/1996	3.23	647.67	01/06/1997	2.94	647.96	03/18/1997	2.83	648.07
MW-46	650.41	09/23/1996	5.94	644.47	01/06/1997	3.72	646.69	03/18/1997	4.51	645.9
MW-47	628.06	09/23/1996	4.34	623.72	01/06/1997	2.88	625.18	03/18/1997	2.88	625.18
MW-48	648.32	09/23/1996	3.72	644.6	01/06/1997	3.26	645.06	03/18/1997	3.31	645.01
MW-49D	650.50	09/23/1996	5.9	644.6	01/06/1997	3.6	646.9	03/18/1997	4.32	646.18
MW-50D	649.88	09/23/1996	5.71	644.17	01/06/1997	3.6	646.28	03/18/1997	4.09	645.79
MW-51D	628.24	09/23/1996	4.42	623.82	01/06/1997	2.99	625.25	03/18/1997	3	625.24
MW-52D	626.35	09/23/1996	4.03	622.32	01/06/1997	2.38	623.97	03/18/1997	2.6	623.75
MW-53	639.41	09/23/1996	7.02	632.39	01/06/1997	6.6	632.81	03/18/1997	6.6	632.81
MW-54D	639.11	09/23/1996	6.92	632.19	01/06/1997	6.55	632.56	03/18/1997	6.56	632.55
MW-55D	639.16	09/23/1996	6.78	632.38	01/06/1997	6.34	632.82	03/18/1997	6.36	632.8
MW-56	630.51	09/23/1996	3.2	627.31	01/06/1997	3.09	627.42	03/18/1997	3.05	627.46
MW-57D	629.82	09/23/1996	2.29	627.53	01/06/1997	1.82	628	03/18/1997	1.95	627.87
MW-58D	629.69	09/23/1996	2.06	627.63	01/06/1997	1.51	628.18	03/18/1997	1.73	627.96
MW-59	656.83	09/23/1996	2.69	654.14	01/06/1997	2.1	654.73	03/18/1997	2.16	654.67
MW-60	660.15	09/23/1996	2.46	657.69	01/06/1997	1.97	658.18	03/18/1997	2.14	658.01
MWT-1	637.24									
MWT-2	637.19									
MWT-3	637.31									
MWT-4	637.68									
MWT-5	637.72									
MWT-6	637.59									
MWT-7	638.34									
MWT-8	638.40									
MWT-9	638.08									
MWT-10	636.07									
MWT-11	635.90									

**APPENDIX B  
HISTORICAL GROUNDWATER ELEVATION DATA  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY**

Monitoring Well	Top of Riser Elevation (ft)	Round 10 - June 1997			Round 11 - March 1998			Round 12 - June 1998		
		Date	Depth to Groundwater (ft)	Water Level Elevation (ft)	Date	Depth to Groundwater (ft)	Water Level Elevation (ft)	Date	Depth to Groundwater (ft)	Water Level Elevation (ft)
PT-11	658.22	06/17/1997	6.23	651.99	03/23/98	4.24	653.98	06/16/98	4.43	653.79
PT-12A	652.15	06/17/1997	7.53	644.62	03/23/98	3.14	649.01	06/16/98	5.25	646.9
PT-15	637.76	06/17/1997	6.48	631.28	03/23/98	4.02	633.74	06/16/98	7.14	630.62
PT-16	637.51	06/17/1997	4.05	633.46	03/23/98	2.8	634.71	06/16/98	3.8	633.71
PT-17	640.14	06/17/1997	7.4	632.74	03/23/98	4.29	635.85	06/16/98	4.97	635.17
PT-18	656.68	06/17/1997	7.09	649.59	03/23/98	4.4	652.28	06/16/98	6.34	650.34
PT-19	645.26	06/17/1997	5.34	639.92	03/23/98	2.17	643.09	06/16/98	4.9	640.36
PT-20	647.28	06/17/1997	7.21	640.07	03/23/98	4.94	642.34	06/16/98	5.69	641.59
PT-21A	647.73	06/17/1997	8.21	639.52	03/23/98	3.89	643.84	06/16/98	6.46	641.27
MW-22	648.61	06/17/1997	7.61	641	03/23/98	4.31	644.3	06/16/98	6.96	641.65
PT-23	641.58	06/17/1997	6.37	635.21	03/23/98	3.66	637.92	06/16/98	4.02	637.56
PT-24	636.40	06/17/1997	5.04	631.36	03/23/98	3.64	632.76	06/16/98	4.69	631.71
PT-25	637.09	06/17/1997	5.96	631.13	03/23/98	3.58	633.51	06/16/98	4.48	632.61
MW-27	639.32	06/17/1997	6.48	632.84	03/23/98	4.44	634.88	06/16/98	5.36	633.96
MW-28	637.21	06/17/1997	5.61	631.6	03/23/98	4.64	632.57	06/16/98	5.14	632.07
MW-29	637.31	06/17/1997	6.65	630.66	03/23/98	6.1	631.21	06/16/98	6.39	630.92
MW-30	640.32	06/17/1997	8.35	631.97	03/23/98	3.94	636.38	06/16/98	5.32	635
MW-31	636.70	06/17/1997	5.3	631.4	03/23/98	2.48	634.22	06/16/98	3.62	633.08
MW-32	641.68	06/17/1997	7.93	633.75	03/23/98	3.84	637.84	06/16/98	6.23	635.45
MW-33	639.56	06/17/1997	7.45	632.11	03/23/98	3.91	635.65	06/16/98	6.17	633.39
MW-34	632.89	06/17/1997	4.63	628.26	03/23/98	2.74	630.15	06/16/98	3.73	629.16
MW-35D	631.82	06/17/1997	Not Measured		03/23/98	2.6	629.22	06/16/98	2.4	629.22
MW-36	631.79	06/17/1997	3.58	628.21	03/23/98	2.60	629.19	06/16/98	2.57	629.22
MW-38D	637.90	06/17/1997	Not Measured		03/23/98	3.48	635.39	06/16/98	3.65	635.39
MW-39	659.54	06/17/1997	2.09	657.45	03/23/98	1.7	657.84	06/16/98	1.82	657.72
MW-40	659.30	06/17/1997	5.78	653.52	03/23/98	3.45	655.85	06/16/98	4.14	655.16
MW-43	657.73	06/17/1997	3.72	654.01	03/23/98	2.6	655.13	06/16/98	2.81	654.92
MW-44A	653.85	06/17/1997	6.9	646.95	03/23/98	3.48	650.37	06/16/98	6.73	647.12
MW-45	650.90	06/17/1997	3.9	647	03/23/98	2.85	648.05	06/16/98	2.83	648.07
MW-46	650.41	06/17/1997	6.06	644.35	03/23/98	2.88	647.53	06/16/98	4.12	646.29
MW-47	628.06	06/17/1997	4.22	623.84	03/23/98	2.3	625.76	06/16/98	3.06	625
MW-48	648.32	06/17/1997	5.3	643.02	03/23/98	2.86	645.46	06/16/98	3.29	645.03
MW-49D	650.50	06/17/1997	5.91	644.59	03/23/98	2.88	647.62	06/16/98	4.07	646.43
MW-50D	649.88	06/17/1997	5.88	644	03/23/98	2.48	647.4	06/16/98	3.99	645.89
MW-51D	628.24	06/17/1997	4.35	623.89	03/23/98	2.35	625.89	06/16/98	3.14	625.1
MW-52D	626.35	06/17/1997	3.62	622.73	03/23/98	2.3	624.05	06/16/98	2.73	623.62
MW-53	639.41	06/17/1997	7.7	631.71	03/23/98	5.78	633.63	06/16/98	7.01	632.4
MW-54D	639.11	06/17/1997	7.69	631.42	03/23/98	5.92	633.19	06/16/98	6.94	632.17
MW-55D	639.16	06/17/1997	7.47	631.69	03/23/98	5.86	633.3	06/16/98	6.84	632.32
MW-56	630.51	06/17/1997	3.48	627.03	03/23/98	3.13	627.38	06/16/98	3.17	627.34
MW-57D	629.82	06/17/1997	2.76	627.06	03/23/98	1.69	628.13	06/16/98	1.95	627.87
MW-58D	629.69	06/17/1997	2.56	627.13	03/23/98	1.32	628.37	06/16/98	1.66	628.03
MW-59	656.83	06/17/1997	2.15	654.68	03/23/98	2.13	654.7	06/16/98	2	654.83
MW-60	660.15	06/17/1997	2.98	657.17	03/23/98	1.95	658.2	06/16/98	2.14	658.01
MWT-1	637.24									
MWT-2	637.19									
MWT-3	637.31									
MWT-4	637.68									
MWT-5	637.72									
MWT-6	637.59									
MWT-7	638.34									
MWT-8	638.40									
MWT-9	638.08									
MWT-10	636.07									
MWT-11	635.90									

**APPENDIX B  
HISTORICAL GROUNDWATER ELEVATION DATA  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY**

Monitoring Well	Top of Riser Elevation (ft)	Round 13 - Sept 1998			Round 14 - Oct 1999 (initial)			Round 14 - Oct 1999 (final)		
		Date	Depth to Groundwater (ft)	Water Level Elevation (ft)	Date	Depth to Groundwater (ft)	Water Level Elevation (ft)	Date	Depth to Groundwater (ft)	Water Level Elevation (ft)
PT-11	658.22	09/18/98	9.57	648.65	10/07/1999	10.03	648.19	10/27/1999	9.39	648.83
PT-12A	652.15	09/18/98	9.29	642.86	10/07/1999	7.00	645.15	10/27/1999	7.60	644.55
PT-15	637.76	09/18/98	9.82	627.94	10/07/1999	10.36	627.4	10/27/1999	DRY	
PT-16	637.51	09/18/98	6.52	630.99	10/07/1999	7.20	630.31	10/27/1999	6.64	630.87
PT-17	640.14	09/18/98	9.96	630.18	10/07/1999	7.26	632.88	10/27/1999	7.90	632.24
PT-18	656.68	09/18/98	9.06	647.62	10/07/1999	9.40	647.28	10/27/1999	8.23	648.45
PT-19	645.26	09/18/98	7.83	637.43	10/07/1999	7.33	637.93	10/27/1999	7.22	638.04
PT-20	647.28	09/18/98	9.87	637.41	10/07/1999	7.58	639.7	10/27/1999	7.60	639.68
PT-21A	647.73	09/18/98	9.79	637.94	10/07/1999	9.12	638.61	10/27/1999	8.14	639.59
MW-22	648.61	09/18/98	10.35	638.26	10/07/1999	9.80	638.81	10/27/1999	8.65	639.96
PT-23	641.58	09/18/98	8.47	633.11	10/07/1999	7.92	633.66	10/27/1999	7.76	633.82
PT-24	636.40	09/18/98	7.1	629.3	10/07/1999	7.44	628.96	10/27/1999	6.12	630.28
PT-25	637.09	09/18/98	11.35	625.74	10/07/1999	8.92	628.17	10/27/1999	8.31	628.78
MW-27	639.32	09/18/98	7.67	631.65	10/07/1999	5.92	633.4	10/27/1999	6.64	632.68
MW-28	637.21	09/18/98	7.46	629.75	10/07/1999	7.44	629.77	10/27/1999	6.36	630.85
MW-29	637.31	09/18/98	9.9	627.41	10/07/1999	10.01	627.3	10/27/1999	8.00	629.31
MW-30	640.32	09/18/98	10.44	629.88	10/07/1999	8.94	631.38	10/27/1999	9.30	631.02
MW-31	636.70	09/18/98	9.68	627.02	10/07/1999	7.91	628.79	10/27/1999	7.29	629.41
MW-32	641.68	09/18/98	8.98	632.7	10/07/1999	7.55	634.13	10/27/1999	8.30	633.38
MW-33	639.56	09/18/98	9.84	629.72	10/07/1999	8.74	630.82	10/27/1999	9.50	630.06
MW-34	632.89	09/18/98	10.53	622.36	10/07/1999	10.42	622.47	10/27/1999	9.10	623.79
MW-35D	631.82	09/18/98	7.2	624.62	10/07/1999	6.86	624.96	10/27/1999	5.20	626.62
MW-36	631.79	09/18/98	7.81	623.98	10/07/1999	7.57	624.22	10/27/1999	5.63	626.16
MW-38D	637.90	09/18/98	7.29	630.61	10/07/1999	7.78	630.12	10/27/1999	7.28	630.62
MW-39	659.54	09/18/98	6.47	653.07	10/07/1999	3.98	655.56	10/27/1999	3.74	655.8
MW-40	659.30	09/18/98	8.22	651.08	10/07/1999	7.96	651.34	10/27/1999	6.62	652.68
MW-43	657.73	09/18/98	6.5	651.23	10/07/1999	7.00	650.73	10/27/1999	5.86	651.87
MW-44A	653.85	09/18/98	10.42	643.43	10/07/1999	11.43	642.42	10/27/1999	10.08	643.77
MW-45	650.90	09/18/98	6.93	643.97	10/07/1999	7.78	643.12	10/27/1999	4.99	645.91
MW-46	650.41	09/18/98	8.49	641.92	10/07/1999	8.84	641.57	10/27/1999	7.35	643.06
MW-47	628.06	09/18/98	8.18	619.88	10/07/1999	7.70	620.36	10/27/1999	5.42	622.64
MW-48	648.32	09/18/98	7.42	640.9	10/07/1999	7.78	640.54	10/27/1999	6.70	641.62
MW-49D	650.50	09/18/98	7.32	643.18	10/07/1999	8.74	641.76	10/27/1999	7.32	643.18
MW-50D	649.88	09/18/98	7.27	642.61	10/07/1999	8.48	641.4	10/27/1999	16.00	633.88
MW-51D	628.24		Not Measured		10/07/1999	7.75	620.49	10/27/1999	5.60	622.64
MW-52D	626.35	09/18/98	7.68	618.67	10/07/1999	7.24	619.11	10/27/1999	5.10	621.25
MW-53	639.41	09/18/98	9.95	629.46	10/07/1999	9.48	629.93	10/27/1999	8.72	630.69
MW-54D	639.11	09/18/98	10.4	628.71	10/07/1999	9.52	629.59	10/27/1999	8.58	630.53
MW-55D	639.16	09/18/98	10.06	629.1	10/07/1999	9.40	629.76	10/27/1999	11.20	627.96
MW-56	630.51	09/18/98	8.85	621.66	10/07/1999	5.61	624.9	10/27/1999	4.42	626.09
MW-57D	629.82	09/18/98	8.06	621.76	10/07/1999	4.67	625.15	10/27/1999	3.52	626.3
MW-58D	629.69	09/18/98	4.9	624.79	10/07/1999	4.46	625.23	10/27/1999	3.33	626.36
MW-59	656.83	09/18/98	5.83	651	10/07/1999	5.10	651.73	10/27/1999	4.19	652.64
MW-60	660.15	09/18/98	6.9	653.25	10/07/1999	3.32	656.83	10/27/1999	3.86	656.29
MWT-1	637.24									
MWT-2	637.19									
MWT-3	637.31									
MWT-4	637.68									
MWT-5	637.72									
MWT-6	637.59									
MWT-7	638.34									
MWT-8	638.40									
MWT-9	638.08									
MWT-10	636.07									
MWT-11	635.90									

**APPENDIX B  
HISTORICAL GROUNDWATER ELEVATION DATA  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY**

Monitoring Well	Top of Riser Elevation (ft)	Round 15 - Jan 2000			Round 16 - August 2001				Round 17 - April 2002			
		Date	Depth to Groundwater r (ft)	Water Level Elevation (ft)	Date Measured	Saturated Thickness (ft)	Depth to Groundwater r (ft)	Water Level Elevation (ft)	Date Measured	Saturated Thickness (ft)	Depth to Groundwater r (ft)	Water Level Elevation (ft)
PT-11	658.22	01/03/2000	5.36	652.86	08/27/2001	9.12	10.43	647.79	04/08/2002	14.77	4.78	653.44
PT-12A	652.15	01/03/2000	6.62	645.53	08/27/2001	3.49	9.89	642.26	04/08/2002	9.22	4.16	647.99
PT-15	637.76	01/03/2000	6.04	631.72	08/27/2001	9.12	10.38	627.38	04/08/2002	15.35	4.15	633.61
PT-16	637.51	01/03/2000	3.10	634.41	08/27/2001	3.36	7.68	629.83	04/08/2002	7.12	3.92	633.59
PT-17	640.14	01/03/2000	5.08	635.06	08/27/2001	0.56	11.09	629.05	04/08/2002	7.12	4.53	635.61
PT-18	656.68	01/03/2000	6.34	650.34	08/28/2001	1.32	10.38	646.30	04/08/2002	6.84	4.86	651.82
PT-19	645.26	01/03/2000	3.94	641.32	08/27/2001	3.01	8.69	636.57	04/08/2002	8.71	2.99	642.27
PT-20	647.28	01/03/2000	6.76	640.52	08/27/2001	0.00	Dry		04/08/2002	5.81	5.99	641.29
PT-21A	647.73	01/03/2000	7.08	640.65	08/27/2001	8.95	10.51	637.22	04/08/2002	14.02	5.44	642.29
MW-22	648.61	01/03/2000	7.54	641.07	08/27/2001	0.71	11.10	637.51	04/08/2002	5.88	5.93	642.68
PT-23	641.58	01/03/2000	4.10	637.48	08/27/2001	2.85	9.23	632.35	04/08/2002	8.20	3.88	637.7
PT-24	636.40	01/03/2000	4.88	631.52	08/27/2001	3.47	8.41	627.99	04/08/2002	7.39	4.49	631.91
PT-25	637.09	01/03/2000	5.26	631.83	08/27/2001	0.00	Dry		04/08/2002	8.13	3.90	633.19
MW-27	639.32	01/03/2000	5.46	633.86	08/27/2001	1.31	9.23	630.09	04/08/2002	5.66	4.88	634.44
MW-28	637.21	01/03/2000	5.16	632.05	08/27/2001	1.89	8.50	628.71	04/09/2002	5.61	4.78	632.43
MW-29	637.31	01/03/2000	6.34	630.97	08/27/2001	0.00	Dry		04/08/2002	5.33	5.21	632.1
MW-30	640.32	01/03/2000	6.76	633.56	08/27/2001	0.00	Dry		04/10/2002	5.74	4.78	635.54
MW-31	636.70	01/03/2000	4.48	632.22	08/27/2001	0.00	Dry		04/08/2002	7.41	2.94	633.76
MW-32	641.68	01/03/2000	6.16	635.52	08/27/2001	0.00	Dry		04/08/2002	6.13	4.24	637.44
MW-33	639.56	01/03/2000	6.04	633.52	08/27/2001	0.00	Dry		04/08/2002	6.13	4.26	635.3
MW-34	632.89	01/03/2000	4.64	628.25	NA	NA	Not Measured		04/08/2002	14.30	3.85	629.04
MW-35D	631.82	01/03/2000	2.76	629.06	NA	NA	Not Measured		04/08/2002	53.72	2.92	628.9
MW-36	631.79	01/03/2000	2.94	628.85	08/28/2001	7.05	9.53	622.26	04/08/2002	12.97	3.61	628.18
MW-38D	637.90	01/03/2000	3.78	634.12	NA	NA	Not Measured		04/08/2002	28.63	3.61	634.29
MW-39	659.54	01/03/2000	1.94	657.6	08/27/2001	2.82	9.07	650.47	04/08/2002	10.02	1.87	657.67
MW-40	659.30	01/03/2000	4.08	655.22	08/28/2001	5.57	9.14	650.16	04/08/2002	10.95	3.76	655.54
MW-43	657.73	01/03/2000	2.84	654.89	NA	NA	Not Measured		04/08/2002	4.55	2.92	654.81
MW-44A	653.85	01/03/2000	5.50	648.35	08/27/2001	1.60	10.88	642.97	04/08/2002	8.46	4.02	649.83
MW-45	650.90	01/03/2000	2.78	648.12	08/27/2001	NA	Not Measured		04/08/2002	5.60	2.74	648.16
MW-46	650.41	01/03/2000	4.18	646.23	08/27/2001	2.16	9.29	641.12	04/08/2002	8.11	3.34	647.07
MW-47	628.06	01/03/2000	3.32	624.74	08/28/2001	0.41	8.15	619.91	04/08/2002	5.65	2.91	625.15
MW-48	648.32	01/03/2000	3.32	645	08/27/2001	3.12	8.38	639.94	04/08/2002	8.60	2.90	645.42
MW-49D	650.50	01/03/2000	4.10	646.4	NA	NA	Not Measured		04/08/2002	34.24	3.30	647.2
MW-50D	649.88	01/03/2000	5.90	643.98	NA	NA	Not Measured		04/08/2002	56.36	3.30	646.58
MW-51D	628.24	01/03/2000	3.48	624.76	NA	NA	Not Measured		04/08/2002	33.07	3.80	624.44
MW-52D	626.35	01/03/2000	2.18	624.17	NA	NA	Not Measured		04/08/2002	56.79	2.57	623.78
MW-53	639.41	01/03/2000	6.70	632.71	08/27/2001	0.45	9.90	629.51	04/08/2002	4.78	5.57	633.84
MW-54D	639.11	01/03/2000	6.74	632.37	NA	NA	Not Measured		04/08/2002	29.31	5.68	633.43
MW-55D	639.16	01/03/2000	6.68	632.48	NA	NA	Not Measured		04/08/2002	52.43	5.75	633.41
MW-56	630.51	01/03/2000	3.46	627.05	08/28/2001	0.32	6.56	623.95	04/10/2002	3.13	3.75	626.76
MW-57D	629.82	01/03/2000	2.30	627.52	NA	NA	Not Measured		04/08/2002	33.13	1.96	627.86
MW-58D	629.69	01/03/2000	2.06	627.63	NA	NA	Not Measured		04/08/2002	55.67	1.62	628.07
MW-59	656.83	01/03/2000	2.16	654.67	08/27/2001	2.12	6.98	649.85	04/08/2002	6.89	2.21	654.62
MW-60	660.15	01/03/2000	2.16	657.99	08/27/2001	1.58	7.92	652.23	04/08/2002	7.40	2.10	658.05
MWT-1	637.24				08/27/2001	1.57	8.18	629.06	04/09/2002	4.98	4.77	632.47
MWT-2	637.19				NA	NA	Not Measured		04/08/2002	4.63	4.92	632.27
MWT-3	637.31				08/27/2001	1.68	8.32	628.99	04/09/2002	4.89	5.11	632.2
MWT-4	637.68				08/27/2001	2.03	10.40	627.28	04/09/2002	7.22	5.21	632.47
MWT-5	637.72				NA	NA	Not Measured		04/08/2002	6.68	5.27	632.45
MWT-6	637.59				08/27/2001	1.93	10.35	627.24	04/09/2002	7.07	5.21	632.38
MWT-7	638.34				08/27/2001	2.21	11.76	626.58	04/09/2002	8.50	5.47	632.87
MWT-8	638.40				NA	NA	Not Measured		04/08/2002	6.73	5.82	632.58
MWT-9	638.08				08/27/2001	2.10	12.04	626.04	04/09/2002	8.48	5.66	632.42
MWT-10	636.07				08/27/2001	2.43	6.52	629.55	04/09/2002	5.11	3.84	632.23
MWT-11	635.90				08/28/2001	0.97	8.98	626.92	04/10/2002	7.00	2.95	632.95

**APPENDIX B**  
**HISTORICAL GROUNDWATER ELEVATION DATA**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**

Monitoring Well	Top of Riser Elevation (ft)	Round 18 - August 2002				Round 19 - March 2003				Round 20 - July 2003			
		Date Measured	Saturated Thickness (ft)	Depth to Groundwater (ft)	Water Level Elevation (ft)	Date Measured	Saturated Thickness (ft)	Depth to Groundwater (ft)	Water Level Elevation (ft)	Date Measured	Saturated Thickness (ft)	Depth to Groundwater (ft)	Water Level Elevation (ft)
PT-11	658.22	08/15/2002	9.25	10.30	647.92					7/7/03	11.82	7.73	650.49
PT-12A	652.15	08/15/2002	3.87	9.51	642.64	3/14/03	8.13	5.25	646.9	7/7/03	4.91	8.47	643.68
PT-15	637.76	08/15/2002	9.40	10.10	627.66					7/7/03	11.46	8.04	629.72
PT-16	637.51	08/15/2002	3.89	7.15	630.36					7/7/03	6.17	4.87	632.64
PT-17	640.14	08/15/2002	0.90	10.75	629.39	3/14/03	7.02	4.63	635.51	7/7/03	3.55	8.10	632.04
PT-18	656.68	08/15/2002	3.07	8.63	648.05	3/14/03	6.48	5.22	651.46				
PT-19	645.26	08/15/2002	1.45	10.25	635.01	3/14/03	10.05	1.65	643.61	7/7/03	4.93	6.77	638.49
PT-20	647.28	08/15/2002		Dry		3/14/03	6.05	5.75	641.53	7/7/03	2.69	9.11	638.17
PT-21A	647.73	08/15/2002	9.21	10.25	637.48	3/14/03	13.79	5.67	642.06	7/7/03	10.52	8.94	638.79
MW-22	648.61	08/15/2002	0.96	10.85	637.76	3/14/03	5.61	6.2	642.41	7/7/03	2.23	9.58	639.03
PT-23	641.58	NA	NA	Not Measured		3/14/03	7.92	4.16	637.42	7/7/03	4.39	7.69	633.89
PT-24	636.40	08/15/2002	4.53	7.35	629.05	3/14/03	7.24	4.64	631.76	7/7/03	6.36	5.52	630.88
PT-25	637.09	08/15/2002	0.58	11.45	625.64	3/14/03	8.01	4.02	633.07	7/7/03	4.54	7.49	629.6
MW-27	639.32	08/15/2002	1.69	8.85	630.47	3/14/03	5.39	5.15	634.17	7/7/03	3.70	6.84	632.48
MW-28	637.21	08/15/2002	2.79	7.60	629.61	3/14/03	5.70	4.69	632.52	7/7/03	4.51	5.88	631.33
MW-29	637.31	08/15/2002	0.99	9.55	627.76	3/14/03	5.28	5.26	632.05	7/7/03	4.00	6.54	630.77
MW-30	640.32	08/15/2002		Dry		3/14/03	6.62	3.9	636.42	7/7/03	0.95	9.57	630.75
MW-31	636.70	08/15/2002		Dry		3/14/03	7.36	2.99	633.71	7/7/03	3.66	6.69	630.01
MW-32	641.68	08/15/2002		Dry		3/14/03	6.12	4.25	637.43	7/7/03	1.30	9.07	632.61
MW-33	639.56	08/15/2002		Dry		3/14/03	6.06	4.33	635.23	7/7/03	0.86	9.53	630.03
MW-34	632.89	NA	NA	Not Measured									
MW-35D	631.82	NA	NA	Removed						7/7/03	52.52	4.12	627.7
MW-36	631.79	NA	NA	Removed		3/14/03	13.91	2.67	629.12	7/7/03	12.57	4.01	627.78
MW-38D	637.90	08/15/2002	24.44	7.80	630.1					7/7/03	26.74	5.50	632.4
MW-39	659.54	NA	NA	Not Measured						7/7/03	7.42	4.47	655.07
MW-40	659.30	NA	NA	Not Measured		3/14/03	10.97	3.74	655.56	7/7/03	7.98	6.73	652.57
MW-43	657.73	08/15/2002	0.52	6.95	650.78	3/14/03	5.10	2.37	655.36	7/7/03	2.23	5.24	652.49
MW-44A	653.85	08/15/2002	1.81	10.67	643.18	3/14/03	7.74	4.74	649.11	7/7/03	4.56	7.92	645.93
MW-45	650.90	08/15/2002	0.74	7.60	643.3	3/14/03	6.24	2.1	648.8	7/7/03	2.02	6.32	644.58
MW-46	650.41	08/15/2002	2.31	9.14	641.27	3/14/03	9.07	2.38	648.03	7/7/03	4.00	7.45	642.96
MW-47	628.06	08/15/2002	0.39	8.17	619.89	3/14/03	6.21	2.35	625.71	7/7/03	3.03	5.53	622.53
MW-48	648.32	08/15/2002	3.65	7.85	640.47	3/14/03	8.75	2.75	645.57	7/7/03	5.18	6.32	642
MW-49D	650.50	08/15/2002	28.59	8.95	641.55					7/7/03	30.29	7.25	643.25
MW-50D	649.88	08/15/2002	50.96	8.70	641.18					7/7/03	52.58	7.08	642.8
MW-51D	628.24	NA	NA	Not Measured						7/7/03	31.05	5.82	622.42
MW-52D	626.35	NA	NA	Not Measured						7/7/03	54.06	5.30	621.05
MW-53	639.41	08/15/2002	0.45	9.90	629.51	3/14/03	4.69	5.66	633.75	7/7/03	2.71	7.64	631.77
MW-54D	639.11	08/15/2002	24.54	10.45	628.66					7/7/03	27.39	7.60	631.51
MW-55D	639.16	08/15/2002	47.98	10.20	628.96					7/7/03	50.41	7.77	631.39
MW-56	630.51	08/15/2002	0.00	Dry		3/14/03	3.88	3	627.51	7/7/03	2.09	4.79	625.72
MW-57D	629.82	08/15/2002	29.14	5.95	623.87					7/7/03	31.02	4.07	625.75
MW-58D	629.69	08/15/2002	51.54	5.75	623.94					7/7/03	53.44	3.85	625.84
MW-59	656.83	NA	NA	Not Measured						7/7/03	5.11	3.99	652.84
MW-60	660.15	08/15/2002	2.30	7.20	652.95					7/7/03	5.12	4.38	655.77
MWT-1	637.24	08/15/2002	2.55	7.20	630.04	3/14/03	4.83	4.92	632.32	7/7/03	4.29	5.46	631.78
MWT-2	637.19	08/15/2002	2.30	7.25	629.94	3/14/03	4.45	5.1	632.09	7/7/03	4.00	5.55	631.64
MWT-3	637.31	08/15/2002	2.65	7.35	629.96	3/14/03	4.72	5.28	632.03	7/7/03	4.31	5.69	631.62
MWT-4	637.68	08/15/2002	3.68	8.75	628.93	3/14/03	7.33	5.1	632.58	7/7/03	6.13	6.30	631.38
MWT-5	637.72	08/15/2002	2.90	9.05	628.67	3/14/03	6.60	5.35	632.37	7/7/03	5.32	6.63	631.09
MWT-6	637.59	08/15/2002	3.28	9.00	628.59	3/14/03	7.01	5.27	632.32	7/7/03	5.70	6.58	631.01
MWT-7	638.34	08/15/2002	3.72	10.25	628.09	3/14/03	8.55	5.42	632.92	7/7/03	7.00	6.97	631.37
MWT-8	638.40	08/15/2002	2.10	10.45	627.95	3/14/03	10.05	2.5	635.9	7/7/03	5.10	7.45	630.95
MWT-9	638.08	NA	NA	Not Measured		3/14/03	8.46	5.68	632.4	7/7/03	6.93	7.21	630.87
MWT-10	636.07	08/15/2002	3.20	5.75	630.32	3/14/03	4.95	4	632.07	7/7/03	4.50	4.45	631.62
MWT-11	635.90	08/15/2002	1.74	8.21	627.69	3/14/03	7.87	2.08	633.82	7/7/03	5.12	4.83	631.07

**APPENDIX B**  
**HISTORICAL GROUNDWATER ELEVATION DATA**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**

Monitoring Well	Top of Riser Elevation (ft)	Round 21 - Oct 2003				Round 22 - March 2004			
		Date Measured	Saturated Thickness (ft)	Depth to Groundwater r (ft)	Water Level Elevation (ft)	Date Measured	Saturated Thickness (ft)	Depth to Groundwater r (ft)	Water Level Elevation (ft)
PT-11	658.22	10/8/03	9.05	10.5	647.72	3/29/04	14.72	4.59	653.63
PT-12A	652.15	10/8/03	3.43	9.95	642.2	3/29/04	9.32	3.13	649.02
PT-15	637.76	10/8/03	19.50		637.76	3/29/04	15.42	3.92	633.84
PT-16	637.51	10/8/03	3.80	7.24	630.27	3/29/04	7.86	3.01	634.5
PT-17	640.14	10/8/03	1.65	10	630.14	3/29/04	7.08	4.35	635.79
PT-18	656.68	10/8/03	1.86	9.84	646.84	3/29/04	7.22	4.43	652.25
PT-19	645.26	10/8/03	3.68	8.02	637.24	3/29/04	9.16	2.29	642.97
PT-20	647.28	10/8/03	1.35	10.45	636.83	3/29/04	6.35	5.28	642
PT-21A	647.73	10/8/03	8.74	10.72	637.01	3/29/04	15.83	4.32	643.41
MW-22	648.61	10/8/03	0.67	11.14	637.47	3/29/04	5.85	5.91	642.7
PT-23	641.58	10/8/03	3.18	8.9	632.68	3/29/04	7.9	3.9	637.68
PT-24	636.40	10/8/03	3.28	8.6	627.8	3/29/04	7.25	4.44	631.96
PT-25	637.09	10/8/03	0.52	11.51	625.58	3/29/04	8.04	3.79	633.3
MW-27	639.32	10/8/03	2.75	7.79	631.53	3/29/04	5.84	4.51	634.81
MW-28	637.21	10/8/03	2.57	7.82	629.39	3/29/04	6.19	4.16	633.05
MW-29	637.31	10/8/03	0.74	9.8	627.51	3/29/04	5.53	4.77	632.54
MW-30	640.32	10/8/03		DRY		3/29/04	6.03	4.28	636.04
MW-31	636.70	10/8/03	0.55	9.8	626.9	3/29/04	7.59	2.7	634
MW-32	641.68	10/8/03	1.39	8.98	632.7	3/29/04	6.01	4.2	637.48
MW-33	639.56	10/8/03		DRY		3/29/04	5.96	4.21	635.35
MW-34	632.89	10/8/03	18.15		632.89	3/29/04	16.11	2.83	630.06
MW-35D	631.82	10/8/03	49.77	6.87	624.95	3/29/04	54.97	2.23	629.59
MW-36	631.79	10/8/03	9.78	6.8	624.99	3/29/04	13.84	2.53	629.26
MW-38D	637.90	10/8/03	24.50	7.74	630.16	3/29/04	28.64	3.55	634.35
MW-39	659.54	10/8/03	4.31	7.58	651.96	3/29/04	9.92	1.81	657.73
MW-40	659.30	10/8/03	5.81	8.9	650.4	3/29/04	11.03	3.47	655.83
MW-43	657.73	10/8/03	0.47	7	650.73	3/29/04	4.5	2.9	654.83
MW-44A	653.85	10/8/03	1.52	10.96	642.89	3/29/04	8.99	3.32	650.53
MW-45	650.90	10/8/03	0.57	7.77	643.13	3/29/04	5.19	2.96	647.94
MW-46	650.41	10/8/03	2.20	9.25	641.16	3/29/04	8.36	2.96	647.45
MW-47	628.06	10/8/03	0.37	8.19	619.87	3/29/04	5.5	2.82	625.24
MW-48	648.32	10/8/03	3.56	7.94	640.38	3/29/04	8.53	2.85	645.47
MW-49D	650.50	10/8/03	28.55	8.99	641.51	3/29/04	34.71	2.91	647.59
MW-50D	649.88	10/8/03	50.69	8.97	640.91	3/29/04	56.04	2.87	647.01
MW-51D	628.24	10/9/03	Not Measured (bees nest)			3/29/04	33.57	3.07	625.17
MW-52D	626.35	10/8/03	51.62	7.74	618.61	3/29/04	56.85	2.37	623.98
MW-53	639.41	10/8/03	0.40	9.95	629.46	3/29/04	4.95	5.25	634.16
MW-54D	639.11	10/8/03	24.44	10.55	628.56	3/29/04	29.85	5.29	633.82
MW-55D	639.16	10/8/03	47.95	10.23	628.93	3/29/04	52.76	5.39	633.77
MW-56	630.51	10/8/03	0.96	5.92	624.59	3/29/04	3.38	2.93	627.58
MW-57D	629.82	10/8/03	29.74	5.35	624.47	3/29/04	33.2	1.72	628.1
MW-58D	629.69	10/8/03	52.14	5.15	624.54	3/29/04	55.87	1.33	628.36
MW-59	656.83	10/8/03	2.28	6.82	650.01	3/29/04	7.58	2.27	654.56
MW-60	660.15	10/8/03	1.80	7.7	652.45	3/29/04	7.98	2.1	658.05
MWT-1	637.24	10/8/03	2.47	7.28	629.96	3/29/04	5.63	4.28	632.96
MWT-2	637.19	10/8/03	2.25	7.3	629.89	3/29/04	3.64	5.8	631.39
MWT-3	637.31	10/8/03	2.55	7.45	629.86	3/29/04	4.96	4.96	632.35
MWT-4	637.68	10/8/03	3.53	8.9	628.78	3/29/04	7.78	4.5	633.18
MWT-5	637.72	10/8/03	2.73	9.22	628.5	3/29/04	5.78	6.04	631.68
MWT-6	637.59	10/8/03	3.08	9.2	628.39	3/29/04	6.33	5.99	631.6
MWT-7	638.34	10/8/03	3.70	10.27	628.07	3/29/04	8.62	4.84	633.5
MWT-8	638.40	10/8/03	1.88	10.67	627.73	3/29/04	6.72	5.59	632.81
MWT-9	638.08	10/8/03	3.48	10.66	627.42	3/29/04	6.59	5.38	632.7
MWT-10	636.07	10/8/03	3.30	5.65	630.42	3/29/04	5.19	3.61	632.46
MWT-11	635.90	10/8/03	2.13	7.82	628.08	3/29/04	8.03	1.77	634.13

**APPENDIX B  
HISTORICAL GROUNDWATER ELEVATION DATA  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY**

Monitoring Well	Top of Riser Elevation (ft)	Round 23 - August 2004				Historical Data			
		Date Measured	Saturated Thickness (ft)	Depth to Groundwater (ft)	Water Level Elevation (ft)	Groundwater Elevation (ft)			Well Depth (ft)
						Maximum	Minimum	Range	
PT-11	658.22	08/23/04	13.33	5.98	652.24	654.03	647.72	6.31	19.55
PT-12A	652.15	08/23/04	4.4	8.05	644.1	649.02	642.20	6.82	13.38
PT-15	637.76		could not be locate			637.76	627.38	10.38	19.50
PT-16	637.51	08/24/04	6.63	4.24	633.27	634.85	629.83	5.02	11.04
PT-17	640.14	08/23/04	6.23	5.2	634.94	635.85	629.05	6.80	11.65
PT-18	656.68	08/23/04	5.03	6.62	650.06	652.28	646.30	5.98	11.70
PT-19	645.26	08/23/04	5.51	5.94	639.32	643.61	635.01	8.60	11.70
PT-20	647.28	08/23/04	3.93	7.7	639.58	642.34	636.83	5.51	11.80
PT-21A	647.73	08/23/04	11.62	8.53	639.2	643.84	637.01	6.83	19.46
MW-22	648.61	08/23/04	2.61	9.15	639.46	644.30	637.47	6.83	11.81
PT-23	641.58	08/24/04	5.13	6.67	634.91	638.14	632.35	5.79	12.08
PT-24	636.40		Bees prevented measurement			632.76	627.80	4.96	11.88
PT-25	637.09	08/23/04	4.98	6.85	630.24	633.51	625.58	7.93	12.03
MW-27	639.32	08/23/04	4	6.35	632.97	634.88	630.09	4.79	10.54
MW-28	637.21	08/23/04	4.95	5.4	631.81	633.05	628.71	4.34	10.39
MW-29	637.31	08/24/04	4.36	5.94	631.37	632.54	627.30	5.24	10.54
MW-30	640.32	08/24/04	1.71	8.6	631.72	636.42	629.88	6.54	10.52
MW-31	636.70	08/23/04	4.29	6	630.7	634.22	626.90	7.32	10.35
MW-32	641.68	08/23/04	2.28	7.93	633.75	637.84	632.61	5.23	10.37
MW-33	639.56	08/23/04	1.41	8.76	630.8	635.65	629.72	5.93	10.39
MW-34	632.89		could not be locate			632.89	622.36	10.53	18.15
MW-35D	631.82	08/24/04	53.89	3.31	628.51	629.59	624.62	4.97	56.64
MW-36	631.79	08/24/04	12.95	3.42	628.37	629.47	622.26	7.21	16.58
MW-38D	637.90	08/23/04	27.56	4.63	633.27	635.39	628.99	6.40	32.24
MW-39	659.54		could not be locate			657.84	650.47	7.37	11.89
MW-40	659.30	08/24/04	8.72	5.78	653.52	655.85	650.16	5.69	14.71
MW-43	657.73	08/23/04	3.52	3.88	653.85	655.36	650.73	4.63	7.47
MW-44A	653.85	08/23/04	6	6.31	647.54	650.53	642.42	8.11	12.48
MW-45	650.90	08/23/04	4.05	4.1	646.8	648.80	643.12	5.68	8.34
MW-46	650.41	08/23/04	5.2	6.12	644.29	648.03	641.12	6.91	11.45
MW-47	628.06	08/24/04	3.64	4.68	623.38	625.76	619.87	5.89	8.56
MW-48	648.32	08/23/04	6.73	4.65	643.67	645.57	639.94	5.63	11.50
MW-49D	650.50	08/23/04	31.86	5.76	644.74	647.62	641.51	6.11	37.54
MW-50D	649.88	08/23/04	53.44	5.47	644.41	647.40	633.88	13.52	59.66
MW-51D	628.24		Bees prevented measurement			628.24	620.49	7.75	36.87
MW-52D	626.35	08/24/04	55.22	4	622.35	624.17	618.61	5.56	59.36
MW-53	639.41	08/23/04	3.2	7	632.41	634.16	629.46	4.70	10.35
MW-54D	639.11	08/23/04	28.2	6.94	632.17	633.82	628.56	5.26	34.99
MW-55D	639.16	08/23/04	51.07	7.08	632.08	633.77	627.96	5.81	58.18
MW-56	630.51	08/24/04	2.69	3.62	626.89	627.58	621.66	5.92	6.88
MW-57D	629.82	08/24/04	32.1	2.82	627	628.13	621.76	6.37	35.09
MW-58D	629.69		Lock jammed by ants in key hole			628.37	623.94	4.43	57.29
MW-59	656.83	08/23/04	7.1	2.75	654.08	654.93	649.85	5.08	9.10
MW-60	660.15	08/23/04	7.12	2.96	657.19	658.20	652.23	5.97	9.50
MWT-1	637.24	08/23/04	4.91	5	632.24	632.96	629.06	3.90	9.75
MWT-2	637.19	08/27/04	4.14	5.3	631.89	632.27	629.89	2.38	9.55
MWT-3	637.31		Bees prevented measurement			632.35	628.99	3.36	10.00
MWT-4	637.68	08/23/04	6.71	5.57	632.11	633.18	627.28	5.90	12.43
MWT-5	637.72	08/23/04	5.59	6.23	631.49	632.45	628.50	3.95	11.95
MWT-6	637.59	08/23/04	6.11	6.21	631.38	632.38	627.24	5.14	12.28
MWT-7	638.34	08/23/04	7.26	6.2	632.14	633.50	626.58	6.92	13.97
MWT-8	638.40	08/23/04	5.29	7.02	631.38	635.90	627.73	8.17	12.55
MWT-9	638.08	08/23/04	5.2	6.77	631.31	632.70	626.04	6.66	14.14
MWT-10	636.07	08/23/04	4.68	4.12	631.95	632.46	629.55	2.91	8.95
MWT-11	635.90	08/23/04	5.86	3.94	631.96	634.13	626.92	7.21	9.95

## **APPENDIX C**

### **ROUND 23 – AUGUST 2004 LABORATORY REPORTS**

Chemtech Consulting Group, Inc. (Chemtech)

SDG S4414 – VOC 524 Analysis  
SDG S4414 – Metals Analysis  
SDG S4414 – MEE Analysis

SDG S4436 – VOC 524 Analysis  
SDG S4436 – VOC 8260 Analysis  
SDG S4436 – Metals Analysis  
SDG S4436 – MEE Analysis



**DATA PACKAGE FOR  
VOLATILE ORGANICS**

**PROJECT NAME: Seneca Ash Landfill Quarterly Monitoring**

**PARSONS ENGINEERING  
100 SUMMER STREET  
SUITE 800  
BOSTON, MA 02110  
6174577900**

**CHEMTECH PROJECT NO.  
ATTENTION:**

**S4414  
Jennifer Rossmann**

# CHEMTECH

## CASE NARRATIVE

**Parsons Engineering**

**Project Name: Seneca Ash Landfill Quarterly Monitoring**

**Project # 743155**

**Chemtech Project # S4414**

**A. Number of Samples and Date of Receipt:**

15 Water samples were received on 8/28/04.

**B. Parameters**

According to the Chain of Custody document, the following analyses were requested: Gases methane, ethane, ethene, Metals Group3, and Volatiles Method 524.2 + 15. This data package contains results for Volatiles Method 524.2 + 15

**C. Analytical Techniques:**

The analysis performed on instrument MSVOA F were done using GC column RTX624, which is 75 meters, 0.53 ID, 3.0 df, Restek Cat. #10974. The Trap was supplied by Supelco, VOCARB 3000, Tekmar 2000 Concentrator.

**D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The surrogate recoveries met the acceptable criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The MS recoveries met the requirements for all compounds except for Iodomethane, cis-1,2-Dichloroethene and Dichlorodifluoromethane.

The MSD recoveries met the acceptable requirements except for Iodomethane and t-1,3-Dichloropropene.

The RPD recoveries met criteria for all samples except for 1,1-Dichloroethene, cis-1,2-Dichloroethene, Benzene, Trichloroethene, Toluene and Naphthalene.

The Blank Spike met requirements for all samples except for Acetone and Methylene Chloride

The Blank analysis indicated presence of Acetone and Methylene Chloride due to possible lab contamination.

The calibration met the requirements.

The Tuning criteria met requirements.

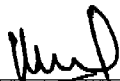
**D. Additional Comments:**

Samples TR2156, TR2153, TR2151, TR2152, TR2159 and TR216 were diluted due to high concentrations.

# CHEMTECH

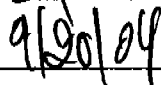
I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature



Name: Krupa Dubey

Date:



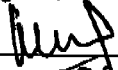
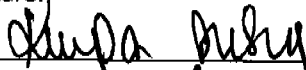
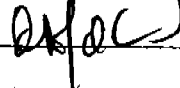
Title: QA/QC

**COVER PAGE**

**OrderID:** S4414      **ProjectID:** Seneca Ash Landfill Quarter1  
**CustomerName:** Parsons Engineering

LAB SAMPLE NO.	CLIENT SAMPLE NO
S4414-01	TR2154
S4414-02	TR2156
S4414-03	TR2155
S4414-04	TR2149
S4414-05	TR2153
S4414-06	TR2151
S4414-07	TR2152
S4414-08	TR2159
S4414-09	TR2159MS
S4414-10	TR2159MSD
S4414-11	TR2160
S4414-12	TR2158
S4414-13	TR2157
S4414-14	TR0055
S4414-15	TR0057

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Signature:  Name:   
Date: 9/20/04 Title: 

## DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following "Results Qualifiers" are used:

- Value**            If the result is a value greater than or equal to the detection limit, report the value
- U**                    Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
- J**                    Indicates an estimated value. This flag is used:
- (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.)
  - (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
- B**                    Indicates the analyte was found in the blank as well as the sample report as "12 B".
- E**                    Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
- D**                    This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- P**                    This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
- N**                    This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
- A**                    This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.

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DATA

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Surrogate Summary  
SW-846

SDG No.: S4414

Client: Parsons Engineering

Analytical Method: EPA SW846 524

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits	
							Low	High
LFB 2 PPB	VLCS01	1,2-Dichlorobenzene-d4	1	1.06	106		80.00	120.00
		4-Bromofluorobenzene	1	1.01	101		80.00	120.00
OC/KNOWN	OC/KNOWN	1,2-Dichlorobenzene-d4	1	1.05	105		80.00	120.00
		4-Bromofluorobenzene	1	0.99	99		80.00	120.00
S4414-01	TR2154	1,2-Dichlorobenzene-d4	1	1.02	102		80.00	120.00
		4-Bromofluorobenzene	1	0.97	97		80.00	120.00
S4414-02	TR2156	1,2-Dichlorobenzene-d4	1	1.02	102		80.00	120.00
		4-Bromofluorobenzene	1	0.97	97		80.00	120.00
S4414-02DL	TR2156DL	1,2-Dichlorobenzene-d4	1	1.02	102		80.00	120.00
		4-Bromofluorobenzene	1	1	100		80.00	120.00
S4414-03	TR2155	1,2-Dichlorobenzene-d4	1	1.04	104		80.00	120.00
		4-Bromofluorobenzene	1	0.97	97		80.00	120.00
S4414-04	TR2149	1,2-Dichlorobenzene-d4	1	1.01	101		80.00	120.00
		4-Bromofluorobenzene	1	0.96	96		80.00	120.00
S4414-05	TR2153	1,2-Dichlorobenzene-d4	1	1.01	101		80.00	120.00
		4-Bromofluorobenzene	1	0.95	95		80.00	120.00
S4414-05DL	TR2153DL	1,2-Dichlorobenzene-d4	1	0.99	99		80.00	120.00
		4-Bromofluorobenzene	1	0.92	92		80.00	120.00
S4414-06	TR2151	1,2-Dichlorobenzene-d4	1	1.05	105		80.00	120.00
		4-Bromofluorobenzene	1	1.01	101		80.00	120.00
S4414-06DL	TR2151DL	1,2-Dichlorobenzene-d4	1	0.95	95		80.00	120.00
		4-Bromofluorobenzene	1	0.9	90		80.00	120.00
S4414-07	TR2152	1,2-Dichlorobenzene-d4	1	1.03	103		80.00	120.00
		4-Bromofluorobenzene	1	0.99	99		80.00	120.00
S4414-07DL	TR2152DL	1,2-Dichlorobenzene-d4	1	1.09	109		80.00	120.00
		4-Bromofluorobenzene	1	0.97	97		80.00	120.00
S4414-08	TR2159	1,2-Dichlorobenzene-d4	1	1.08	108		80.00	120.00
		4-Bromofluorobenzene	1	1.02	102		80.00	120.00
S4414-08DL	TR2159DL	1,2-Dichlorobenzene-d4	1	1.03	103		80.00	120.00
		4-Bromofluorobenzene	1	0.95	95		80.00	120.00
S4414-09MS	TR2159MS	1,2-Dichlorobenzene-d4	1	1.09	109		80.00	120.00
		4-Bromofluorobenzene	1	1.12	112		80.00	120.00
S4414-10MSD	TR2159MSD	1,2-Dichlorobenzene-d4	1	1.05	105		80.00	120.00
		4-Bromofluorobenzene	1	1.11	111		80.00	120.00
S4414-11	TR2160	1,2-Dichlorobenzene-d4	1	0.97	97		80.00	120.00
		4-Bromofluorobenzene	1	0.96	96		80.00	120.00
S4414-11DL	TR2160DL	1,2-Dichlorobenzene-d4	1	1.02	102		80.00	120.00
		4-Bromofluorobenzene	1	0.98	98		80.00	120.00
S4414-12	TR2158	1,2-Dichlorobenzene-d4	1	1.05	105		80.00	120.00
		4-Bromofluorobenzene	1	0.99	99		80.00	120.00
S4414-13	TR2157	1,2-Dichlorobenzene-d4	1	1	100		80.00	120.00
		4-Bromofluorobenzene	1	0.98	98		80.00	120.00



Surrogate Summary  
SW-846

SDG No.: S4414

Client: Parsons Engineering

Analytical Method: EPA SW846 524

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits	
							Low	High
S4414-14	TR0055	1,2-Dichlorobenzene-d4	1	1.03	103		80.00	120.00
		4-Bromofluorobenzene	1	0.96	96		80.00	120.00
S4414-15	TR0057	1,2-Dichlorobenzene-d4	1	1.01	101		80.00	120.00
		4-Bromofluorobenzene	1	0.96	96		80.00	120.00
VBF0816W2	VBLK01	1,2-Dichlorobenzene-d4	1	1.04	104		80.00	120.00
		4-Bromofluorobenzene	1	0.98	98		80.00	120.00
VBF0902W2	VBLK02	1,2-Dichlorobenzene-d4	1	1.05	105		80.00	120.00
		4-Bromofluorobenzene	1	0.98	98		80.00	120.00
VBF0903W2	VBLK03	1,2-Dichlorobenzene-d4	1	0.97	97		80.00	120.00
		4-Bromofluorobenzene	1	0.96	96		80.00	120.00
VBF0904W2	VBLK04	1,2-Dichlorobenzene-d4	1	1.02	102		80.00	120.00
		4-Bromofluorobenzene	1	0.96	96		80.00	120.00
VBF0907W4	VBLK05	1,2-Dichlorobenzene-d4	1	1.03	103		80.00	120.00
		4-Bromofluorobenzene	1	0.95	95		80.00	120.00

## Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: S4414

Client: Parsons Engineering

Analytical Method: EPA SW846 524

Lab Sample ID	Parameter	Spike	Sample Result	Result	Rec	RPD	Qual	Low	Limits High	RPD
Client Sample ID: TR2159MS										
S4414-09MS	Dichlorodifluoromethane	10	0.0	6.6	66		*	70	130	
	Chloromethane	10	0.0	7.5	75			59	141	
	Vinyl Chloride	10	0.0	7.2	72			63	144	
	Bromomethane	10	0.0	9.7	97			63	142	
	Chloroethane	10	0.0	9.1	91			69	141	
	Trichlorofluoromethane	10	0.0	8.5	85			69	141	
	1,1-Dichloroethene	10	0.0	9.0	90			80	140	
	Iodomethane	10	0.0	15	150		*	70	130	
	Allyl Chloride	10	0.0	9.0	90			70	130	
	Acrylonitrile	20	0.0	22	110			74	134	
	Acetone	50	3.0	52	98			65	147	
	Carbon disulfide	10	0.0	9.0	90			70	130	
	Methylene Chloride	10	0.4	9.8	94			80	140	
	trans-1,2-Dichloroethene	10	0.8	10	92			80	134	
	1,1-Dichloroethane	10	0.5	9.9	94			68	138	
	2-Butanone	50	0.0	57	114			71	139	
	2,2-Dichloropropane	10	0.0	7.7	77			70	130	
	cis-1,2-Dichloroethene	10	98.0	100	20		*	82	135	
	Diethyl Ether	10	0.0	11	110			70	130	
	tert-Butyl Alcohol	100	0.0	110	110			39	157	
	Methyl tert-butyl Ether	10	0.0	11	110			81	142	
	Chloroform	10	0.0	9.8	98			84	134	
	1,1,1-Trichloroethane	10	0.4	9.6	92			85	125	
	1,1-Dichloropropene	10	0.0	9.2	92			70	130	
	Carbon Tetrachloride	10	0.0	9.1	91			82	125	
	Isopropyl Ether	10	0.0	10	100			70	130	
	Propionitrile	100	0.0	120	120			70	130	
	Benzene	10	0.0	9.6	96			86	126	
	1,2-Dichloroethane	10	0.0	11	110			87	127	
	Trichloroethene	10	22.0	31	90			80	136	
	1,2-Dichloropropane	10	0.0	10	100			84	127	
	Methacrylonitrile	10	0.0	11	110			70	130	
	Methyl acrylate	10	0.0	11	110			70	130	
	Tetrahydrofuran	20	0.0	24	120			70	130	
	1-Chlorobutane	10	0.0	9.2	92			70	130	
	Dibromomethane	10	0.0	11	110			70	130	
	Bromodichloromethane	10	0.0	10	100			84	126	
	4-Methyl-2-Pentanone	50	0.0	58	116			77	130	
	t-1,4-Dichloro-2-butene	20	0.0	22	110			70	130	
	Methyl methacrylate	20	0.0	23	115			70	130	
	Ethyl methacrylate	10	0.0	11	110			70	130	

## Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: S4414

Client: Parsons Engineering

Analytical Method: EPA SW846 524

Lab Sample ID	Parameter	Spike	Sample	Result	Rec	RPD	Qual	Low	Limits	
			Result						High	RPD
Client Sample ID: TR2159MS										
S4414-09MS	Toluene	10	0.0	9.5	95			82	118	
	t-1,3-Dichloropropene	10	0.0	10	100			78	117	
	cis-1,3-Dichloropropene	10	0.0	10	100			79	122	
	1,1,2-Trichloroethane	10	0.0	11	110			88	128	
	1,3-Dichloropropane	10	0.0	11	110			70	130	
	2-Hexanone	50	0.0	59	118			72	129	
	Dibromochloromethane	10	0.0	11	110			79	127	
	1,2-Dibromoethane	10	0.0	11	110			70	130	
	Tetrachloroethene	10	0.0	9.4	94			73	122	
	Chlorobenzene	10	0.0	10	100			82	118	
	1,1,1,2-Tetrachloroethane	10	0.0	10	100			70	130	
	Hexachloroethane	10	0.0	10	100			70	130	
	Ethyl Benzene	10	0.0	9.6	96			80	119	
	m/p-Xylenes	20	0.0	19	95			87	122	
	o-Xylene	10	0.0	9.9	99			80	118	
	Styrene	10	0.0	10	100			78	117	
	Bromoform	10	0.0	11	110			69	127	
	Isopropylbenzene	10	0.0	9.9	99			70	130	
	1,1,2,2-Tetrachloroethane	10	0.0	11	110			62	129	
	1,2,3-Trichloropropane	10	0.0	10	100			70	130	
	Bromobenzene	10	0.0	10	100			70	130	
	N-propylbenzene	10	0.0	9.6	96			70	130	
	2-Chlorotoluene	10	0.0	10	100			70	130	
	1,3,5-Trimethylbenzene	10	0.0	9.8	98			70	130	
	4-Chlorotoluene	10	0.0	10	100			70	130	
	tert-Butylbenzene	10	0.0	9.8	98			70	130	
	1,2,4-Trimethylbenzene	10	0.0	9.7	97			70	130	
	Sec-butylbenzene	10	0.0	9.8	98			70	130	
	p-Isopropyltoluene	10	0.0	9.7	97			70	130	
	1,3-Dichlorobenzene	10	0.0	10	100			77	117	
	1,4-Dichlorobenzene	10	0.0	10	100			80	118	
	n-Butylbenzene	10	0.0	9.3	93			70	130	
	1,2-Dichlorobenzene	10	0.0	10	100			79	118	
	1,2-Dibromo-3-Chloropropane	10	0.0	12	120			70	130	
	1,2,4-Trichlorobenzene	10	0.0	9.0	90			70	130	
	Hexachlorobutadiene	10	0.0	9.2	92			70	130	
	Naphthalene	10	0.0	8.2	82			76	121	
	1,2,3-Trichlorobenzene	10	0.0	9.1	91			70	130	

## Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: S4414

Client: Parsons Engineering

Analytical Method: EPA SW846 524

Lab Sample ID	Parameter	Spike	Sample Result	Result	Rec	RPD	Qual	Low	Limits	
									High	RPD
Client Sample ID: TR2159MSD										
S4414-10MSD	Dichlorodifluoromethane	10	0.0	7.1	71	7		70	130	
	Chloromethane	10	0.0	8.4	84	11		59	141	20
	Vinyl Chloride	10	0.0	8.1	81	12		63	144	20
	Bromomethane	10	0.0	10	100	3		63	142	20
	Chloroethane	10	0.0	10	100	9		69	141	20
	Trichlorofluoromethane	10	0.0	9.2	92	8		69	141	20
	1,1-Dichloroethene	10	0.0	11	110	20	*	80	140	14
	Iodomethane	10	0.0	16	160	6	*	70	130	20
	Allyl Chloride	10	0.0	10	100	11		70	130	20
	Acrylonitrile	20	0.0	24	120	9		74	134	20
	Acetone	50	3.0	55	104	6		65	147	20
	Carbon disulfide	10	0.0	10	100	11		70	130	20
	Methylene Chloride	10	0.4	11	106	12		80	140	20
	trans-1,2-Dichloroethene	10	0.8	12	112	20		80	134	20
	1,1-Dichloroethane	10	0.5	11	105	11		68	138	20
	2-Butanone	50	0.0	59	118	3		71	139	20
	2,2-Dichloropropane	10	0.0	9.1	91	17		70	130	20
	cis-1,2-Dichloroethene	10	98.0	110	120	143	*	82	135	20
	Diethyl Ether	10	0.0	11	110	0		70	130	20
	tert-Butyl Alcohol	100	0.0	110	110	0		39	157	20
	Methyl tert-butyl Ether	10	0.0	12	120	9		81	142	20
	Chloroform	10	0.0	11	110	12		84	134	20
	1,1,1-Trichloroethane	10	0.4	11	106	14		85	125	20
	1,1-Dichloropropene	10	0.0	11	110	18		70	130	20
	Carbon Tetrachloride	10	0.0	10	100	9		82	125	20
	Isopropyl Ether	10	0.0	11	110	10		70	130	20
	Propionitrile	100	0.0	120	120	0		70	130	20
	Benzene	10	0.0	11	110	14	*	86	126	11
	1,2-Dichloroethane	10	0.0	12	120	9		87	127	20
	Trichloroethene	10	22.0	33	110	20	*	80	136	14
	1,2-Dichloropropane	10	0.0	11	110	10		84	127	20
	Methacrylonitrile	10	0.0	12	120	9		70	130	20
	Methyl acrylate	10	0.0	12	120	9		70	130	20
	Tetrahydrofuran	20	0.0	25	125	4		70	130	20
	1-Chlorobutane	10	0.0	10	100	8		70	130	20
	Dibromomethane	10	0.0	12	120	9		70	130	20
	Bromodichloromethane	10	0.0	11	110	10		84	126	20
	4-Methyl-2-Pentanone	50	0.0	60	120	3		77	130	20
	t-1,4-Dichloro-2-butene	20	0.0	24	120	9		70	130	20
	Methyl methacrylate	20	0.0	24	120	4		70	130	20
	Ethyl methacrylate	10	0.0	12	120	9		70	130	20

## Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: S4414

Client: Parsons Engineering

Analytical Method: EPA SW846 524

Lab Sample ID	Parameter	Spike	Sample Result	Result	Rec	RPD	Qual	Low	Limits	
									High	RPD
Client Sample ID: TR2159MSD										
S4414-10MSD	Toluene	10	0.0	11	110	15	*	82	118	13
	t-1,3-Dichloropropene	10	0.0	12	120	18	*	78	117	20
	cis-1,3-Dichloropropene	10	0.0	11	110	10		79	122	20
	1,1,2-Trichloroethane	10	0.0	12	120	9		88	128	20
	1,3-Dichloropropane	10	0.0	12	120	9		70	130	20
	2-Hexanone	50	0.0	62	124	5		72	129	20
	Dibromochloromethane	10	0.0	12	120	9		79	127	20
	1,2-Dibromoethane	10	0.0	12	120	9		70	130	20
	Tetrachloroethene	10	0.0	11	110	16		73	122	20
	Chlorobenzene	10	0.0	11	110	10		82	118	13
	1,1,1,2-Tetrachloroethane	10	0.0	11	110	10		70	130	20
	Hexachloroethane	10	0.0	11	110	10		70	130	20
	Ethyl Benzene	10	0.0	11	110	14		80	119	20
	m/p-Xylenes	20	0.0	22	110	15		87	122	20
	o-Xylene	10	0.0	11	110	11		80	118	20
	Styrene	10	0.0	11	110	10		78	117	20
	Bromoform	10	0.0	12	120	9		69	127	20
	Isopropylbenzene	10	0.0	11	110	11		70	130	20
	1,1,2,2-Tetrachloroethane	10	0.0	12	120	9		62	129	20
	1,2,3-Trichloropropane	10	0.0	12	120	18		70	130	20
	Bromobenzene	10	0.0	11	110	10		70	130	20
	N-propylbenzene	10	0.0	11	110	14		70	130	20
	2-Chlorotoluene	10	0.0	11	110	10		70	130	20
	1,3,5-Trimethylbenzene	10	0.0	11	110	12		70	130	20
	4-Chlorotoluene	10	0.0	11	110	10		70	130	20
	tert-Butylbenzene	10	0.0	11	110	12		70	130	20
	1,2,4-Trimethylbenzene	10	0.0	11	110	13		70	130	20
	Sec-butylbenzene	10	0.0	11	110	12		70	130	20
	p-Isopropyltoluene	10	0.0	11	110	13		70	130	20
	1,3-Dichlorobenzene	10	0.0	11	110	10		77	117	20
	1,4-Dichlorobenzene	10	0.0	11	110	10		80	118	20
	n-Butylbenzene	10	0.0	11	110	17		70	130	20
	1,2-Dichlorobenzene	10	0.0	11	110	10		79	118	20
	1,2-Dibromo-3-Chloropropane	10	0.0	13	130	8		70	130	20
	1,2,4-Trichlorobenzene	10	0.0	11	110	20		70	130	20
	Hexachlorobutadiene	10	0.0	11	110	18		70	130	20
	Naphthalene	10	0.0	12	120	38	*	76	121	20
	1,2,3-Trichlorobenzene	10	0.0	11	110	19		70	130	20

## Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: S4414

Client: Parsons Engineering

Analytical Method: EPA SW846 524

Lab Sample ID	Parameter	Spike	Result	Rec	RPD	Qual	Low	Limits	
								High	RPD
LFB 2 PPB	Dichlorodifluoromethane	2.0	1.8	90			70	130	
	Chloromethane	2.0	1.6	80			70	130	
	Vinyl Chloride	2.0	1.7	85			70	130	
	Bromomethane	2.0	2.0	100			70	130	
	Chloroethane	2.0	2.1	105			70	130	
	Trichlorofluoromethane	2.0	1.8	90			70	130	
	1,1-Dichloroethene	2.0	2.1	105			70	130	
	Iodomethane	2.0	1.6	80			70	130	
	Allyl Chloride	2.0	2.0	100			70	130	
	Acrylonitrile	4.0	4.5	112			70	130	
	Acetone	10	21	210		*	70	130	
	Carbon disulfide	2.0	2.0	100			70	130	
	Methylene Chloride	2.0	2.8	140		*	70	130	
	trans-1,2-Dichloroethene	2.0	2.1	105			70	130	
	1,1-Dichloroethane	2.0	2.1	105			70	130	
	2-Butanone	10	13	130			70	130	
	2,2-Dichloropropane	2.0	1.8	90			70	130	
	cis-1,2-Dichloroethene	2.0	2.1	105			70	130	
	Diethyl Ether	2.0	2.2	110			70	130	
	tert-Butyl Alcohol	20	24	120			70	130	
	Methyl tert-butyl Ether	2.0	2.3	115			70	130	
	Chloroform	2.0	2.1	105			70	130	
	1,1,1-Trichloroethane	2.0	2.0	100			70	130	
	1,1-Dichloropropene	2.0	2.1	105			70	130	
	Carbon Tetrachloride	2.0	2.0	100			70	130	
	Isopropyl Ether	2.0	2.2	110			70	130	
	Propionitrile	20	23	115			70	130	
	Benzene	2.0	2.1	105			70	130	
	1,2-Dichloroethane	2.0	2.2	110			70	130	
	Trichloroethene	2.0	2.1	105			70	130	
	1,2-Dichloropropane	2.0	2.2	110			70	130	
	Methacrylonitrile	2.0	2.4	120			70	130	
	Methyl acrylate	2.0	2.3	115			70	130	
	Tetrahydrofuran	4.0	4.8	120			70	130	
	1-Chlorobutane	2.0	2.1	105			70	130	
	Dibromomethane	2.0	2.2	110			70	130	
	Bromodichloromethane	2.0	2.1	105			70	130	
	4-Methyl-2-Pentanone	10	11	110			70	130	
	t-1,4-Dichloro-2-butene	4.0	4.3	108			70	130	
	Methyl methacrylate	4.0	4.7	118			70	130	
	Ethyl methacrylate	2.0	2.2	110			70	130	
	Toluene	2.0	2.1	105			70	130	

## Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: S4414

Client: Parsons Engineering

Analytical Method: EPA SW846 524

Lab Sample ID	Parameter	Spike	Result	Rec	RPD	Qual	Low	Limits	
								High	RPD
LFB 2 PPB	t-1,3-Dichloropropene	2.0	2.1	105			70	130	
	cis-1,3-Dichloropropene	2.0	2.1	105			70	130	
	1,1,2-Trichloroethane	2.0	2.3	115			70	130	
	1,3-Dichloropropane	2.0	2.2	110			70	130	
	2-Hexanone	10	12	120			70	130	
	Dibromochloromethane	2.0	2.2	110			70	130	
	1,2-Dibromoethane	2.0	2.3	115			70	130	
	Tetrachloroethene	2.0	2.1	105			70	130	
	Chlorobenzene	2.0	2.2	110			70	130	
	1,1,1,2-Tetrachloroethane	2.0	2.2	110			70	130	
	Hexachloroethane	2.0	2.1	105			70	130	
	Ethyl Benzene	2.0	2.2	110			70	130	
	m/p-Xylenes	4.0	4.3	108			70	130	
	o-Xylene	2.0	2.2	110			70	130	
	Styrene	2.0	2.2	110			70	130	
	Bromoform	2.0	2.1	105			70	130	
	Isopropylbenzene	2.0	2.2	110			70	130	
	1,1,2,2-Tetrachloroethane	2.0	2.4	120			70	130	
	1,2,3-Trichloropropane	2.0	2.2	110			70	130	
	Bromobenzene	2.0	2.2	110			70	130	
	N-propylbenzene	2.0	2.2	110			70	130	
	2-Chlorotoluene	2.0	2.2	110			70	130	
	1,3,5-Trimethylbenzene	2.0	2.2	110			70	130	
	4-Chlorotoluene	2.0	2.2	110			70	130	
	tert-Butylbenzene	2.0	2.2	110			70	130	
	1,2,4-Trimethylbenzene	2.0	2.2	110			70	130	
	Sec-butylbenzene	2.0	2.2	110			70	130	
	p-Isopropyltoluene	2.0	2.2	110			70	130	
	1,3-Dichlorobenzene	2.0	2.2	110			70	130	
	1,4-Dichlorobenzene	2.0	2.2	110			70	130	
	n-Butylbenzene	2.0	2.2	110			70	130	
	1,2-Dichlorobenzene	2.0	2.3	115			70	130	
	1,2-Dibromo-3-Chloropropane	2.0	2.3	115			70	130	
	1,2,4-Trichlorobenzene	2.0	2.3	115			70	130	
	Hexachlorobutadiene	2.0	2.1	105			70	130	
	Naphthalene	2.0	2.5	125			70	130	
	1,2,3-Trichlorobenzene	2.0	2.4	120			70	130	

42  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK01

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4414 SAS No.: S4414 SDG NO.: S4414  
 Lab File ID: VF081611.D Lab Sample ID: VPF0816W2  
 Date Analyzed: 8/16/2004 Time Analyzed: 15:40  
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) N  
 Instrument ID: MSVOAF

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
QC/KNOWN	QC/KNOWN	VF081612.D	16:19
VLCS01	LFB 2 PPB	VF081617.D	19:34

COMMENTS: \_\_\_\_\_  
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4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK02

Lab Name: Chemtech Contract: PARS04  
Lab Code: CTECH Case No.: S4414 SAS No.: S4414 SDG NO.: S4414  
Lab File ID: VF090204.D Lab Sample ID: VPF0902W2  
Date Analyzed: 9/2/2004 Time Analyzed: 11:01  
GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) N  
Instrument ID: MSVOAF

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
TR2156	S4414-02	VF090207.D	12:57
TR2149	S4414-04	VF090209.D	14:15
TR2153	S4414-05	VF090210.D	14:54
TR2151	S4414-06	VF090212.D	16:12
TR2152	S4414-07	VF090213.D	16:52
TR2159	S4414-08	VF090214.D	17:31
TR2159MSMS	S4414-09MS	VF090215.D	18:10
TR2159MSDMSD	S4414-10MSD	VF090216.D	18:48

COMMENTS:

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4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK03

Lab Name: Chemtech Contract: PARS04

Lab Code: CTECH Case No.: S4414 SAS No.: S4414 SDG NO.: S4414

Lab File ID: VF090304.D Lab Sample ID: VPF0903W2

Date Analyzed: 9/2/2004 Time Analyzed: 23:29

GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOAF

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
TR2154	S4414-01	VF090305.D	00:08
TR2155	S4414-03	VF090306.D	00:47
TR2152DL	S4414-07DL	VF090308.D	02:05
TR2153DL	S4414-05DL	VF090309.D	02:45
TR2156DL	S4414-02DL	VF090311.D	04:03
TR2160	S4414-11	VF090313.D	05:21
TR2157	S4414-13	VF090315.D	06:39
TR0055	S4414-14	VF090317.D	07:57

COMMENTS:

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4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK04

Lab Name: Chemtech Contract: PARS04  
Lab Code: CTECH Case No.: S4414 SAS No.: S4414 SDG NO.: S4414  
Lab File ID: VF090404.D Lab Sample ID: VPF0904W2  
Date Analyzed: 9/3/2004 Time Analyzed: 23:42  
GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) N  
Instrument ID: MSVOAF

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
TR2158	S4414-12	VF090407.D	01:40
TR0057	S4414-15	VF090408.D	02:19
TR2160DL	S4414-11DL	VF090409.D	02:58

COMMENTS:

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42  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK05

Lab Name: Chemtech

Contract: PARS04

Lab Code: CTECH Case No.: S4414

SAS No.: S4414 SDG NO.: S4414

Lab File ID: VF090714.D

Lab Sample ID: VBF0907W4

Date Analyzed: 9/7/2004

Time Analyzed: 20:18

GC Column: RTX624 ID: 0.53 (mm)

Heated Purge: (Y/N) N

Instrument ID: MSVOAF

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
TR2159DL	S4414-08DL	VF090723.D	02:10
TR2151DL	S4414-06DL	VF090724.D	02:50

COMMENTS:

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5A  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4414 SAS No.: S4414 SDG NO.: S4414  
 Lab File ID: VF081601.D BFB Injection Date: 8/16/2004  
 Instrument ID: MSVOAF BFB Injection Time: 09:16  
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.8
75	30.0 - 60.0% of mass 95	42.8
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 ( 0.0 1
174	50.0 - 100.0% of mass 95	60.4
175	5.0 - 9.0% of mass 174	4.2 ( 6.9 1
176	95.0 - 101.0% of mass 174	57.6 ( 95.2 1
177	5.0 - 9.0% of mass 176	3.6 ( 6.3 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTD001	1 PPB ICC	VF081602.D	8/16/2004	09:49
VSTD002	2 PPB ICC	VF081603.D	8/16/2004	10:27
VSTD010	10 PPB ICC	VF081604.D	8/16/2004	11:06
VSTD020	20 PPB ICC	VF081605.D	8/16/2004	11:45
VSTD040	40 PPB ICC	VF081606.D	8/16/2004	12:24
VBLK01	VBF0816W2	VF081611.D	8/16/2004	15:40
QC/KNOWN	QC/KNOWN	VF081612.D	8/16/2004	16:19
VLCS01	LFB 2 PPB	VF081617.D	8/16/2004	19:34

5A  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4414 SAS No.: S4414 SDG NO.: S4414  
 Lab File ID: VF090201.D BFB Injection Date: 9/2/2004  
 Instrument ID: MSVOAF BFB Injection Time: 09:10  
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.7
75	30.0 - 60.0% of mass 95	42.4
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.0 ( 0.0 1
174	50.0 - 100.0% of mass 95	59.7
175	5.0 - 9.0% of mass 174	4.1 ( 6.9 1
176	95.0 - 101.0% of mass 174	57.1 ( 95.7 1
177	5.0 - 9.0% of mass 176	3.5 ( 6.2 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTD010	10 PPB CCC	VF090202.D	9/2/2004	09:43
VBLK02	VBF0902W2	VF090204.D	9/2/2004	11:01
TR2156	S4414-02	VF090207.D	9/2/2004	12:57
TR2149	S4414-04	VF090209.D	9/2/2004	14:15
TR2153	S4414-05	VF090210.D	9/2/2004	14:54
TR2151	S4414-06	VF090212.D	9/2/2004	16:12
TR2152	S4414-07	VF090213.D	9/2/2004	16:52
TR2159	S4414-08	VF090214.D	9/2/2004	17:31
TR2159MSMS	S4414-09MS	VF090215.D	9/2/2004	18:10
TR2159MSDMSD	S4414-10MSD	VF090216.D	9/2/2004	18:48

5A  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4414 SAS No.: S4414 SDG NO.: S4414  
 Lab File ID: VF090301.D BFB Injection Date: 9/2/2004  
 Instrument ID: MSVOAF BFB Injection Time: 21:24  
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.4
75	30.0 - 60.0% of mass 95	42.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.0 ( 0.0 1
174	50.0 - 100.0% of mass 95	60.1
175	5.0 - 9.0% of mass 174	4.0 ( 6.7 1
176	95.0 - 101.0% of mass 174	58.3 ( 97.1 1
177	5.0 - 9.0% of mass 176	3.9 ( 6.6 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTD010	10 PPB CCC	VF090302.D	9/2/2004	21:56
VBLK03	VBF0903W2	VF090304.D	9/2/2004	23:29
TR2154	S4414-01	VF090305.D	9/3/2004	00:08
TR2155	S4414-03	VF090306.D	9/3/2004	00:47
TR2152DL	S4414-07DL	VF090308.D	9/3/2004	02:05
TR2153DL	S4414-05DL	VF090309.D	9/3/2004	02:45
TR2156DL	S4414-02DL	VF090311.D	9/3/2004	04:03
TR2160	S4414-11	VF090313.D	9/3/2004	05:21
TR2157	S4414-13	VF090315.D	9/3/2004	06:39
TR0055	S4414-14	VF090317.D	9/3/2004	07:57

5A  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4414 SAS No.: S4414 SDG NO.: S4414  
 Lab File ID: VF090401.D BFB Injection Date: 9/3/2004  
 Instrument ID: MSVOAF BFB Injection Time: 21:52  
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.6
75	30.0 - 60.0% of mass 95	43.8
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 ( 0.0 1
174	50.0 - 100.0% of mass 95	58.7
175	5.0 - 9.0% of mass 174	4.1 ( 7.0 1
176	95.0 - 101.0% of mass 174	56.5 ( 96.2 1
177	5.0 - 9.0% of mass 176	3.4 ( 6.0 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTD010	10 PPB CCC	VF090402.D	9/3/2004	22:24
VBLK04	VBF0904W2	VF090404.D	9/3/2004	23:42
TR2158	S4414-12	VF090407.D	9/4/2004	01:40
TR0057	S4414-15	VF090408.D	9/4/2004	02:19
TR2160DL	S4414-11DL	VF090409.D	9/4/2004	02:58



5A  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4414 SAS No.: S4414 SDG NO.: S4414  
 Lab File ID: VF090711.D BFB Injection Date: 9/7/2004  
 Instrument ID: MSVOAF BFB Injection Time: 18:27  
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.0
75	30.0 - 60.0% of mass 95	43.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.0 ( 0.0 1
174	50.0 - 100.0% of mass 95	60.1
175	5.0 - 9.0% of mass 174	4.3 ( 7.2 1
176	95.0 - 101.0% of mass 174	57.1 ( 95.0 1
177	5.0 - 9.0% of mass 176	3.9 ( 6.8 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTD010	10 PPB CCC	VF090712.D	9/7/2004	19:00
VBLK05	VBF0907W4	VF090714.D	9/7/2004	20:18
TR2159DL	S4414-08DL	VF090723.D	9/8/2004	02:10
TR2151DL	S4414-06DL	VF090724.D	9/8/2004	02:50

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Chentech Contract PARS04  
 Lab Code: CTECH Case No.: S4414 SAS No.: S4414 SDG No.: S4414  
 Lab File ID: VF081604.D Date Analyzed: 8/16/2004  
 Instrument ID: MSVOAF Time Analyzed: 11:06  
 GC Column: RTX624 ID: 0.5 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT#	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	228488	8.85	0	0.00	0	0.00
UPPER LIMIT	456976	9.35	0	0.00	0	0.00
LOWER LIMIT	114244	8.35	0	0.00	0	0.00
SAMPLE NO.						
VBLK01	226075	8.85	0	0.00	0	0.00
QC/KNOWN	237826	8.85	0	0.00	0	0.00
VLCS01	220016	8.86	0	0.00	0	0.00

IS1 = Fluorobenzene  
 IS2 =  
 IS3 =

AREA UPPER LIMIT = +100% of internal standard area  
 AREA LOWER LIMIT = -50% of internal standard area  
 RT UPPER LIMIT = +0.50 minutes of internal standard RT  
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Chemtech Contract PARS04  
 Lab Code: CTECH Case No.: S4414 SAS No.: S4414 SDG No.: S4414  
 Lab File ID: VF090202.D Date Analyzed: 9/2/2004  
 Instrument ID: MSVOAF Time Analyzed: 09:43  
 GC Column: RTX624 ID: 0.5 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT#	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	254426	8.86	0	0.00	0	0.00
UPPER LIMIT	508852	9.36	0	0.00	0	0.00
LOWER LIMIT	127213	8.36	0	0.00	0	0.00
SAMPLE NO.						
VBLK02	238128	8.85	0	0.00	0	0.00
TR2156	227798	8.87	0	0.00	0	0.00
TR2149	210650	8.86	0	0.00	0	0.00
TR2153	226893	8.86	0	0.00	0	0.00
TR2151	230454	8.86	0	0.00	0	0.00
TR2152	223368	8.87	0	0.00	0	0.00
TR2159	214405	8.87	0	0.00	0	0.00
TR2159MSMS	236815	8.85	0	0.00	0	0.00
TR2159MSDMSD	224174	8.86	0	0.00	0	0.00

IS1 = Fluorobenzene  
 IS2 =  
 IS3 =

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

\* Values outside of QC limits.

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Chemtech Contract PARS04  
 Lab Code: CTECH Case No.: S4414 SAS No.: S4414 SDG No.: S4414  
 Lab File ID: VF090302.D Date Analyzed: 9/2/2004  
 Instrument ID: MSVOAF Time Analyzed: 21:56  
 GC Column: RTX624 ID: 0.5 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT#	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	278903	8.83	0	0.00	0	0.00
UPPER LIMIT	557806	9.33	0	0.00	0	0.00
LOWER LIMIT	139452	8.33	0	0.00	0	0.00
SAMPLE NO.						
VBLK03	255653	8.85	0	0.00	0	0.00
TR2154	242118	8.87	0	0.00	0	0.00
TR2155	237436	8.85	0	0.00	0	0.00
TR2152DL	243870	8.86	0	0.00	0	0.00
TR2153DL	224426	8.87	0	0.00	0	0.00
TR2156DL	219224	8.85	0	0.00	0	0.00
TR2160	234388	8.86	0	0.00	0	0.00
TR2157	236505	8.85	0	0.00	0	0.00
TR0055	229717	8.85	0	0.00	0	0.00

IS1 = Fluorobenzene

IS2 =

IS3 =

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

\* Values outside of QC limits.

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Chemtech Contract PARS04  
 Lab Code: CTECH Case No.: S4414 SAS No.: S4414 SDG No.: S4414  
 Lab File ID: VF090402.D Date Analyzed: 9/3/2004  
 Instrument ID: MSVOAF Time Analyzed: 22:24  
 GC Column: RTX624 ID: 0.5 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT#	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	264017	8.84	0	0.00	0	0.00
UPPER LIMIT	528034	9.34	0	0.00	0	0.00
LOWER LIMIT	132009	8.34	0	0.00	0	0.00
SAMPLE NO.						
VBLK04	237391	8.85	0	0.00	0	0.00
TR2158	226824	8.85	0	0.00	0	0.00
TR0057	222510	8.86	0	0.00	0	0.00
TR2160DL	218649	8.86	0	0.00	0	0.00

IS1 = Fluorobenzene

IS2 =

IS3 =

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

\* Values outside of QC limits.

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Chemtech Contract PARS04  
 Lab Code: CTECH Case No.: S4414 SAS No.: S4414 SDG No.: S4414  
 Lab File ID: VF090712.D Date Analyzed: 9/7/2004  
 Instrument ID: MSVOAF Time Analyzed: 19:00  
 GC Column: RTX624 ID: 0.5 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT#	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	265073	8.86	0	0.00	0	0.00
UPPER LIMIT	530146	9.36	0	0.00	0	0.00
LOWER LIMIT	132537	8.36	0	0.00	0	0.00
SAMPLE NO.						
VBLK05	240105	8.86	0	0.00	0	0.00
TR2159DL	216644	8.85	0	0.00	0	0.00
TR2151DL	228984	8.86	0	0.00	0	0.00

IS1 = Fluorobenzene  
 IS2 =  
 IS3 =

AREA UPPER LIMIT = +100% of internal standard area  
 AREA LOWER LIMIT = -50% of internal standard area  
 RT UPPER LIMIT = +0.50 minutes of internal standard RT  
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

CHEMTECH

VOLATILES  
SAMPLE  
DATA

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/26/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monite</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2154</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-01</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090305.D</b>	<b>1</b>		<b>9/3/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	0.09	U	1.0	0.09	ug/L
74-87-3	Chloromethane	0.11	U	1.0	0.11	ug/L
75-01-4	Vinyl Chloride	0.14	U	1.0	0.14	ug/L
74-83-9	Bromomethane	0.22	U	1.0	0.22	ug/L
75-00-3	Chloroethane	0.19	U	1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	0.09	U	1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	2.2	U	10	2.2	ug/L
60-29-7	Diethyl Ether	0.21	U	1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	0.16	U	1.0	0.16	ug/L
74-88-4	Iodomethane	0.14	U	1.0	0.14	ug/L
107-5-1	Allyl Chloride	0.18	U	1.0	0.18	ug/L
107-13-1	Acrylonitrile	0.94	U	2.0	0.94	ug/L
67-64-1	Acetone	3.4	J	5.8	1.5	ug/L
75-15-0	Carbon disulfide	0.18	U	1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	0.37	U	1.0	0.37	ug/L
79-20-9	Methyl acrylate	0.17	U	1.0	0.17	ug/L
75-09-2	Methylene Chloride	0.9	J	1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	0.4	J	1.0	0.21	ug/L
78-93-3	2-Butanone	0.94	U	5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	0.22	U	1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	0.20	U	1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	18		1.0	0.24	ug/L
67-66-3	Chloroform	0.22	U	1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	1.4	U	2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L
108-20-3	Isopropyl Ether	0.21	U	1.0	0.21	ug/L
107-12-0	Propionitrile	3.3	U	10	3.3	ug/L
71-43-2	Benzene	0.6	J	1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	0.6	J	1.0	0.24	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/26/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monit</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2154</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-01</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090305.D</b>	<b>1</b>		<b>9/3/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	0.21	U	1.0	0.21	ug/L
126-98-7	Methacrylonitrile	0.33	U	1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	0.78	U	2.4	0.78	ug/L
109-69-3	1-Chlorobutane	0.22	U	1.0	0.22	ug/L
74-95-3	Dibromomethane	0.24	U	1.0	0.24	ug/L
75-27-4	Bromodichloromethane	0.20	U	1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	1.0	U	5.0	1.0	ug/L
80-62-6	Methyl methacrylate	0.53	U	2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	0.25	U	1.0	0.25	ug/L
108-88-3	Toluene	0.22	U	1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L
591-78-6	2-Hexanone	1.1	U	5.0	1.1	ug/L
124-48-1	Dibromochloromethane	0.17	U	1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L
127-18-4	Tetrachloroethene	0.34	U	1.0	0.34	ug/L
108-90-7	Chlorobenzene	0.21	U	1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L
67-72-1	Hexachloroethane	0.20	U	1.0	0.20	ug/L
100-41-4	Ethyl Benzene	0.21	U	1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	0.43	U	1.0	0.43	ug/L
95-47-6	o-Xylene	0.21	U	1.0	0.21	ug/L
100-42-5	Styrene	0.19	U	1.0	0.19	ug/L
75-25-2	Bromoform	0.22	U	1.0	0.22	ug/L
108-86-1	Bromobenzene	0.21	U	1.0	0.21	ug/L
98-82-8	Isopropylbenzene	0.20	U	1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	0.28	U	1.0	0.28	ug/L
103-61-5	N-propylbenzene	0.24	U	1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	0.50	U	1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.22	U	1.0	0.22	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

**Report of Analysis**

Client:	Parsons Engineering	Date Collected:	8/26/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/28/2004
Client Sample ID:	TR2154	SDG No.:	S4414
Lab Sample ID:	S4414-01	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090305.D	1		9/3/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	0.22	U	1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	0.18	U	1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	0.20	U	1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	0.22	U	1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
104-51-8	n-Butylbenzene	0.20	U	1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.20	U	1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L
91-20-3	Naphthalene	0.17	U	1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.18	U	1.0	0.18	ug/L

**SURROGATES**

2199-69-1	1,2-Dichlorobenzene-d4	1.02	102 %	80 - 120	SPK: 1
460-00-4	4-Bromofluorobenzene	0.97	97 %	80 - 120	SPK: 1

**INTERNAL STANDARDS**

462-06-6	Fluorobenzene	242118	8.87		
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**TENTITIVE IDENTIFIED COMPOUNDS**

75285	Isobutane	0.72	J	1.94	ug/L
115117	1-Propene, 2-methyl-	7.8	J	2.09	ug/L
106989	1-Butene	0.65	J	2.19	ug/L
	Unknown	1.1	J	2.30	ug/L
563462	1-Butene, 2-methyl-	1.2	J	2.55	ug/L
78784	Butane, 2-methyl-	1.1	J	2.67	ug/L
109671	1-Pentene	1.8	J	2.93	ug/L
513359	2-Butene, 2-methyl-	1.8	J	3.04	ug/L
627203	2-Pentene, (Z)-	0.41	J	3.20	ug/L
109682	2-Pentene	0.66	J	3.35	ug/L
542927	1,3-Cyclopentadiene	0.43	J	4.06	ug/L
142290	Cyclopentene	1.6	J	4.27	ug/L

U = Not Detected  
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 E = Value Exceeds Calibration Range

J = Estimated Value  
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## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/26/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/28/2004
Client Sample ID:	TR2154	SDG No.:	S4414
Lab Sample ID:	S4414-01	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090305.D	1		9/3/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
763291	1-Pentene, 2-methyl-	0.45	J	5.11		ug/L
1120623	Cyclopentene, 3-methyl-	0.37	J	5.87		ug/L

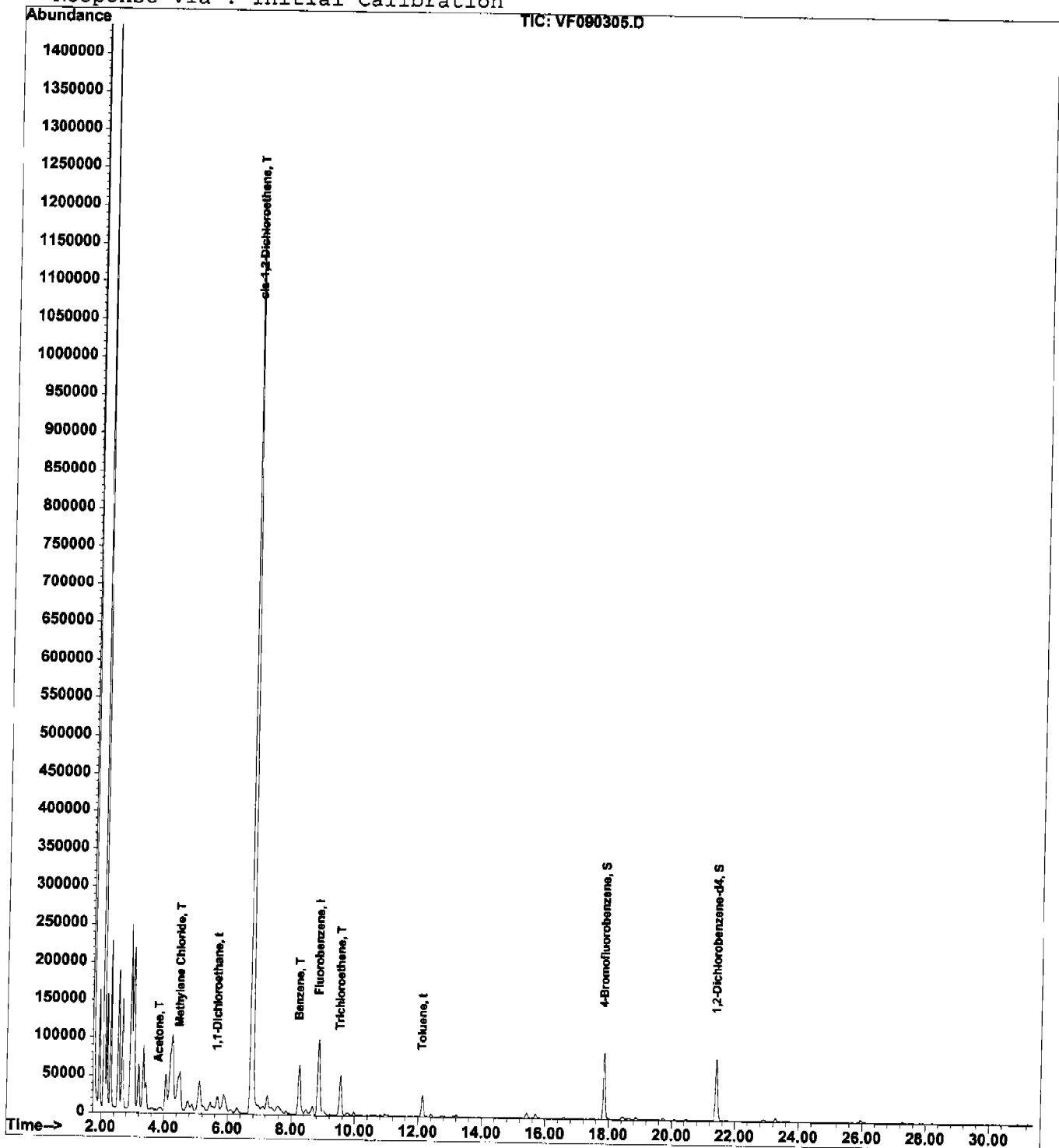
U = Not Detected  
RL = Reporting Limit  
MDL = Method Detection Limit  
E = Value Exceeds Calibration Range

J = Estimated Value  
B = Analyte Found in Associated Method Blank  
N = Presumptive Evidence of a Compound

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090305.D Vial: 5  
Acq On : 3 Sep 2004 12:08 am Operator: SAM  
Sample : S4414-01 Inst : VOA F  
Misc : 255mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Sep 3 15:12 2004

Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090305.D Vial: 5  
 Acq On : 3 Sep 2004 12:08 am Operator: SAM  
 Sample : S4414-01 Inst : VOA F  
 Misc : 255mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 3 15:12 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

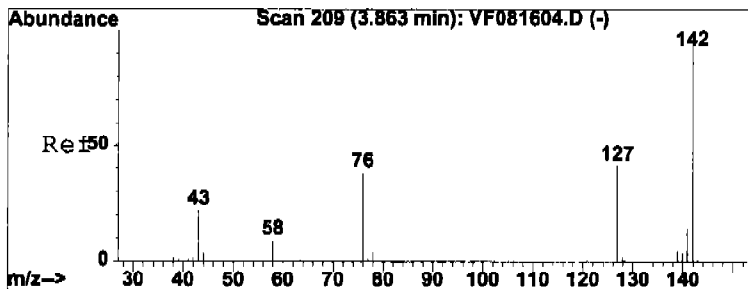
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.87	96	242118	1.00	ug/l	0.02
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.87	95	110473	0.97	ug/l	0.01
Spiked Amount	1.000		Recovery	=	97.00%	
63) 1,2-Dichlorobenzene-	21.42	152	64452	1.02	ug/l	0.00
Spiked Amount	1.000		Recovery	=	102.00%	
Target Compounds						
12) Acetone	3.86	43	10309	3.43	ug/l #	83
14) Methylene Chloride	4.50	84	49167	0.86	ug/l #	77
16) 1,1-Dichloroethane	5.68	63	52509	0.39	ug/l	97
19) cis-1,2-Dichloroethe	6.76	96	1302811	17.68	ug/l	85
30) Benzene	8.26	78	154742	0.60	ug/l	99
32) Trichloroethene	9.55	130	46238	0.55	ug/l	97
44) Toluene	12.14	92	36654	0.22	ug/l	99

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 Analyst Signature: Sy Analyst Name: Sy Date: 09/09/04  
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-----REASONS FOR MANUAL INTEGRATIONS-----

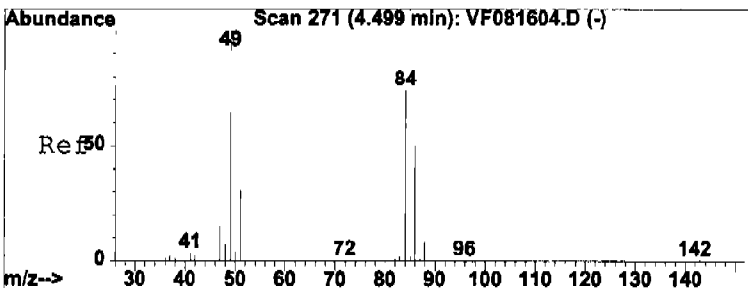
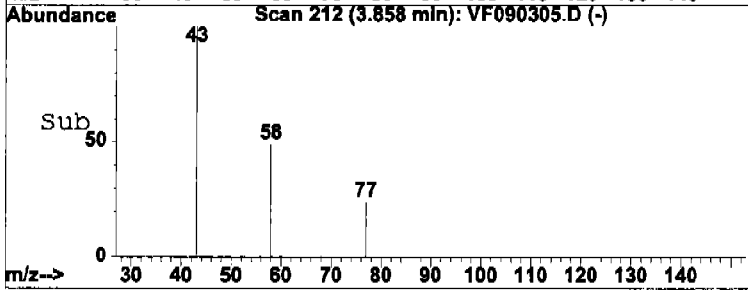
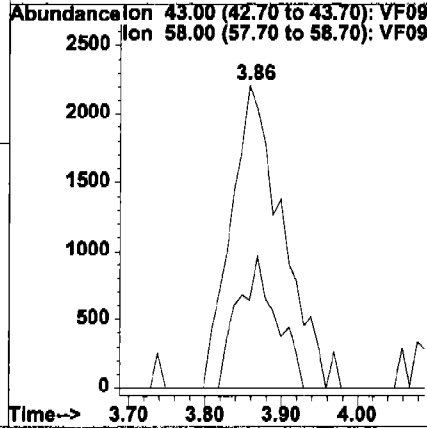
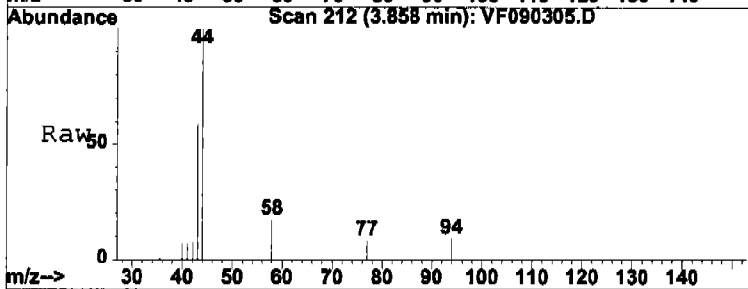
\_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly.Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration



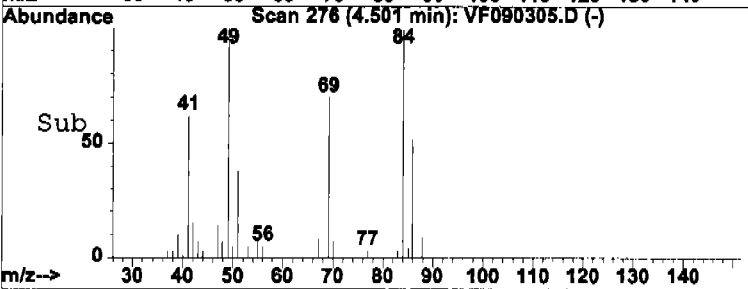
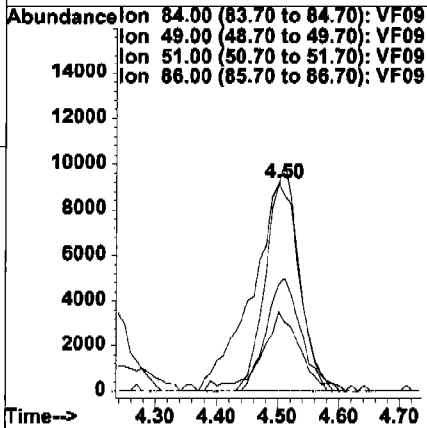
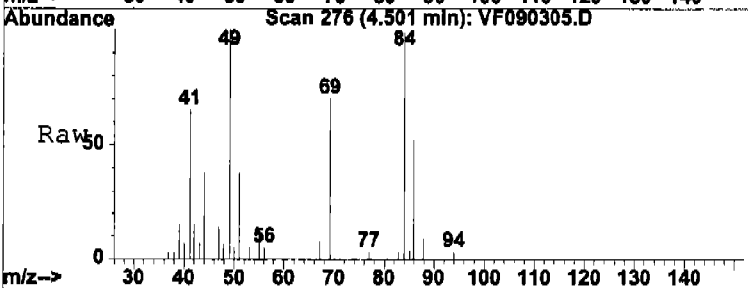
#12  
 Acetone  
 Concen: 3.43 ug/l  
 RT: 3.86 min Scan# 212  
 Delta R.T. 0.01 min  
 Lab File: VF090305.D  
 Acq: 3 Sep 2004 12:08 am

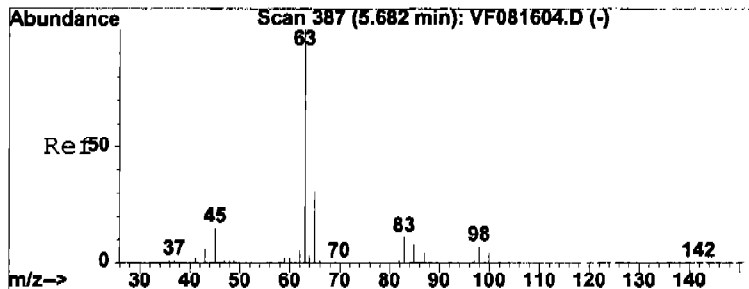
Tgt Ion: 43 Resp: 10309  
 Ion Ratio Lower Upper  
 43 100  
 58 28.9 31.4 47.2#



#14  
 Methylene Chloride  
 Concen: 0.86 ug/l  
 RT: 4.50 min Scan# 276  
 Delta R.T. 0.00 min  
 Lab File: VF090305.D  
 Acq: 3 Sep 2004 12:08 am

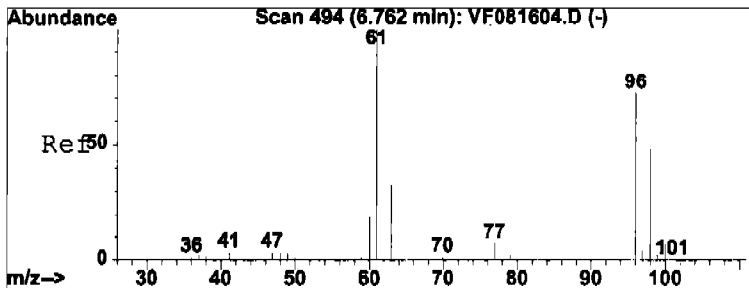
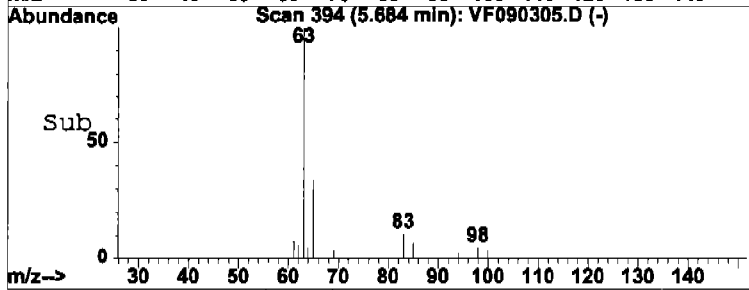
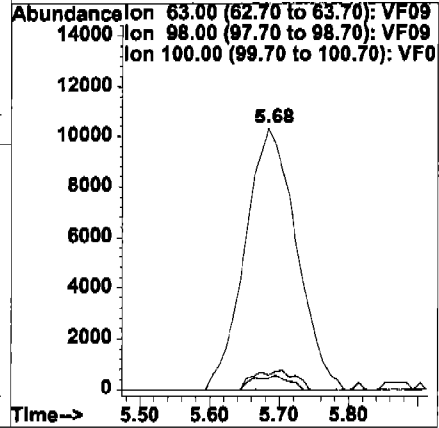
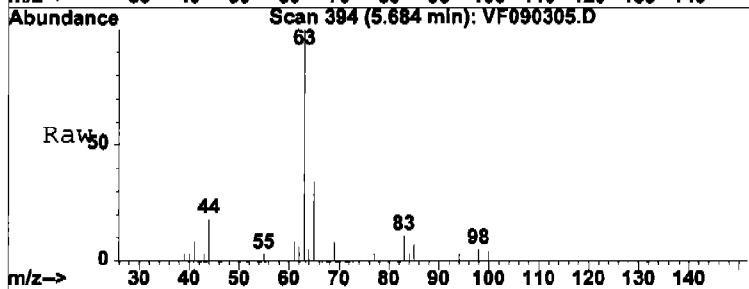
Tgt Ion: 84 Resp: 49167  
 Ion Ratio Lower Upper  
 84 100  
 49 100.6 108.6 163.0#  
 51 38.7 0.0 84.4  
 86 51.9 54.2 81.2#





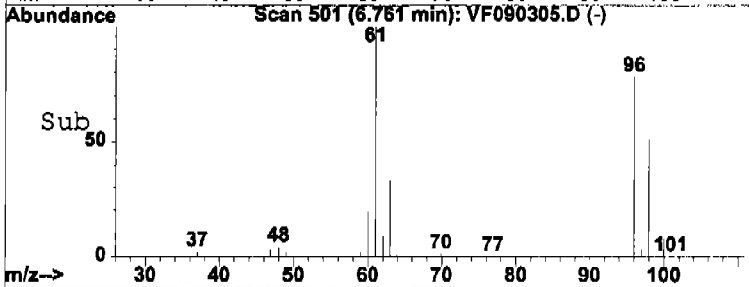
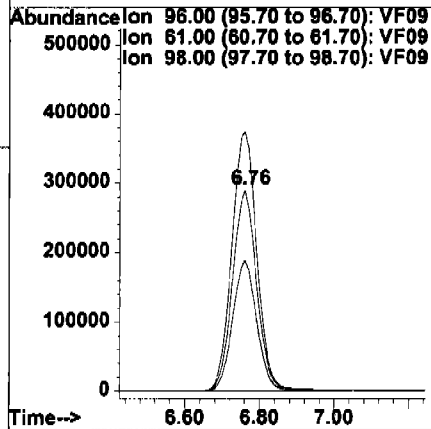
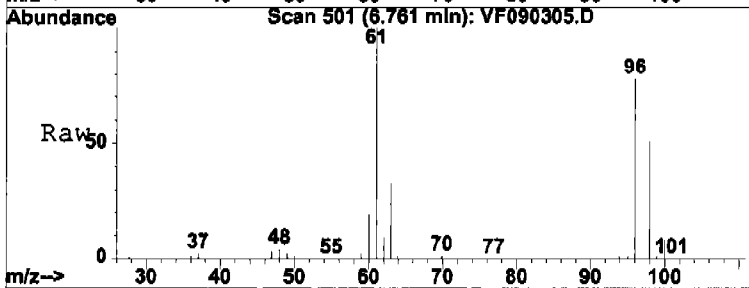
#16  
 1,1-Dichloroethane  
 Concen: 0.39 ug/l  
 RT: 5.68 min Scan# 394  
 Delta R.T. 0.00 min  
 Lab File: VF090305.D  
 Acq: 3 Sep 2004 12:08 am

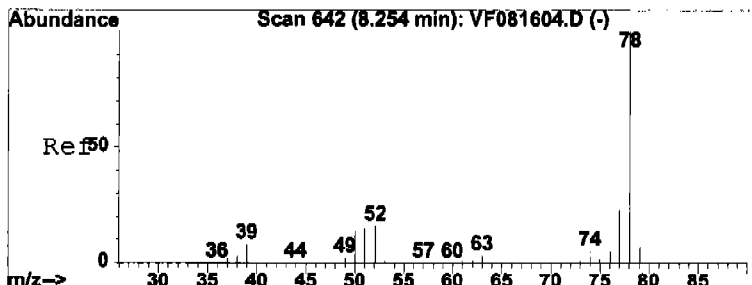
Tgt Ion:	Resp:	Lower	Upper
63	100		
98	5.5	3.6	10.8
100	4.2	2.2	6.6



#19  
 cis-1,2-Dichloroethene  
 Concen: 17.68 ug/l  
 RT: 6.76 min Scan# 501  
 Delta R.T. 0.01 min  
 Lab File: VF090305.D  
 Acq: 3 Sep 2004 12:08 am

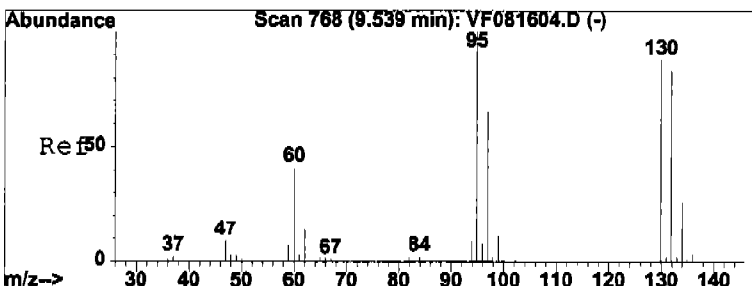
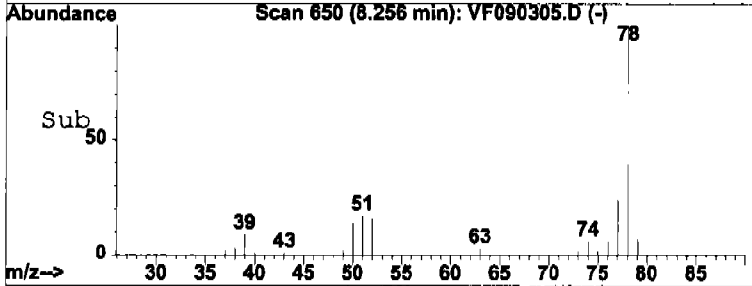
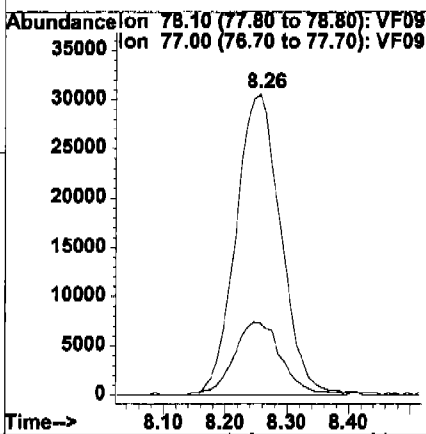
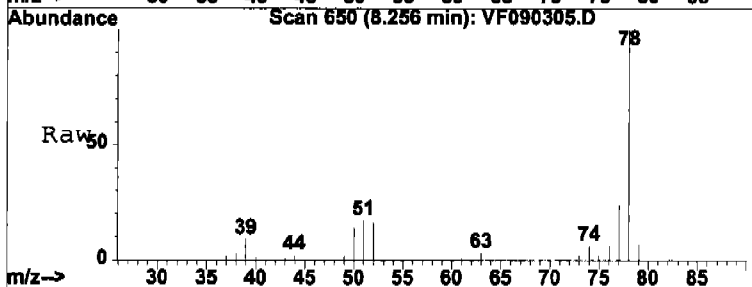
Tgt Ion:	Resp:	Lower	Upper
96	100		
61	133.6	0.0	403.7
98	65.1	32.9	98.6





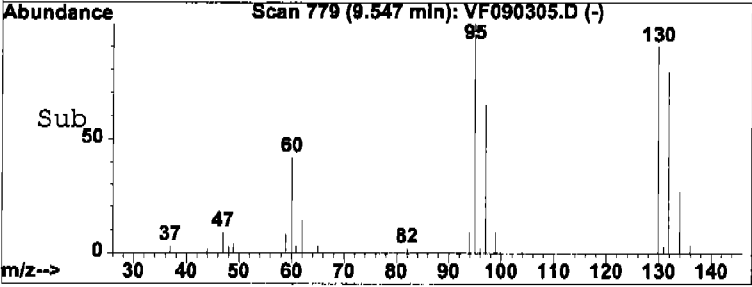
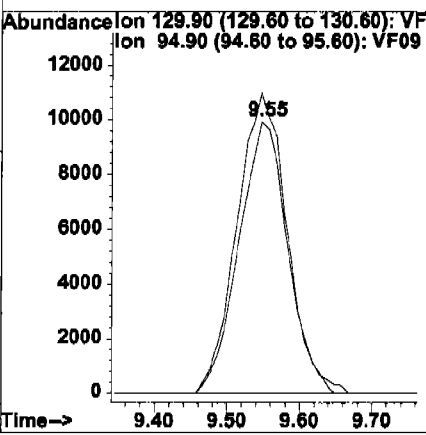
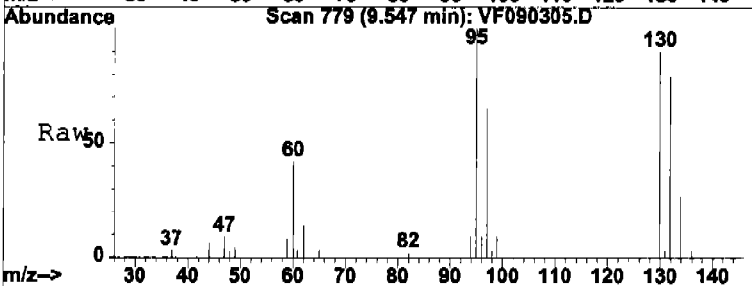
#30  
Benzene  
Concen: 0.60 ug/l  
RT: 8.26 min Scan# 650  
Delta R.T. 0.01 min  
Lab File: VF090305.D  
Acq: 3 Sep 2004 12:08 am

Tgt Ion: 78 Resp: 154742  
Ion Ratio Lower Upper  
78 100  
77 22.9 18.6 27.8

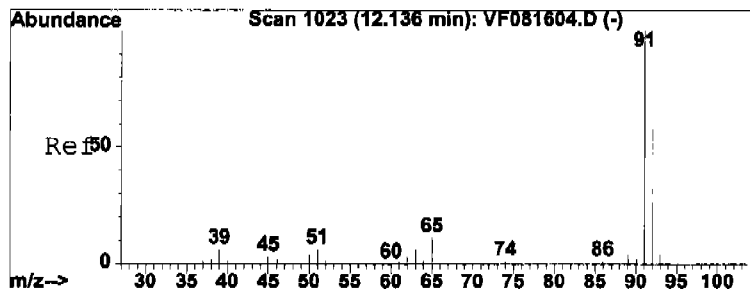


#32  
Trichloroethene  
Concen: 0.55 ug/l  
RT: 9.55 min Scan# 779  
Delta R.T. 0.01 min  
Lab File: VF090305.D  
Acq: 3 Sep 2004 12:08 am

Tgt Ion: 130 Resp: 46238  
Ion Ratio Lower Upper  
130 100  
95 110.7 90.9 136.3

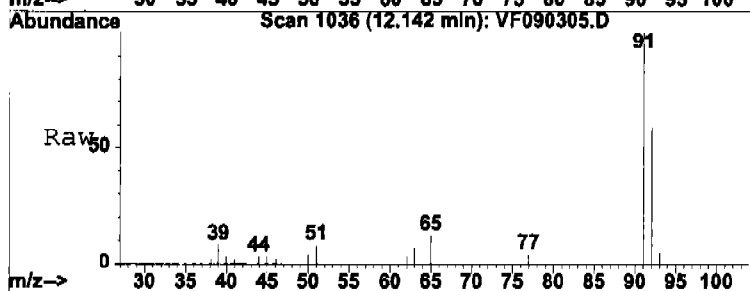




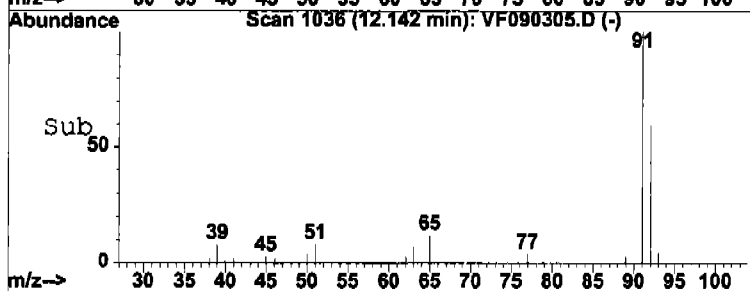
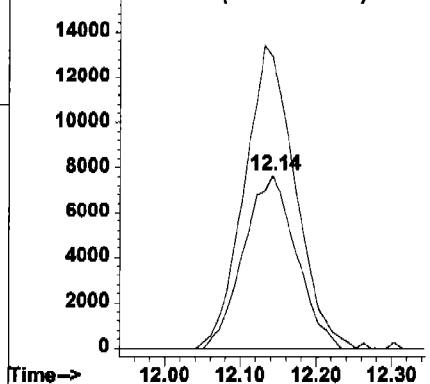


#44  
 Toluene  
 Concen: 0.22 ug/l  
 RT: 12.14 min Scan# 1036  
 Delta R.T. 0.02 min  
 Lab File: VF090305.D  
 Acq: 3 Sep 2004 12:08 am

Tgt Ion: 92 Resp: 36654  
 Ion Ratio Lower Upper  
 92 100  
 91 168.8 136.2 204.4



Abundance Ion 92.00 (91.70 to 92.70): VF09  
 Ion 91.00 (90.70 to 91.70): VF09



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090305.D Vial: 5  
 Acq On : 3 Sep 2004 12:08 am Operator: SAM  
 Sample : S4414-01 Inst : VOA F  
 Misc : 255mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

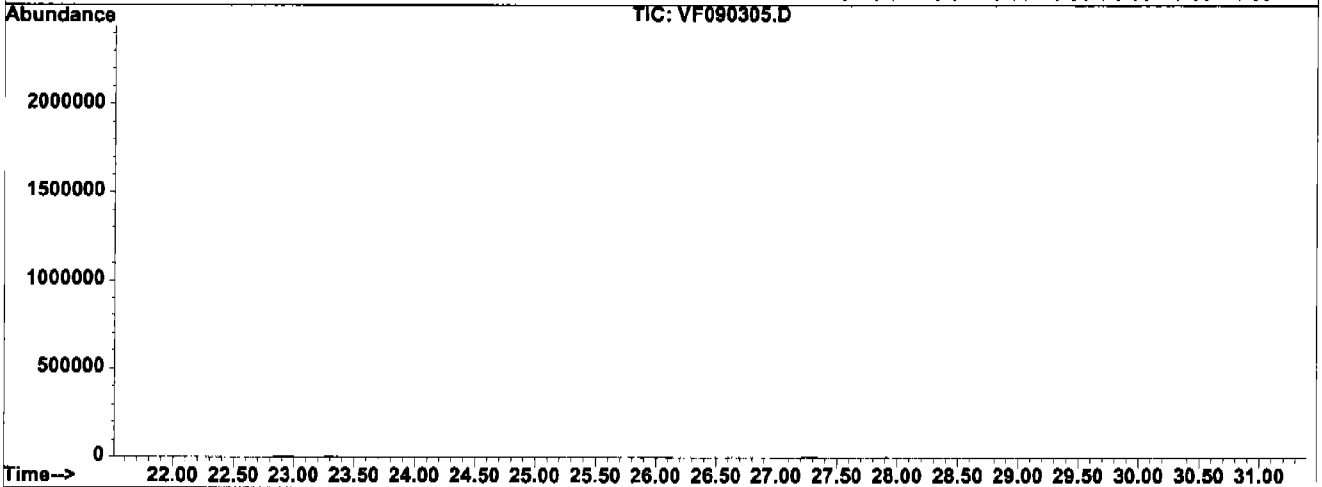
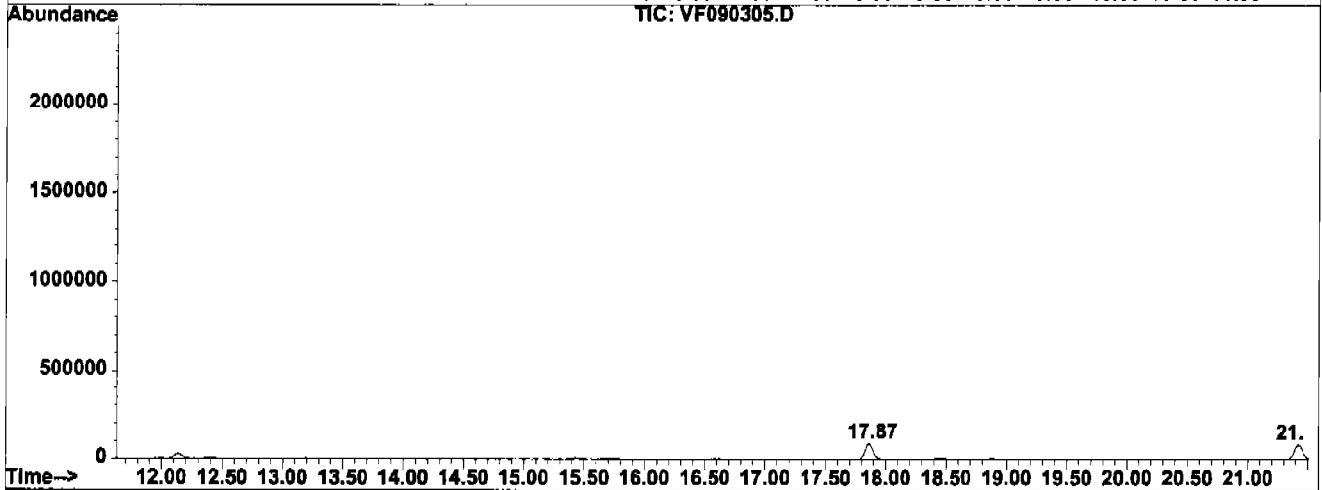
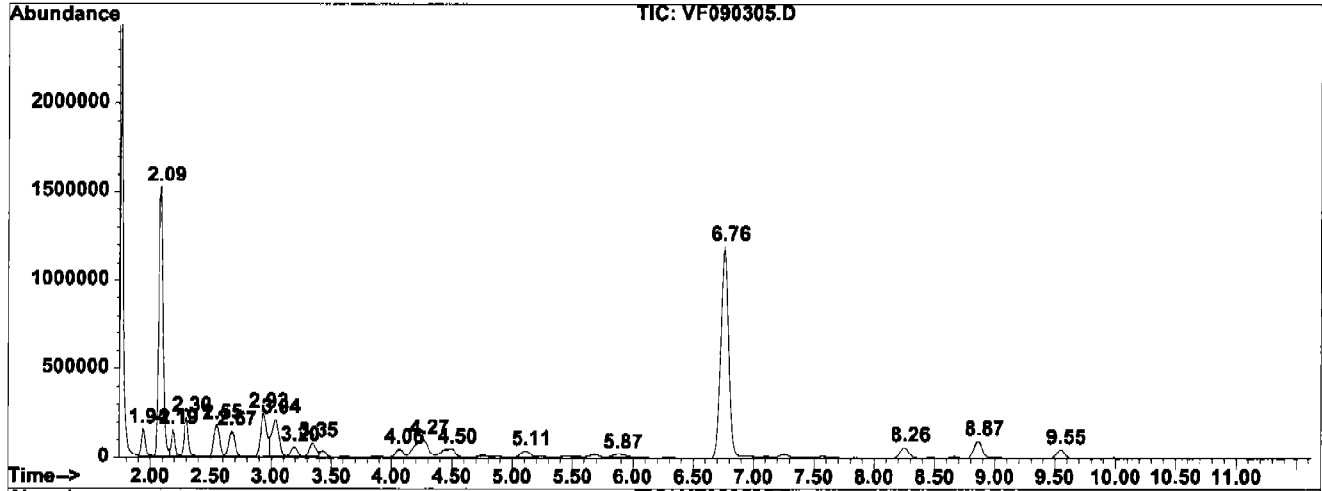
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.937	17	21	30	rVB	154555	360508	6.49%	2.015%
2	2.088	30	36	43	rVV2	1521588	3911322	70.44%	21.859%
3	2.189	43	46	52	rVV	149491	324565	5.84%	1.814%
4	2.300	52	57	70	rVB	220164	523399	9.43%	2.925%
5	2.552	74	82	88	rBV	182254	588958	10.61%	3.292%
6	2.672	88	94	109	rVB	146752	534668	9.63%	2.988%
7	2.933	109	120	125	rBV	243350	895850	16.13%	5.007%
8	3.036	125	130	140	rVV3	213007	889231	16.01%	4.970%
9	3.197	140	146	153	rVV	58630	204472	3.68%	1.143%
10	3.347	153	161	166	rVV	82678	330245	5.95%	1.846%
11	4.059	223	232	239	rBV	47880	214293	3.86%	1.198%
12	4.269	239	253	262	rVV4	98723	797272	14.36%	4.456%
13	4.501	262	276	289	rVB7	51107	404848	7.29%	2.263%
14	5.114	325	337	346	rBV2	39174	226603	4.08%	1.266%
15	5.874	402	413	429	rVB3	23272	183450	3.30%	1.025%
16	6.761	489	501	529	rBV	1197365	5552916	100.00%	31.034%
17	8.256	638	650	664	rBV	65532	349076	6.29%	1.951%
18	8.867	699	711	720	rBV2	100031	499574	9.00%	2.792%
19	9.547	763	779	792	rBV2	53470	256935	4.63%	1.436%
20	17.869	1590	1603	1625	rVB	88507	423215	7.62%	2.365%
21	21.423	1943	1956	1973	rBV2	82661	421634	7.59%	2.356%

Sum of corrected areas: 17893034

VF090305.D VF0816DW.M Fri Sep 03 15:15:39 2004 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090305.D  
Operator : SAM  
Acquired : 3 Sep 2004 12:08 am using AcqMethod VF\_VOA  
Instrument : VOA F  
Sample Name: S4414-01  
Misc Info : 255mL  
Vial Number: 5  
Quant File :VF0816DW.RES (RTE Integrator)



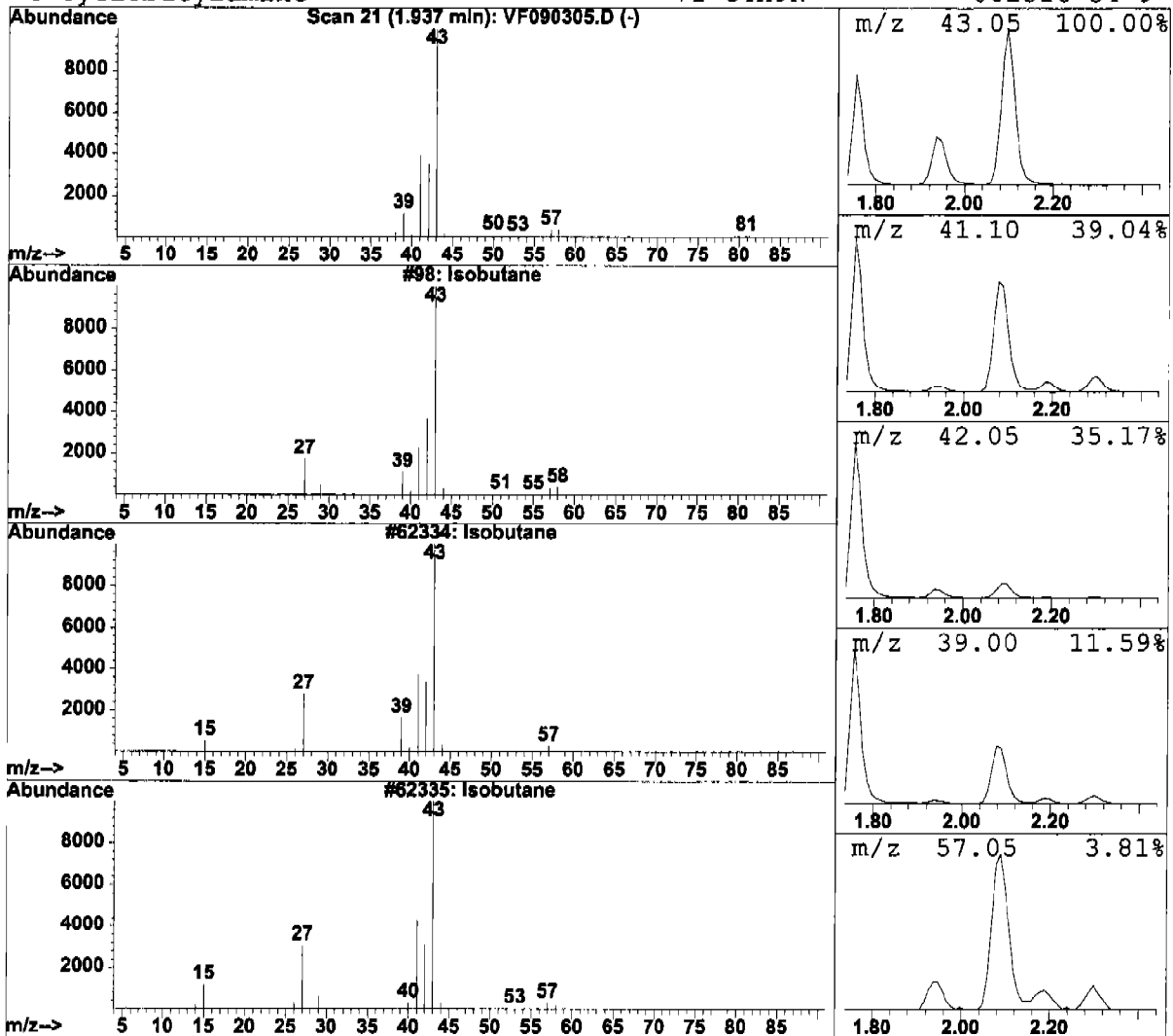
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090305.D Vial: 5  
 Acq On : 3 Sep 2004 12:08 am Operator: SAM  
 Sample : S4414-01 Inst : VOA F  
 Misc : 255mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 1 Isobutane Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.94	0.72 ug/l	360508	Fluorobenzene	8.87

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Isobutane	58	C4H10	000075-28-5	80
2		Isobutane	58	C4H10	000075-28-5	72
3		Isobutane	58	C4H10	000075-28-5	64
4		Cyclobutylamine	71	C4H9N	002516-34-9	4



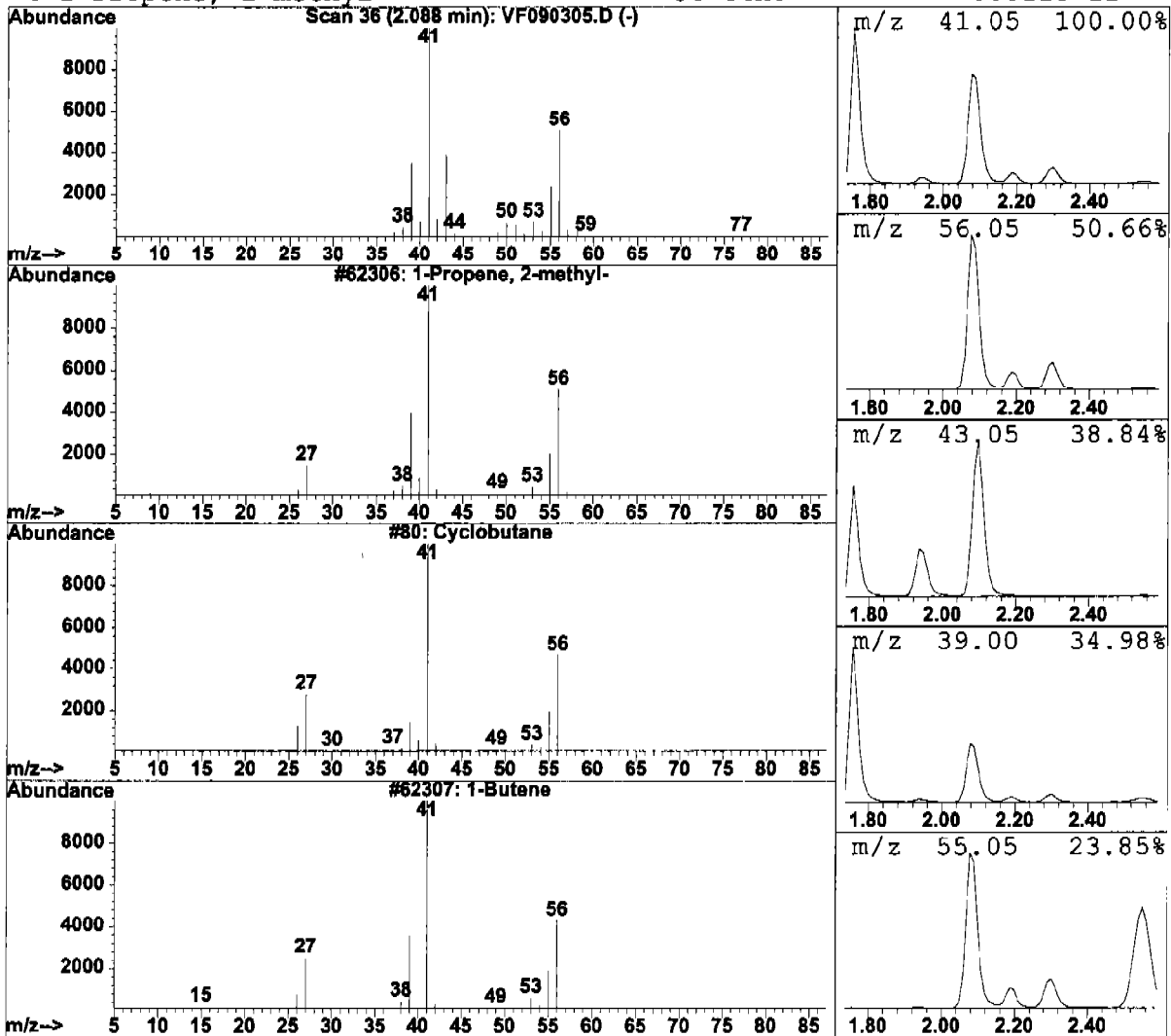
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 Acq On : 3 Sep 2004 12:08 am Operator: SAM  
 Sample : S4414-01 Inst : VOA F  
 Misc : 255mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 2 1-Propene, 2-methyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.09	7.83 ug/l	3911320	Fluorobenzene	8.87

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	1-Propene, 2-methyl-	56	C4H8	000115-11-7	70
2		Cyclobutane	56	C4H8	000287-23-0	58
3		1-Butene	56	C4H8	000106-98-9	58
4		1-Propene, 2-methyl-	56	C4H8	000115-11-7	58



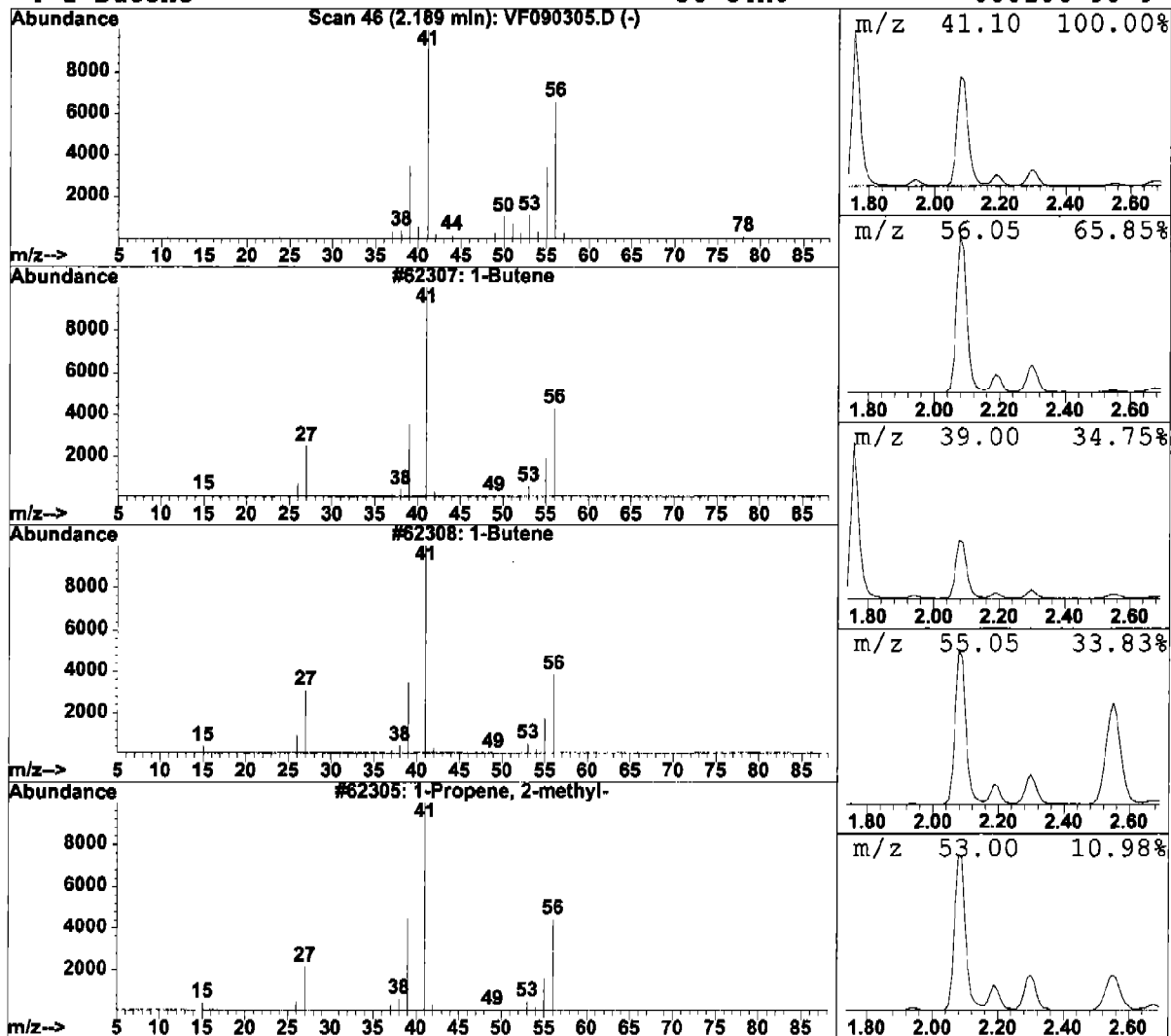
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 Acq On : 3 Sep 2004 12:08 am Operator: SAM  
 Sample : S4414-01 Inst : VOA F  
 Misc : 255mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 3 1-Butene Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.19	0.65 ug/l	324565	Fluorobenzene	8.87

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	1-Butene	56	C4H8	000106-98-9	80
2		1-Butene	56	C4H8	000106-98-9	72
3		1-Propene, 2-methyl-	56	C4H8	000115-11-7	72
4		1-Butene	56	C4H8	000106-98-9	64



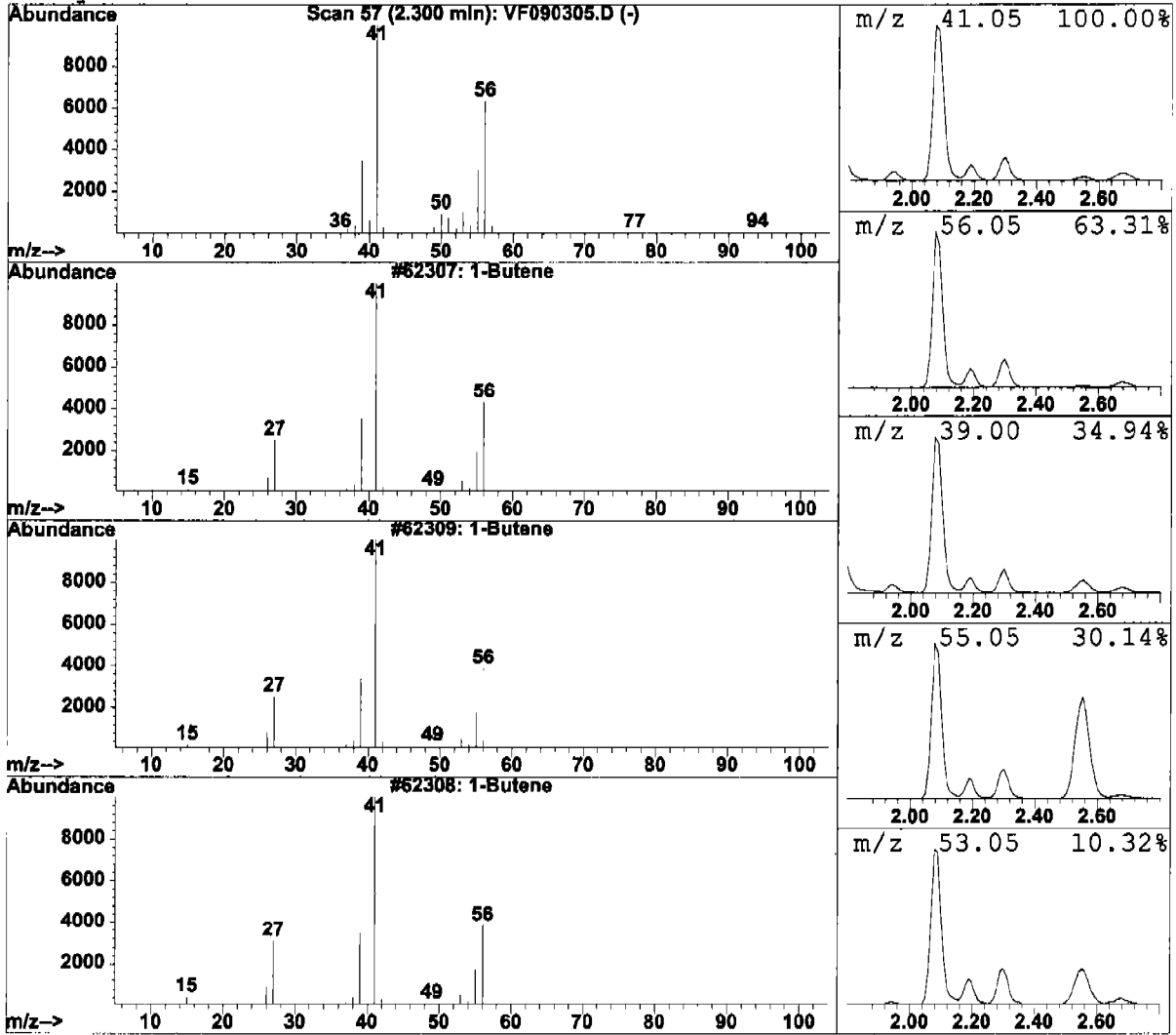
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 Acq On : 3 Sep 2004 12:08 am Operator: SAM  
 Sample : S4414-01 Inst : VOA F  
 Misc : 255mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 4 1-Butene Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.30	1.05 ug/l	523399	Fluorobenzene	8.87

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	1-Butene	56	C4H8	000106-98-9	81
2		1-Butene	56	C4H8	000106-98-9	81
3		1-Butene	56	C4H8	000106-98-9	74
4		Cyclobutane	56	C4H8	000287-23-0	72



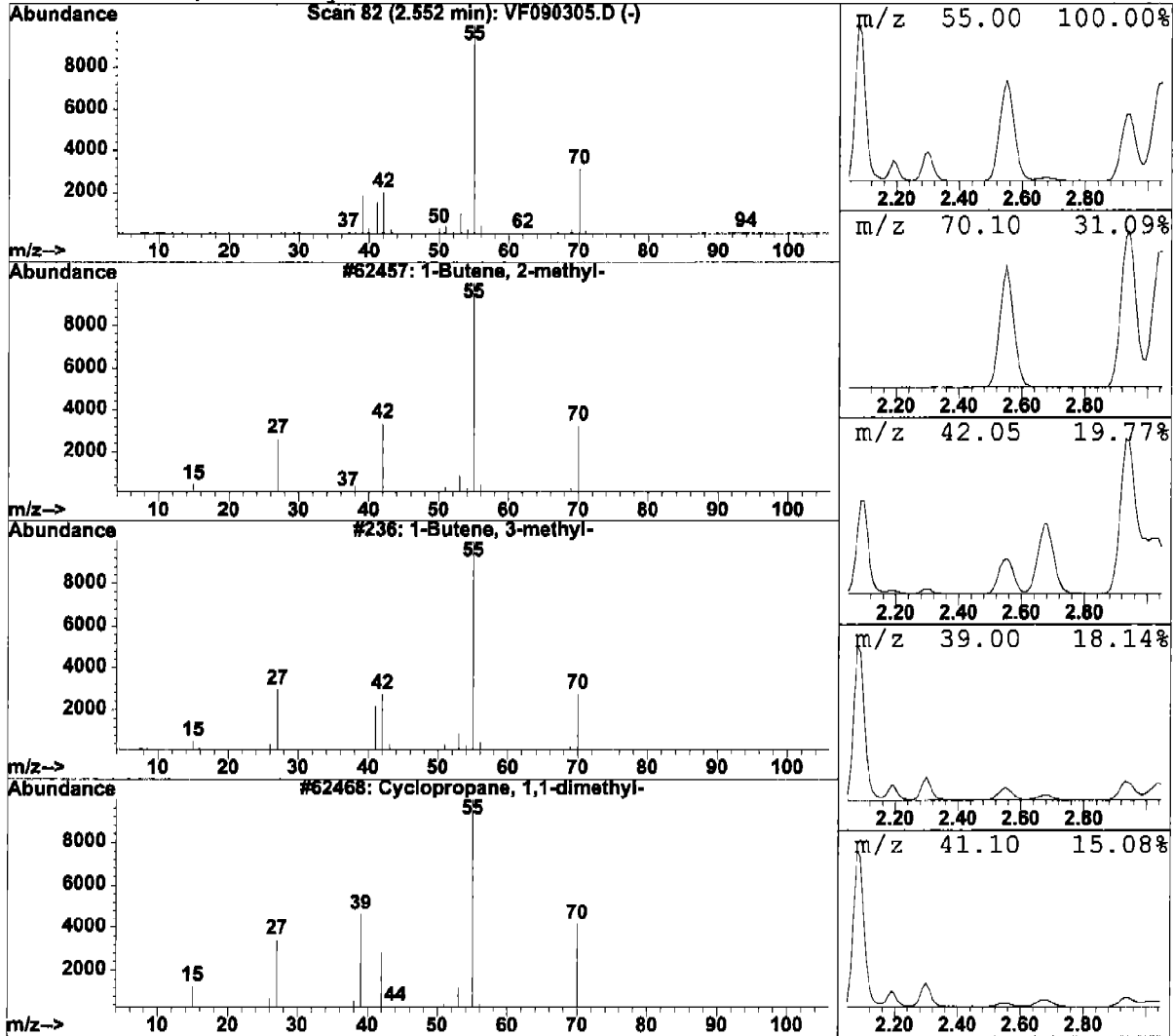
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 Acq On : 3 Sep 2004 12:08 am Operator: SAM  
 Sample : S4414-01 Inst : VOA F  
 Misc : 255mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 5 1-Butene, 2-methyl- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.55	1.18 ug/l	588958	Fluorobenzene	8.87

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Butene, 2-methyl-	70	C5H10	000563-46-2	87
2	1-Butene, 3-methyl-	70	C5H10	000563-45-1	86
3	Cyclopropane, 1,1-dimethyl-	70	C5H10	001630-94-0	72
4	1-Butene, 2-methyl-	70	C5H10	000563-46-2	72





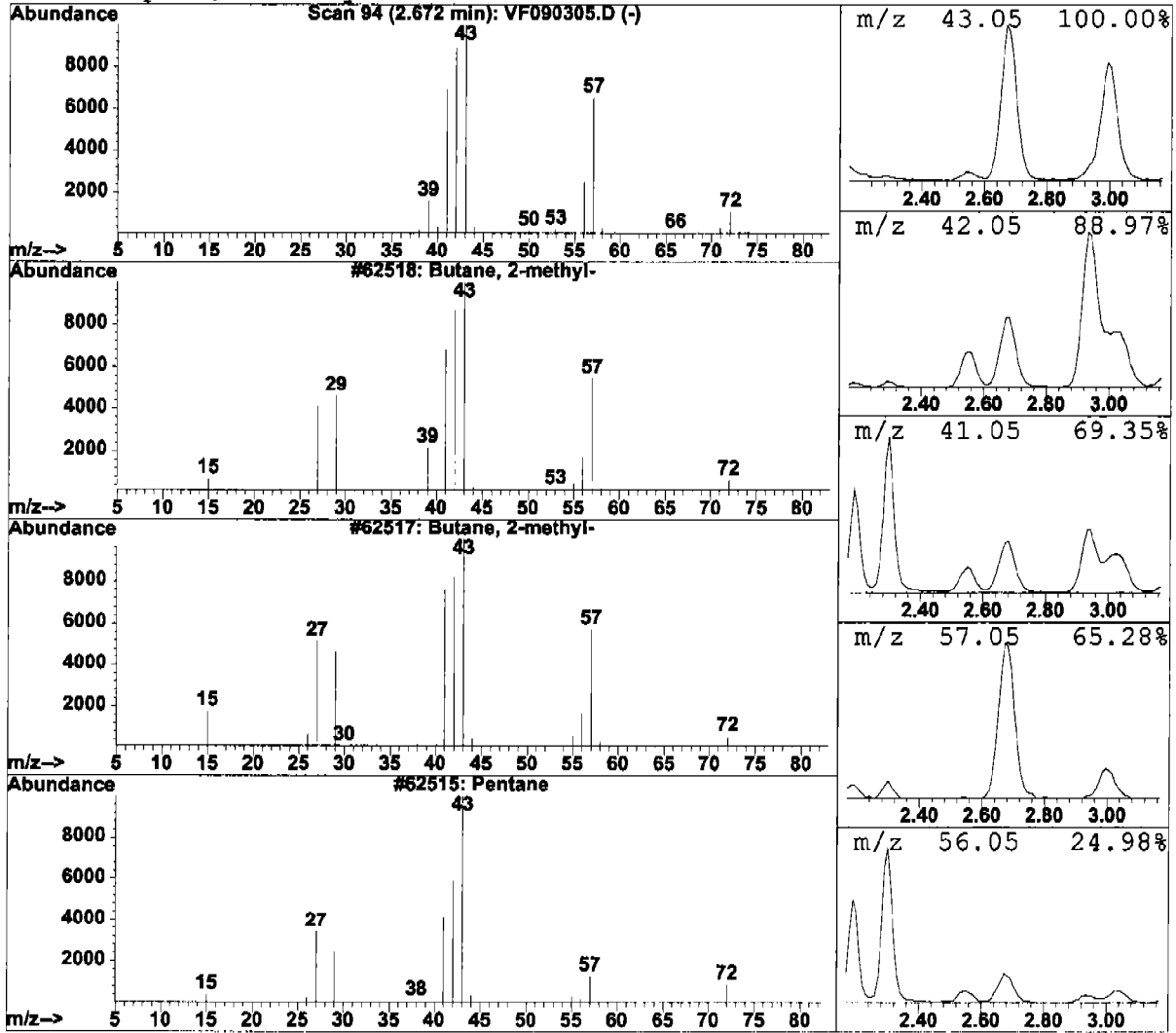
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090305.D Vial: 5  
 Acq On : 3 Sep 2004 12:08 am Operator: SAM  
 Sample : S4414-01 Inst : VOA F  
 Misc : 255mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 6 Butane, 2-methyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.67	1.07 ug/l	534668	Fluorobenzene	8.87

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	90
2	Butane, 2-methyl-	72	C5H12	000078-78-4	78
3	Pentane	72	C5H12	000109-66-0	36
4	1-Propene, 2-methyl-	56	C4H8	000115-11-7	10



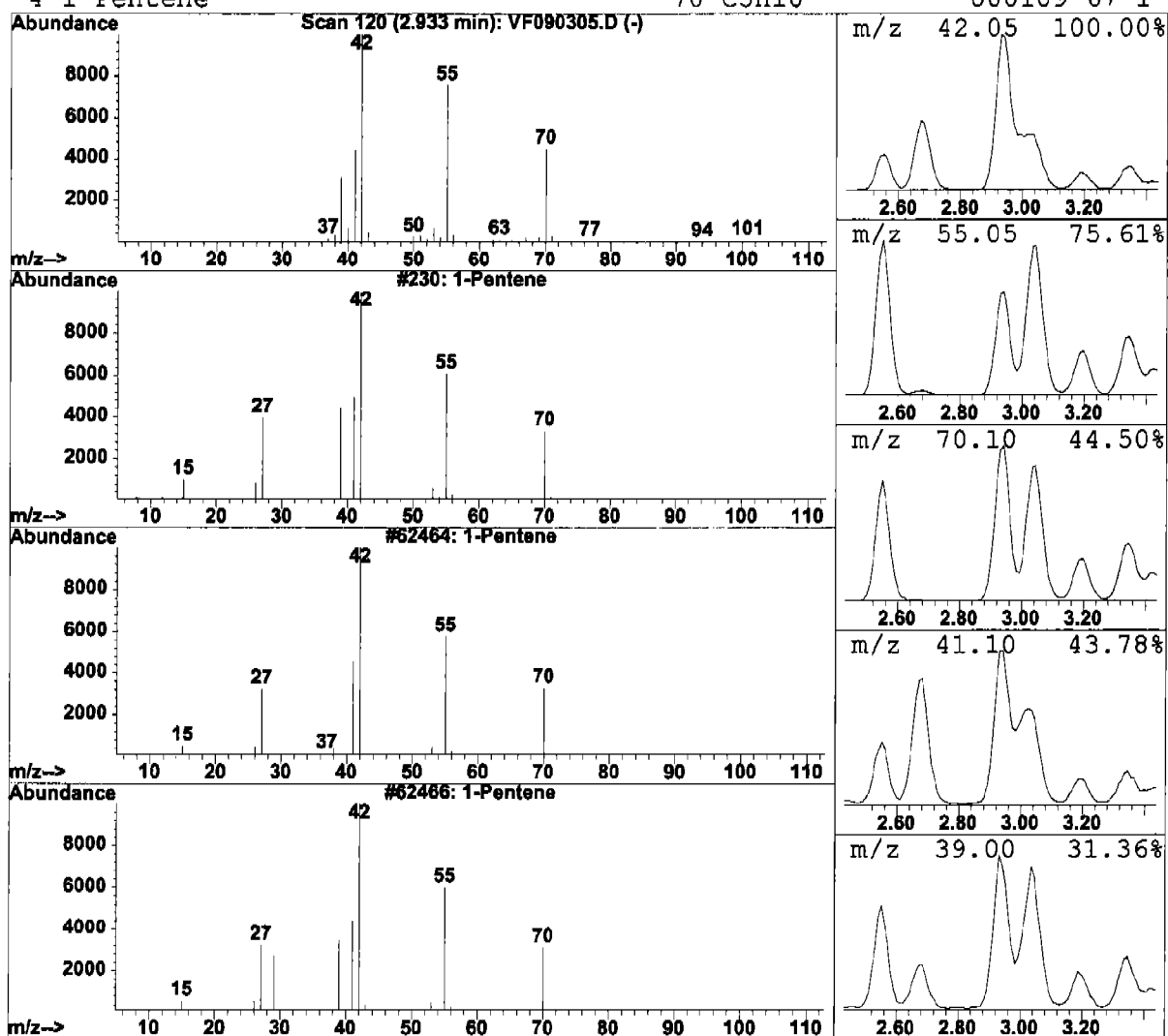
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 Acq On : 3 Sep 2004 12:08 am Operator: SAM  
 Sample : S4414-01 Inst : VOA F  
 Misc : 255mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 7 1-Pentene Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.93	1.79 ug/l	895850	Fluorobenzene	8.87

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			1-Pentene	70	C5H10	000109-67-1	91
2			1-Pentene	70	C5H10	000109-67-1	91
3			1-Pentene	70	C5H10	000109-67-1	90
4			1-Pentene	70	C5H10	000109-67-1	86



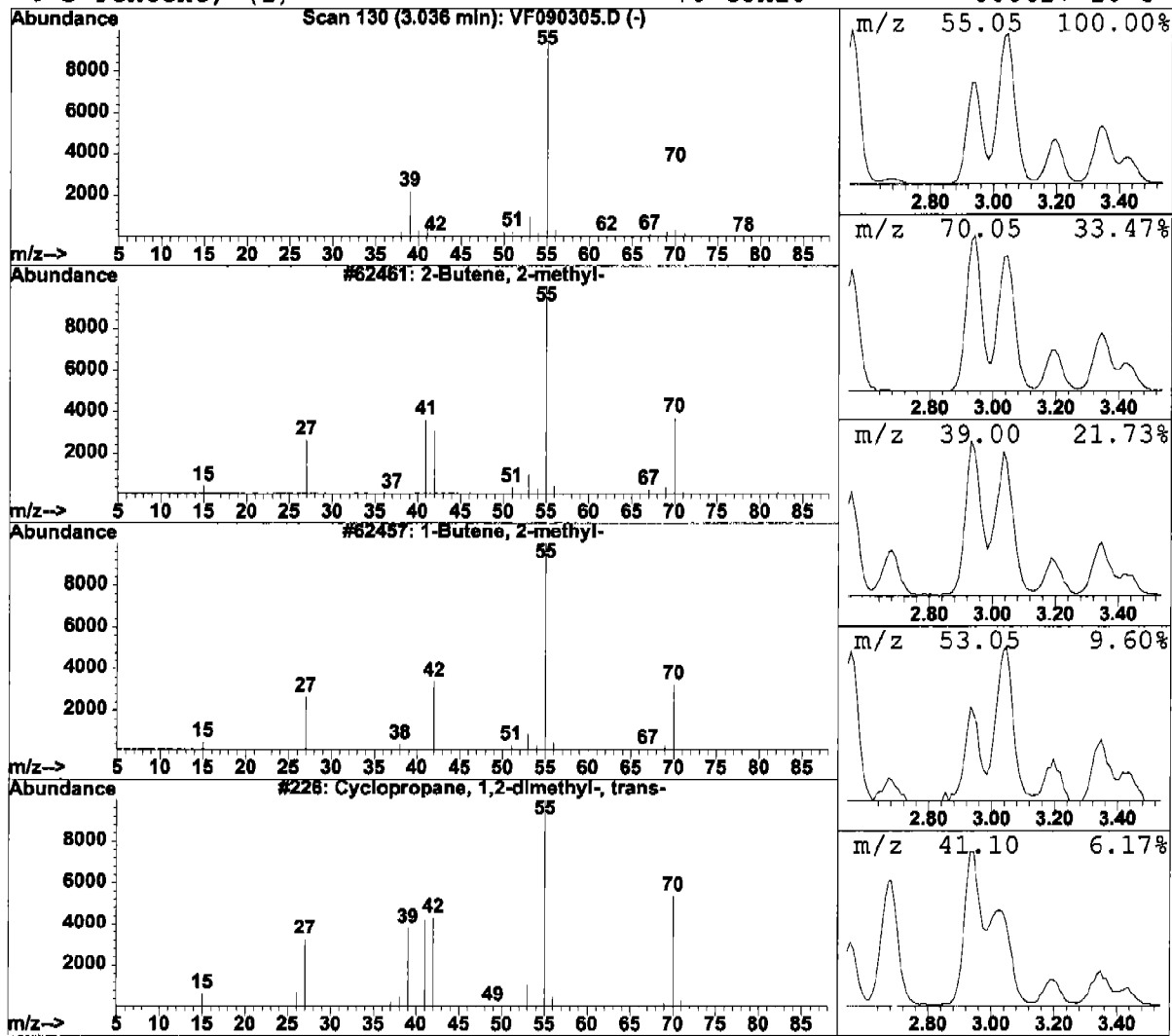
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 Acq On : 3 Sep 2004 12:08 am Operator: SAM  
 Sample : S4414-01 Inst : VOA F  
 Misc : 255mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 8 2-Butene, 2-methyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.04	1.78 ug/l	889231	Fluorobenzene	8.87

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Butene, 2-methyl-	70	C5H10	000513-35-9	80
2	1-Butene, 2-methyl-	70	C5H10	000563-46-2	78
3	Cyclopropane, 1,2-dimethyl-, trans-	70	C5H10	002402-06-4	78
4	2-Pentene, (Z)-	70	C5H10	000627-20-3	72



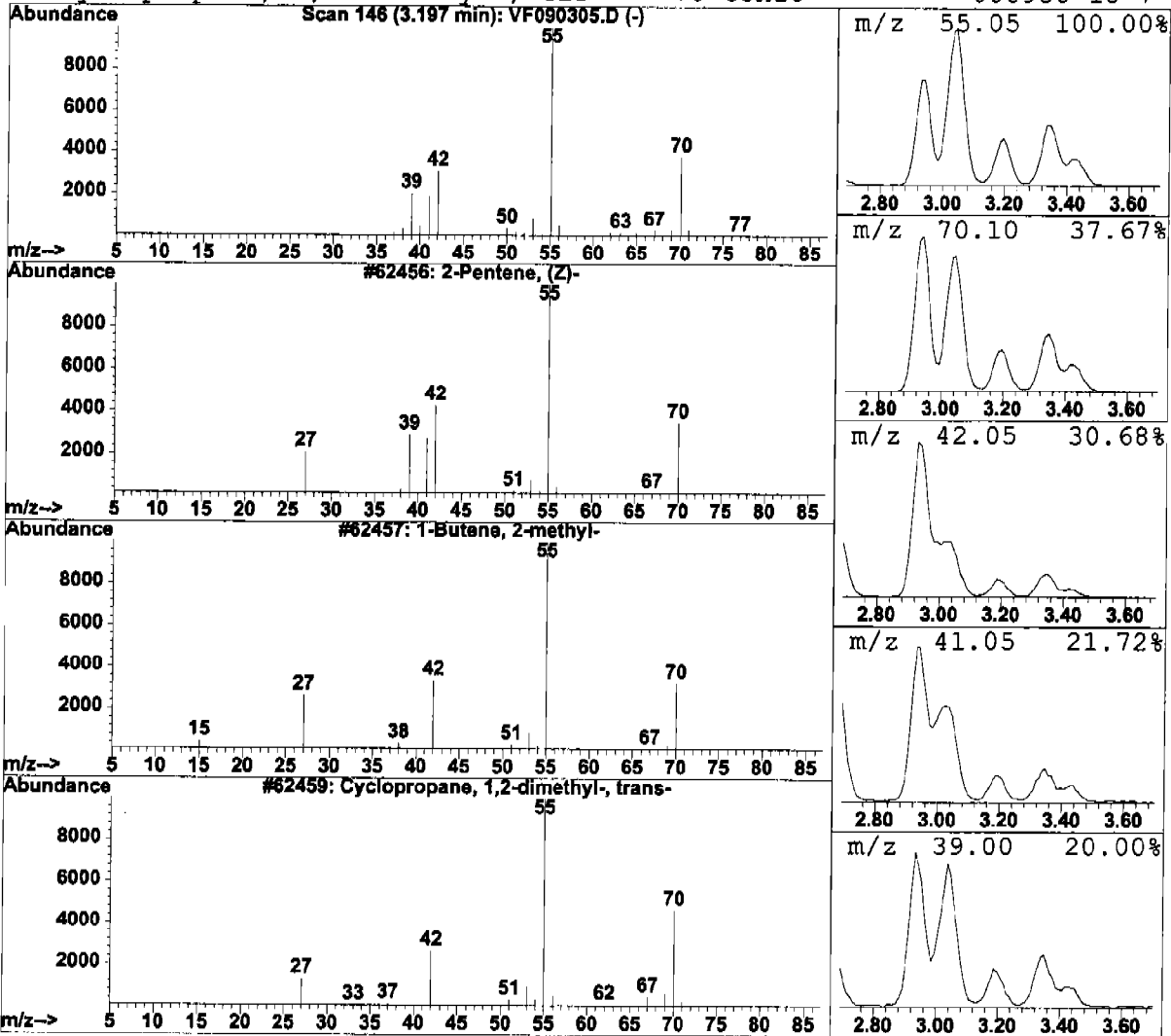
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 Acq On : 3 Sep 2004 12:08 am Operator: SAM  
 Sample : S4414-01 Inst : VOA F  
 Misc : 255mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 9 2-Pentene, (Z)- Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.20	0.41 ug/l	204472	Fluorobenzene	8.87

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentene, (Z)-	70	C5H10	000627-20-3	90
2	1-Butene, 2-methyl-	70	C5H10	000563-46-2	87
3	Cyclopropane, 1,2-dimethyl-, trans-	70	C5H10	002402-06-4	80
4	Cyclopropane, 1,2-dimethyl-, cis-	70	C5H10	000930-18-7	80



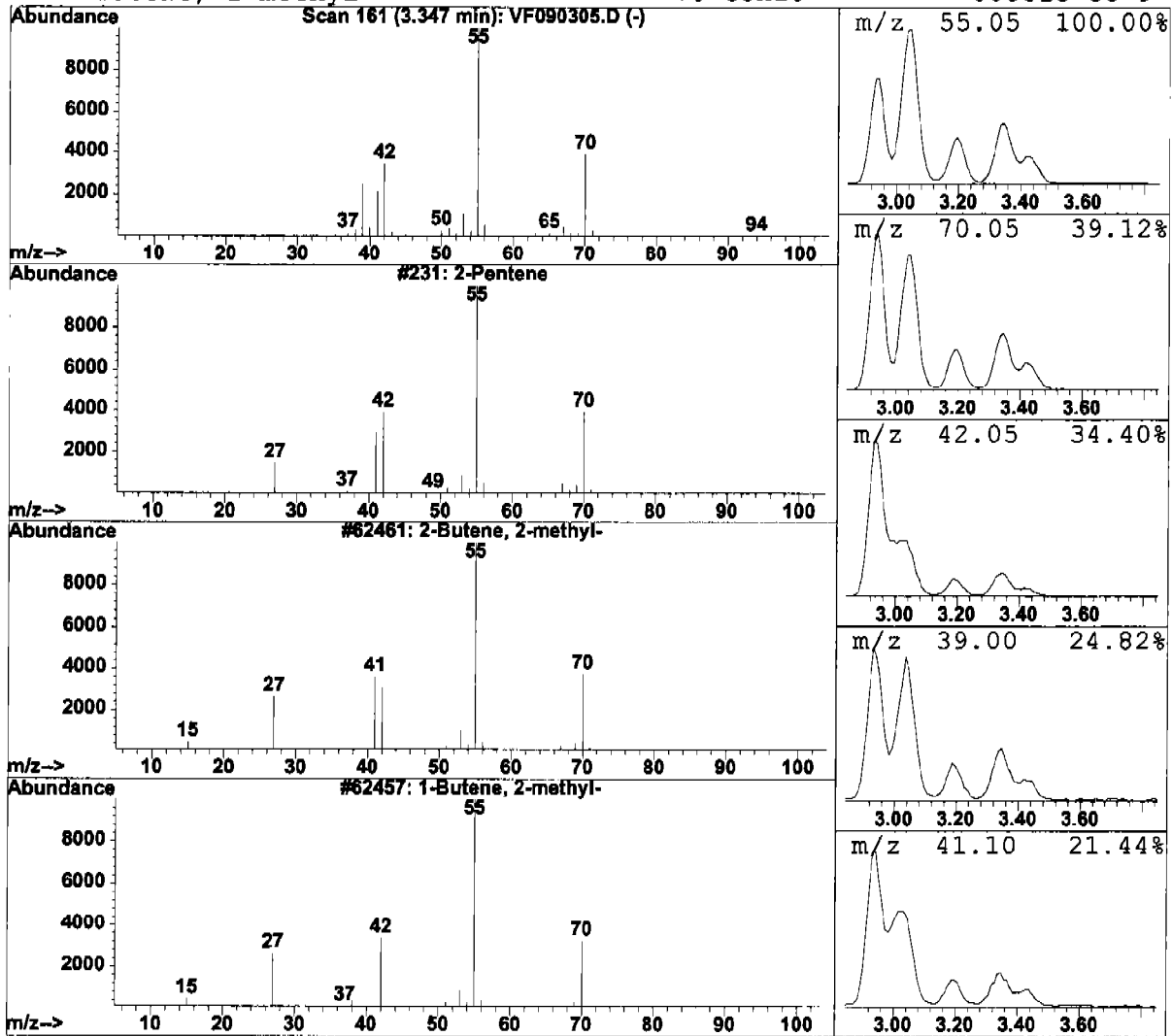
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090305.D Vial: 5  
 Acq On : 3 Sep 2004 12:08 am Operator: SAM  
 Sample : S4414-01 Inst : VOA F  
 Misc : 255mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 10 2-Pentene Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.35	0.66 ug/l	330245	Fluorobenzene	8.87

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	2-Pentene	70	C5H10	000109-68-2	91
2		2-Butene, 2-methyl-	70	C5H10	000513-35-9	91
3		1-Butene, 2-methyl-	70	C5H10	000563-46-2	90
4		2-Butene, 2-methyl-	70	C5H10	000513-35-9	90



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090305.D Vial: 5  
 Acq On : 3 Sep 2004 12:08 am Operator: SAM  
 Sample : S4414-01 Inst : VOA F  
 Misc : 255mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

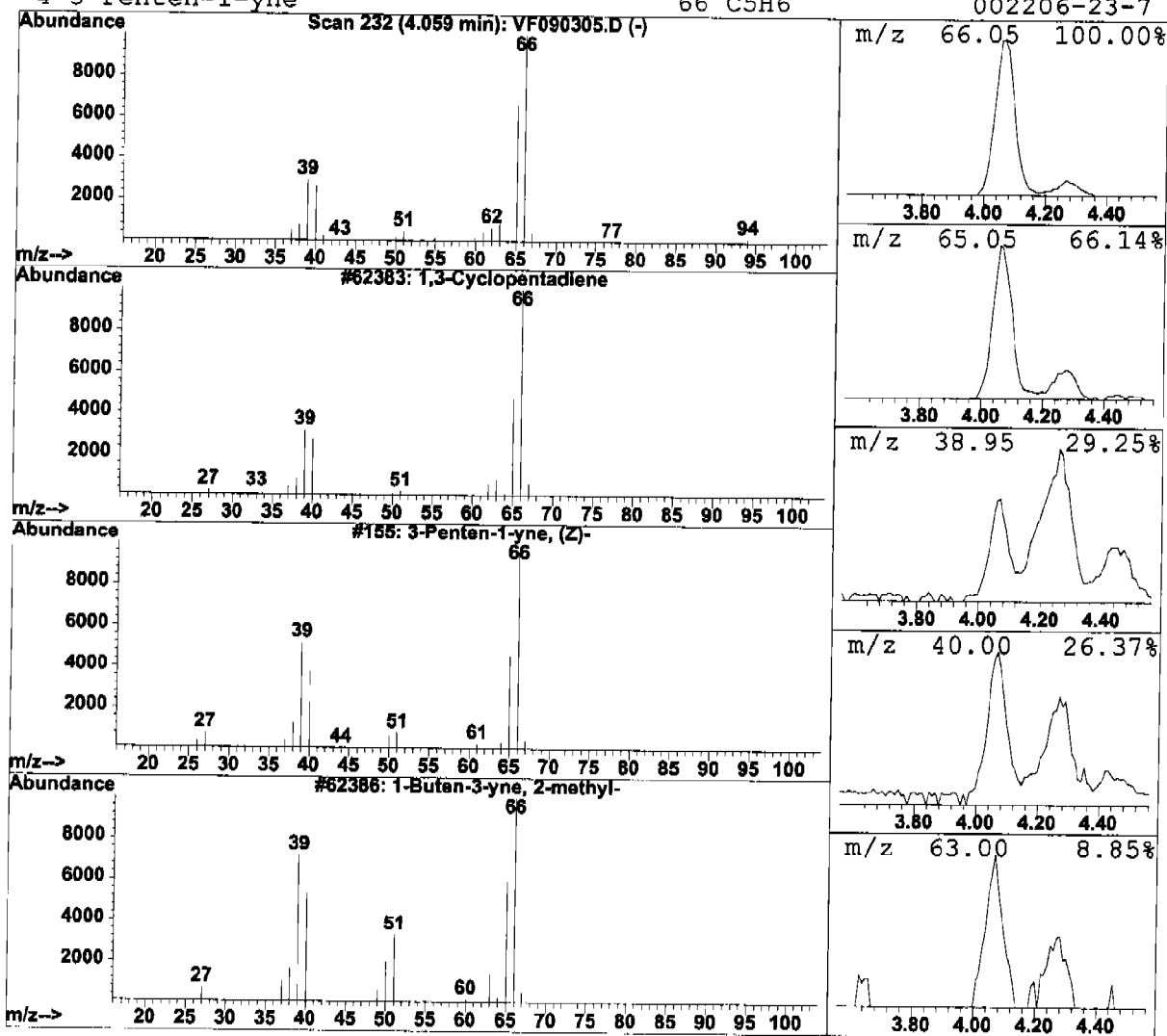
Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 11 1,3-Cyclopentadiene Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.06	0.43 ug/l	214293	Fluorobenzene	8.87

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,3-Cyclopentadiene	66	C5H6	000542-92-7	91
2	3-Penten-1-yne, (Z)-	66	C5H6	001574-40-9	83
3	1-Buten-3-yne, 2-methyl-	66	C5H6	000078-80-8	83
4	3-Penten-1-yne	66	C5H6	002206-23-7	83



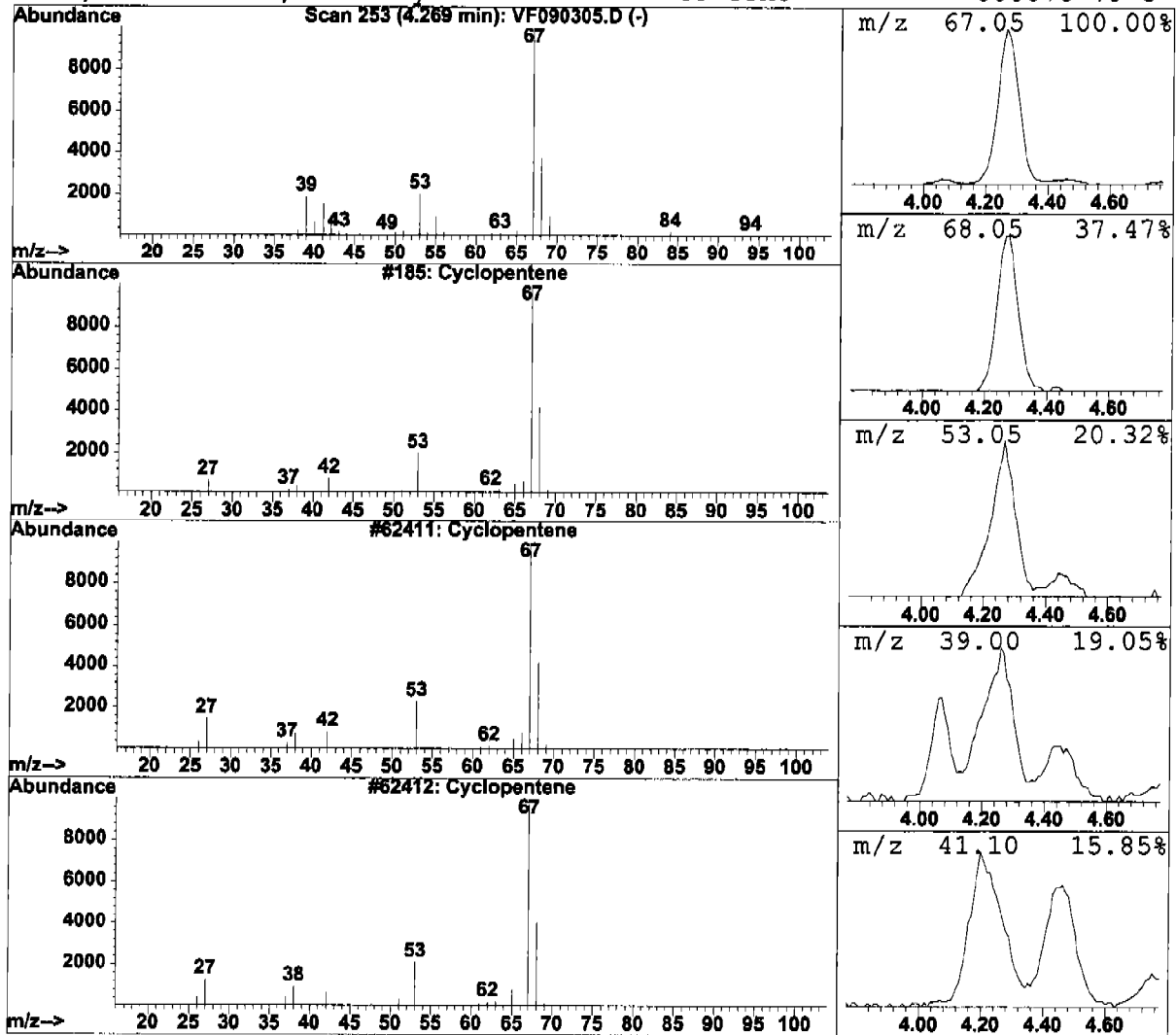
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090305.D Vial: 5  
 Acq On : 3 Sep 2004 12:08 am Operator: SAM  
 Sample : S4414-01 Inst : VOA F  
 Misc : 255mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 12 Cyclopentene Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.27	1.60 ug/l	797272	Fluorobenzene	8.87

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Cyclopentene	68	C5H8	000142-29-0	86
2			Cyclopentene	68	C5H8	000142-29-0	78
3			Cyclopentene	68	C5H8	000142-29-0	56
4			1,3-Butadiene, 2-methyl-	68	C5H8	000078-79-5	38



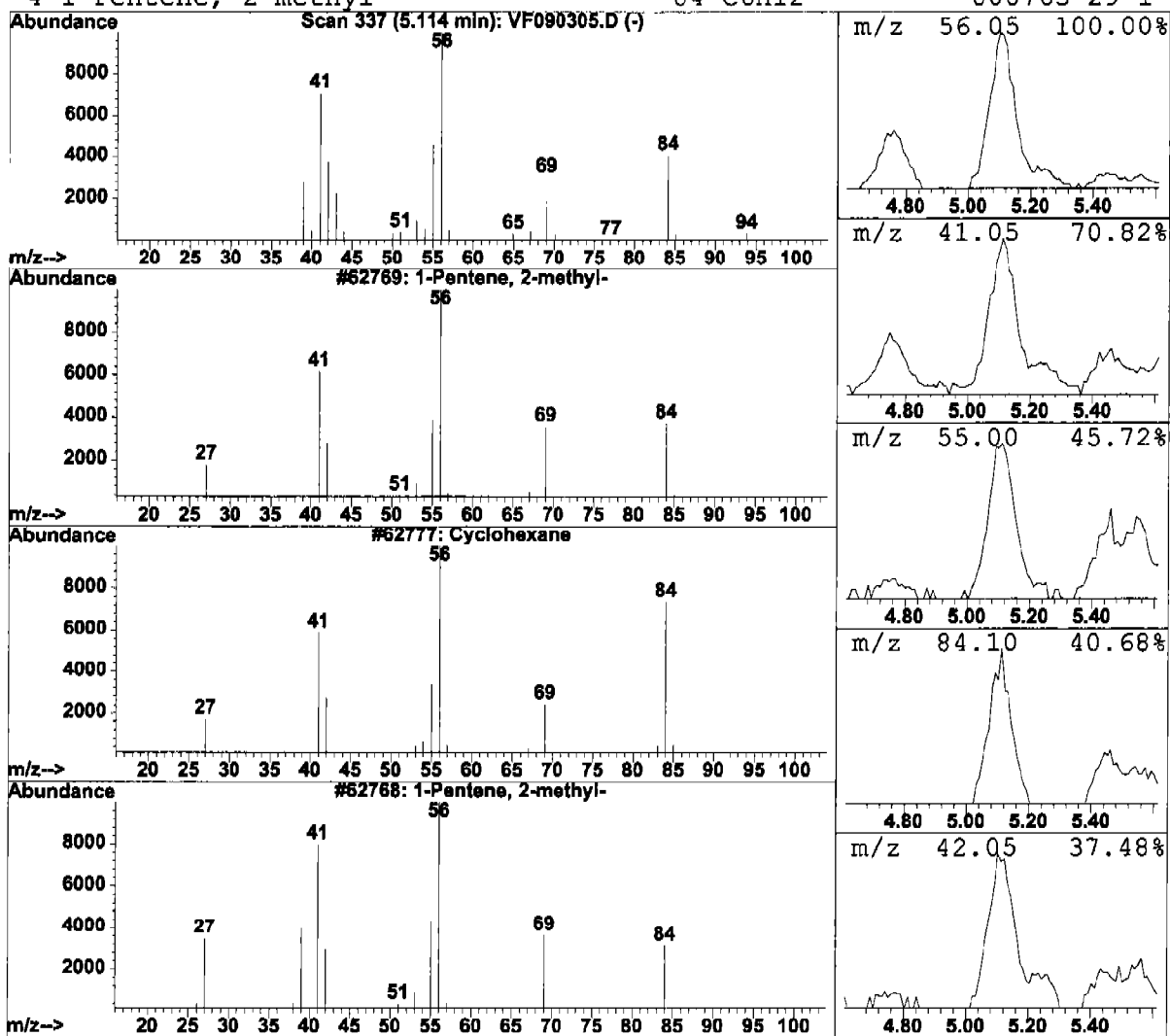
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090305.D Vial: 5  
 Acq On : 3 Sep 2004 12:08 am Operator: SAM  
 Sample : S4414-01 Inst : VOA F  
 Misc : 255mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 13 1-Pentene, 2-methyl- Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.11	0.45 ug/l	226603	Fluorobenzene	8.87

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	1-Pentene, 2-methyl-	84	C6H12	000763-29-1	91
2		Cyclohexane	84	C6H12	000110-82-7	90
3		1-Pentene, 2-methyl-	84	C6H12	000763-29-1	87
4		1-Pentene, 2-methyl-	84	C6H12	000763-29-1	86





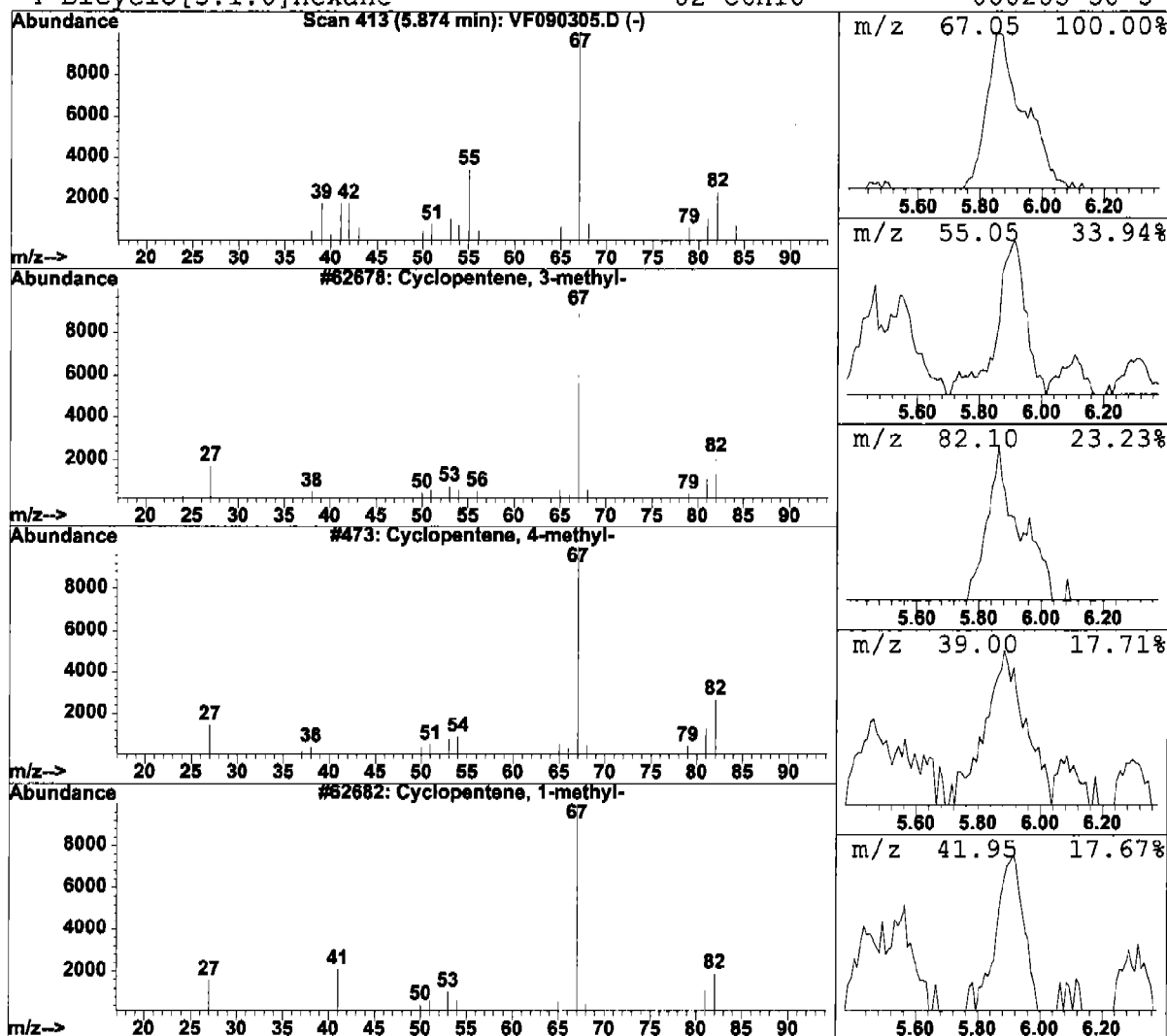
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090305.D Vial: 5  
 Acq On : 3 Sep 2004 12:08 am Operator: SAM  
 Sample : S4414-01 Inst : VOA F  
 Misc : 255mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 14 Cyclopentene, 3-methyl- Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.87	0.37 ug/l	183450	Fluorobenzene	8.87

Hit#	of 5	Tentative ID	MW	MolForm	CAS#	Qual
1		Cyclopentene, 3-methyl-	82	C6H10	001120-62-3	90
2		Cyclopentene, 4-methyl-	82	C6H10	001759-81-5	83
3		Cyclopentene, 1-methyl-	82	C6H10	000693-89-0	83
4		Bicyclo[3.1.0]hexane	82	C6H10	000285-58-5	80



## Tentatively Identified Compound (LSC) summary

Operator ID: SAM Date Acquired: 3 Sep 2004 12:08 am

Data File: C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090305.D

Name: S4414-01

Misc: 255mL

Method: C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)

Title: METHOD 524.2 VOLATILES DRINKING WATER

Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Isobutane	1.94	0.7	ug/l	360508	ISTD01	8.87	499574	1.0
1-Propene, 2-methyl-	2.09	7.8	ug/l	3911320	ISTD01	8.87	499574	1.0
1-Butene	2.19	0.6	ug/l	324565	ISTD01	8.87	499574	1.0
1-Butene	2.30	1.0	ug/l	523399	ISTD01	8.87	499574	1.0
1-Butene, 2-methyl-	2.55	1.2	ug/l	588958	ISTD01	8.87	499574	1.0
Butane, 2-methyl-	2.67	1.1	ug/l	534668	ISTD01	8.87	499574	1.0
1-Pentene	2.93	1.8	ug/l	895850	ISTD01	8.87	499574	1.0
2-Butene, 2-methyl-	3.04	1.8	ug/l	889231	ISTD01	8.87	499574	1.0
2-Pentene, (Z)-	3.20	0.4	ug/l	204472	ISTD01	8.87	499574	1.0
2-Pentene	3.35	0.7	ug/l	330245	ISTD01	8.87	499574	1.0
1,3-Cyclopentadiene	4.06	0.4	ug/l	214293	ISTD01	8.87	499574	1.0
Cyclopentene	4.27	1.6	ug/l	797272	ISTD01	8.87	499574	1.0
1-Pentene, 2-methyl-	5.11	0.5	ug/l	226603	ISTD01	8.87	499574	1.0
Cyclopentene, 3-meth	5.87	0.4	ug/l	183450	ISTD01	8.87	499574	1.0

VF090305.D VF0816DW.M

Fri Sep 03 15:15:44 2004

RPT1

**Report of Analysis**

Client:	Parsons Engineering	Date Collected:	8/26/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/28/2004
Client Sample ID:	TR2156	SDG No.:	S4414
Lab Sample ID:	S4414-02	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090207.D	1		9/2/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	0.09	U	1.0	0.09	ug/L
74-87-3	Chloromethane	0.11	U	1.0	0.11	ug/L
75-01-4	Vinyl Chloride	0.14	U	1.0	0.14	ug/L
74-83-9	Bromomethane	0.22	U	1.0	0.22	ug/L
75-00-3	Chloroethane	0.19	U	1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	0.09	U	1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	2.2	U	10	2.2	ug/L
60-29-7	Diethyl Ether	0.21	U	1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	0.16	U	1.0	0.16	ug/L
74-88-4	Iodomethane	0.14	U	1.0	0.14	ug/L
107-5-1	Allyl Chloride	0.18	U	1.0	0.18	ug/L
107-13-1	Acrylonitrile	0.94	U	2.0	0.94	ug/L
67-64-1	Acetone	1.5	U	5.8	1.5	ug/L
75-15-0	Carbon disulfide	0.18	U	1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	0.37	U	1.0	0.37	ug/L
79-20-9	Methyl acrylate	0.17	U	1.0	0.17	ug/L
75-09-2	Methylene Chloride	0.4	J	1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	J	1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	0.5	J	1.0	0.21	ug/L
78-93-3	2-Butanone	0.94	U	5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	0.22	U	1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	0.20	U	1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	95	E	1.0	0.24	ug/L
67-66-3	Chloroform	0.22	U	1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	1.3		1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	1.4	U	2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L
108-20-3	Isopropyl Ether	0.21	U	1.0	0.21	ug/L
107-12-0	Propionitrile	3.3	U	10	3.3	ug/L
71-43-2	Benzene	0.24	U	1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	0.4	J	1.0	0.21	ug/L
79-01-6	Trichloroethene	3.9		1.0	0.24	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/26/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/28/2004
Client Sample ID:	TR2156	SDG No.:	S4414
Lab Sample ID:	S4414-02	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090207.D	1		9/2/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	0.21	U	1.0	0.21	ug/L
126-98-7	Methacrylonitrile	0.33	U	1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	0.78	U	2.4	0.78	ug/L
109-69-3	1-Chlorobutane	0.22	U	1.0	0.22	ug/L
74-95-3	Dibromomethane	0.24	U	1.0	0.24	ug/L
75-27-4	Bromodichloromethane	0.20	U	1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	1.0	U	5.0	1.0	ug/L
80-62-6	Methyl methacrylate	0.53	U	2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	0.25	U	1.0	0.25	ug/L
108-88-3	Toluene	0.22	U	1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L
591-78-6	2-Hexanone	1.1	U	5.0	1.1	ug/L
124-48-1	Dibromochloromethane	0.17	U	1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L
127-18-4	Tetrachloroethene	0.34	U	1.0	0.34	ug/L
108-90-7	Chlorobenzene	0.21	U	1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L
67-72-1	Hexachloroethane	0.20	U	1.0	0.20	ug/L
100-41-4	Ethyl Benzene	0.21	U	1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	0.43	U	1.0	0.43	ug/L
95-47-6	o-Xylene	0.21	U	1.0	0.21	ug/L
100-42-5	Styrene	0.19	U	1.0	0.19	ug/L
75-25-2	Bromoform	0.22	U	1.0	0.22	ug/L
108-86-1	Bromobenzene	0.21	U	1.0	0.21	ug/L
98-82-8	Isopropylbenzene	0.20	U	1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	0.28	U	1.0	0.28	ug/L
103-61-5	N-propylbenzene	0.24	U	1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	0.50	U	1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.22	U	1.0	0.22	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/26/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monitc</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2156</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-02</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090207.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VF081604</b>

<b>CAS Number</b>	<b>Parameter</b>	<b>Conc.</b>	<b>Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
106-43-4	4-Chlorotoluene	0.22	U	1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	0.18	U	1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	0.20	U	1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	0.22	U	1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
104-51-8	n-Butylbenzene	0.20	U	1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.20	U	1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L
91-20-3	Naphthalene	0.17	U	1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.18	U	1.0	0.18	ug/L
<b>SURROGATES</b>						
2199-69-1	1,2-Dichlorobenzene-d4	1.02	102 %	80 - 120		SPK: 1
460-00-4	4-Bromofluorobenzene	0.97	97 %	80 - 120		SPK: 1
<b>INTERNAL STANDARDS</b>						
462-06-6	Fluorobenzene	227798	8.87			

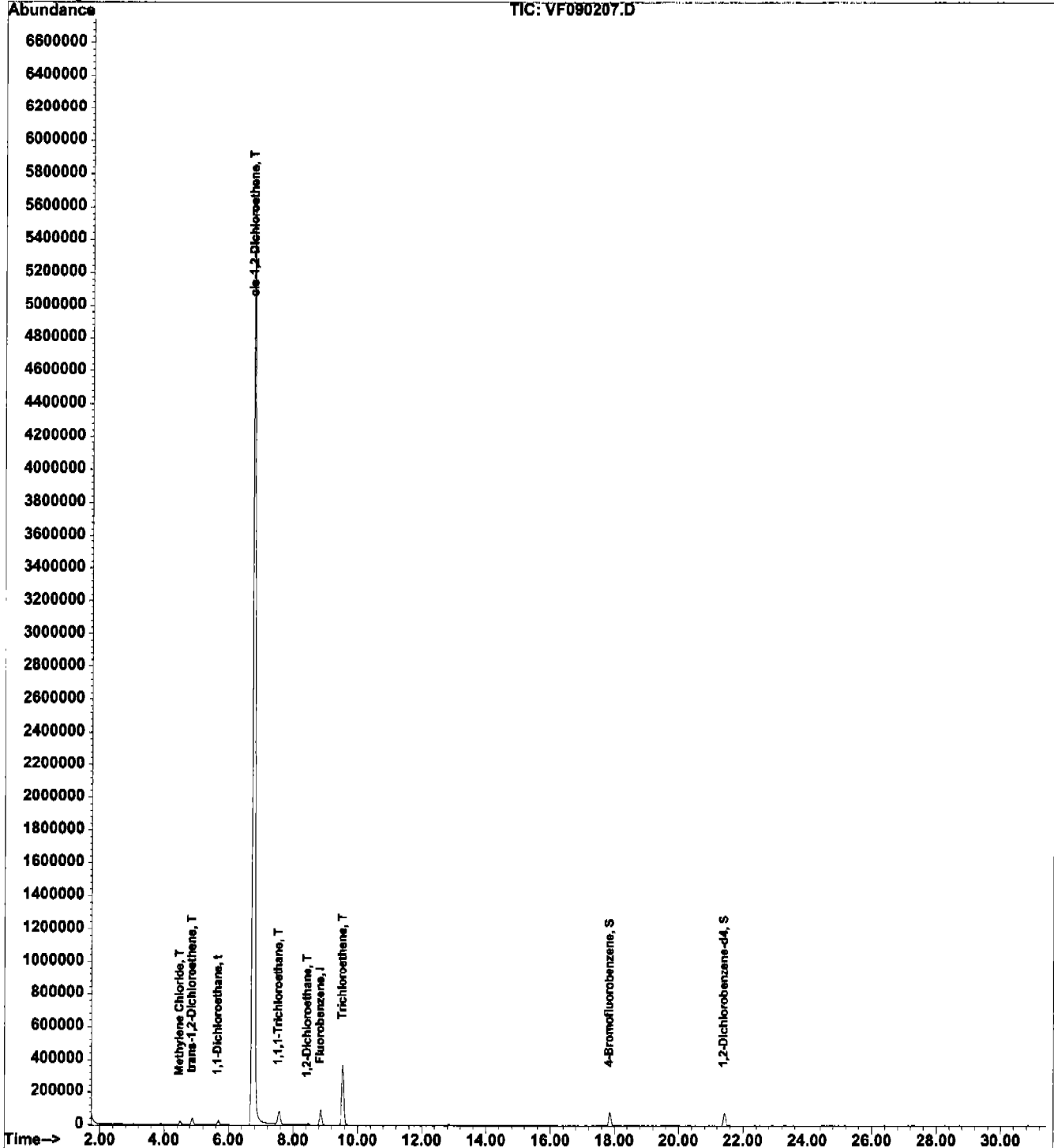
U = Not Detected  
RL = Reporting Limit  
MDL = Method Detection Limit  
E = Value Exceeds Calibration Range

J = Estimated Value  
B = Analyte Found in Associated Method Blank  
N = Presumptive Evidence of a Compound

Quantitation Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090207.D Vial: 8  
Acq On : 2 Sep 2004 12:57 pm Operator: SAM  
Sample : S4414-02 Inst : VOA F  
Misc : 5mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Sep 3 10:09 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090207.D Vial: 8  
 Acq On : 2 Sep 2004 12:57 pm Operator: SAM  
 Sample : S4414-02 Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 3 10:09 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

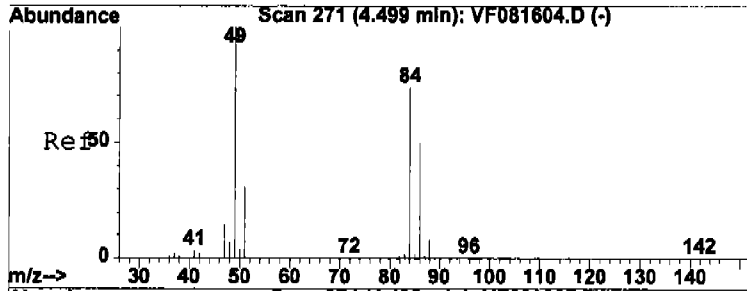
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	8.87	96	227798	1.00	ug/l	0.02
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.86	95	103936	0.97	ug/l	0.00
Spiked Amount	1.000		Recovery	=	97.00%	
63) 1,2-Dichlorobenzene-	21.43	152	60554	1.02	ug/l	0.00
Spiked Amount	1.000		Recovery	=	102.00%	
Target Compounds						
14) Methylene Chloride	4.50	84	18692	0.35	ug/l	96
15) trans-1,2-Dichloroet	4.88	96	33864	0.48	ug/l	90
16) 1,1-Dichloroethane	5.69	63	65377	0.52	ug/l	98
19) cis-1,2-Dichloroethe	6.76	96	6605775	95.25	ug/l	83
25) 1,1,1-Trichloroethan	7.57	97	152524	1.30	ug/l	96
31) 1,2-Dichloroethane	8.46	62	14339	0.35	ug/l #	53
32) Trichloroethene	9.55	130	313052	3.94	ug/l	98

Analyst Signature: [Signature] Analyst Name: [Signature] Date: 09/09/04

REASONS FOR MANUAL INTEGRATIONS

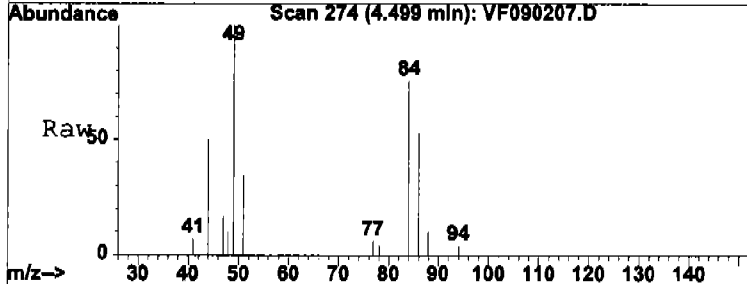
\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

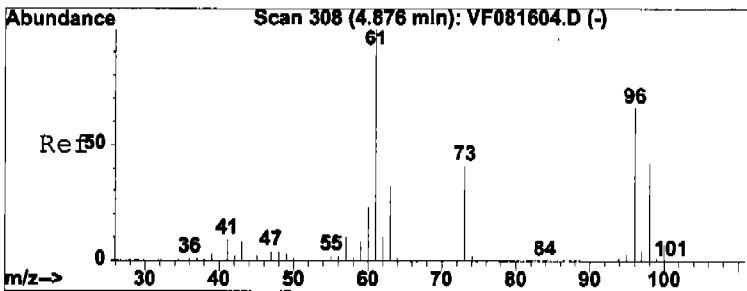
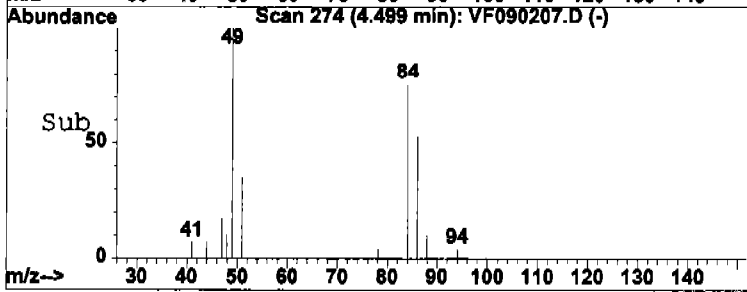
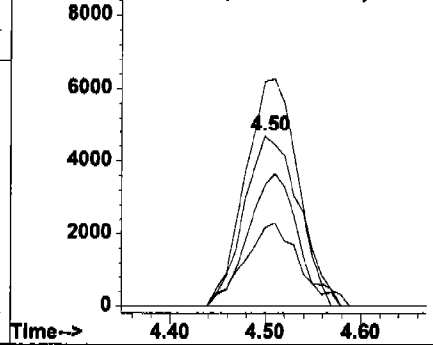


#14  
 Methylene Chloride  
 Concen: 0.35 ug/l  
 RT: 4.50 min Scan# 274  
 Delta R.T. 0.00 min  
 Lab File: VF090207.D  
 Acq: 2 Sep 2004 12:57 pm

Tgt Ion:	84	Resp:	18692
Ion Ratio	Lower	Upper	
84	100		
49	132.1	108.6	163.0
51	46.1	0.0	84.4
86	70.7	54.2	81.2

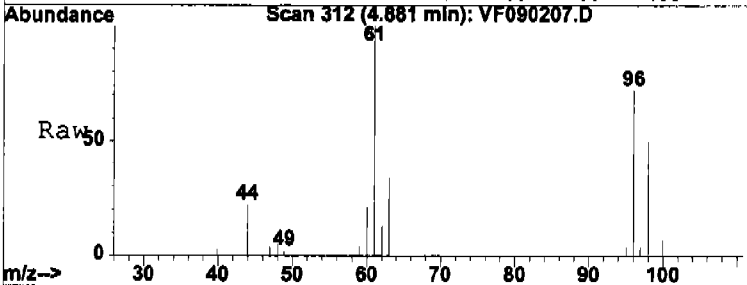


Abundance  
 Ion 84.00 (83.70 to 84.70): VF09  
 Ion 49.00 (48.70 to 49.70): VF09  
 Ion 51.00 (50.70 to 51.70): VF09  
 Ion 86.00 (85.70 to 86.70): VF09

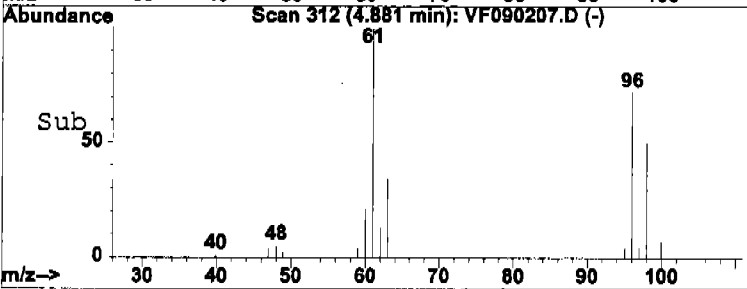
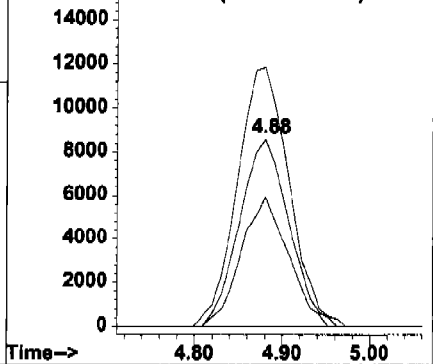


#15  
 trans-1,2-Dichloroethene  
 Concen: 0.48 ug/l  
 RT: 4.88 min Scan# 312  
 Delta R.T. 0.01 min  
 Lab File: VF090207.D  
 Acq: 2 Sep 2004 12:57 pm

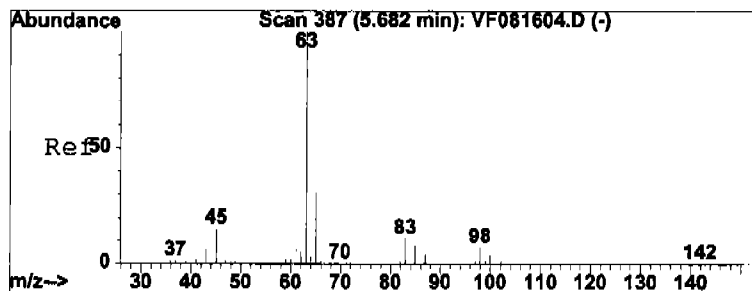
Tgt Ion:	96	Resp:	33864
Ion Ratio	Lower	Upper	
96	100		
61	138.0	121.8	182.6
98	69.4	51.7	77.5



Abundance  
 Ion 96.00 (95.70 to 96.70): VF09  
 Ion 61.00 (60.70 to 61.70): VF09  
 Ion 98.00 (97.70 to 98.70): VF09

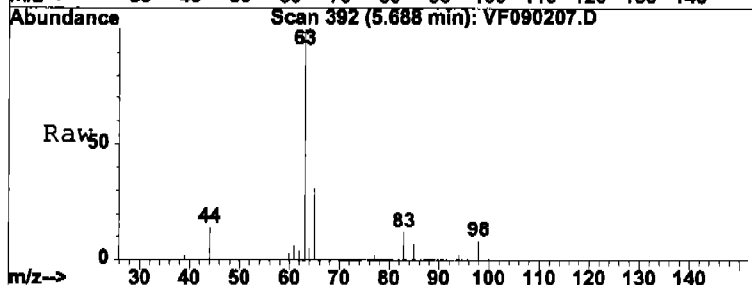




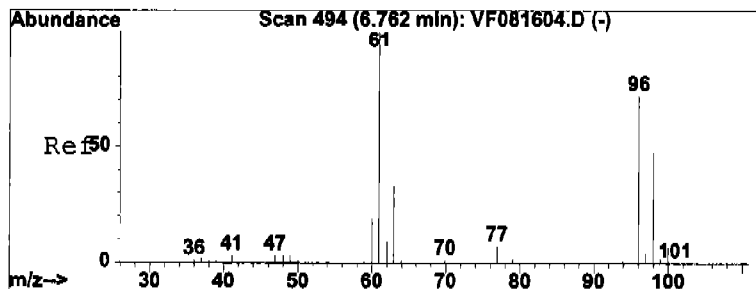
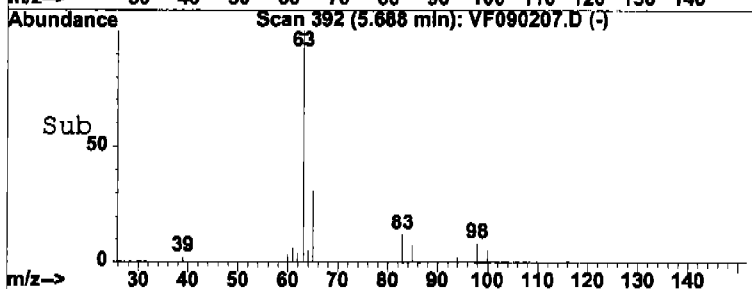
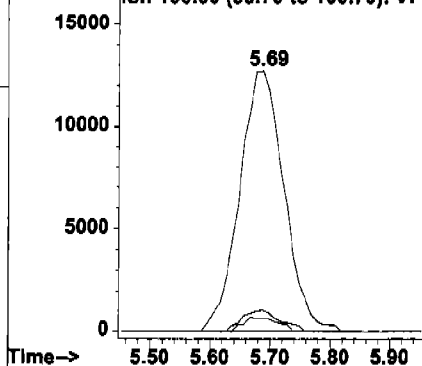


#16  
 1,1-Dichloroethane  
 Concen: 0.52 ug/l  
 RT: 5.69 min Scan# 392  
 Delta R.T. 0.01 min  
 Lab File: VF090207.D  
 Acq: 2 Sep 2004 12:57 pm

Tgt Ion	Resp	Lower	Upper
63	65377	100	
98	8.1	3.6	10.8
100	4.9	2.2	6.6

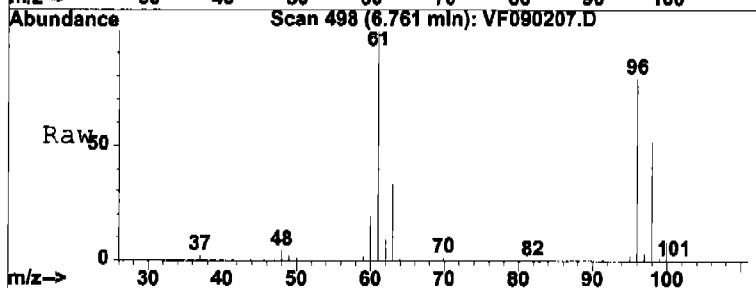


Abundance Ion 63.00 (62.70 to 63.70): VF09  
 Ion 98.00 (97.70 to 98.70): VF09  
 Ion 100.00 (99.70 to 100.70): VF0

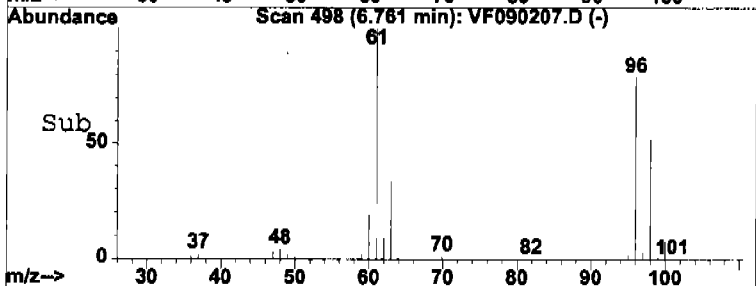
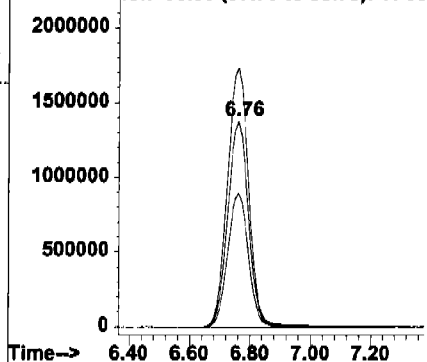


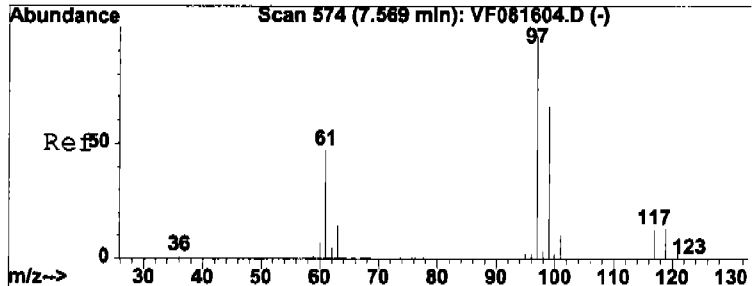
#19  
 cis-1,2-Dichloroethene  
 Concen: 95.25 ug/l  
 RT: 6.76 min Scan# 498  
 Delta R.T. 0.01 min  
 Lab File: VF090207.D  
 Acq: 2 Sep 2004 12:57 pm

Tgt Ion	Resp	Lower	Upper
96	6605775	100	
61	130.0	0.0	403.7
98	65.5	32.9	98.6



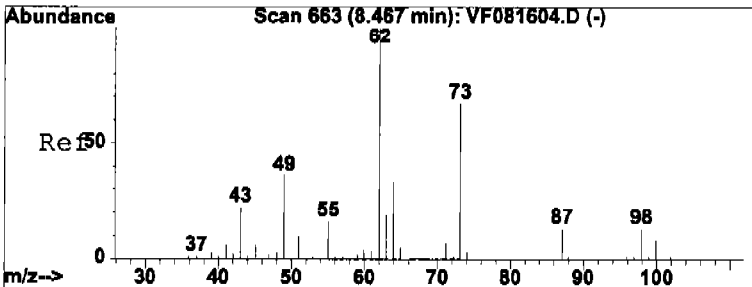
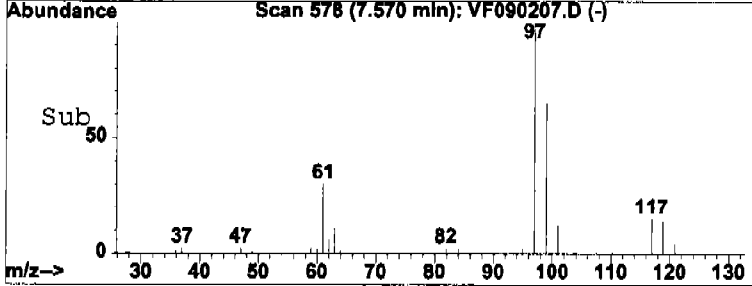
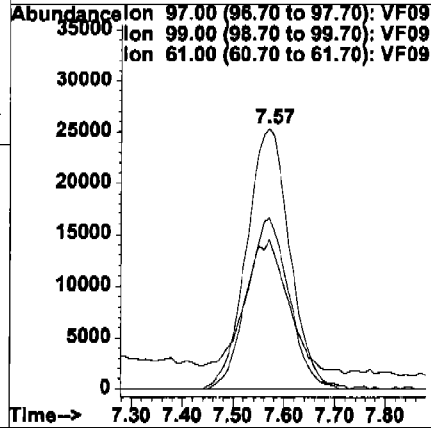
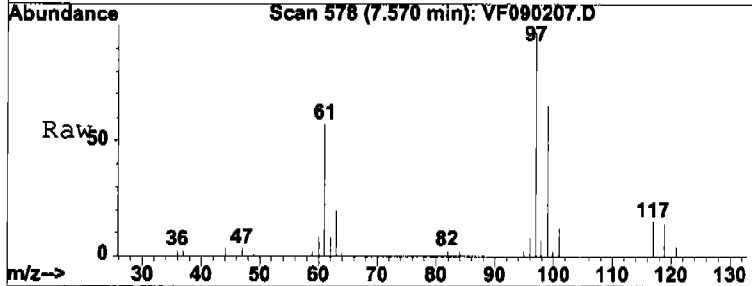
Abundance Ion 96.00 (95.70 to 96.70): VF09  
 Ion 61.00 (60.70 to 61.70): VF09  
 Ion 98.00 (97.70 to 98.70): VF09





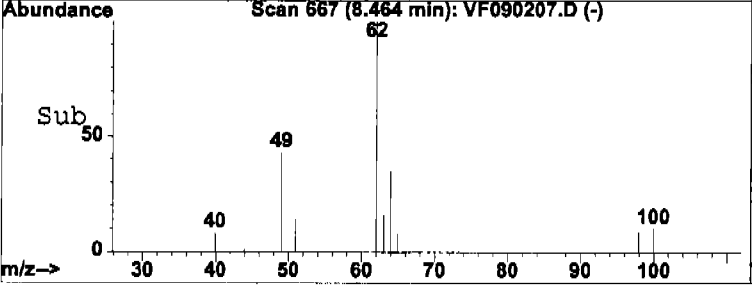
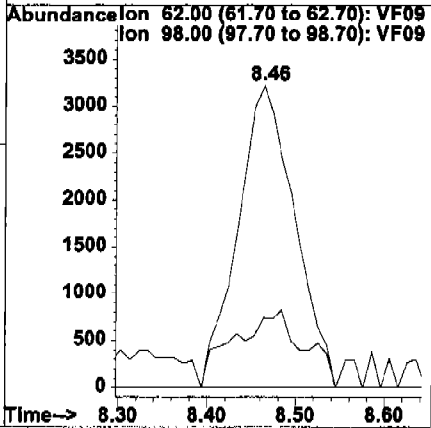
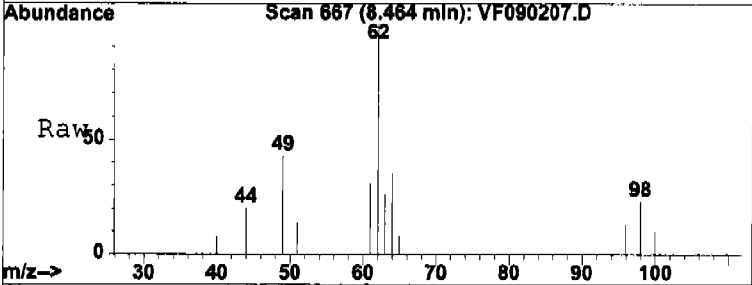
#25  
 1,1,1-Trichloroethane  
 Concen: 1.30 ug/l  
 RT: 7.57 min Scan# 578  
 Delta R.T. 0.01 min  
 Lab File: VF090207.D  
 Acq: 2 Sep 2004 12:57 pm

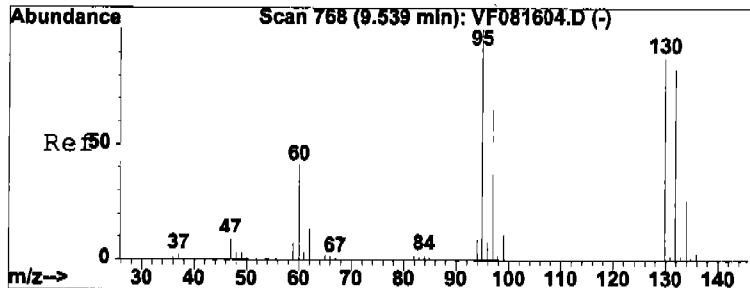
Tgt Ion	Resp	Lower	Upper
97	152524		
99	63.7	32.4	97.1
61	52.4	24.0	71.8



#31  
 1,2-Dichloroethane  
 Concen: 0.35 ug/l  
 RT: 8.46 min Scan# 667  
 Delta R.T. 0.01 min  
 Lab File: VF090207.D  
 Acq: 2 Sep 2004 12:57 pm

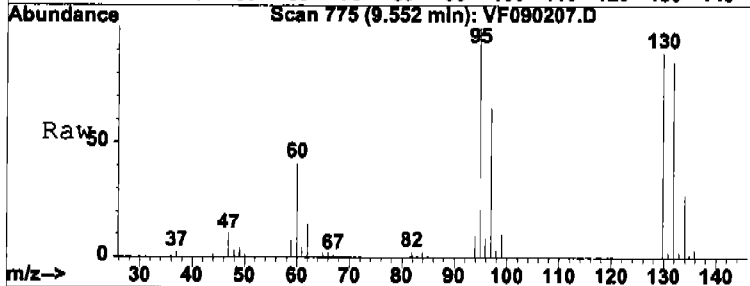
Tgt Ion	Resp	Lower	Upper
62	14339		
98	31.1	10.2	15.2#



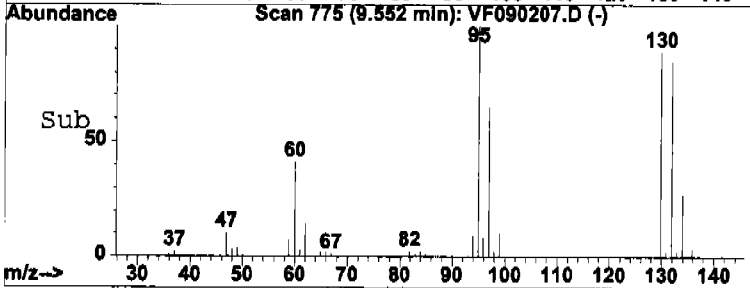
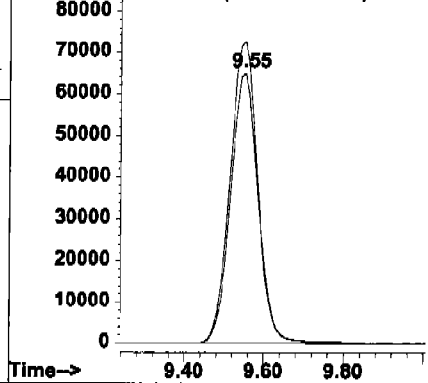


#32  
 Trichloroethene  
 Concen: 3.94 ug/l  
 RT: 9.55 min Scan# 775  
 Delta R.T. 0.01 min  
 Lab File: VF090207.D  
 Acq: 2 Sep 2004 12:57 pm

Tgt Ion:130 Resp: 313052  
 Ion Ratio Lower Upper  
 130 100  
 95 111.8 90.9 136.3



Abundance Ion 129.90 (129.60 to 130.60): VF  
 Ion 94.90 (94.60 to 95.60): VF09



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090207.D Vial: 8  
 Acq On : 2 Sep 2004 12:57 pm Operator: SAM  
 Sample : S4414-02 Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

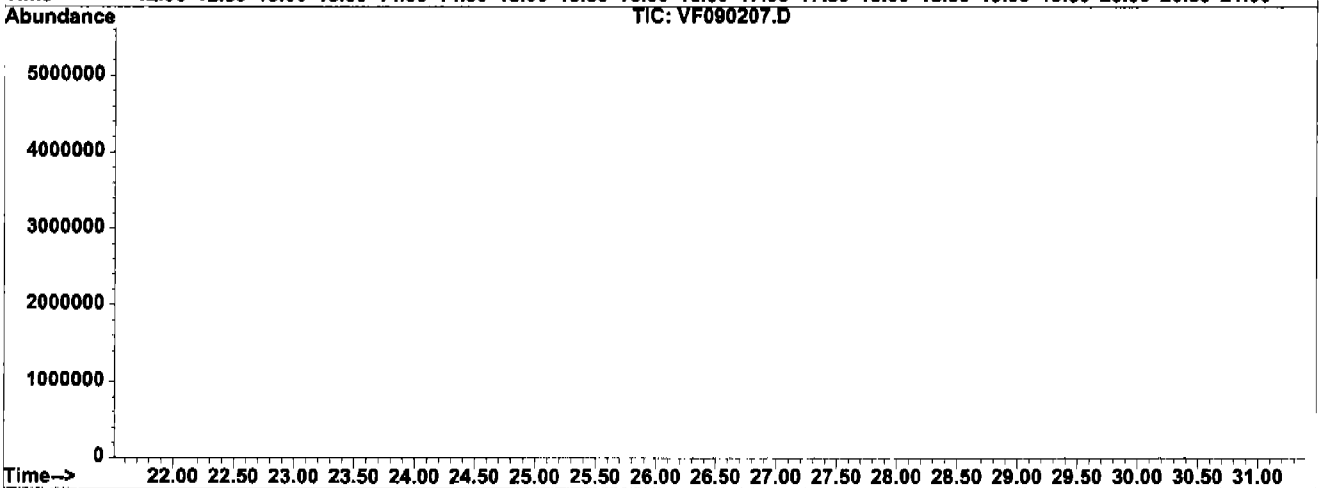
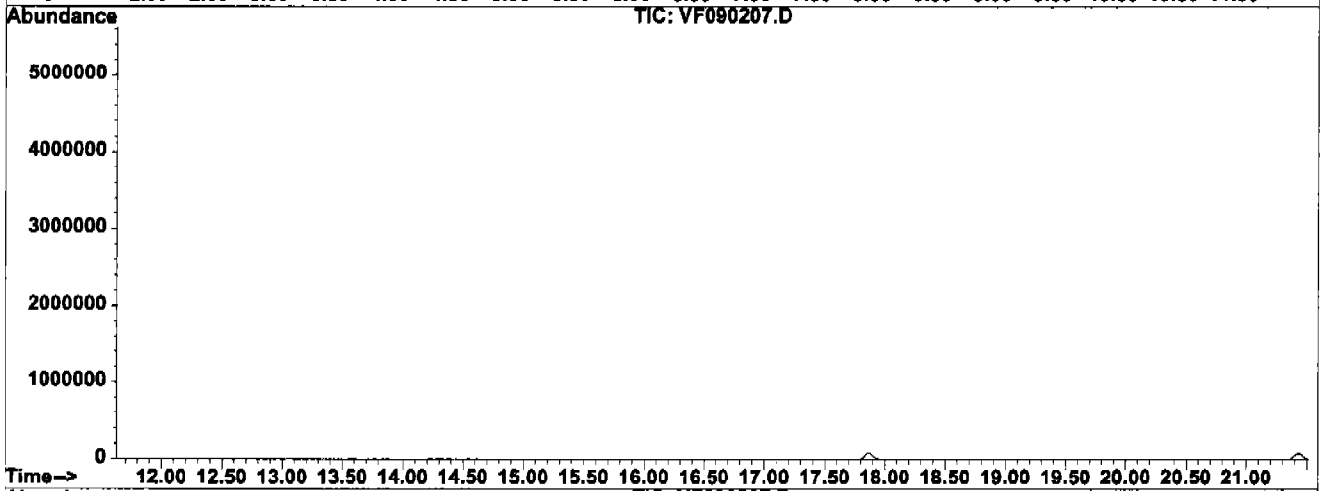
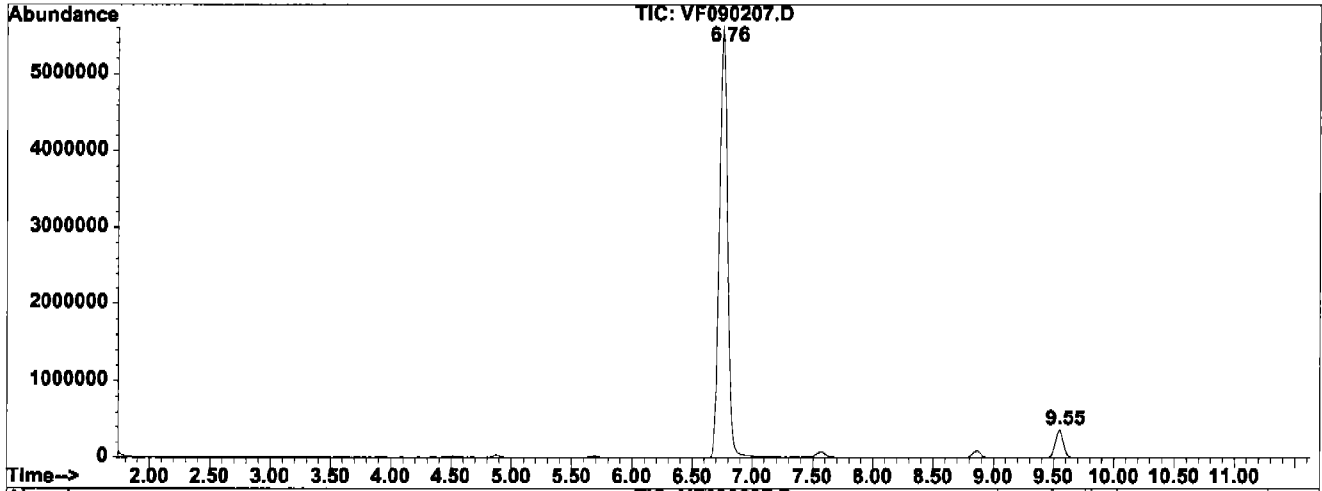
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	6.761	483	498	541	rBV	5619090	27501485	100.00%	93.960%
2	9.552	761	775	802	rVB	364985	1767995	6.43%	6.040%

Sum of corrected areas: 29269480

VF090207.D VF0816DW.M Fri Sep 03 11:22:01 2004 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090207.D  
Operator : SAM  
Acquired : 2 Sep 2004 12:57 pm using AcqMethod VF\_VOA  
Instrument : VOA F  
Sample Name: S4414-02  
Misc Info : 5mL  
Vial Number: 8  
Quant File :VF0816DW.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: SAM      Date Acquired: 2 Sep 2004 12:57 pm  
Data File: C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090207.D  
Name: S4414-02  
Misc: 5mL  
Method: C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title: METHOD 524.2 VOLATILES DRINKING WATER  
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
VF090207.D VF0816DW.M								
		Fri Sep 03	11:22:01	2004		RPT1		

**Report of Analysis**

<b>Client:</b>	Parsons Engineering	<b>Date Collected:</b>	8/26/2004
<b>Project:</b>	Seneca Ash Landfill Quarterly Monitc	<b>Date Received:</b>	8/28/2004
<b>Client Sample ID:</b>	TR2156DL	<b>SDG No.:</b>	S4414
<b>Lab Sample ID:</b>	S4414-02DL	<b>Matrix:</b>	WATER
<b>Analytical Method:</b>	524.2	<b>% Moisture:</b>	100
<b>Sample Wt/Wol:</b>	25.0 Units: mL	<b>Soil Extract Vol:</b>	uL
<b>Soil Aliquot Vol:</b>	mL		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
VF090311.D	25		9/3/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	2.2	UD	25	2.2	ug/L
74-87-3	Chloromethane	2.8	UD	25	2.8	ug/L
75-01-4	Vinyl Chloride	3.6	UD	25	3.6	ug/L
74-83-9	Bromomethane	5.4	UD	25	5.4	ug/L
75-00-3	Chloroethane	4.8	UD	25	4.8	ug/L
75-69-4	Trichlorofluoromethane	2.3	UD	25	2.3	ug/L
75-65-0	tert-Butyl Alcohol	54	UD	250	54	ug/L
60-29-7	Diethyl Ether	5.3	UD	25	5.3	ug/L
75-35-4	1,1-Dichloroethene	4.0	UD	25	4.0	ug/L
74-88-4	Iodomethane	3.6	UD	25	3.6	ug/L
107-5-1	Allyl Chloride	4.6	UD	25	4.6	ug/L
107-13-1	Acrylonitrile	23	UD	50	23	ug/L
67-64-1	Acetone	66	JD	140	38	ug/L
75-15-0	Carbon disulfide	4.5	UD	25	4.5	ug/L
1634-04-4	Methyl tert-butyl Ether	9.3	UD	25	9.3	ug/L
79-20-9	Methyl acrylate	4.3	UD	25	4.3	ug/L
75-09-2	Methylene Chloride	12	JD	25	4.5	ug/L
156-60-5	trans-1,2-Dichloroethene	5.4	UD	25	5.4	ug/L
75-34-3	1,1-Dichloroethane	5.2	UD	25	5.2	ug/L
78-93-3	2-Butanone	23	UD	120	23	ug/L
56-23-5	Carbon Tetrachloride	5.6	UD	25	5.6	ug/L
594-20-7	2,2-Dichloropropane	5.1	UD	25	5.1	ug/L
156-59-2	cis-1,2-Dichloroethene	62	D	25	6.0	ug/L
67-66-3	Chloroform	5.4	UD	25	5.4	ug/L
71-55-6	1,1,1-Trichloroethane	6.1	UD	25	6.1	ug/L
110-57-6	t-1,4-Dichloro-2-butene	35	UD	50	35	ug/L
563-43-2	1,1-Dichloropropene	5.2	UD	25	5.2	ug/L
108-20-3	Isopropyl Ether	5.2	UD	25	5.2	ug/L
107-12-0	Propionitrile	82	UD	250	82	ug/L
71-43-2	Benzene	5.9	UD	25	5.9	ug/L
107-06-2	1,2-Dichloroethane	5.2	UD	25	5.2	ug/L
79-01-6	Trichloroethene	6.0	UD	25	6.0	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/26/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2156DL</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-02DL</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090311.D</b>	<b>25</b>		<b>9/3/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	5.3	UD	25	5.3	ug/L
126-98-7	Methacrylonitrile	8.2	UD	25	8.2	ug/L
109-99-9	Tetrahydrofuran	19	UD	60	19	ug/L
109-69-3	1-Chlorobutane	5.6	UD	25	5.6	ug/L
74-95-3	Dibromomethane	5.9	UD	25	5.9	ug/L
75-27-4	Bromodichloromethane	5.0	UD	25	5.0	ug/L
108-10-1	4-Methyl-2-Pentanone	25	UD	120	25	ug/L
80-62-6	Methyl methacrylate	13	UD	50	13	ug/L
97-63-2	Ethyl methacrylate	6.2	UD	25	6.2	ug/L
108-88-3	Toluene	5.6	UD	25	5.6	ug/L
10061-02-6	t-1,3-Dichloropropene	4.8	UD	25	4.8	ug/L
10061-01-5	cis-1,3-Dichloropropene	4.7	UD	25	4.7	ug/L
79-00-5	1,1,2-Trichloroethane	5.9	UD	25	5.9	ug/L
142-28-9	1,3-Dichloropropane	5.6	UD	25	5.6	ug/L
591-78-6	2-Hexanone	27	UD	120	27	ug/L
124-48-1	Dibromochloromethane	4.3	UD	25	4.3	ug/L
106-93-4	1,2-Dibromoethane	5.0	UD	25	5.0	ug/L
127-18-4	Tetrachloroethene	8.6	UD	25	8.6	ug/L
108-90-7	Chlorobenzene	5.2	UD	25	5.2	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	5.6	UD	25	5.6	ug/L
67-72-1	Hexachloroethane	4.9	UD	25	4.9	ug/L
100-41-4	Ethyl Benzene	5.3	UD	25	5.3	ug/L
136777-61-2	m/p-Xylenes	11	UD	25	11	ug/L
95-47-6	o-Xylene	5.3	UD	25	5.3	ug/L
100-42-5	Styrene	4.7	UD	25	4.7	ug/L
75-25-2	Bromoform	5.6	UD	25	5.6	ug/L
108-86-1	Bromobenzene	5.4	UD	25	5.4	ug/L
98-82-8	Isopropylbenzene	5.1	UD	25	5.1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	5.2	UD	25	5.2	ug/L
96-18-4	1,2,3-Trichloropropane	7.1	UD	25	7.1	ug/L
103-61-5	N-propylbenzene	6.1	UD	25	6.1	ug/L
95-49-8	2-Chlorotoluene	12	UD	25	12	ug/L
108-67-8	1,3,5-Trimethylbenzene	5.6	UD	25	5.6	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/26/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2156DL</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-02DL</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090311.D</b>	<b>25</b>		<b>9/3/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	5.4	UD	25	5.4	ug/L
98-06-6	tert-Butylbenzene	4.6	UD	25	4.6	ug/L
95-63-6	1,2,4-Trimethylbenzene	5.9	UD	25	5.9	ug/L
135-98-8	Sec-butylbenzene	5.1	UD	25	5.1	ug/L
99-87-6	p-Isopropyltoluene	5.5	UD	25	5.5	ug/L
541-73-1	1,3-Dichlorobenzene	5.0	UD	25	5.0	ug/L
106-46-7	1,4-Dichlorobenzene	5.0	UD	25	5.0	ug/L
104-51-8	n-Butylbenzene	5.1	UD	25	5.1	ug/L
95-50-1	1,2-Dichlorobenzene	4.4	UD	25	4.4	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	UD	25	5.0	ug/L
120-82-1	1,2,4-Trichlorobenzene	5.0	UD	25	5.0	ug/L
87-68-3	Hexachlorobutadiene	4.4	UD	25	4.4	ug/L
91-20-3	Naphthalene	4.4	UD	25	4.4	ug/L
87-61-6	1,2,3-Trichlorobenzene	4.5	UD	25	4.5	ug/L

**SURROGATES**

2199-69-1	1,2-Dichlorobenzene-d4	1.02	102 %	80 - 120	SPK: 1
460-00-4	4-Bromofluorobenzene	1	100 %	80 - 120	SPK: 1

**INTERNAL STANDARDS**

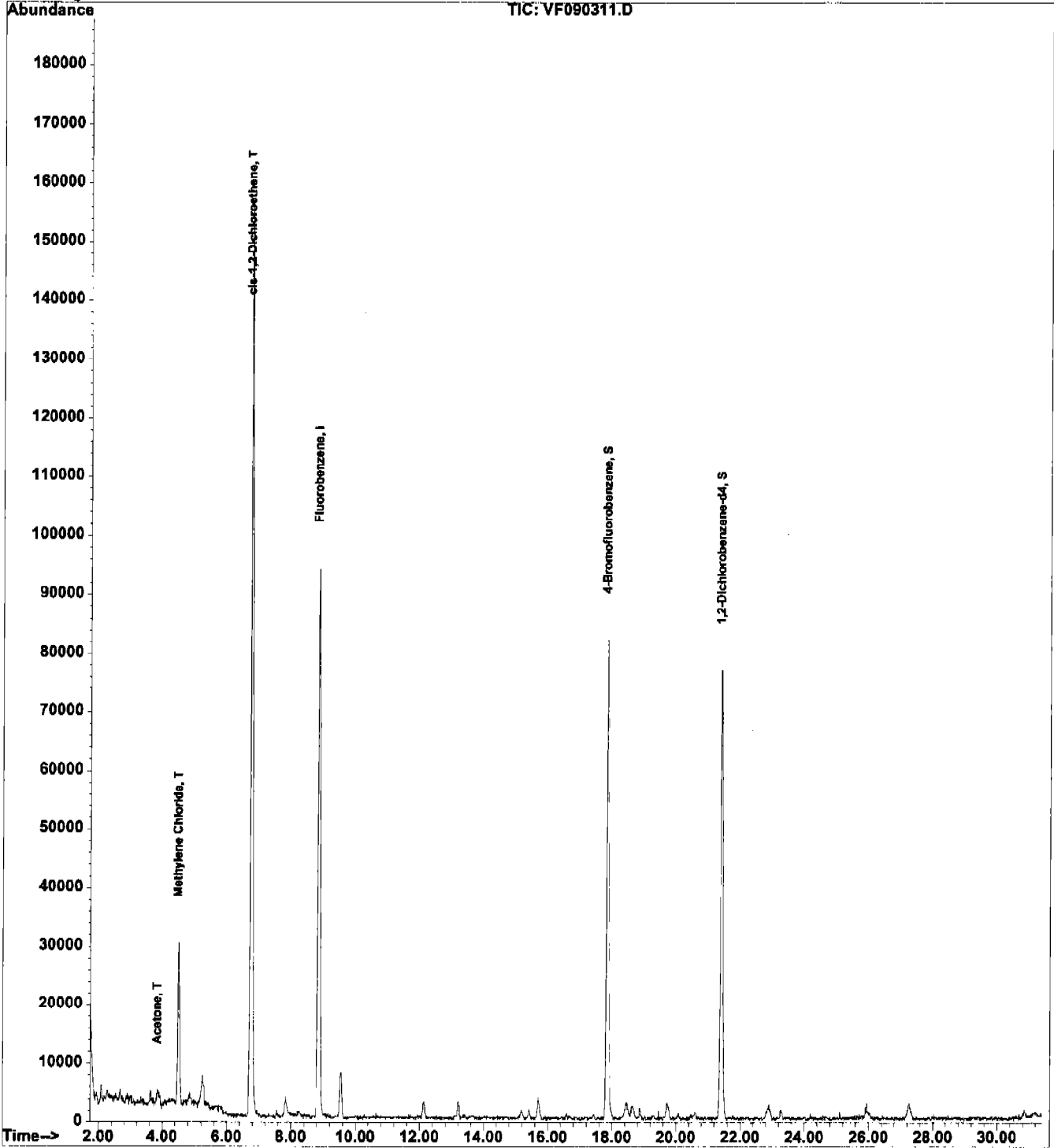
462-06-6	Fluorobenzene	219224	8.85		
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U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090311.D Vial: 12  
Acq On : 3 Sep 2004 4:03 am Operator: SAM  
Sample : S4414-02 25X Inst : VOA F  
Misc : 25mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Sep 7 12:16 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090311.D Vial: 12  
Acq On : 3 Sep 2004 4:03 am Operator: SAM  
Sample : S4414-02 25X Inst : VOA F  
Misc : 25mL Multiplr: 1.00

MS Integration Params: rteint.p  
Quant Time: Sep 7 12:16 2004

Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration  
DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.85	96	219224	1.00	ug/l	0.00
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.85	95	102656	1.00	ug/l	0.00
Spiked Amount	1.000		Recovery	=	100.00%	
63) 1,2-Dichlorobenzene-	21.42	152	58361	1.02	ug/l	0.00
Spiked Amount	1.000		Recovery	=	102.00%	
Target Compounds						
12) Acetone	3.86	43	7190	2.64	ug/l	93
14) Methylene Chloride	4.51	84	26012	0.50	ug/l	97
19) cis-1,2-Dichloroethe	6.76	96	165411	2.48	ug/l	87

Analyst Signature: Sy Analyst Name: 3y Date: 09/09/04

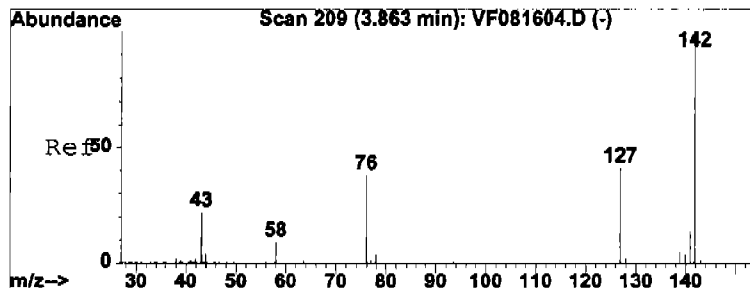
-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

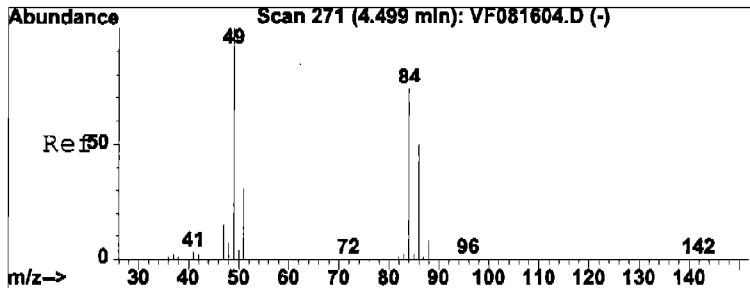
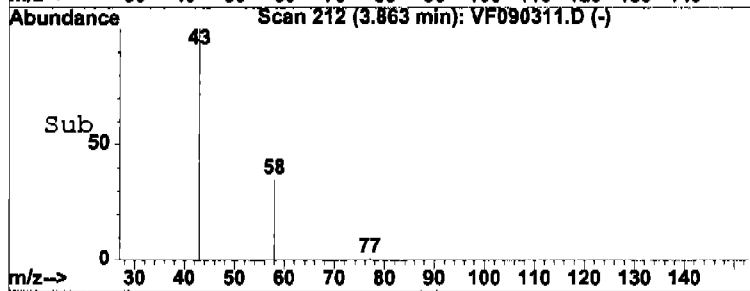
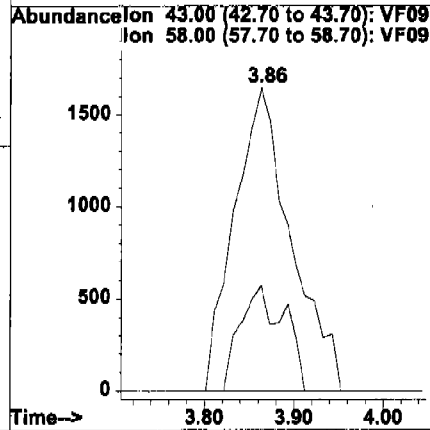
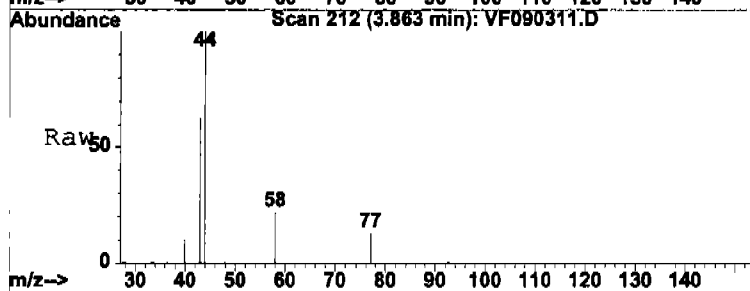
\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration



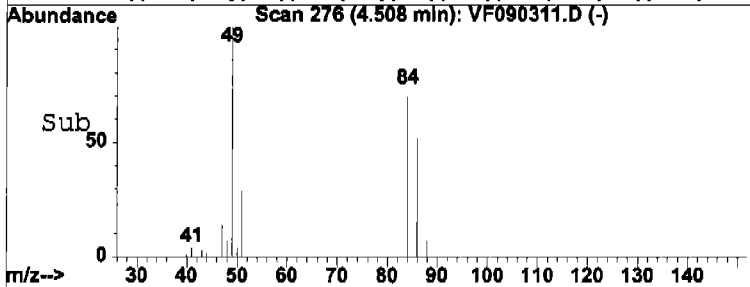
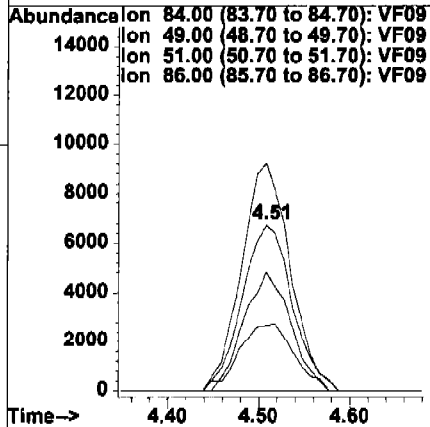
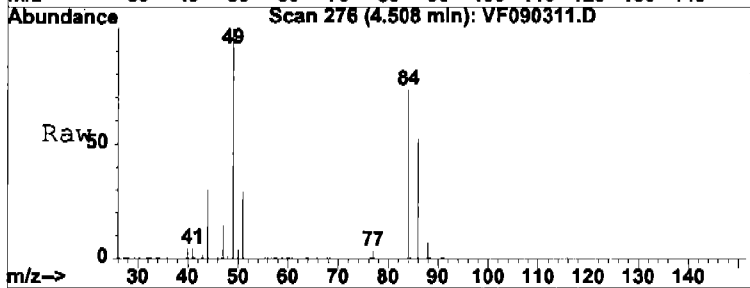
#12  
 Acetone  
 Concen: 2.64 ug/l  
 RT: 3.86 min Scan# 212  
 Delta R.T. 0.01 min  
 Lab File: VF090311.D  
 Acq: 3 Sep 2004 4:03 am

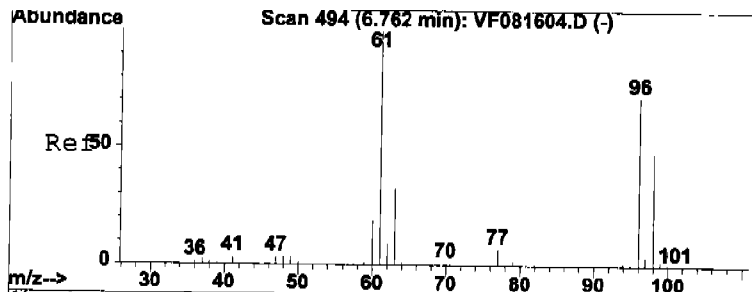
Tgt Ion: 43 Resp: 7190  
 Ion Ratio Lower Upper  
 43 100  
 58 34.8 31.4 47.2



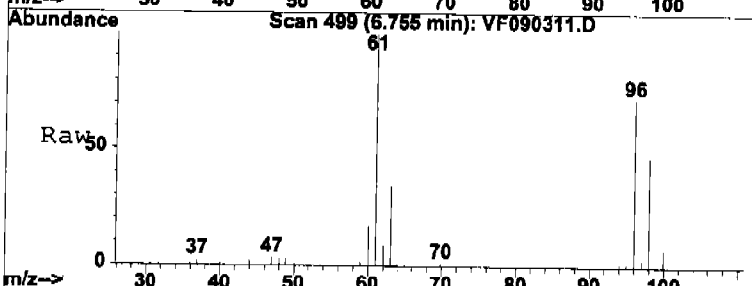
#14  
 Methylene Chloride  
 Concen: 0.50 ug/l  
 RT: 4.51 min Scan# 276  
 Delta R.T. 0.01 min  
 Lab File: VF090311.D  
 Acq: 3 Sep 2004 4:03 am

Tgt Ion: 84 Resp: 26012  
 Ion Ratio Lower Upper  
 84 100  
 49 137.4 108.6 163.0  
 51 39.6 0.0 84.4  
 86 71.8 54.2 81.2



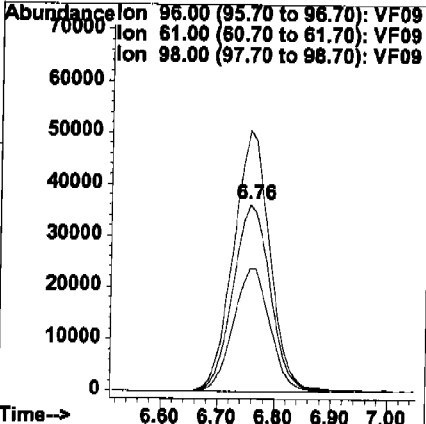
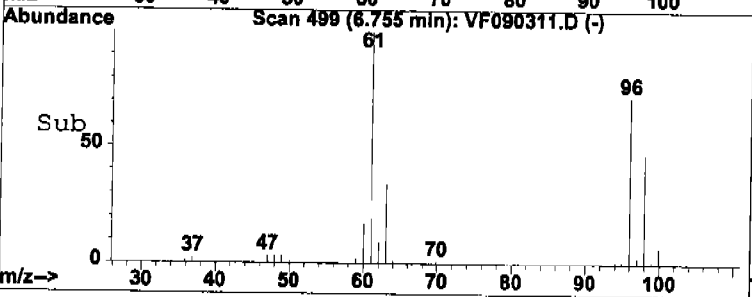


#19  
 cis-1,2-Dichloroethene  
 Concen: 2.48 ug/l  
 RT: 6.76 min Scan# 499  
 Delta R.T. 0.00 min  
 Lab File: VF090311.D  
 Acq: 3 Sep 2004 4:03 am



Tgt Ion: 96 Resp: 165411

Ion	Ratio	Lower	Upper
96	100		
61	137.5	0.0	403.7
98	64.6	32.9	98.6



**Report of Analysis**

<b>Client:</b>	Parsons Engineering	<b>Date Collected:</b>	8/26/2004
<b>Project:</b>	Seneca Ash Landfill Quarterly Monitc	<b>Date Received:</b>	8/28/2004
<b>Client Sample ID:</b>	TR2155	<b>SDG No.:</b>	S4414
<b>Lab Sample ID:</b>	S4414-03	<b>Matrix:</b>	WATER
<b>Analytical Method:</b>	524.2	<b>% Moisture:</b>	100
<b>Sample Wt/Wol:</b>	25.0 Units: mL	<b>Soil Extract Vol:</b>	uL
<b>Soil Aliquot Vol:</b>	mL		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
VF090306.D	1		9/3/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	0.09	U	1.0	0.09	ug/L
74-87-3	Chloromethane	0.11	U	1.0	0.11	ug/L
75-01-4	Vinyl Chloride	0.14	U	1.0	0.14	ug/L
74-83-9	Bromomethane	0.22	U	1.0	0.22	ug/L
75-00-3	Chloroethane	0.19	U	1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	0.09	U	1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	2.2	U	10	2.2	ug/L
60-29-7	Diethyl Ether	0.21	U	1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	0.16	U	1.0	0.16	ug/L
74-88-4	Iodomethane	0.14	U	1.0	0.14	ug/L
107-5-1	Allyl Chloride	0.18	U	1.0	0.18	ug/L
107-13-1	Acrylonitrile	0.94	U	2.0	0.94	ug/L
67-64-1	Acetone	9.9		5.8	1.5	ug/L
75-15-0	Carbon disulfide	0.18	U	1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	0.37	U	1.0	0.37	ug/L
79-20-9	Methyl acrylate	0.17	U	1.0	0.17	ug/L
75-09-2	Methylene Chloride	2.5		1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	0.4	J	1.0	0.21	ug/L
78-93-3	2-Butanone	0.94	U	5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	0.22	U	1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	0.20	U	1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	5.5		1.0	0.24	ug/L
67-66-3	Chloroform	0.22	U	1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	1.4	U	2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L
108-20-3	Isopropyl Ether	0.21	U	1.0	0.21	ug/L
107-12-0	Propionitrile	3.3	U	10	3.3	ug/L
71-43-2	Benzene	0.8	J	1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	0.24	U	1.0	0.24	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/26/2004
Project:	Seneca Ash Landfill Quarterly Monitc	Date Received:	8/28/2004
Client Sample ID:	TR2155	SDG No.:	S4414
Lab Sample ID:	S4414-03	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090306.D	1		9/3/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	0.21	U	1.0	0.21	ug/L
126-98-7	Methacrylonitrile	0.33	U	1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	0.78	U	2.4	0.78	ug/L
109-69-3	1-Chlorobutane	0.22	U	1.0	0.22	ug/L
74-95-3	Dibromomethane	0.24	U	1.0	0.24	ug/L
75-27-4	Bromodichloromethane	0.20	U	1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	1.0	U	5.0	1.0	ug/L
80-62-6	Methyl methacrylate	0.53	U	2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	0.25	U	1.0	0.25	ug/L
108-88-3	Toluene	0.22	U	1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L
591-78-6	2-Hexanone	1.1	U	5.0	1.1	ug/L
124-48-1	Dibromochloromethane	0.17	U	1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L
127-18-4	Tetrachloroethene	0.34	U	1.0	0.34	ug/L
108-90-7	Chlorobenzene	0.21	U	1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L
67-72-1	Hexachloroethane	0.20	U	1.0	0.20	ug/L
100-41-4	Ethyl Benzene	0.21	U	1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	0.43	U	1.0	0.43	ug/L
95-47-6	o-Xylene	0.21	U	1.0	0.21	ug/L
100-42-5	Styrene	0.19	U	1.0	0.19	ug/L
75-25-2	Bromoform	0.22	U	1.0	0.22	ug/L
108-86-1	Bromobenzene	0.21	U	1.0	0.21	ug/L
98-82-8	Isopropylbenzene	0.20	U	1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	0.28	U	1.0	0.28	ug/L
103-61-5	N-propylbenzene	0.24	U	1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	0.50	U	1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.22	U	1.0	0.22	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/26/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2155</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-03</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090306.D</b>	<b>1</b>		<b>9/3/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	0.22	U	1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	0.18	U	1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	0.20	U	1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	0.22	U	1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
104-51-8	n-Butylbenzene	0.20	U	1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.20	U	1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L
91-20-3	Naphthalene	0.17	U	1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.18	U	1.0	0.18	ug/L

**SURROGATES**

2199-69-1	1,2-Dichlorobenzene-d4	1.04	104 %	80 - 120	SPK: 1
460-00-4	4-Bromofluorobenzene	0.97	97 %	80 - 120	SPK: 1

**INTERNAL STANDARDS**

462-06-6	Fluorobenzene	237436	8.85		
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**TENTITIVE IDENTIFIED COMPOUNDS**

75285	Isobutane	0.80	J	1.94	ug/L
106989	1-Butene	7.1	J	2.08	ug/L
	Unknown	0.85	J	2.18	ug/L
115117	1-Propene, 2-methyl-	0.68	J	2.29	ug/L
627203	2-Pentene, (Z)-	1.3	J	2.55	ug/L
78784	Butane, 2-methyl-	1.3	J	2.67	ug/L
109671	1-Pentene	3.6	J	2.93	ug/L
2402064	Cyclopropane, 1,2-dimethyl-, trans-	0.62	J	3.19	ug/L
513359	2-Butene, 2-methyl-	0.51	J	3.34	ug/L
53778431	Cyclopropane, 1-ethyl-1-methyl-	1.8	J	4.21	ug/L
592416	1-Hexene	0.35	J	5.11	ug/L
693890	Cyclopentene, 1-methyl-	0.30	J	5.86	ug/L

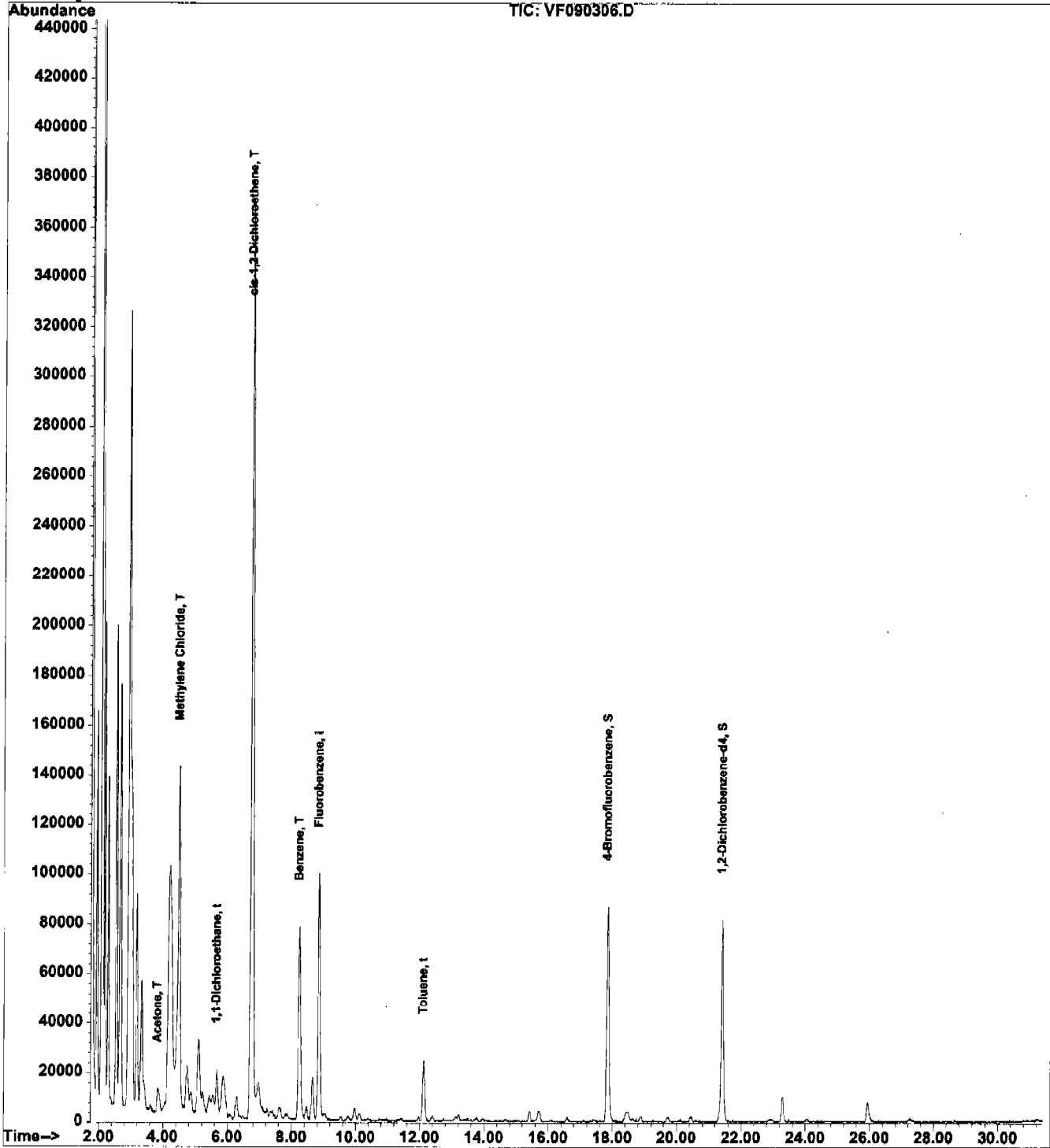
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 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

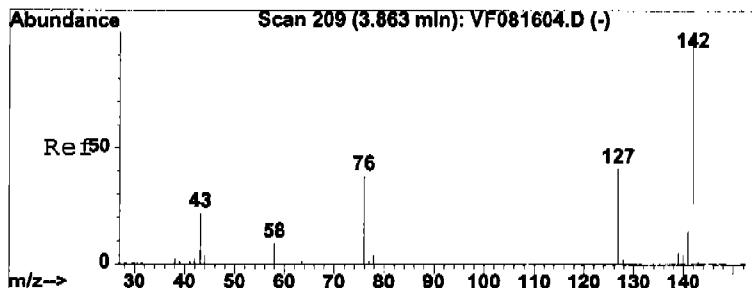


Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090306.D Vial: 6  
Acq On : 3 Sep 2004 12:47 am Operator: SAM  
Sample : S4414-03 Inst : VOA F  
Misc : 25mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Sep 9 13:12 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration

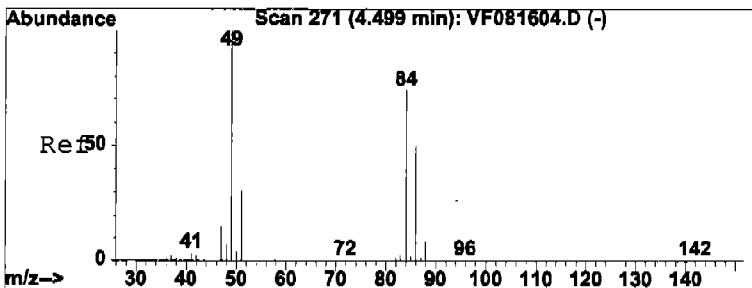
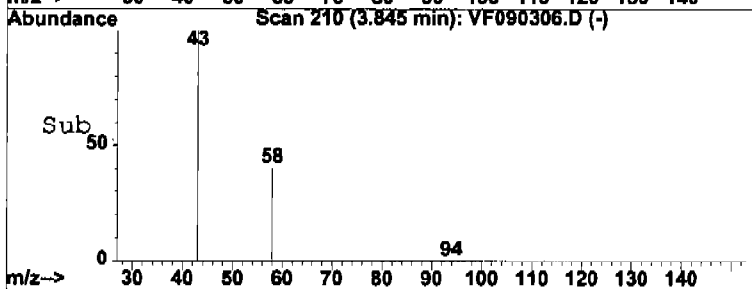
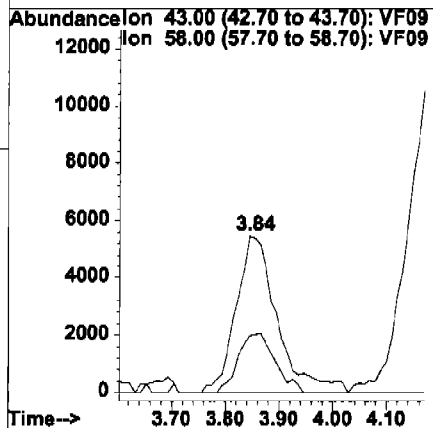
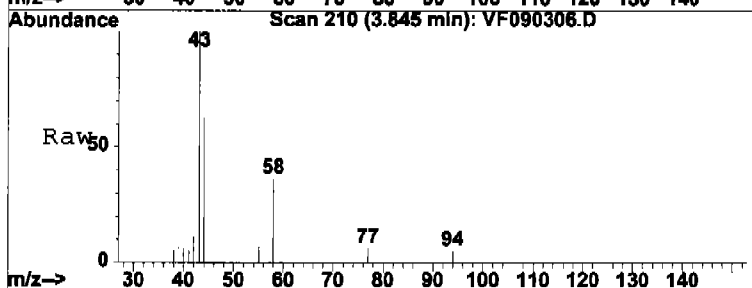






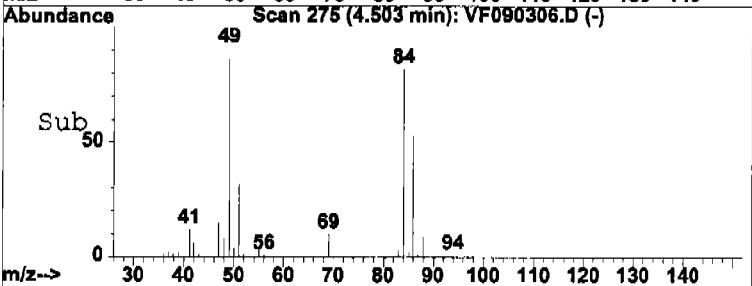
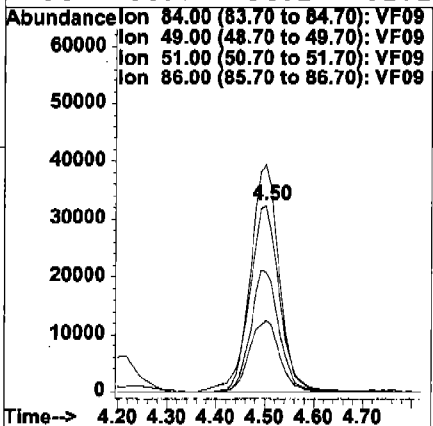
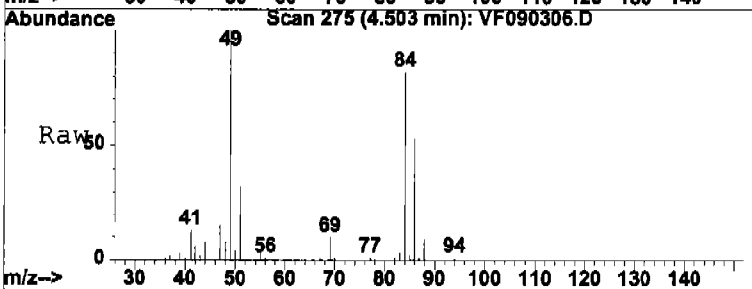
#12  
 Acetone  
 Concen: 9.88 ug/l  
 RT: 3.84 min Scan# 210  
 Delta R.T. -0.00 min  
 Lab File: VF090306.D  
 Acq: 3 Sep 2004 12:47 am

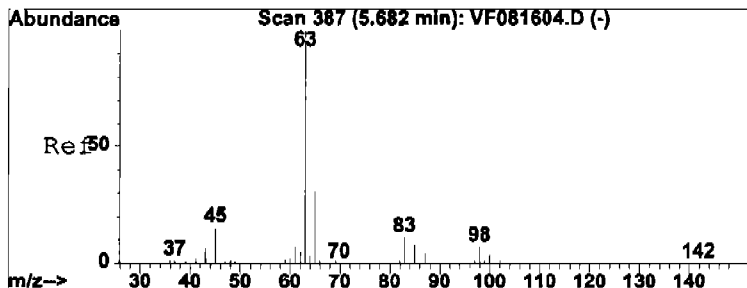
Tgt Ion: 43 Resp: 29161  
 Ion Ratio Lower Upper  
 43 100  
 58 36.3 31.4 47.2



#14  
 Methylene Chloride  
 Concen: 2.47 ug/l  
 RT: 4.50 min Scan# 275  
 Delta R.T. 0.00 min  
 Lab File: VF090306.D  
 Acq: 3 Sep 2004 12:47 am

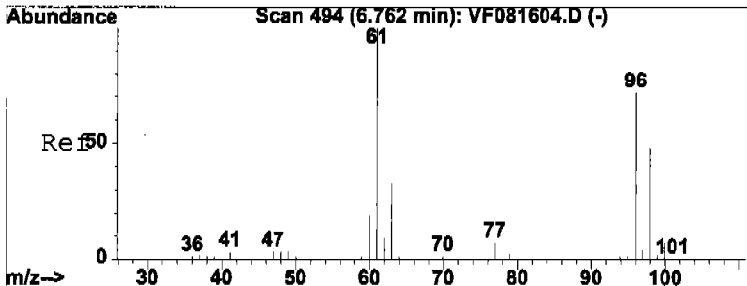
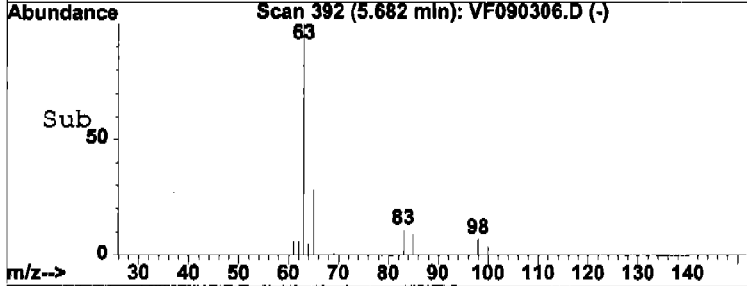
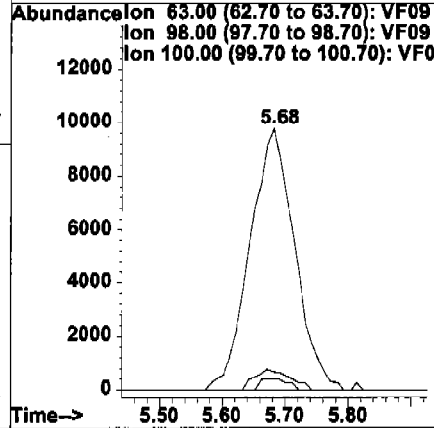
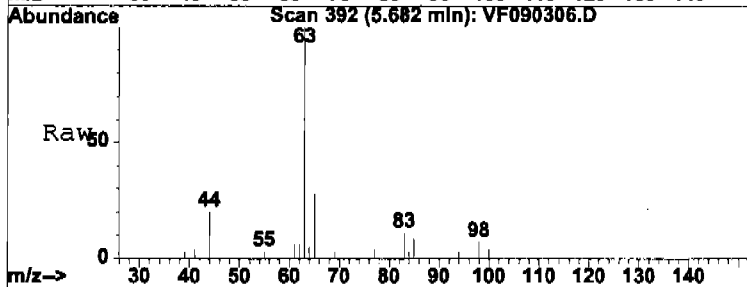
Tgt Ion: 84 Resp: 139061  
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 49 122.0 108.6 163.0  
 51 38.8 0.0 84.4  
 86 64.7 54.2 81.2





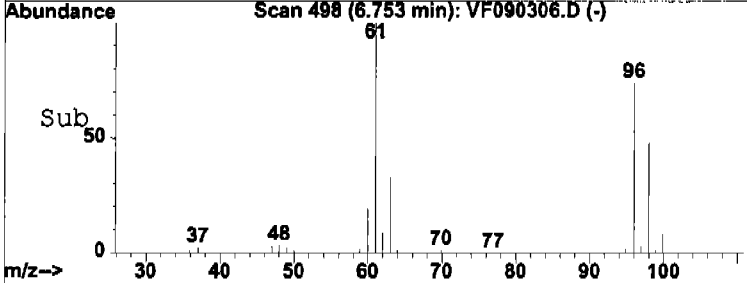
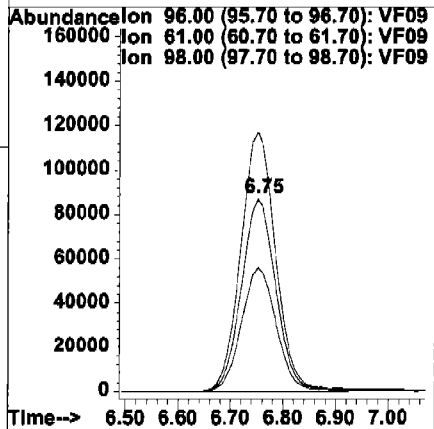
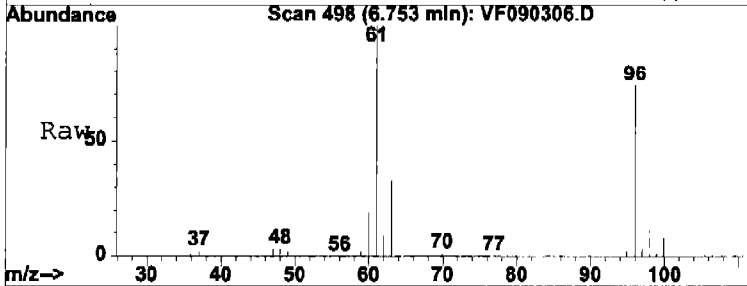
#16  
 1,1-Dichloroethane  
 Concen: 0.37 ug/l  
 RT: 5.68 min Scan# 392  
 Delta R.T. 0.00 min  
 Lab File: VF090306.D  
 Acq: 3 Sep 2004 12:47 am

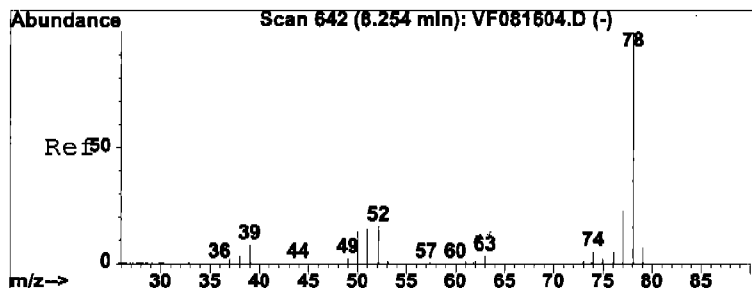
Tgt Ion:	63	98	100	Resp:	48546	7.0	4.2	Lower	3.6	2.2	Upper	10.8	6.6
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#19  
 cis-1,2-Dichloroethene  
 Concen: 5.52 ug/l  
 RT: 6.75 min Scan# 498  
 Delta R.T. 0.00 min  
 Lab File: VF090306.D  
 Acq: 3 Sep 2004 12:47 am

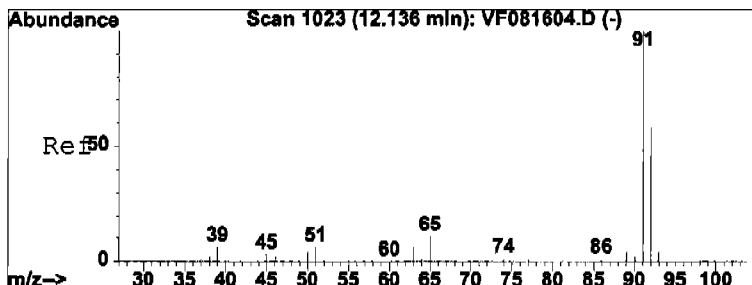
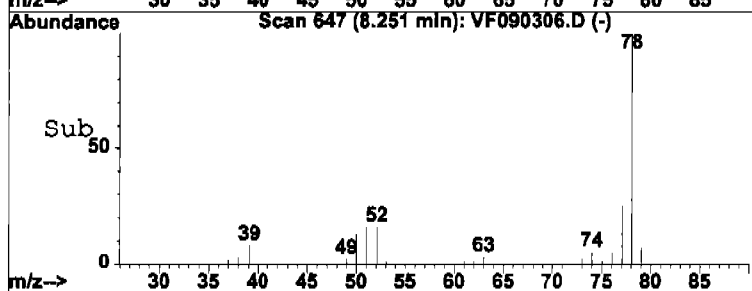
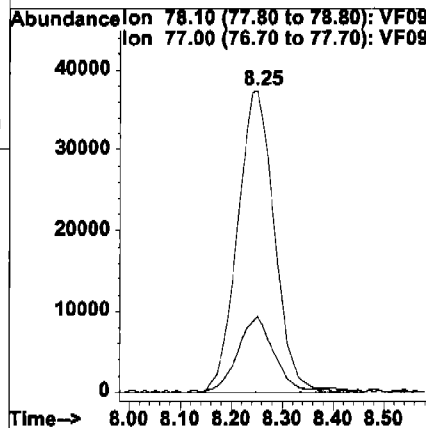
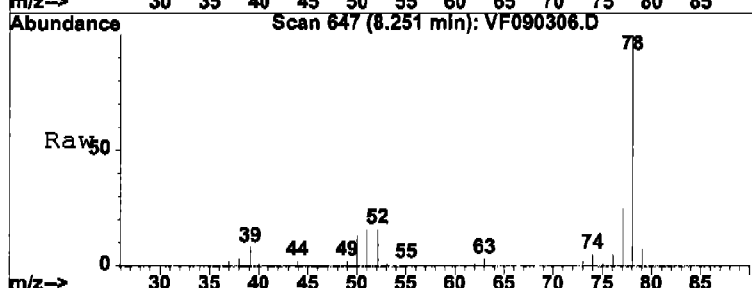
Tgt Ion:	96	61	98	Resp:	399018	135.8	65.0	Lower	0.0	32.9	Upper	403.7	98.6
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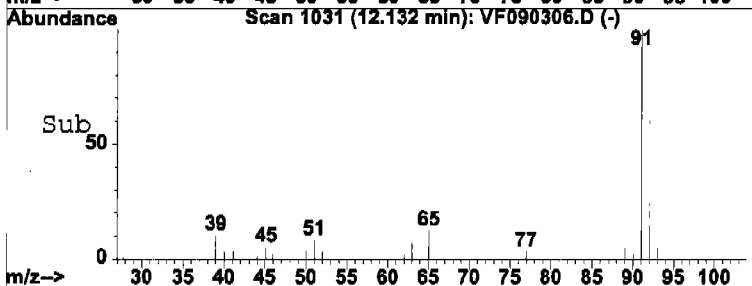
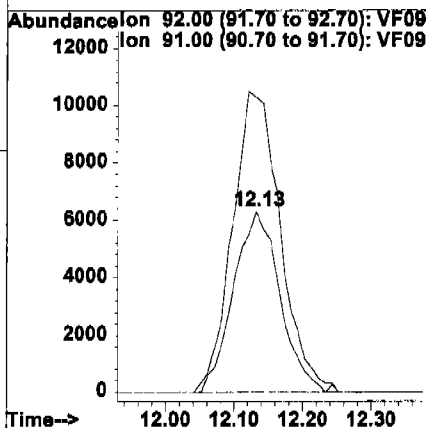
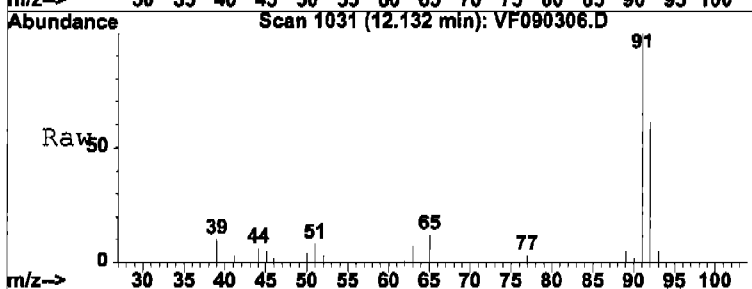
#30  
Benzene  
Concen: 0.75 ug/l  
RT: 8.25 min Scan# 647  
Delta R.T. 0.01 min  
Lab File: VF090306.D  
Acq: 3 Sep 2004 12:47 am

Tgt Ion: 78 Resp: 189444  
Ion Ratio Lower Upper  
78 100  
77 24.2 18.6 27.8



#44  
Toluene  
Concen: 0.18 ug/l  
RT: 12.13 min Scan# 1031  
Delta R.T. 0.01 min  
Lab File: VF090306.D  
Acq: 3 Sep 2004 12:47 am

Tgt Ion: 92 Resp: 29771  
Ion Ratio Lower Upper  
92 100  
91 170.6 136.2 204.4



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090306.D Vial: 6  
 Acq On : 3 Sep 2004 12:47 am Operator: SAM  
 Sample : S4414-03 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

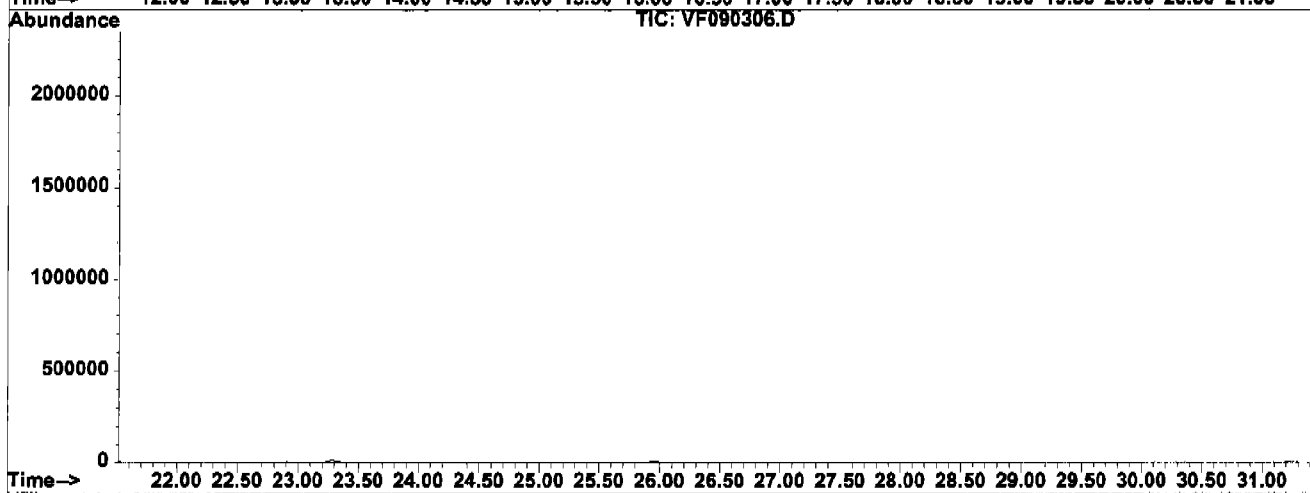
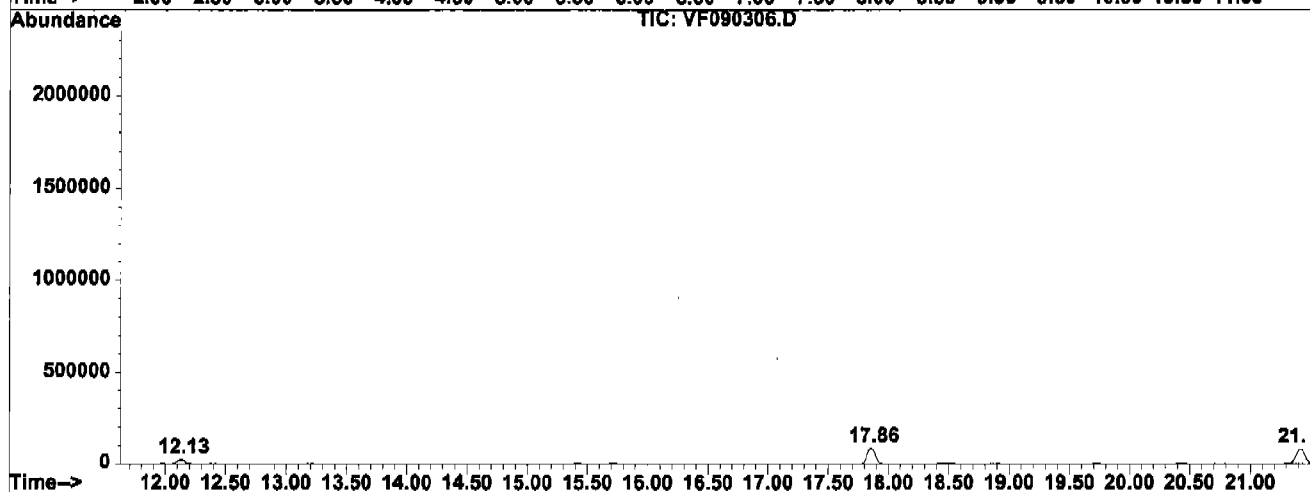
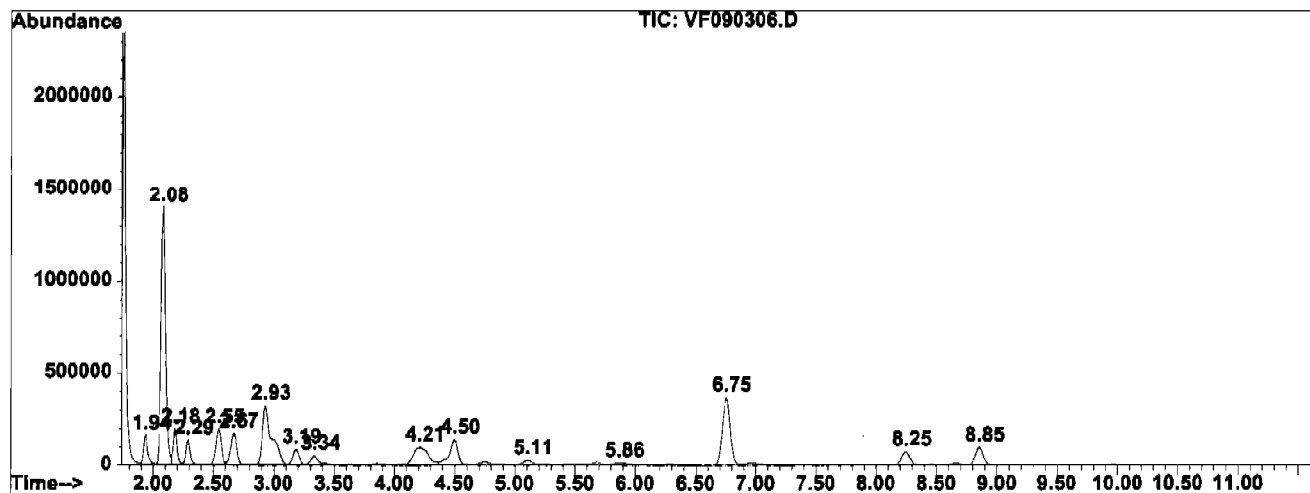
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.940	16	21	29	rVB	154261	384991	11.33%	2.854%
2	2.082	29	35	42	rVV2	1393310	3398957	100.00%	25.201%
3	2.183	42	45	51	rVV	190820	409940	12.06%	3.039%
4	2.294	51	56	69	rVB	132239	328100	9.65%	2.433%
5	2.547	73	81	87	rBV	192890	626571	18.43%	4.646%
6	2.666	87	93	106	rVB	170252	605003	17.80%	4.486%
7	2.930	108	119	138	rBV2	319609	1741049	51.22%	12.909%
8	3.187	138	145	152	rVV	85620	295421	8.69%	2.190%
9	3.340	152	160	176	rVB	52059	244680	7.20%	1.814%
10	4.209	223	246	261	rBV5	98705	870844	25.62%	6.457%
11	4.503	261	275	287	rVB3	137794	712377	20.96%	5.282%
12	5.105	324	335	344	rBV3	29203	169795	5.00%	1.259%
13	5.864	400	410	426	rVB5	17125	142842	4.20%	1.059%
14	6.753	486	498	512	rBV	368521	1715903	50.48%	12.722%
15	8.251	632	647	662	rBV	77840	398659	11.73%	2.956%
16	8.853	697	707	719	rBV	99071	479577	14.11%	3.556%
17	12.132	1022	1031	1047	rVB2	24881	116661	3.43%	0.865%
18	17.859	1585	1597	1614	rBV2	86726	415573	12.23%	3.081%
19	21.421	1932	1949	1966	rBV2	81500	430414	12.66%	3.191%

Sum of corrected areas: 13487357

VF090306.D VF0816DW.M Thu Sep 09 13:12:56 2004 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090306.D  
 Operator : SAM  
 Acquired : 3 Sep 2004 12:47 am using AcqMethod VF\_VOA  
 Instrument : VOA F  
 Sample Name: S4414-03  
 Misc Info : 25mL  
 Vial Number: 6  
 Quant File :VF0816DW.RES (RTE Integrator)



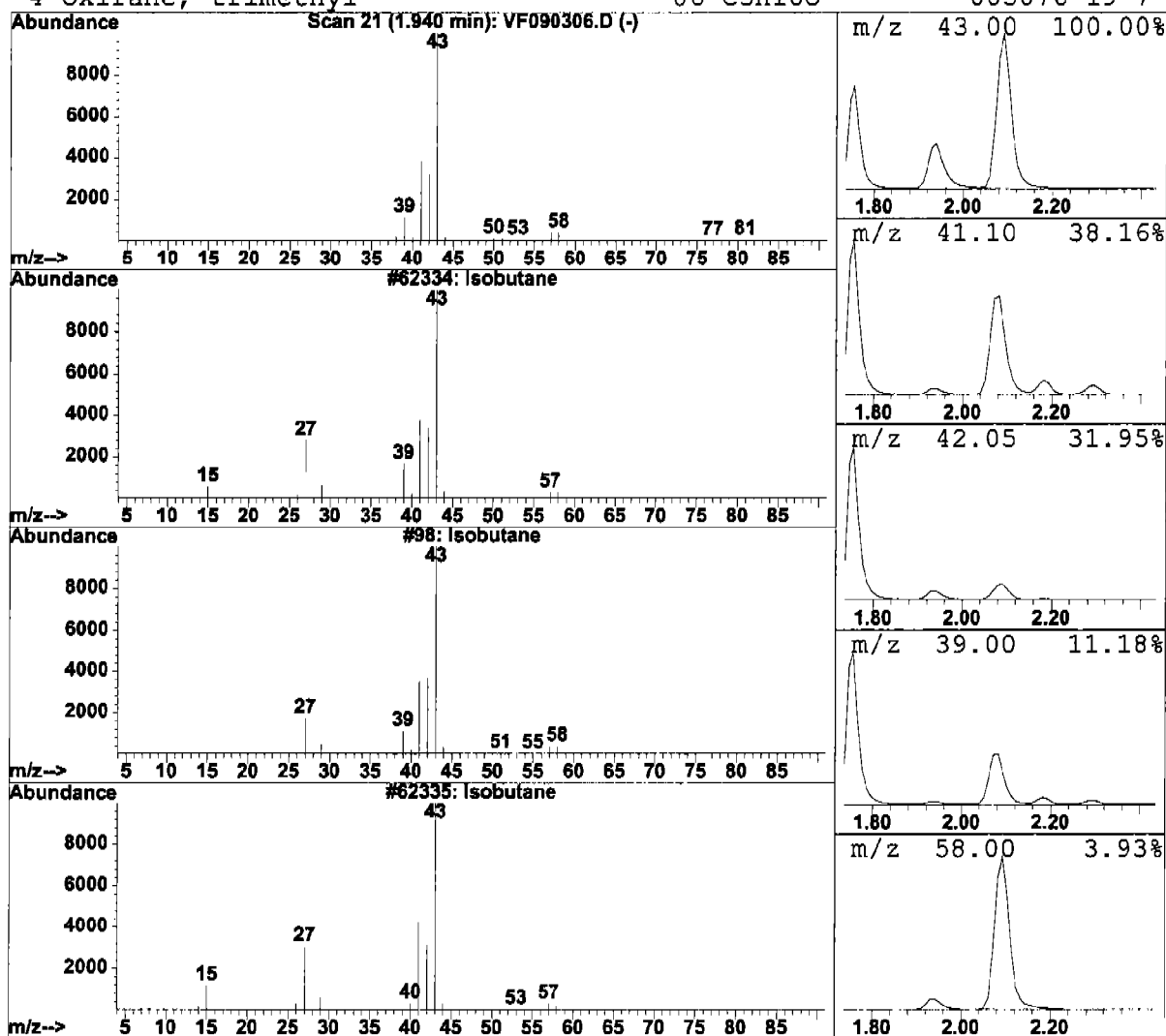
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090306.D Vial: 6  
 Acq On : 3 Sep 2004 12:47 am Operator: SAM  
 Sample : S4414-03 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 1 Isobutane Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.94	0.80 ug/l	384991	Fluorobenzene	8.85

Hit#	of 5	Tentative ID	MW	MolForm	CAS#	Qual
1		Isobutane	58	C4H10	000075-28-5	72
2		Isobutane	58	C4H10	000075-28-5	72
3		Isobutane	58	C4H10	000075-28-5	64
4		Oxirane, trimethyl-	86	C5H10O	005076-19-7	4





Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090306.D Vial: 6  
 Acq On : 3 Sep 2004 12:47 am Operator: SAM  
 Sample : S4414-03 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

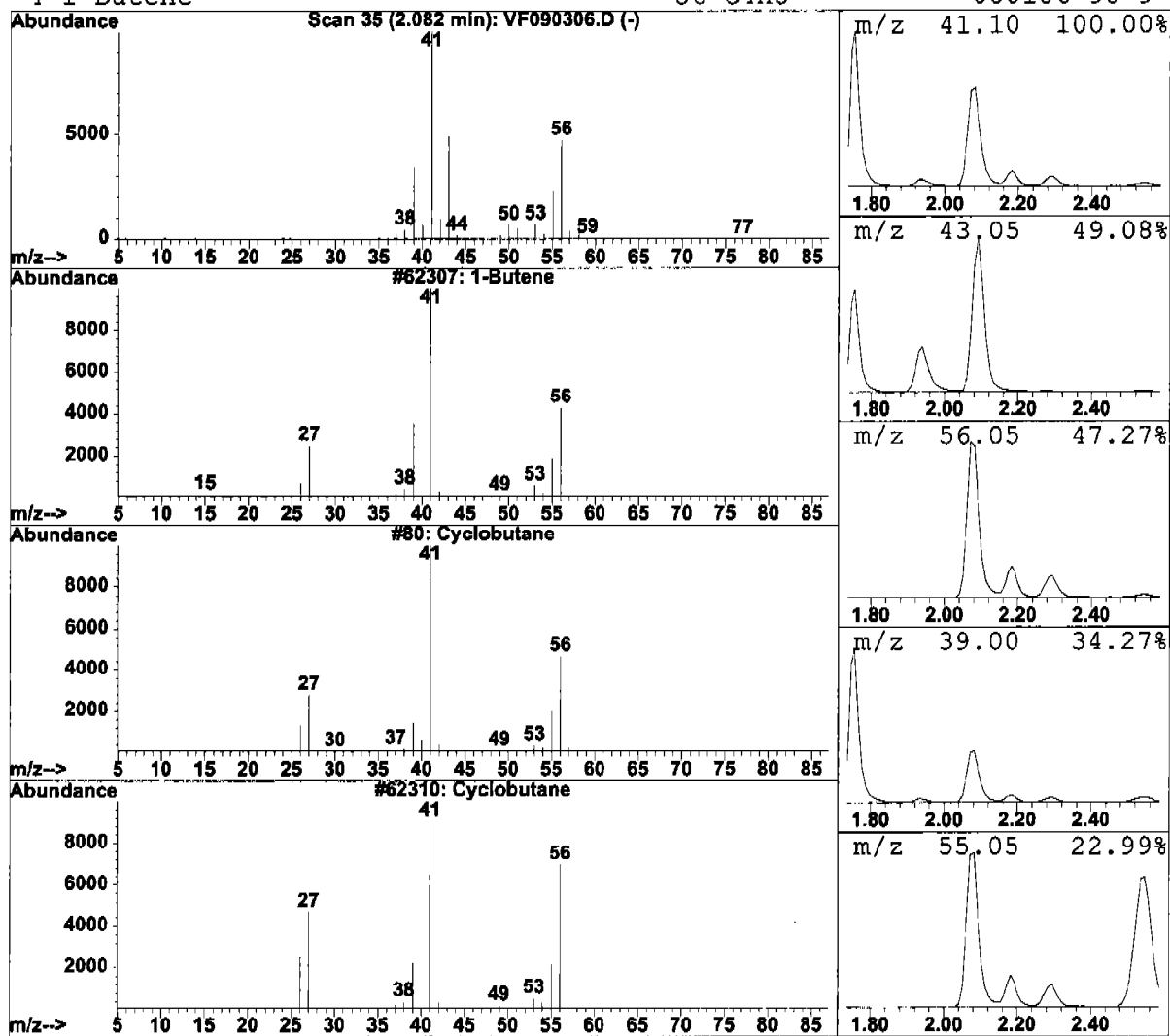
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 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 2 1-Butene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.08	7.09 ug/l	3398960	Fluorobenzene	8.85

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Butene	56	C4H8	000106-98-9	72
2	Cyclobutane	56	C4H8	000287-23-0	72
3	Cyclobutane	56	C4H8	000287-23-0	72
4	1-Butene	56	C4H8	000106-98-9	72



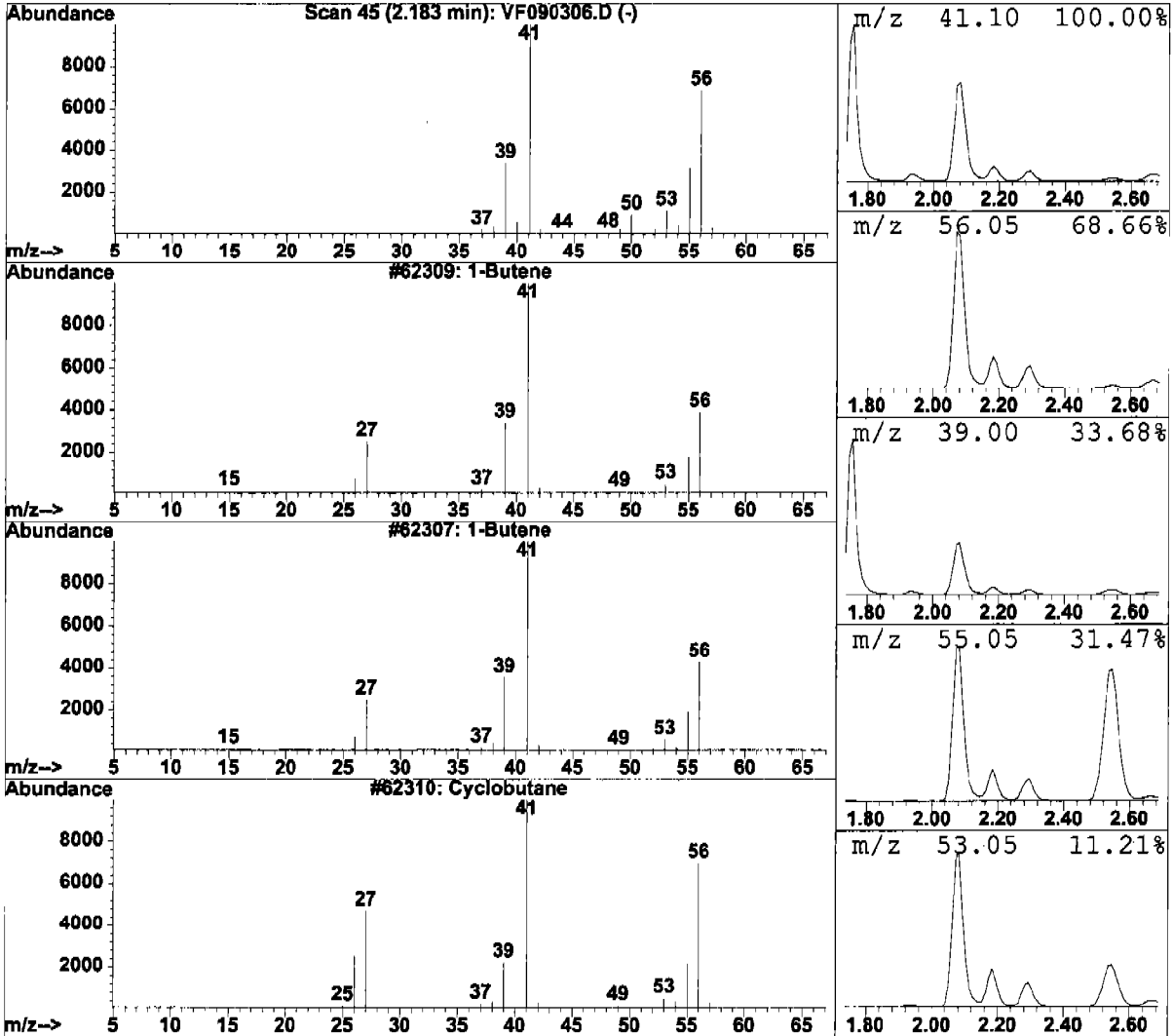
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 Acq On : 3 Sep 2004 12:47 am Operator: SAM  
 Sample : S4414-03 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 3 1-Butene Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.18	0.85 ug/l	409940	Fluorobenzene	8.85

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	1-Butene	56	C4H8	000106-98-9	72
2		1-Butene	56	C4H8	000106-98-9	72
3		Cyclobutane	56	C4H8	000287-23-0	64
4		1-Butene	56	C4H8	000106-98-9	64



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090306.D Vial: 6  
 Acq On : 3 Sep 2004 12:47 am Operator: SAM  
 Sample : S4414-03 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

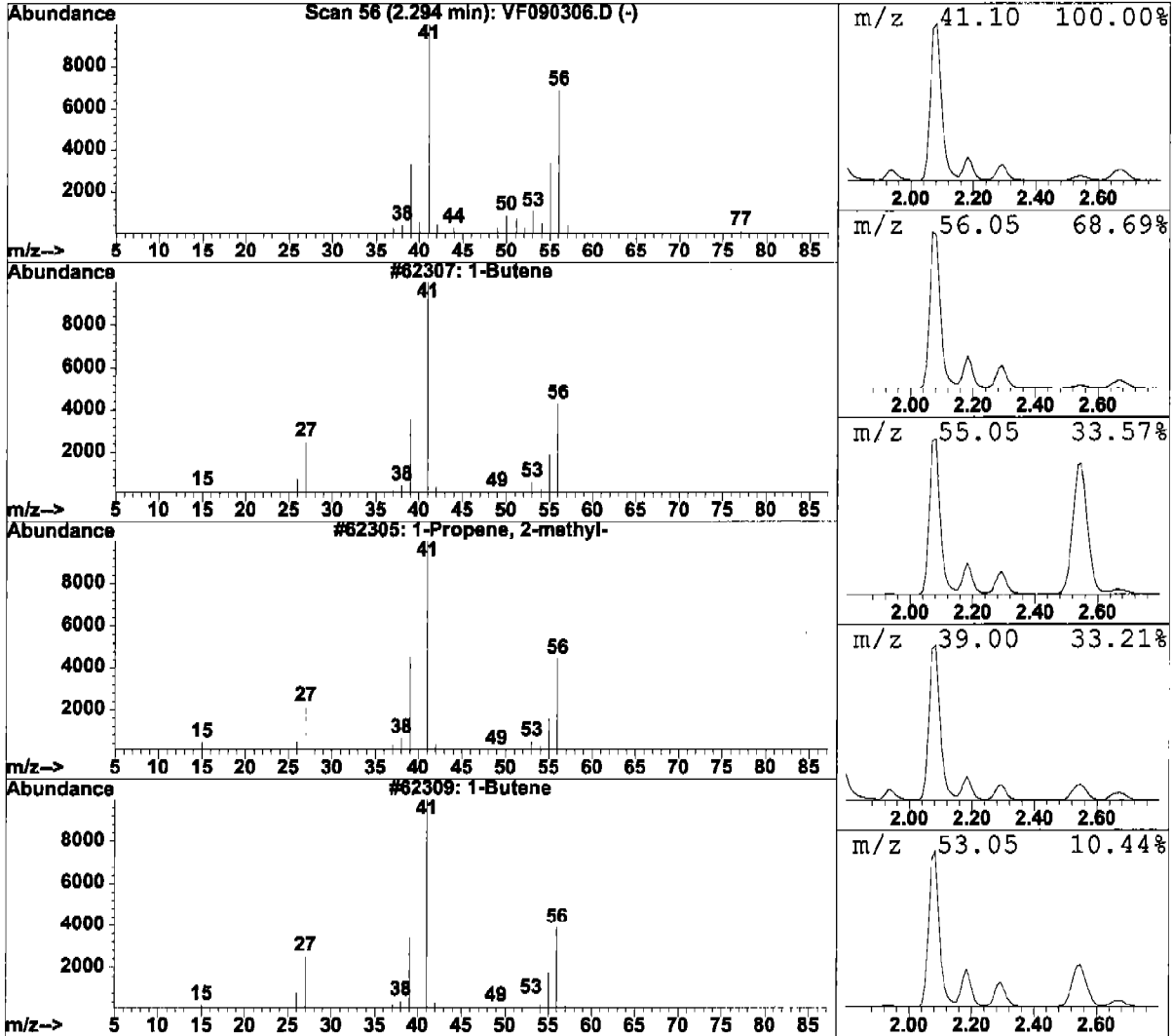
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 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 4 1-Butene Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.29	0.68 ug/l	328100	Fluorobenzene	8.85

Hit#	of 5	Tentative ID	MW	MolForm	CAS#	Qual
1		1-Butene	56	C4H8	000106-98-9	90
2		1-Propene, 2-methyl-	56	C4H8	000115-11-7	87
3		1-Butene	56	C4H8	000106-98-9	87
4		1-Butene	56	C4H8	000106-98-9	87



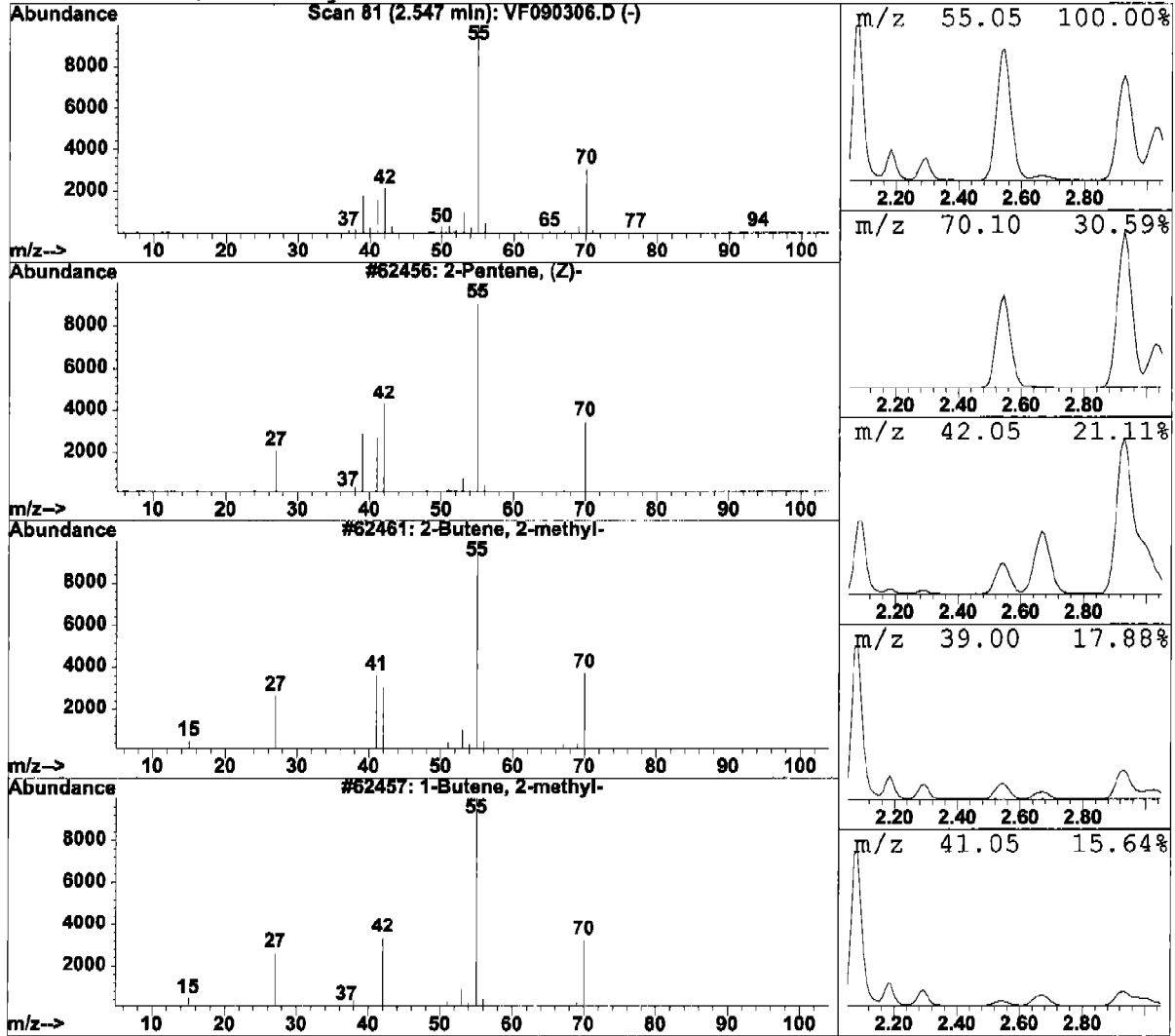
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 Acq On : 3 Sep 2004 12:47 am Operator: SAM  
 Sample : S4414-03 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 5 2-Pentene, (Z)- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.55	1.31 ug/l	626571	Fluorobenzene	8.85

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	2-Pentene, (Z)-	70	C5H10	000627-20-3	91
2		2-Butene, 2-methyl-	70	C5H10	000513-35-9	91
3		1-Butene, 2-methyl-	70	C5H10	000563-46-2	91
4		1-Butene, 3-methyl-	70	C5H10	000563-45-1	86



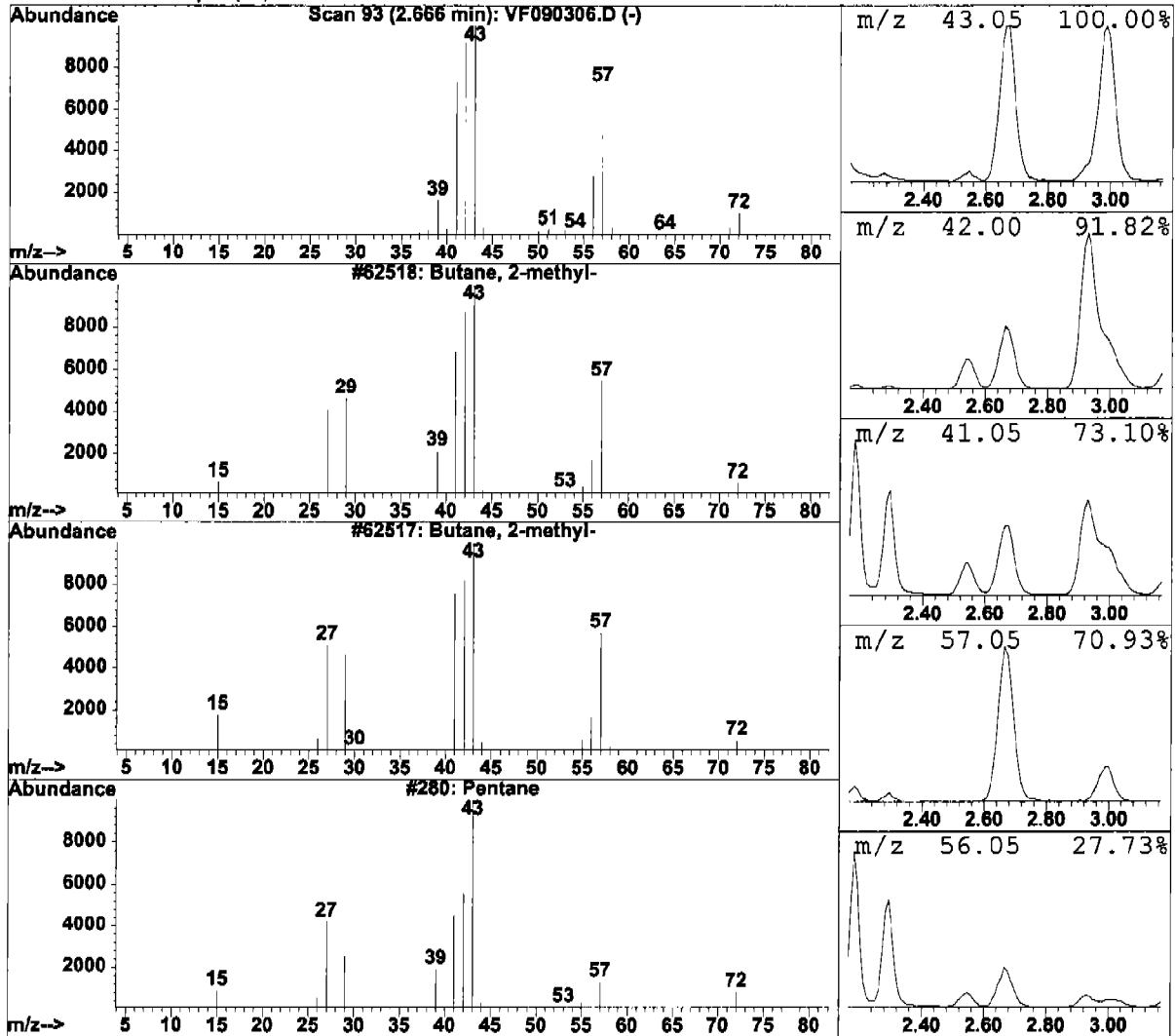
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 Acq On : 3 Sep 2004 12:47 am Operator: SAM  
 Sample : S4414-03 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 6 Butane, 2-methyl- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.67	1.26 ug/l	605003	Fluorobenzene	8.85

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Butane, 2-methyl-	72	C5H12	000078-78-4	90
2		Butane, 2-methyl-	72	C5H12	000078-78-4	83
3		Pentane	72	C5H12	000109-66-0	9
4		2-Butene, (E)-	56	C4H8	000624-64-6	9



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090306.D Vial: 6  
 Acq On : 3 Sep 2004 12:47 am Operator: SAM  
 Sample : S4414-03 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

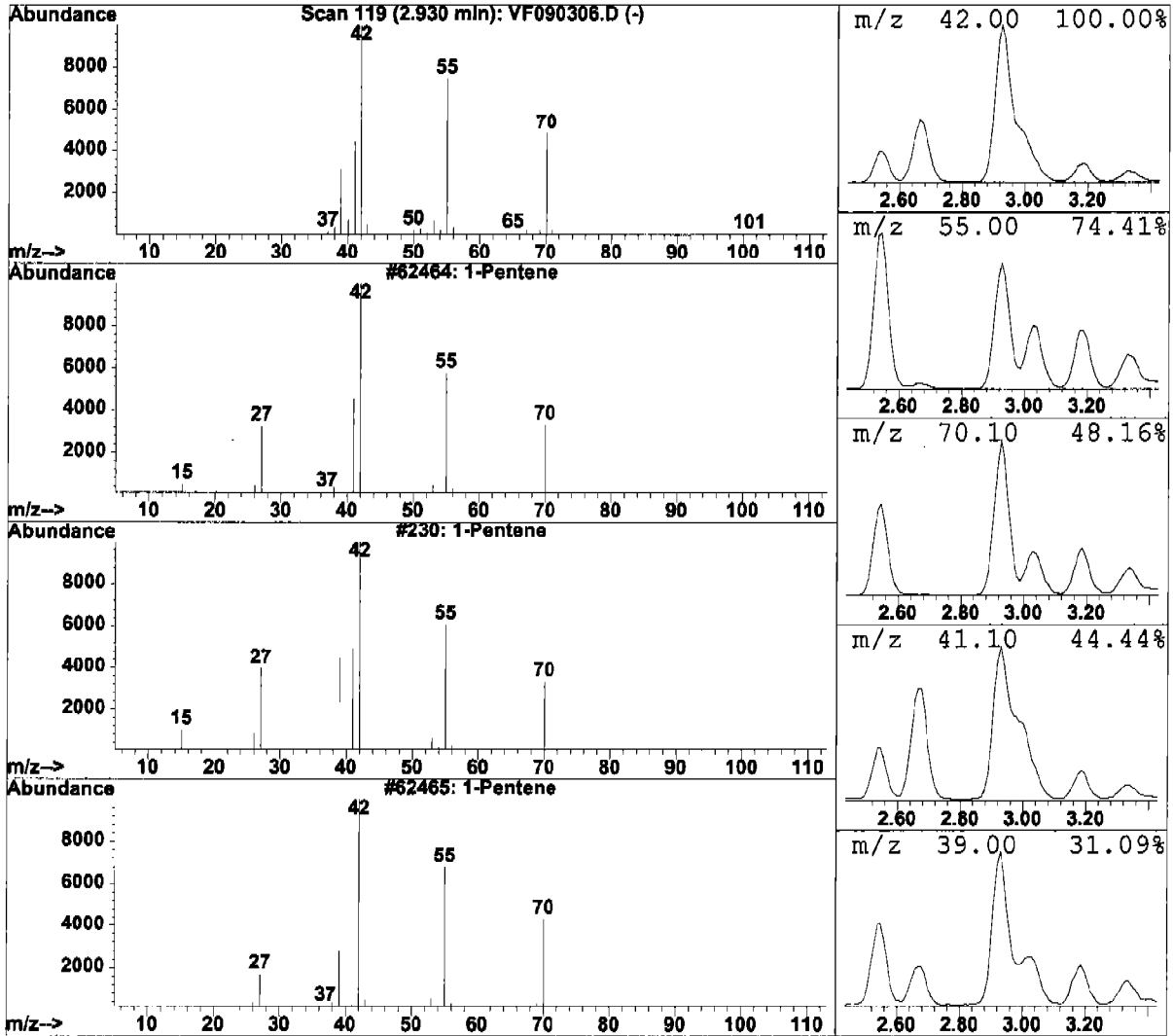
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 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 7 1-Pentene Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.93	3.63 ug/l	1741050	Fluorobenzene	8.85

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Pentene	70	C5H10	000109-67-1	91
2	1-Pentene	70	C5H10	000109-67-1	90
3	1-Pentene	70	C5H10	000109-67-1	90
4	1-Pentene	70	C5H10	000109-67-1	86



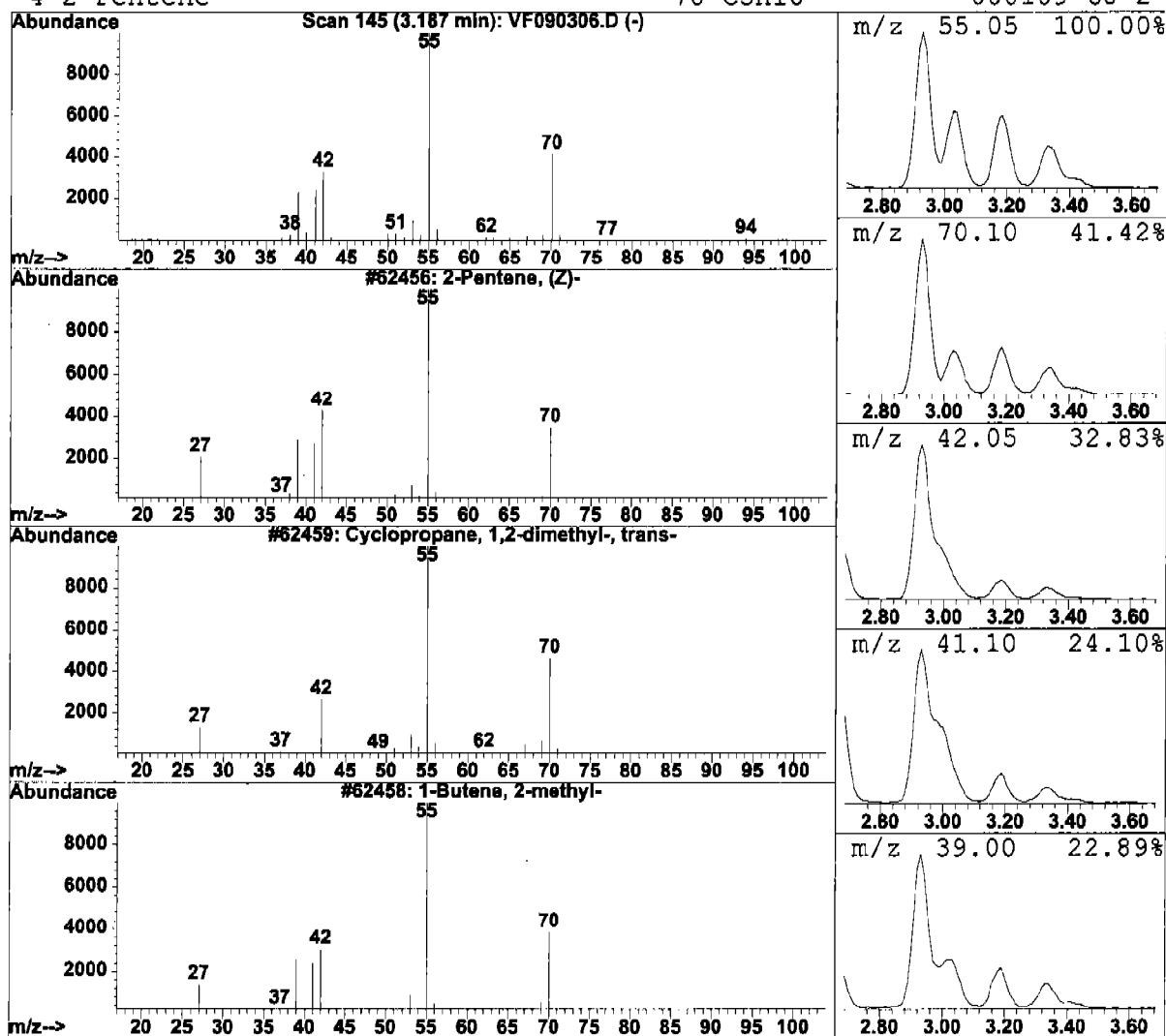
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 Acq On : 3 Sep 2004 12:47 am Operator: SAM  
 Sample : S4414-03 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 8 2-Pentene, (Z)- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.19	0.62 ug/l	295421	Fluorobenzene	8.85

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentene, (Z)-	70	C5H10	000627-20-3	91
2	Cyclopropane, 1,2-dimethyl-, trans-	70	C5H10	002402-06-4	90
3	1-Butene, 2-methyl-	70	C5H10	000563-46-2	87
4	2-Pentene	70	C5H10	000109-68-2	86



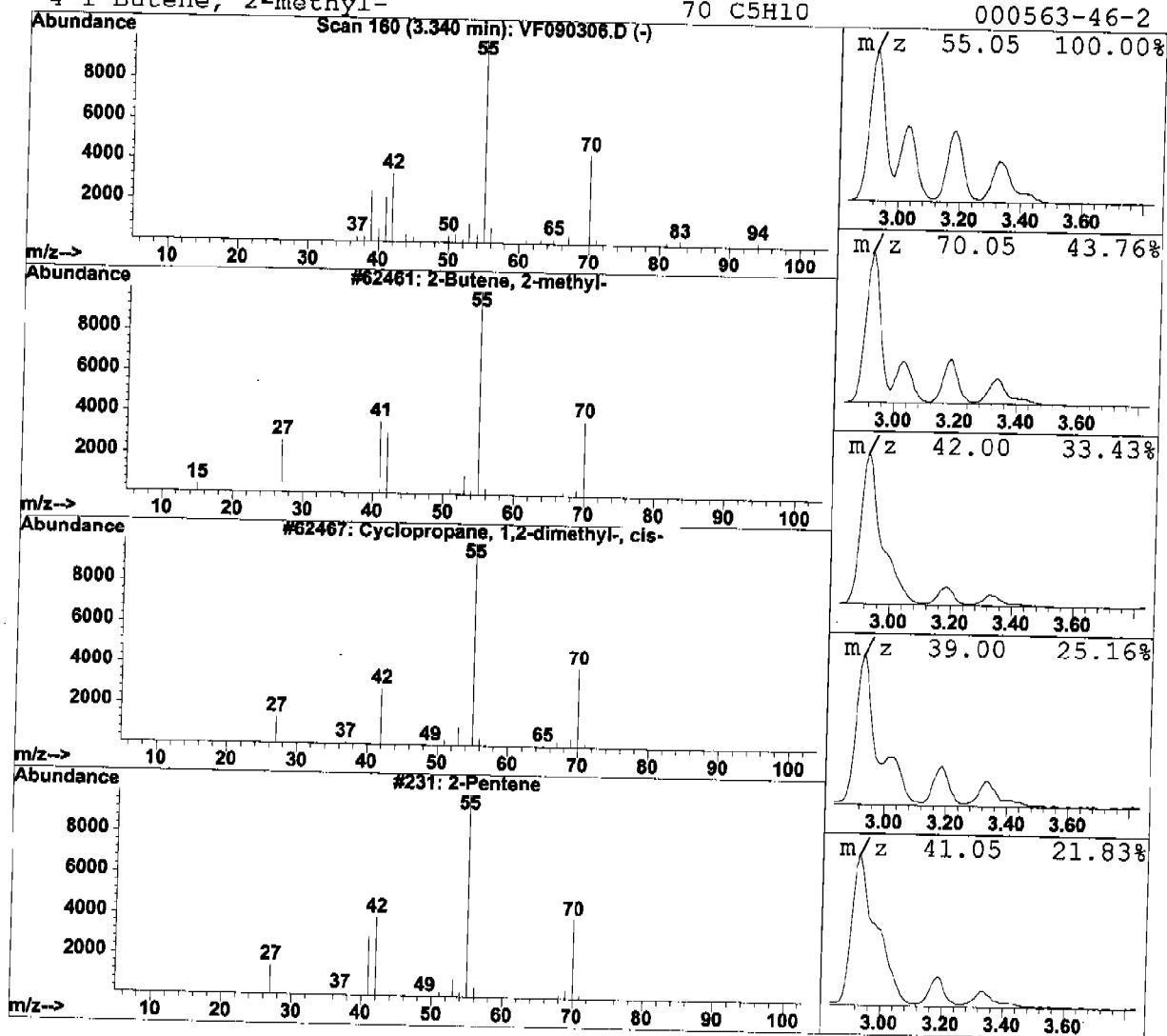
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 Acq On : 3 Sep 2004 12:47 am Operator: SAM  
 Sample : S4414-03 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 9 2-Butene, 2-methyl- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.34	0.51 ug/l	244680	Fluorobenzene	8.85

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	2-Butene, 2-methyl-	70	C5H10	000513-35-9	91
2		Cyclopropane, 1,2-dimethyl-, cis-	70	C5H10	000930-18-7	91
3		2-Pentene	70	C5H10	000109-68-2	91
4		1-Butene, 2-methyl-	70	C5H10	000563-46-2	90





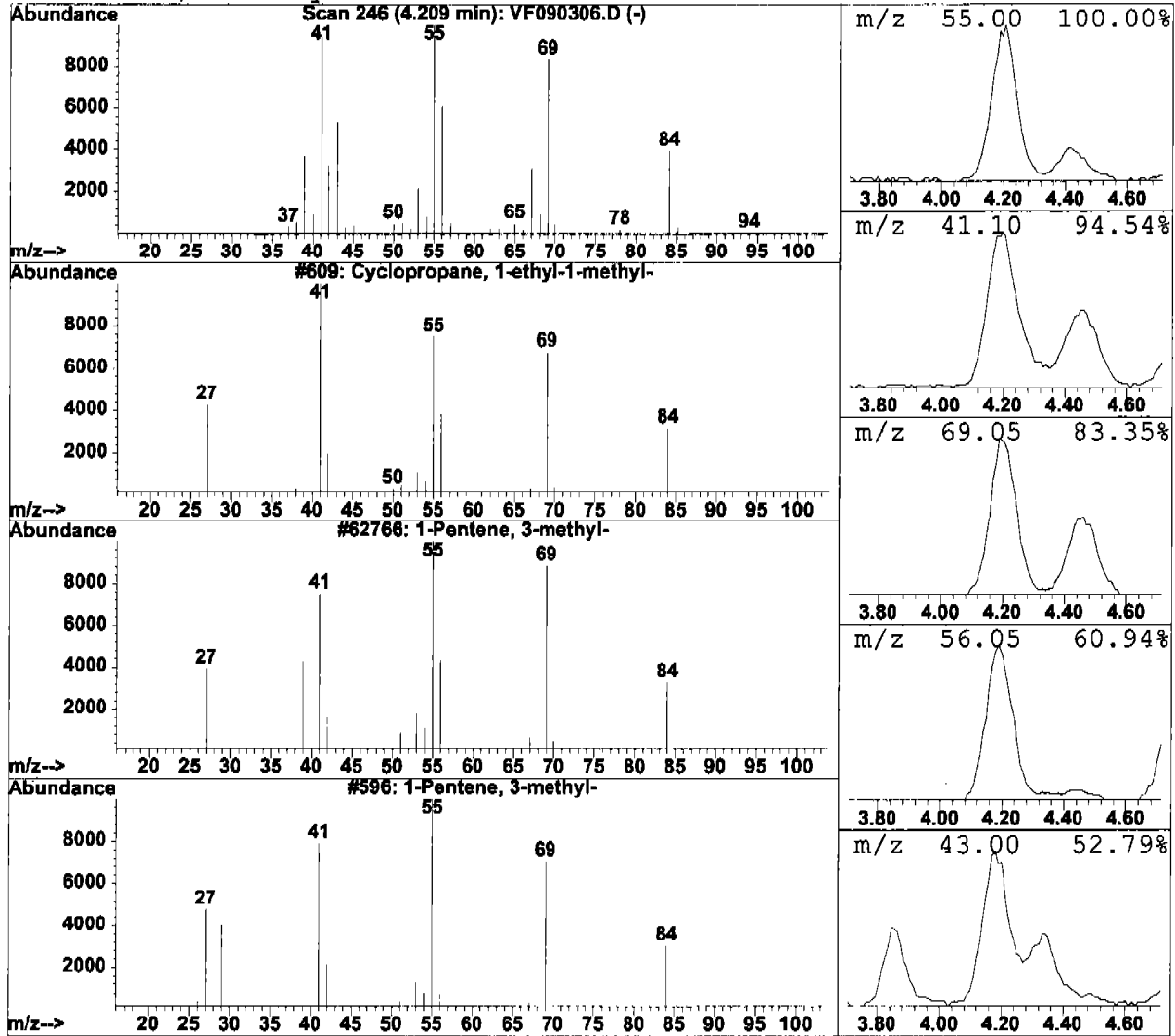
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 Acq On : 3 Sep 2004 12:47 am Operator: SAM  
 Sample : S4414-03 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 10 Cyclopropane, 1-ethyl-1-methyl Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.21	1.82 ug/l	870844	Fluorobenzene	8.85

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Cyclopropane, 1-ethyl-1-methyl-	84	C6H12	053778-43-1	81
2		1-Pentene, 3-methyl-	84	C6H12	000760-20-3	72
3		1-Pentene, 3-methyl-	84	C6H12	000760-20-3	72
4		Pentane, 3-methylene-	84	C6H12	000760-21-4	68



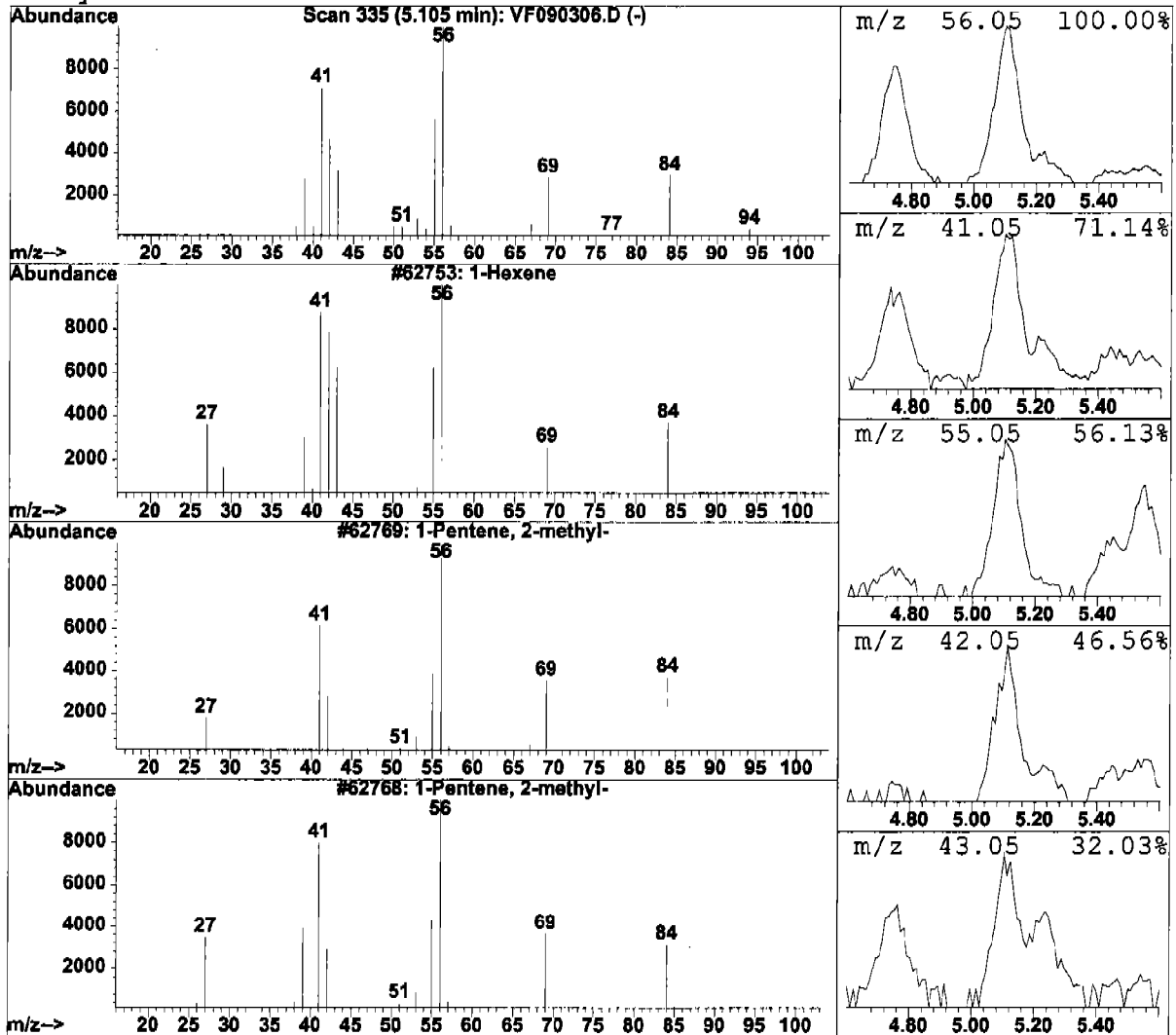
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 Acq On : 3 Sep 2004 12:47 am Operator: SAM  
 Sample : S4414-03 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 11 1-Hexene Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.11	0.35 ug/l	169795	Fluorobenzene	8.85

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	1-Hexene	84	C6H12	000592-41-6	90
2		1-Pentene, 2-methyl-	84	C6H12	000763-29-1	72
3		1-Pentene, 2-methyl-	84	C6H12	000763-29-1	68
4		Cyclohexane	84	C6H12	000110-82-7	64



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090306.D Vial: 6  
 Acq On : 3 Sep 2004 12:47 am Operator: SAM  
 Sample : S4414-03 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

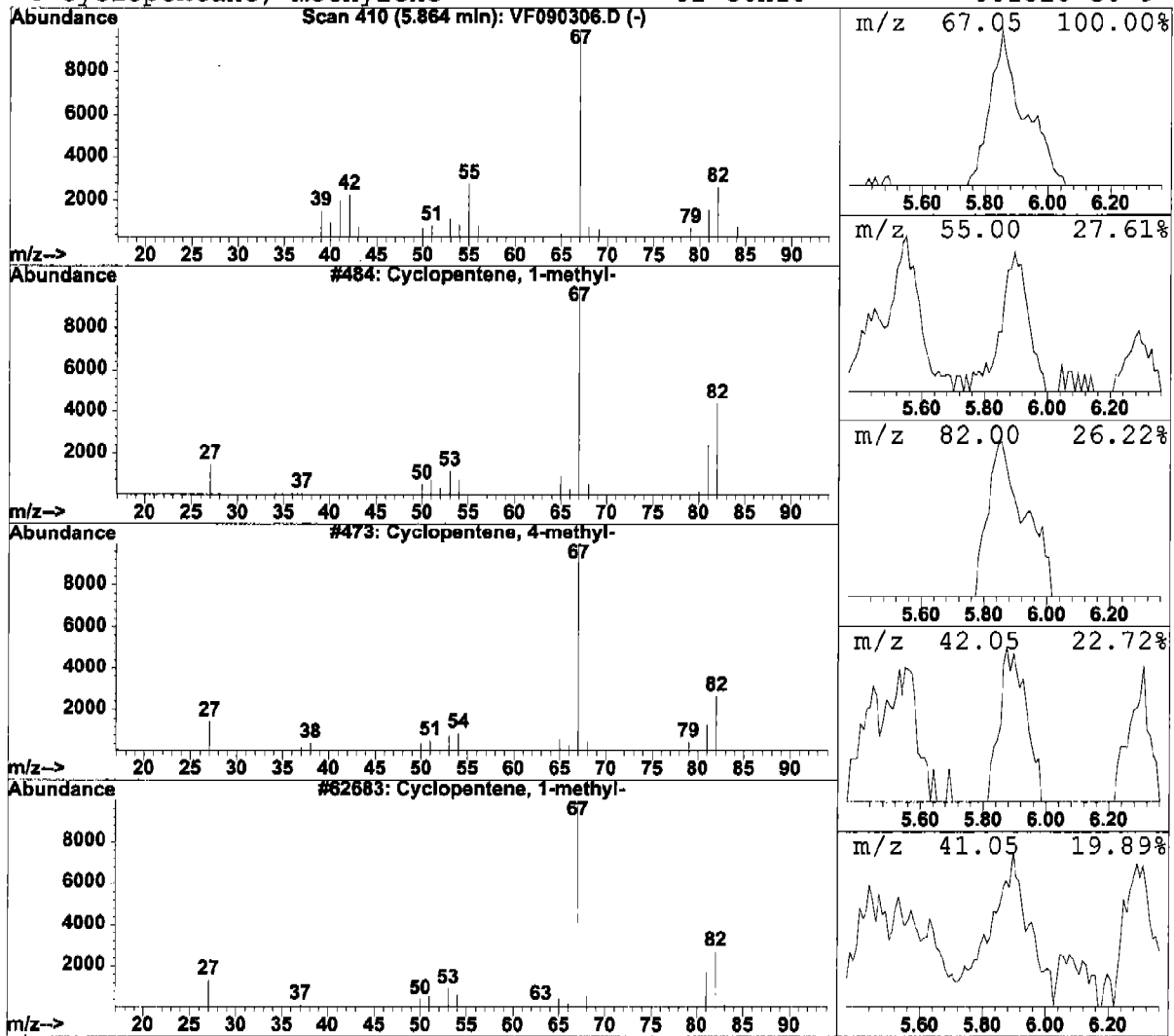
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 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 12 Cyclopentene, 1-methyl- Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.86	0.30 ug/l	142842	Fluorobenzene	8.85

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Cyclopentene, 1-methyl-	82	C6H10	000693-89-0	64
2			Cyclopentene, 4-methyl-	82	C6H10	001759-81-5	64
3			Cyclopentene, 1-methyl-	82	C6H10	000693-89-0	64
4			Cyclopentane, methylene-	82	C6H10	001528-30-9	64



Tentatively Identified Compound (LSC) summary

Operator ID: SAM Date Acquired: 3 Sep 2004 12:47 am  
 Data File: C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090306.D  
 Name: S4414-03  
 Misc: 25mL  
 Method: C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title: METHOD 524.2 VOLATILES DRINKING WATER  
 Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Isobutane	1.94	0.8	ug/l	384991	ISTD01	8.85	479577	1.0
1-Butene	2.08	7.1	ug/l	3398960	ISTD01	8.85	479577	1.0
1-Butene	2.18	0.9	ug/l	409940	ISTD01	8.85	479577	1.0
1-Butene	2.29	0.7	ug/l	328100	ISTD01	8.85	479577	1.0
2-Pentene, (Z)-	2.55	1.3	ug/l	626571	ISTD01	8.85	479577	1.0
Butane, 2-methyl-	2.67	1.3	ug/l	605003	ISTD01	8.85	479577	1.0
1-Pentene	2.93	3.6	ug/l	1741050	ISTD01	8.85	479577	1.0
2-Pentene, (Z)-	3.19	0.6	ug/l	295421	ISTD01	8.85	479577	1.0
2-Butene, 2-methyl-	3.34	0.5	ug/l	244680	ISTD01	8.85	479577	1.0
Cyclopropane, 1-ethy	4.21	1.8	ug/l	870844	ISTD01	8.85	479577	1.0
1-Hexene	5.11	0.4	ug/l	169795	ISTD01	8.85	479577	1.0
Cyclopentene, 1-meth	5.86	0.3	ug/l	142842	ISTD01	8.85	479577	1.0

VF090306.D VF0816DW.M Thu Sep 09 13:13:01 2004 RPT1

Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/25/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/28/2004
Client Sample ID:	TR2149	SDG No.:	S4414
Lab Sample ID:	S4414-04	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090209.D	1		9/2/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	0.09	U	1.0	0.09	ug/L
74-87-3	Chloromethane	0.11	U	1.0	0.11	ug/L
75-01-4	Vinyl Chloride	0.14	U	1.0	0.14	ug/L
74-83-9	Bromomethane	0.22	U	1.0	0.22	ug/L
75-00-3	Chloroethane	0.19	U	1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	0.09	U	1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	2.2	U	10	2.2	ug/L
60-29-7	Diethyl Ether	0.21	U	1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	0.16	U	1.0	0.16	ug/L
74-88-4	Iodomethane	0.14	U	1.0	0.14	ug/L
107-5-1	Allyl Chloride	0.18	U	1.0	0.18	ug/L
107-13-1	Acrylonitrile	0.94	U	2.0	0.94	ug/L
67-64-1	Acetone	1.5	U	5.8	1.5	ug/L
75-15-0	Carbon disulfide	0.18	U	1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	0.37	U	1.0	0.37	ug/L
79-20-9	Methyl acrylate	0.17	U	1.0	0.17	ug/L
75-09-2	Methylene Chloride	0.4	J	1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.94	U	5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	0.22	U	1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	0.20	U	1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L
67-66-3	Chloroform	0.22	U	1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	1.4	U	2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L
108-20-3	Isopropyl Ether	0.21	U	1.0	0.21	ug/L
107-12-0	Propionitrile	3.3	U	10	3.3	ug/L
71-43-2	Benzene	0.24	U	1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	0.5	J	1.0	0.24	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/25/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/28/2004
Client Sample ID:	TR2149	SDG No.:	S4414
Lab Sample ID:	S4414-04	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090209.D	1		9/2/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	0.21	U	1.0	0.21	ug/L
126-98-7	Methacrylonitrile	0.33	U	1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	0.78	U	2.4	0.78	ug/L
109-69-3	1-Chlorobutane	0.22	U	1.0	0.22	ug/L
74-95-3	Dibromomethane	0.24	U	1.0	0.24	ug/L
75-27-4	Bromodichloromethane	0.20	U	1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	1.0	U	5.0	1.0	ug/L
80-62-6	Methyl methacrylate	0.53	U	2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	0.25	U	1.0	0.25	ug/L
108-88-3	Toluene	0.22	U	1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L
591-78-6	2-Hexanone	1.1	U	5.0	1.1	ug/L
124-48-1	Dibromochloromethane	0.17	U	1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L
127-18-4	Tetrachloroethene	0.34	U	1.0	0.34	ug/L
108-90-7	Chlorobenzene	0.21	U	1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L
67-72-1	Hexachloroethane	0.20	U	1.0	0.20	ug/L
100-41-4	Ethyl Benzene	0.21	U	1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	0.43	U	1.0	0.43	ug/L
95-47-6	o-Xylene	0.21	U	1.0	0.21	ug/L
100-42-5	Styrene	0.19	U	1.0	0.19	ug/L
75-25-2	Bromoform	0.22	U	1.0	0.22	ug/L
108-86-1	Bromobenzene	0.21	U	1.0	0.21	ug/L
98-82-8	Isopropylbenzene	0.20	U	1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	0.28	U	1.0	0.28	ug/L
103-61-5	N-propylbenzene	0.24	U	1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	0.50	U	1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.22	U	1.0	0.22	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/25/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2149</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-04</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090209.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	0.22	U	1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	0.18	U	1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	0.20	U	1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	0.22	U	1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
104-51-8	n-Butylbenzene	0.20	U	1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.20	U	1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L
91-20-3	Naphthalene	0.17	U	1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.18	U	1.0	0.18	ug/L
<b>SURROGATES</b>						
2199-69-1	1,2-Dichlorobenzene-d4	1.01	101 %	80 - 120		SPK: 1
460-00-4	4-Bromofluorobenzene	0.96	96 %	80 - 120		SPK: 1
<b>INTERNAL STANDARDS</b>						
462-06-6	Fluorobenzene	210650	8.86			

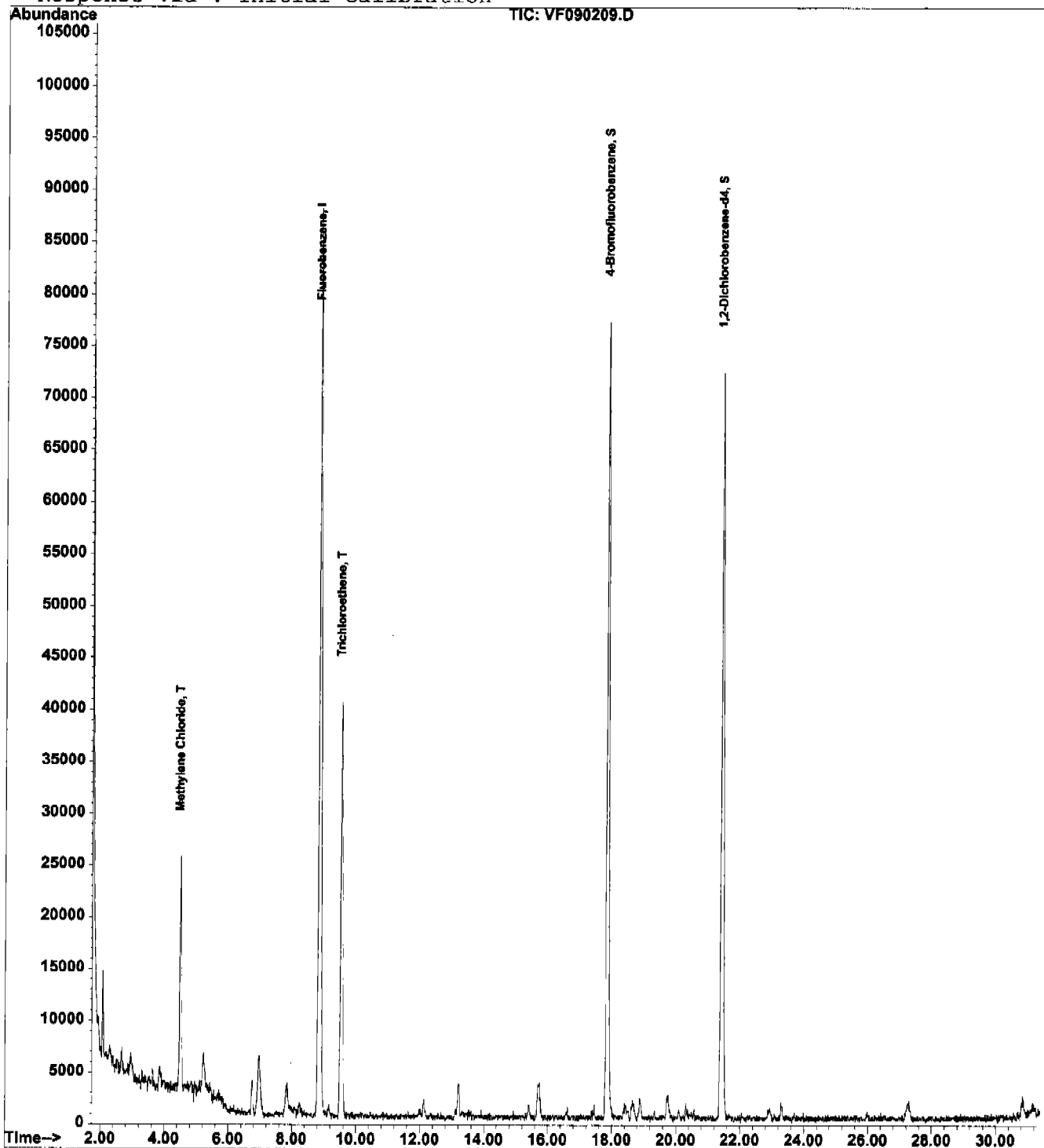
U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

Quantitation Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090209.D Vial: 10  
Acq On : 2 Sep 2004 2:15 pm Operator: SAM  
Sample : S4414-04 Inst : VOA F  
Misc : 5mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Sep 3 10:18 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration





CHEMTECH GC-MS Quantitation Report (QT Reviewed)

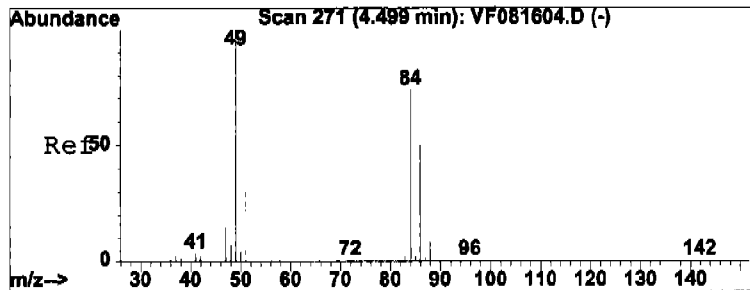
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090209.D Vial: 10  
 Acq On : 2 Sep 2004 2:15 pm Operator: SAM  
 Sample : S4414-04 Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 3 10:18 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.86	96	210650	1.00	ug/l	0.01
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.86	95	94688	0.96	ug/l	0.00
Spiked Amount	1.000		Recovery	=	96.00%	
63) 1,2-Dichlorobenzene-	21.43	152	55684	1.01	ug/l	0.00
Spiked Amount	1.000		Recovery	=	101.00%	
Target Compounds						
14) Methylene Chloride	4.50	84	20339	0.41	ug/l	95
32) Trichloroethene	9.55	130	34922	0.48	ug/l	99

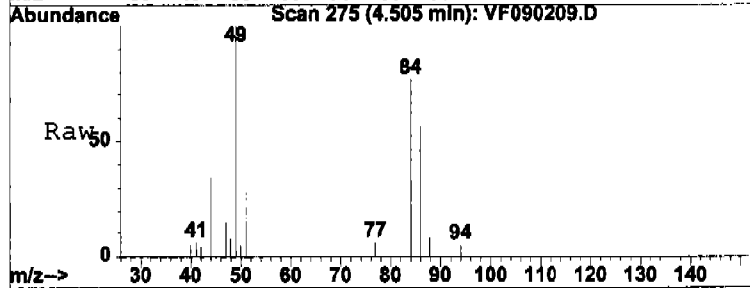
Analyst Signature: Sy Analyst Name: Sy Date: 09/09/04

-----REASONS FOR MANUAL INTEGRATIONS-----  
 \_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound # : \_\_\_  
 \_\_\_ Peak integrated by software incorrectly.Compound # : \_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound # : \_\_\_\_\_

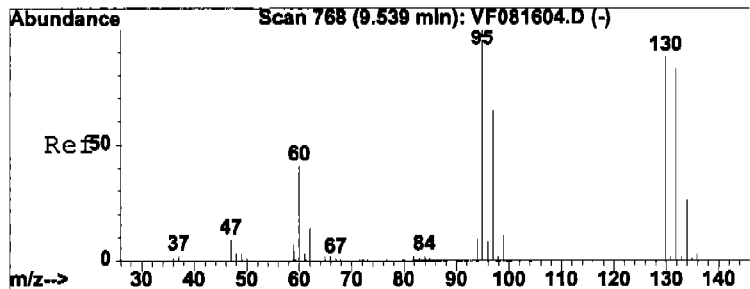
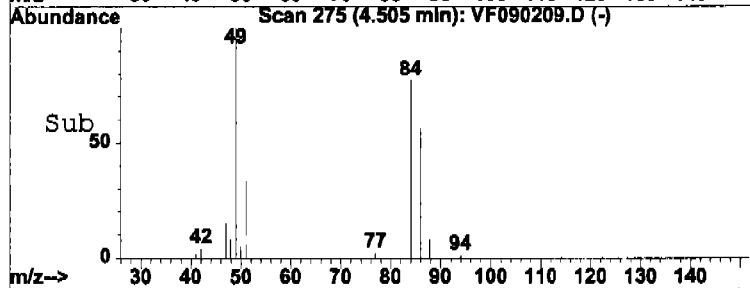
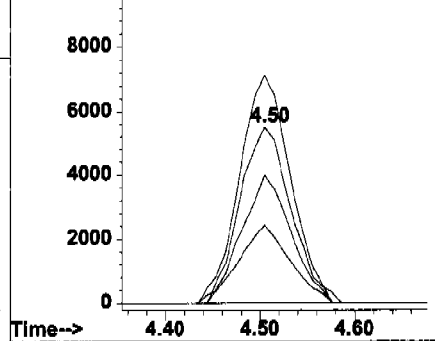


#14  
 Methylene Chloride  
 Concen: 0.41 ug/l  
 RT: 4.50 min Scan# 275  
 Delta R.T. 0.01 min  
 Lab File: VF090209.D  
 Acq: 2 Sep 2004 2:15 pm

Tgt Ion	Resp	Lower	Upper
84	20339		
49	129.8	108.6	163.0
51	44.3	0.0	84.4
86	72.7	54.2	81.2

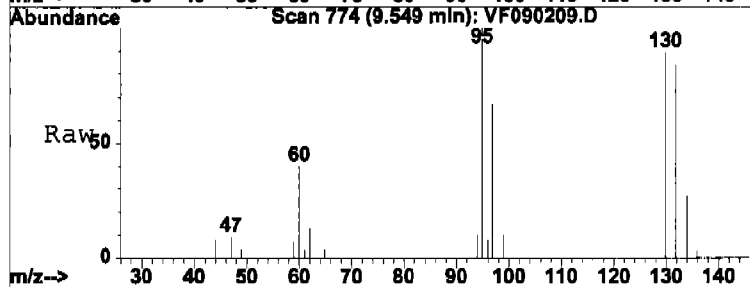


Abundance  
 Ion 84.00 (83.70 to 84.70): VF09  
 Ion 49.00 (48.70 to 49.70): VF09  
 Ion 51.00 (50.70 to 51.70): VF09  
 Ion 86.00 (85.70 to 86.70): VF09

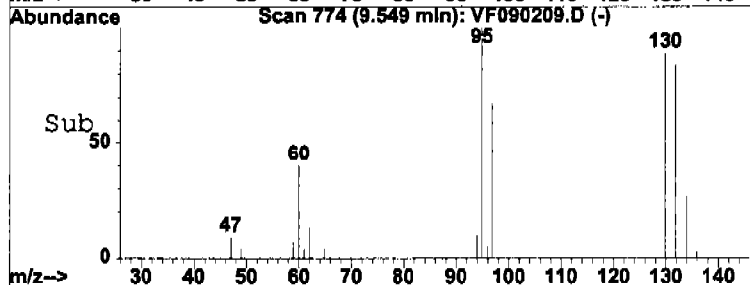
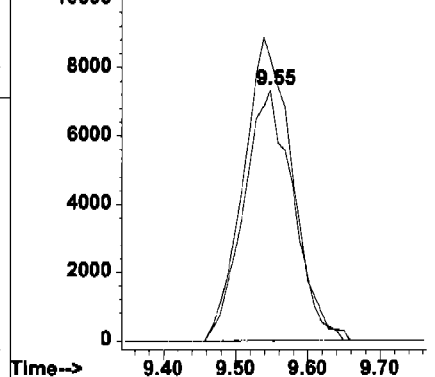


#32  
 Trichloroethene  
 Concen: 0.48 ug/l  
 RT: 9.55 min Scan# 774  
 Delta R.T. 0.01 min  
 Lab File: VF090209.D  
 Acq: 2 Sep 2004 2:15 pm

Tgt Ion	Resp	Lower	Upper
130	34922		
95	112.9	90.9	136.3



Abundance  
 Ion 129.90 (129.60 to 130.60): VF  
 Ion 94.90 (94.60 to 95.60): VF09



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090209.D Vial: 10  
 Acq On : 2 Sep 2004 2:15 pm Operator: SAM  
 Sample : S4414-04 Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

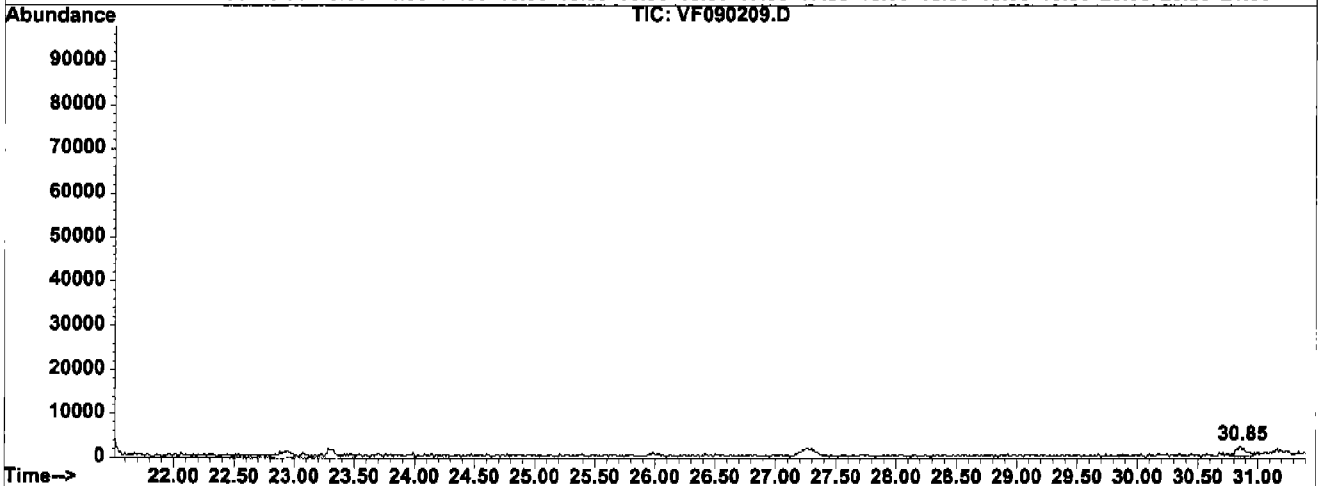
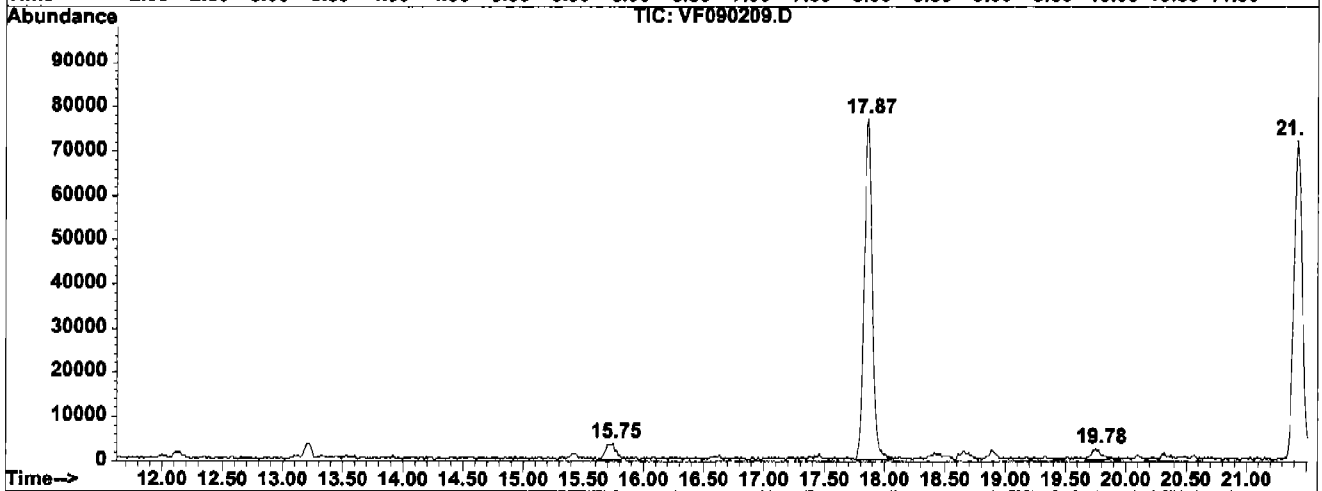
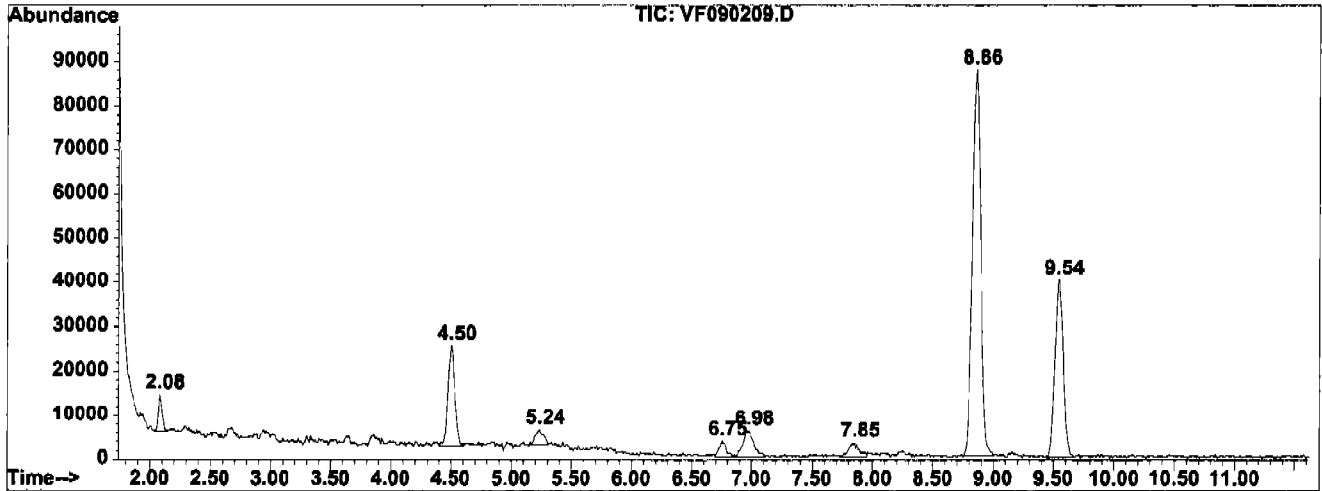
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	2.081	31	35	41	rVB2	8385	18050	4.21%	1.145%
2	4.505	265	275	285	rBV	22726	87580	20.43%	5.554%
3	5.236	336	347	354	rBV3	3495	16192	3.78%	1.027%
4	6.754	491	497	506	rVB4	3478	14488	3.38%	0.919%
5	6.976	506	519	533	rBV2	5927	37130	8.66%	2.355%
6	7.853	594	606	616	rBV3	3321	20932	4.88%	1.328%
7	8.860	693	706	721	rBV	87410	428665	100.00%	27.186%
8	9.539	762	773	787	rVB2	40116	195581	45.63%	12.404%
9	15.752	1372	1385	1392	rBV4	3609	21303	4.97%	1.351%
10	17.866	1584	1594	1613	rBV	76900	362150	84.48%	22.968%
11	19.777	1772	1783	1792	rBV3	2340	13607	3.17%	0.863%
12	21.427	1932	1945	1960	rBV	72022	347373	81.04%	22.031%
13	30.851	2866	2874	2885	rBV5	2345	13720	3.20%	0.870%

Sum of corrected areas: 1576771

VF090209.D VF0816DW.M Fri Sep 03 11:23:00 2004 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090209.D  
Operator : SAM  
Acquired : 2 Sep 2004 2:15 pm using AcqMethod VF\_VOA  
Instrument : VOA F  
Sample Name: S4414-04  
Misc Info : 5mL  
Vial Number: 10  
Quant File : VF0816DW.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: SAM      Date Acquired: 2 Sep 2004 2:15 pm  
Data File: C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090209.D  
Name: S4414-04  
Misc: 5mL  
Method: C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title: METHOD 524.2 VOLATILES DRINKING WATER  
Library Searched: C:\DATABASE\NBS75K.L

TIC	Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
VF090209.D	VF0816DW.M								

-----  
Fri Sep 03 11:23:01 2004      RPT1

**Report of Analysis**

<b>Client:</b>	Parsons Engineering	<b>Date Collected:</b>	8/26/2004
<b>Project:</b>	Seneca Ash Landfill Quarterly Monito	<b>Date Received:</b>	8/28/2004
<b>Client Sample ID:</b>	TR2153	<b>SDG No.:</b>	S4414
<b>Lab Sample ID:</b>	S4414-05	<b>Matrix:</b>	WATER
<b>Analytical Method:</b>	524.2	<b>% Moisture:</b>	100
<b>Sample Wt/Wol:</b>	25.0 Units: mL	<b>Soil Extract Vol:</b>	uL
<b>Soil Aliquot Vol:</b>	mL		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
VF090210.D	1		9/2/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	0.09	U	1.0	0.09	ug/L
74-87-3	Chloromethane	0.11	U	1.0	0.11	ug/L
75-01-4	Vinyl Chloride	0.14	U	1.0	0.14	ug/L
74-83-9	Bromomethane	0.22	U	1.0	0.22	ug/L
75-00-3	Chloroethane	0.19	U	1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	0.09	U	1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	2.2	U	10	2.2	ug/L
60-29-7	Diethyl Ether	0.21	U	1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	0.16	U	1.0	0.16	ug/L
74-88-4	Iodomethane	0.14	U	1.0	0.14	ug/L
107-5-1	Allyl Chloride	0.18	U	1.0	0.18	ug/L
107-13-1	Acrylonitrile	0.94	U	2.0	0.94	ug/L
67-64-1	Acetone	1.5	U	5.8	1.5	ug/L
75-15-0	Carbon disulfide	0.18	U	1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	0.37	U	1.0	0.37	ug/L
79-20-9	Methyl acrylate	0.17	U	1.0	0.17	ug/L
75-09-2	Methylene Chloride	0.3	J	1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.94	U	5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	0.22	U	1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	0.20	U	1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	32		1.0	0.24	ug/L
67-66-3	Chloroform	0.22	U	1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	1.4	U	2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L
108-20-3	Isopropyl Ether	0.21	U	1.0	0.21	ug/L
107-12-0	Propionitrile	3.3	U	10	3.3	ug/L
71-43-2	Benzene	0.24	U	1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	240	E	1.0	0.24	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/26/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monitc</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2153</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-05</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090210.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	0.21	U	1.0	0.21	ug/L
126-98-7	Methacrylonitrile	0.33	U	1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	0.78	U	2.4	0.78	ug/L
109-69-3	1-Chlorobutane	0.22	U	1.0	0.22	ug/L
74-95-3	Dibromomethane	0.24	U	1.0	0.24	ug/L
75-27-4	Bromodichloromethane	0.20	U	1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	1.0	U	5.0	1.0	ug/L
80-62-6	Methyl methacrylate	0.53	U	2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	0.25	U	1.0	0.25	ug/L
108-88-3	Toluene	0.22	U	1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L
591-78-6	2-Hexanone	1.1	U	5.0	1.1	ug/L
124-48-1	Dibromochloromethane	0.17	U	1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L
127-18-4	Tetrachloroethene	0.34	U	1.0	0.34	ug/L
108-90-7	Chlorobenzene	0.21	U	1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L
67-72-1	Hexachloroethane	0.20	U	1.0	0.20	ug/L
100-41-4	Ethyl Benzene	0.21	U	1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	0.43	U	1.0	0.43	ug/L
95-47-6	o-Xylenc	0.21	U	1.0	0.21	ug/L
100-42-5	Styrene	0.19	U	1.0	0.19	ug/L
75-25-2	Bromoform	0.22	U	1.0	0.22	ug/L
108-86-1	Bromobenzene	0.21	U	1.0	0.21	ug/L
98-82-8	Isopropylbenzene	0.20	U	1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	0.28	U	1.0	0.28	ug/L
103-61-5	N-propylbenzene	0.24	U	1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	0.50	U	1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.22	U	1.0	0.22	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/26/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monite</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2153</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-05</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090210.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VF081604</b>

<b>CAS Number</b>	<b>Parameter</b>	<b>Conc.</b>	<b>Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
106-43-4	4-Chlorotoluene	0.22	U	1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	0.18	U	1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	0.20	U	1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	0.22	U	1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
104-51-8	n-Butylbenzene	0.20	U	1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.20	U	1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L
91-20-3	Naphthalene	0.17	U	1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.18	U	1.0	0.18	ug/L

**SURROGATES**

2199-69-1	1,2-Dichlorobenzene-d4	1.01	101 %	80 - 120	SPK: 1
460-00-4	4-Bromofluorobenzene	0.95	95 %	80 - 120	SPK: 1

**INTERNAL STANDARDS**

462-06-6	Fluorobenzene	226893	8.86		
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U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

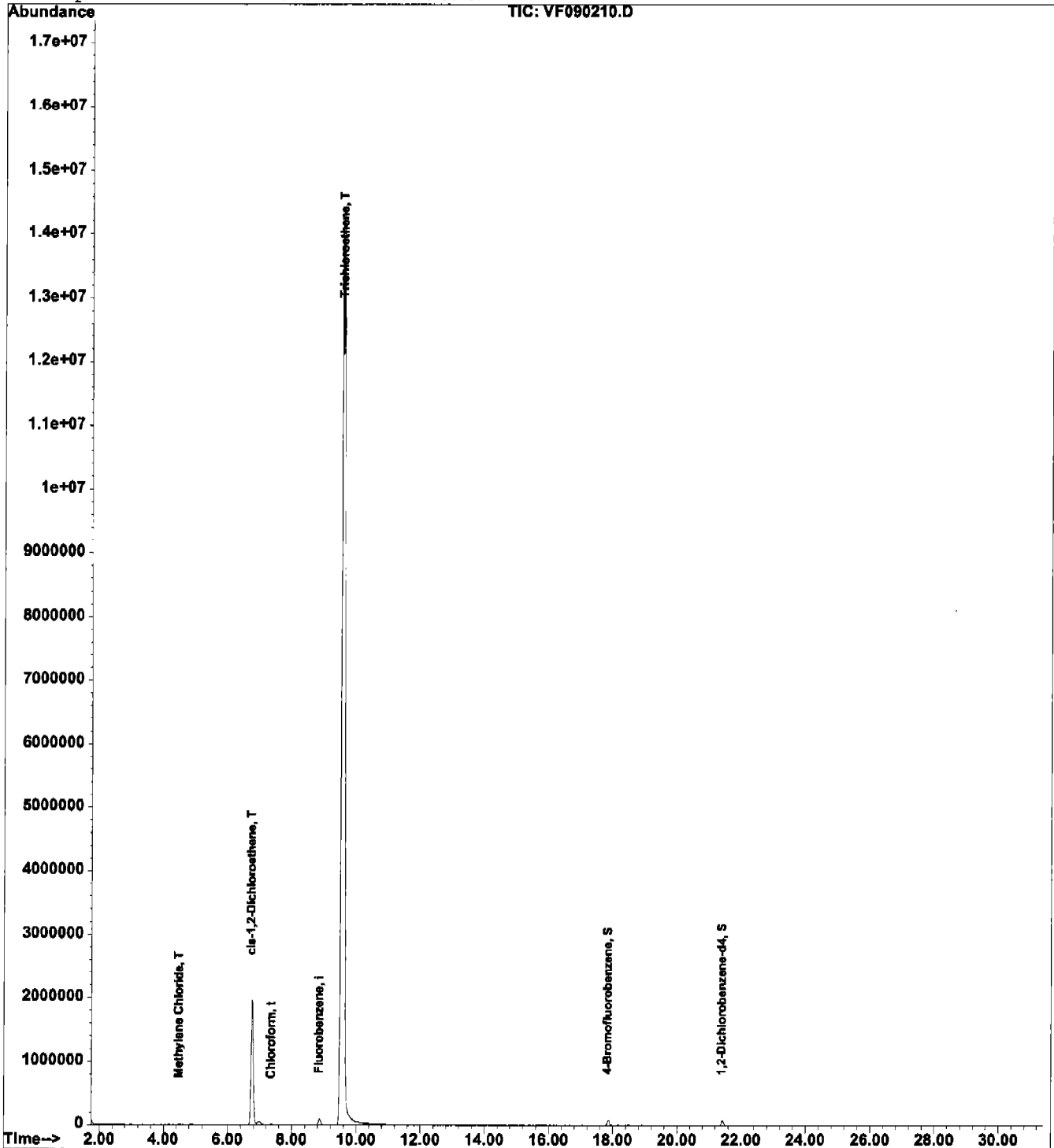
J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound



Quantitation Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090210.D Vial: 11  
Acq On : 2 Sep 2004 2:54 pm Operator: SAM  
Sample : S4414-05 Inst : VOA F  
Misc : 5mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Sep 3 10:19 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090210.D Vial: 11  
 Acq On : 2 Sep 2004 2:54 pm Operator: SAM  
 Sample : S4414-05 Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 3 10:19 2004 Quant Results File: VF0816DW.RES

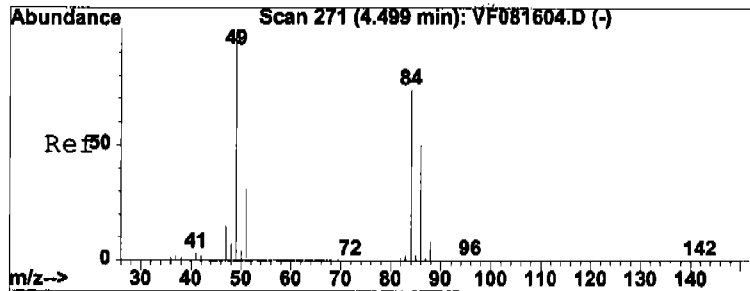
Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.86	96	226893	1.00	ug/1	0.01
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.87	95	101158	0.95	ug/1	0.02
Spiked Amount	1.000		Recovery	=	95.00%	
63) 1,2-Dichlorobenzene-	21.44	152	60051	1.01	ug/1	0.02
Spiked Amount	1.000		Recovery	=	101.00%	
Target Compounds						
14) Methylene Chloride	4.52	84	17897	0.33	ug/1	90
19) cis-1,2-Dichloroethe	6.76	96	2214847	32.07	ug/1	85
24) Chloroform	7.38	83	24226	0.21	ug/1	93
32) Trichloroethene	9.60	130	18748411m	237.11	ug/1	

Analyst Signature: Sy Analyst Name: Sy Date: 09/09/04

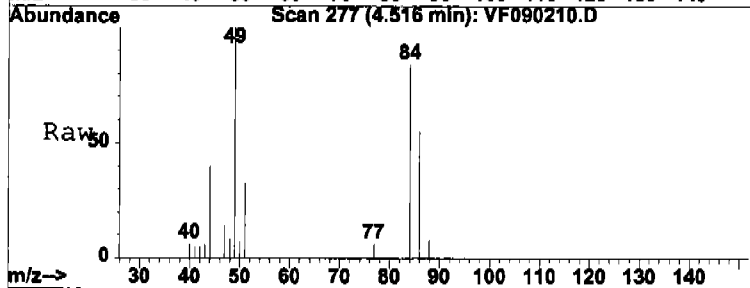
-----REASONS FOR MANUAL INTEGRATIONS-----  
 \_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly. Compound #: 32  
 \_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

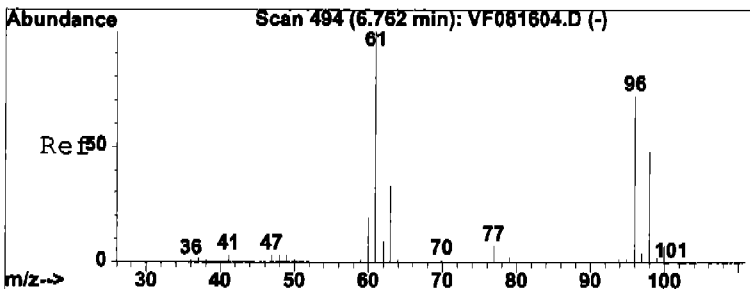
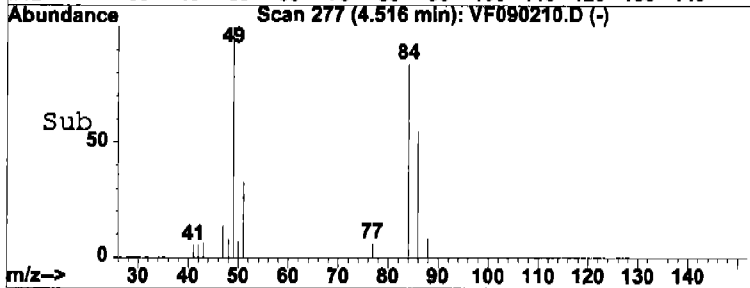
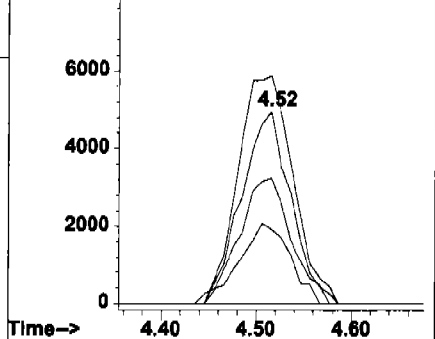


#14  
 Methylene Chloride  
 Concen: 0.33 ug/l  
 RT: 4.52 min Scan# 277  
 Delta R.T. 0.02 min  
 Lab File: VF090210.D  
 Acq: 2 Sep 2004 2:54 pm

Tgt Ion	Resp	Lower	Upper
84	17897		
49	118.5	108.6	163.0
51	38.9	0.0	84.4
86	65.4	54.2	81.2

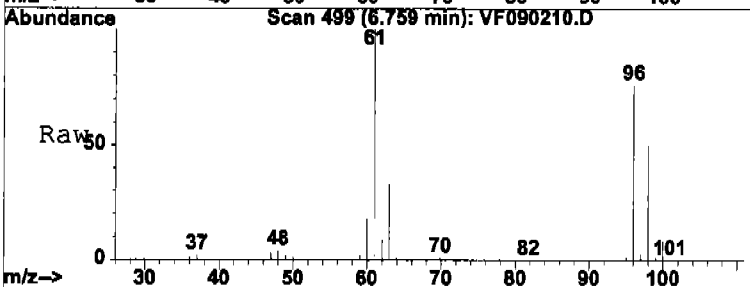


Abundance  
 Ion 84.00 (83.70 to 84.70): VF09  
 Ion 49.00 (48.70 to 49.70): VF09  
 Ion 51.00 (50.70 to 51.70): VF09  
 Ion 86.00 (85.70 to 86.70): VF09

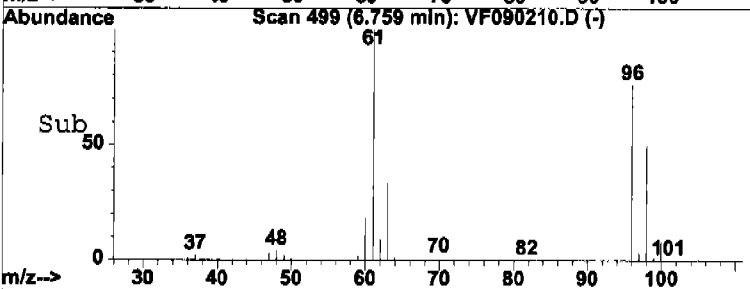
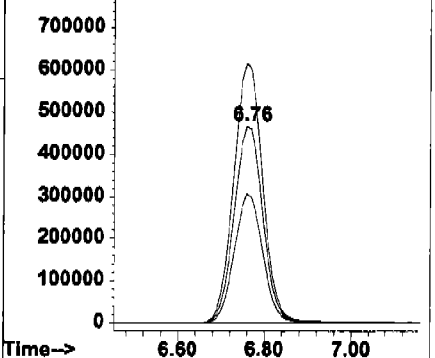


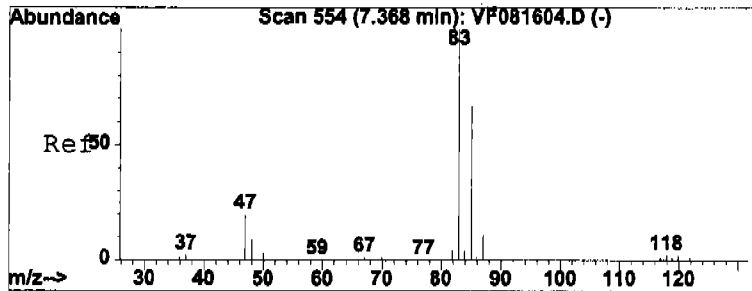
#19  
 cis-1,2-Dichloroethene  
 Concen: 32.07 ug/l  
 RT: 6.76 min Scan# 499  
 Delta R.T. 0.01 min  
 Lab File: VF090210.D  
 Acq: 2 Sep 2004 2:54 pm

Tgt Ion	Resp	Lower	Upper
96	2214847		
61	133.4	0.0	403.7
98	65.1	32.9	98.6



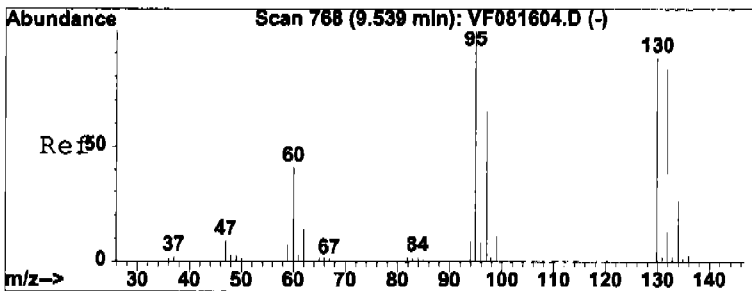
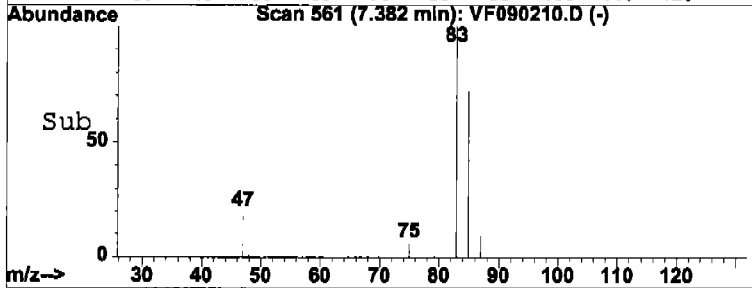
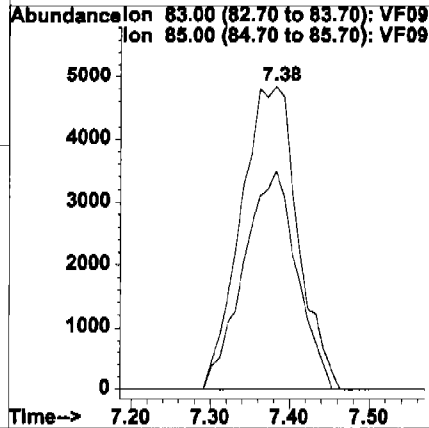
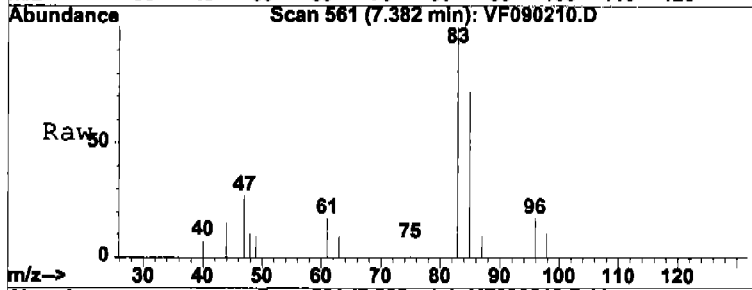
Abundance  
 Ion 96.00 (95.70 to 96.70): VF09  
 Ion 61.00 (60.70 to 61.70): VF09  
 Ion 98.00 (97.70 to 98.70): VF09





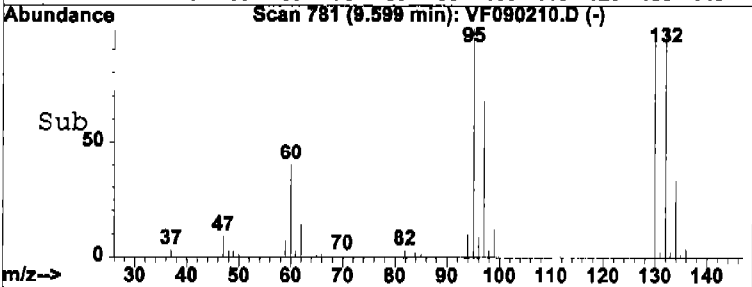
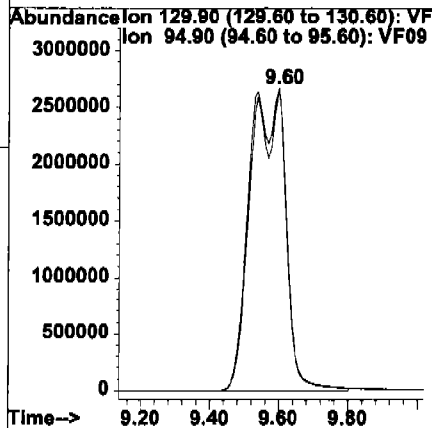
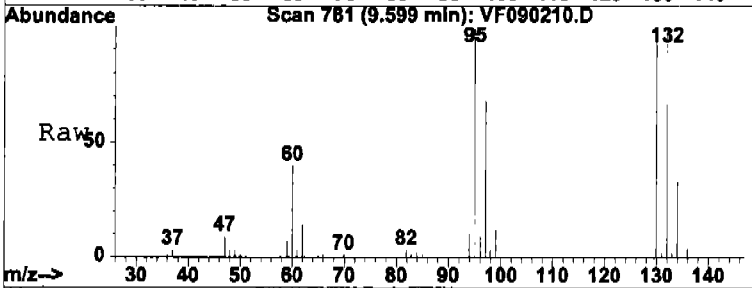
#24  
 Chloroform  
 Concen: 0.21 ug/l  
 RT: 7.38 min Scan# 561  
 Delta R.T. 0.02 min  
 Lab File: VF090210.D  
 Acq: 2 Sep 2004 2:54 pm

Tgt Ion: 83 Resp: 24226  
 Ion Ratio Lower Upper  
 83 100  
 85 72.4 0.0 133.6



#32  
 Trichloroethene  
 Concen: 237.11 ug/l m  
 RT: 9.60 min Scan# 781  
 Delta R.T. 0.06 min  
 Lab File: VF090210.D  
 Acq: 2 Sep 2004 2:54 pm

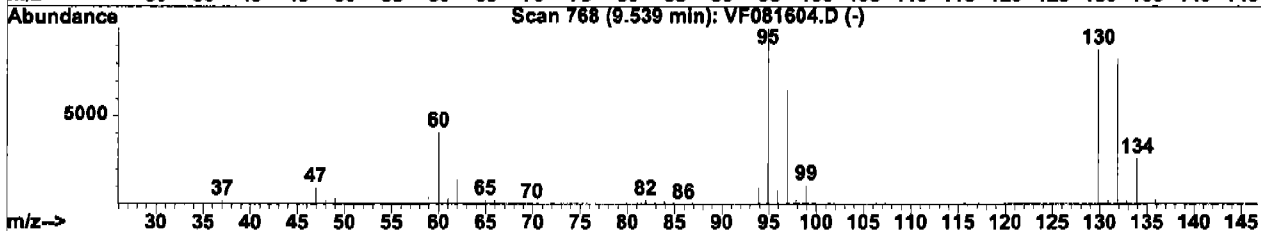
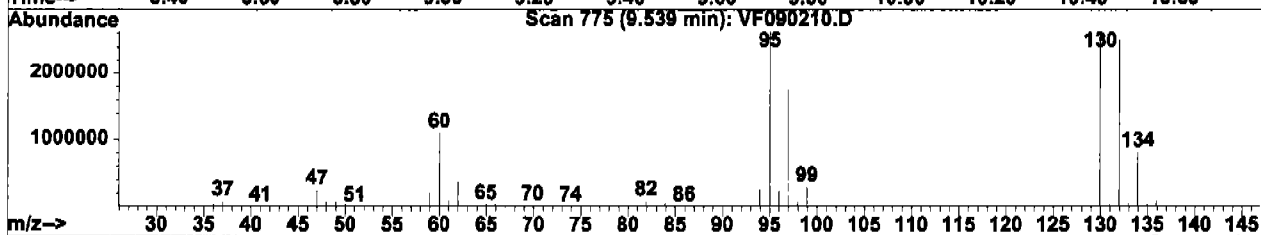
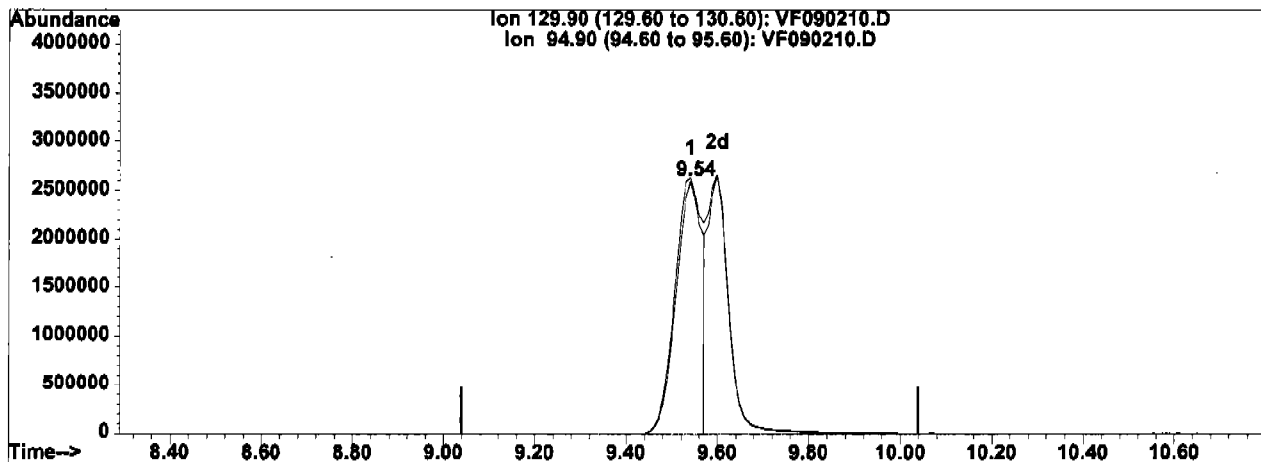
Tgt Ion: 130 Resp: 18748411  
 Ion Ratio Lower Upper  
 130 100  
 95 100.3 90.9 136.3



Quantitation Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090210.D Vial: 11  
 Acq On : 2 Sep 2004 2:54 pm Operator: SAM  
 Sample : S4414-05 Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 Quant Time: Sep 3 10:19 2004 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Multiple Level Calibration



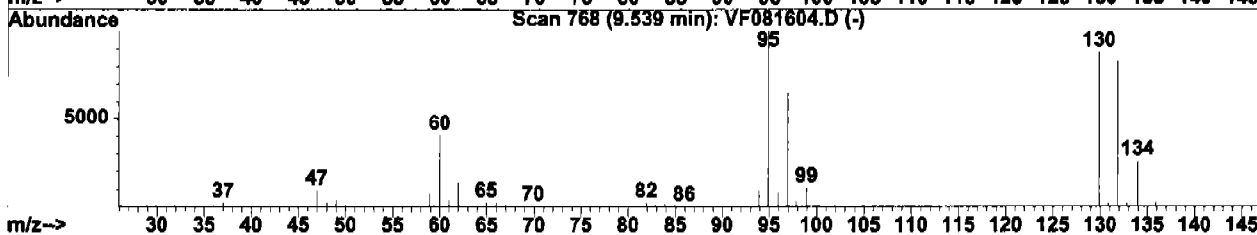
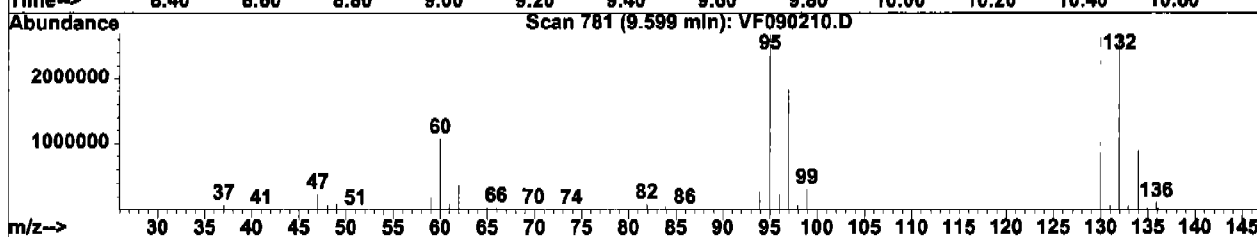
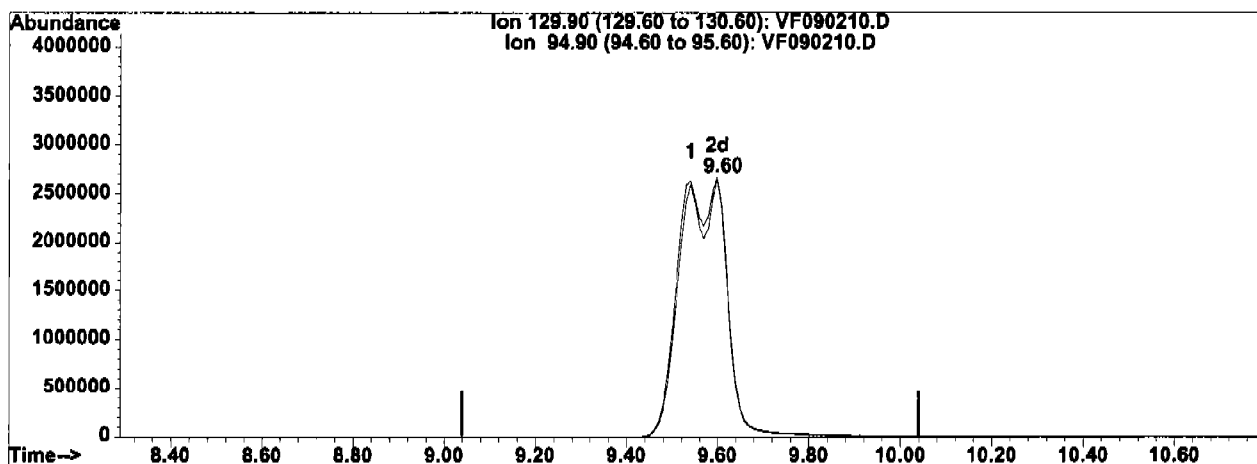
TIC: VF090210.D

(32) Trichloroethene (T)		
9.54min	130.55ug/l	
response	10322456	
Ion	Exp%	Act%
129.90	100	100
94.90	113.60	101.64
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090210.D Vial: 11  
 Acq On : 2 Sep 2004 2:54 pm Operator: SAM  
 Sample : S4414-05 Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 Quant Time: Sep 3 10:19 2004 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Multiple Level Calibration



TIC: VF090210.D

(32) Trichloroethene (T)  
 9.60min 237.11ug/l m  
 response 18748411

Ion	Exp%	Act%
129.90	100	100
94.90	113.60	100.27
0.00	0.00	0.00
0.00	0.00	0.00

LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090210.D Vial: 11  
 Acq On : 2 Sep 2004 2:54 pm Operator: SAM  
 Sample : S4414-05 Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

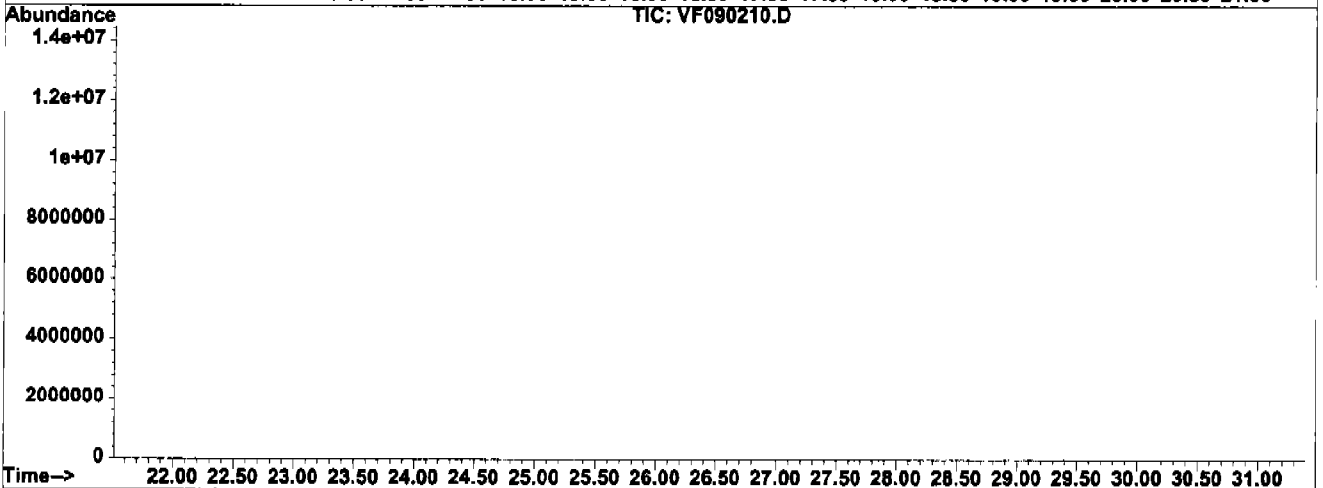
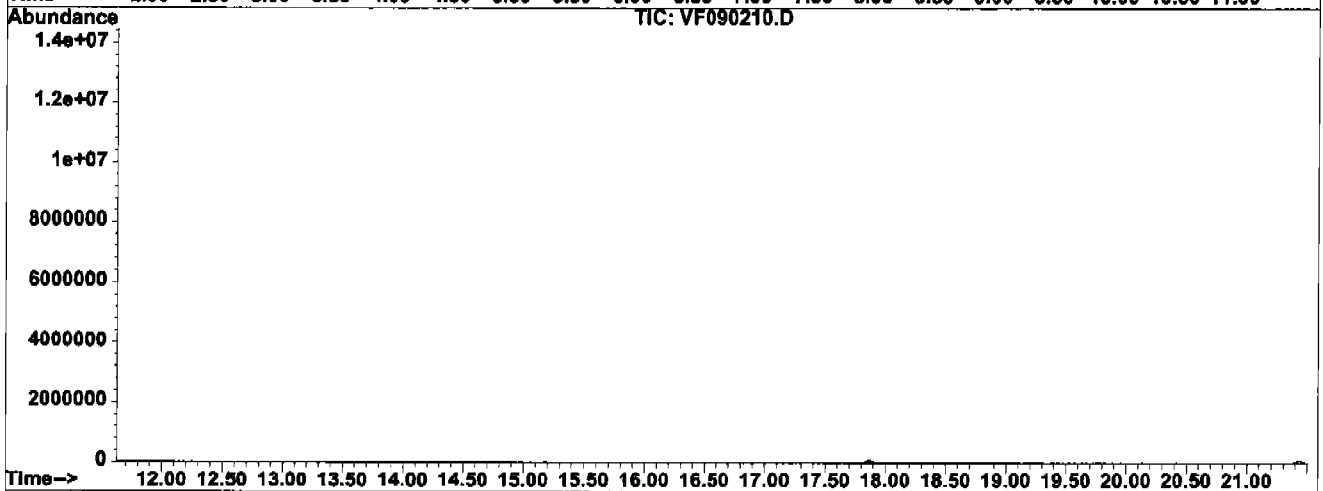
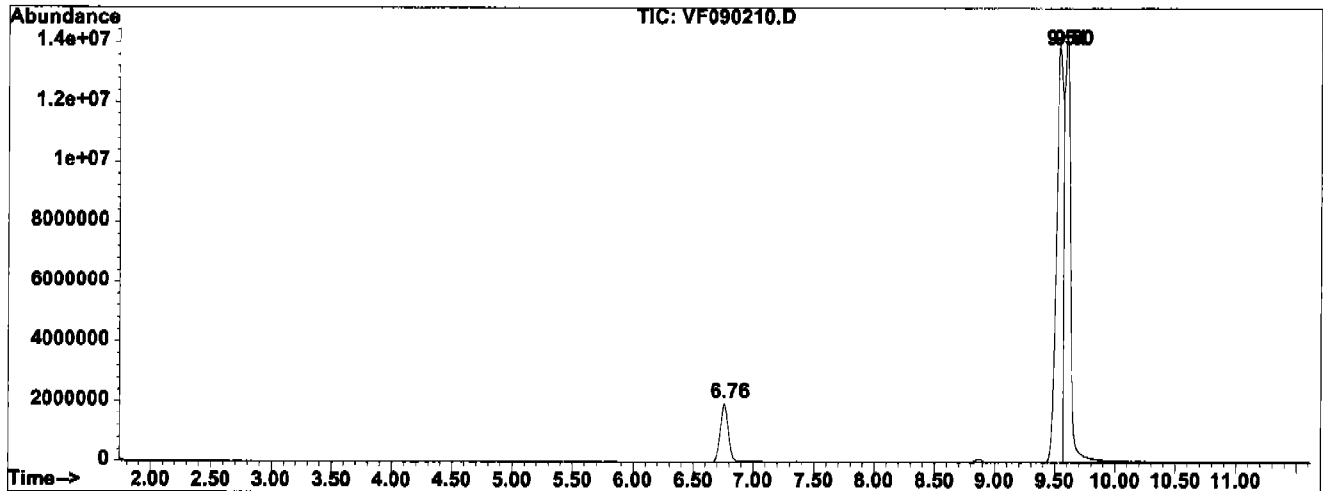
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	6.759	486	499	513	rBV	1956756	9201602	15.84%	8.034%
2	9.539	759	775	778	rBV2	14114317	58080014	100.00%	50.710%
3	9.599	778	781	825	rVB2	14430498	47252283	81.36%	41.256%

Sum of corrected areas: 114533899

VF090210.D VF0816DW.M Fri Sep 03 11:23:25 2004 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090210.D  
Operator : SAM  
Acquired : 2 Sep 2004 2:54 pm using AcqMethod VF\_VOA  
Instrument : VOA F  
Sample Name: S4414-05  
Misc Info : 5mL  
Vial Number: 11  
Quant File : VF0816DW.RES (RTE Integrator)





Library Search Compound Report

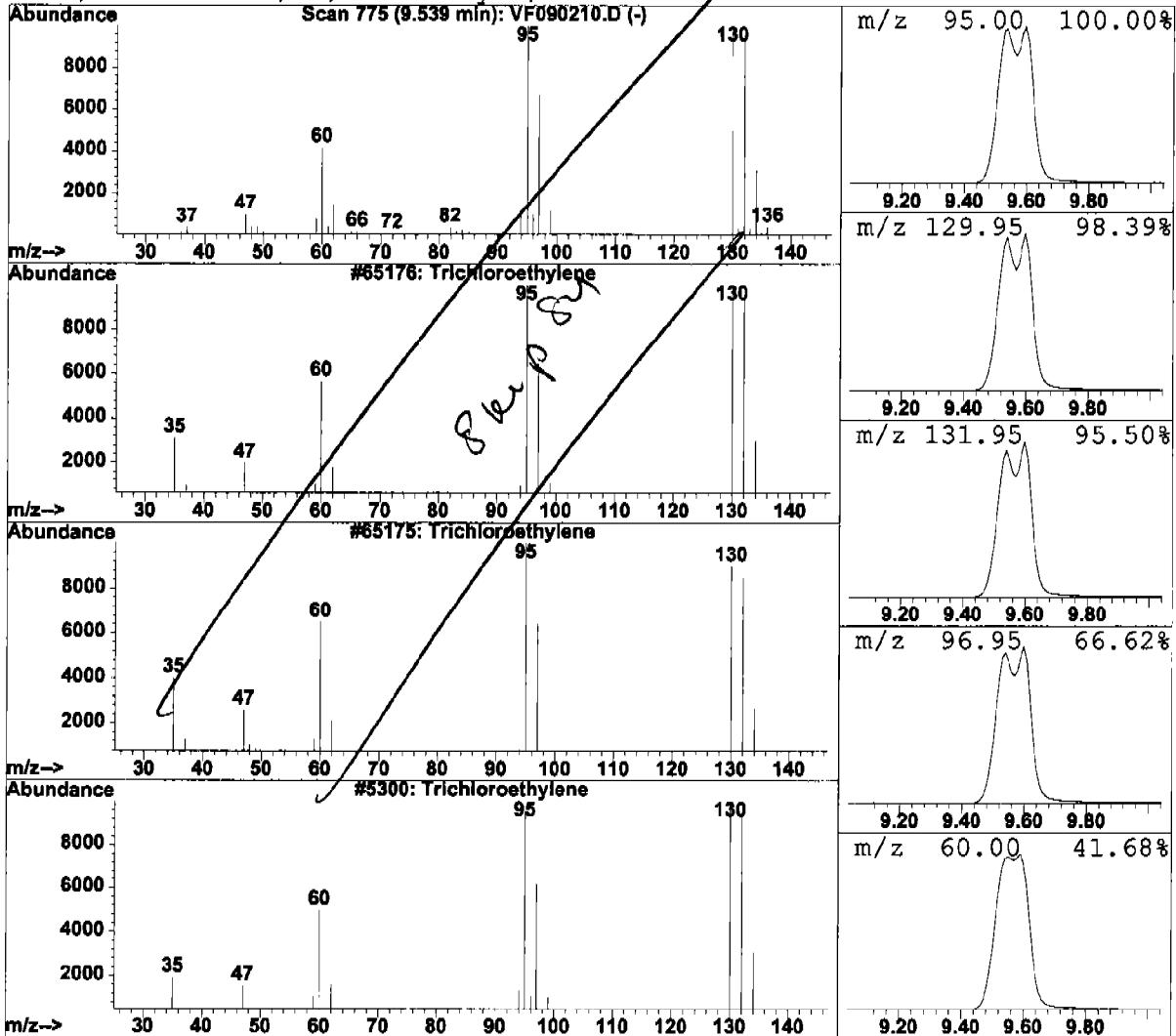
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090210.D Vial: 11  
 Acq On : 2 Sep 2004 2:54 pm Operator: SAM  
 Sample : S4414-05 Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 1 Trichloroethylene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.54	1.00 ug/l	58080000	Fluorobenzene	8.86

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Trichloroethylene	130	C2HCl3	000079-01-6	97
2		Trichloroethylene	130	C2HCl3	000079-01-6	96
3		Trichloroethylene	130	C2HCl3	000079-01-6	95
4		1,3-Oxathiane, 4,6-dimethyl-, trans	132	C6H12OS	022452-26-2	10





**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/26/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2153DL</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-05DL</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090309.D</b>	<b>50</b>		<b>9/3/2004</b>	<b>VF081604</b>

<b>CAS Number</b>	<b>Parameter</b>	<b>Conc.</b>	<b>Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	4.4	UD	50	4.4	ug/L
74-87-3	Chloromethane	5.5	UD	50	5.5	ug/L
75-01-4	Vinyl Chloride	7.2	UD	50	7.2	ug/L
74-83-9	Bromomethane	11	UD	50	11	ug/L
75-00-3	Chloroethane	9.5	UD	50	9.5	ug/L
75-69-4	Trichlorofluoromethane	4.6	UD	50	4.6	ug/L
75-65-0	tert-Butyl Alcohol	110	UD	500	110	ug/L
60-29-7	Diethyl Ether	11	UD	50	11	ug/L
75-35-4	1,1-Dichloroethene	8.1	UD	50	8.1	ug/L
74-88-4	Iodomethane	7.2	UD	50	7.2	ug/L
107-5-1	Allyl Chloride	9.1	UD	50	9.1	ug/L
107-13-1	Acrylonitrile	47	UD	100	47	ug/L
67-64-1	Acetone	120	JD	290	75	ug/L
75-15-0	Carbon disulfide	9.0	UD	50	9.0	ug/L
1634-04-4	Methyl tert-butyl Ether	19	UD	50	19	ug/L
79-20-9	Methyl acrylate	8.6	UD	50	8.6	ug/L
75-09-2	Methylene Chloride	30	JD	50	9.0	ug/L
156-60-5	trans-1,2-Dichloroethene	11	UD	50	11	ug/L
75-34-3	1,1-Dichloroethane	10	UD	50	10	ug/L
78-93-3	2-Butanone	47	UD	250	47	ug/L
56-23-5	Carbon Tetrachloride	11	UD	50	11	ug/L
594-20-7	2,2-Dichloropropane	10	UD	50	10	ug/L
156-59-2	cis-1,2-Dichloroethene	26	JD	50	12	ug/L
67-66-3	Chloroform	11	UD	50	11	ug/L
71-55-6	1,1,1-Trichloroethane	12	UD	50	12	ug/L
110-57-6	t-1,4-Dichloro-2-butene	69	UD	100	69	ug/L
563-43-2	1,1-Dichloropropene	10	UD	50	10	ug/L
108-20-3	Isopropyl Ether	10	UD	50	10	ug/L
107-12-0	Propionitrile	160	UD	500	160	ug/L
71-43-2	Benzene	12	UD	50	12	ug/L
107-06-2	1,2-Dichloroethane	10	UD	50	10	ug/L
79-01-6	Trichloroethene	280	D	50	12	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/26/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monit</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2153DL</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-05DL</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wot:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090309.D</b>	<b>50</b>		<b>9/3/2004</b>	<b>VF081604</b>

<b>CAS Number</b>	<b>Parameter</b>	<b>Conc.</b>	<b>Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
78-87-5	1,2-Dichloropropane	11	UD	50	11	ug/L
126-98-7	Methacrylonitrile	16	UD	50	16	ug/L
109-99-9	Tetrahydrofuran	39	UD	120	39	ug/L
109-69-3	1-Chlorobutane	11	UD	50	11	ug/L
74-95-3	Dibromomethane	12	UD	50	12	ug/L
75-27-4	Bromodichloromethane	10	UD	50	10	ug/L
108-10-1	4-Methyl-2-Pentanone	51	UD	250	51	ug/L
80-62-6	Methyl methacrylate	27	UD	100	27	ug/L
97-63-2	Ethyl methacrylate	12	UD	50	12	ug/L
108-88-3	Toluene	11	UD	50	11	ug/L
10061-02-6	t-1,3-Dichloropropene	9.5	UD	50	9.5	ug/L
10061-01-5	cis-1,3-Dichloropropene	9.4	UD	50	9.4	ug/L
79-00-5	1,1,2-Trichloroethane	12	UD	50	12	ug/L
142-28-9	1,3-Dichloropropane	11	UD	50	11	ug/L
591-78-6	2-Hexanone	54	UD	250	54	ug/L
124-48-1	Dibromochloromethane	8.6	UD	50	8.6	ug/L
106-93-4	1,2-Dibromoethane	10	UD	50	10	ug/L
127-18-4	Tetrachloroethene	17	UD	50	17	ug/L
108-90-7	Chlorobenzene	10	UD	50	10	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	11	UD	50	11	ug/L
67-72-1	Hexachloroethane	9.8	UD	50	9.8	ug/L
100-41-4	Ethyl Benzene	11	UD	50	11	ug/L
136777-61-2	m/p-Xylenes	22	UD	50	22	ug/L
95-47-6	o-Xylene	11	UD	50	11	ug/L
100-42-5	Styrene	9.4	UD	50	9.4	ug/L
75-25-2	Bromoform	11	UD	50	11	ug/L
108-86-1	Bromobenzene	11	UD	50	11	ug/L
98-82-8	Isopropylbenzene	10	UD	50	10	ug/L
79-34-5	1,1,1,2-Tetrachloroethane	10	UD	50	10	ug/L
96-18-4	1,2,3-Trichloropropane	14	UD	50	14	ug/L
103-61-5	N-propylbenzene	12	UD	50	12	ug/L
95-49-8	2-Chlorotoluene	25	UD	50	25	ug/L
108-67-8	1,3,5-Trimethylbenzene	11	UD	50	11	ug/L

U = Not Detected  
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 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/26/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2153DL</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-05DL</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090309.D</b>	<b>50</b>		<b>9/3/2004</b>	<b>VF081604</b>

<b>CAS Number</b>	<b>Parameter</b>	<b>Conc.</b>	<b>Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
106-43-4	4-Chlorotoluene	11	UD	50	11	ug/L
98-06-6	tert-Butylbenzene	9.2	UD	50	9.2	ug/L
95-63-6	1,2,4-Trimethylbenzene	12	UD	50	12	ug/L
135-98-8	Sec-butylbenzene	10	UD	50	10	ug/L
99-87-6	p-Isopropyltoluene	11	UD	50	11	ug/L
541-73-1	1,3-Dichlorobenzene	10	UD	50	10	ug/L
106-46-7	1,4-Dichlorobenzene	10	UD	50	10	ug/L
104-51-8	n-Butylbenzene	10	UD	50	10	ug/L
95-50-1	1,2-Dichlorobenzene	8.7	UD	50	8.7	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	10	UD	50	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	9.9	UD	50	9.9	ug/L
87-68-3	Hexachlorobutadiene	8.7	UD	50	8.7	ug/L
91-20-3	Naphthalene	8.7	UD	50	8.7	ug/L
87-61-6	1,2,3-Trichlorobenzene	9.0	UD	50	9.0	ug/L

**SURROGATES**

2199-69-1	1,2-Dichlorobenzene-d4	0.99	99 %	80 - 120		SPK: 1
460-00-4	4-Bromofluorobenzene	0.92	92 %	80 - 120		SPK: 1

**INTERNAL STANDARDS**

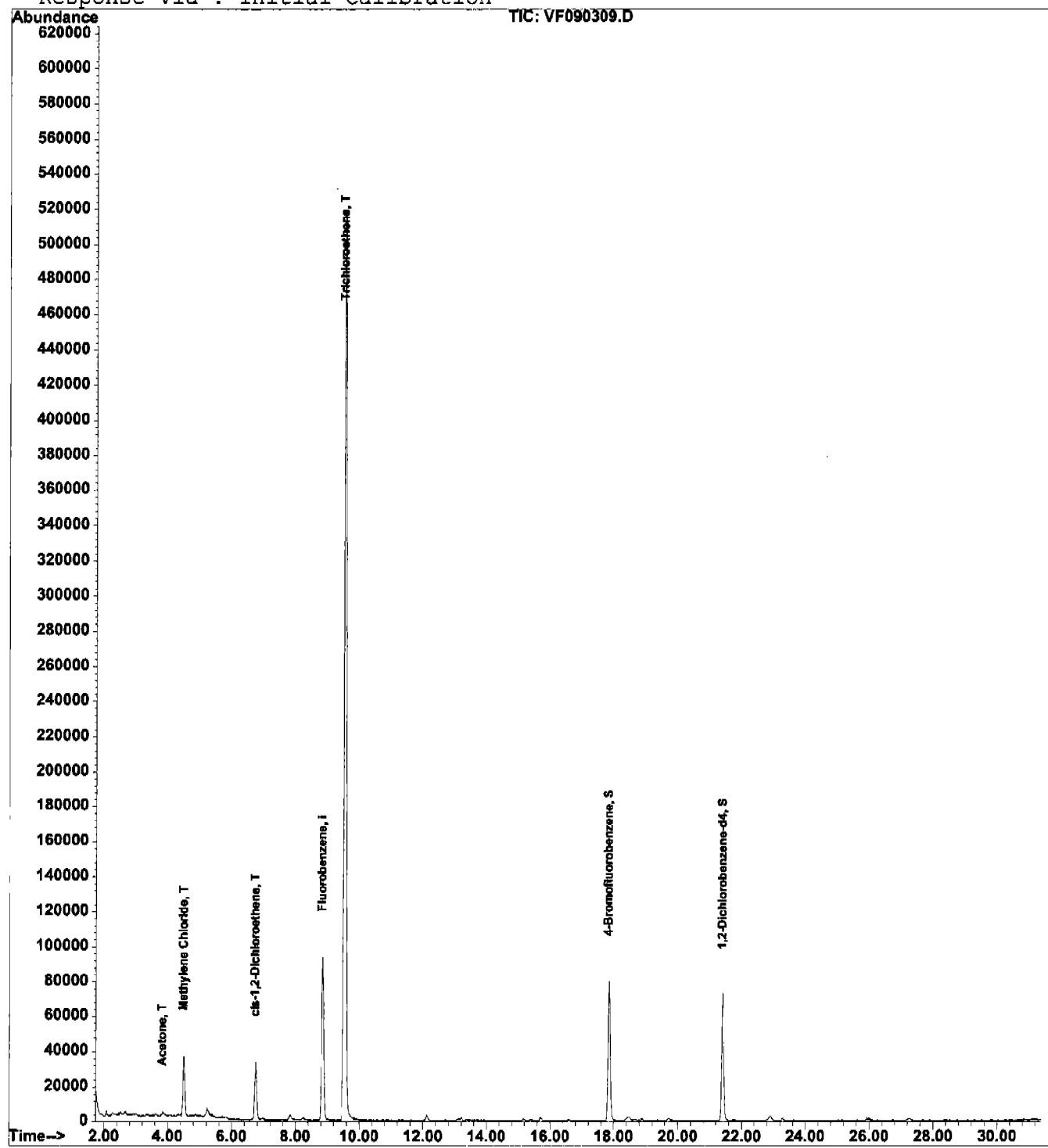
462-06-6	Fluorobenzene	224426	8.87			
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U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090309.D Vial: 10  
Acq On : 3 Sep 2004 2:45 am Operator: SAM  
Sample : S4414-05 50X Inst : VOA F  
Misc : 25mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Sep 7 12:15 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090309.D Vial: 10  
 Acq On : 3 Sep 2004 2:45 am Operator: SAM  
 Sample : S4414-05 50X Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 7 12:15 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.87	96	224426	1.00	ug/l	0.02
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.86	95	97028	0.92	ug/l	0.00
Spiked Amount	1.000		Recovery	=	92.00%	
63) 1,2-Dichlorobenzene-	21.42	152	58199	0.99	ug/l	0.00
Spiked Amount	1.000		Recovery	=	99.00%	
Target Compounds						Qvalue
12) Acetone	3.85	43	6631	2.38	ug/l	96
14) Methylene Chloride	4.51	84	32233	0.61	ug/l	96
19) cis-1,2-Dichloroethe	6.76	96	35770	0.52	ug/l	83
32) Trichloroethene	9.54	130	443645	5.67	ug/l	100

Analyst Signature: Sy Analyst Name: Sy Date: 09/09/04

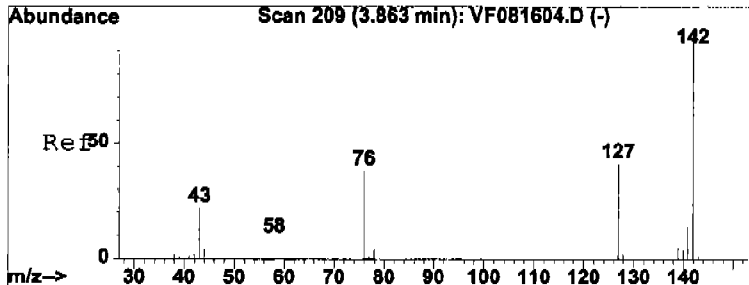
-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly.Compound #: \_\_\_\_\_

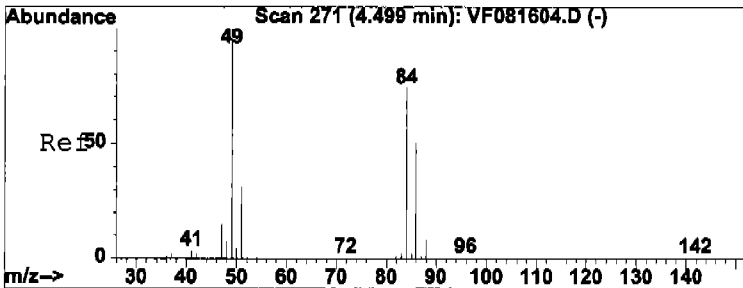
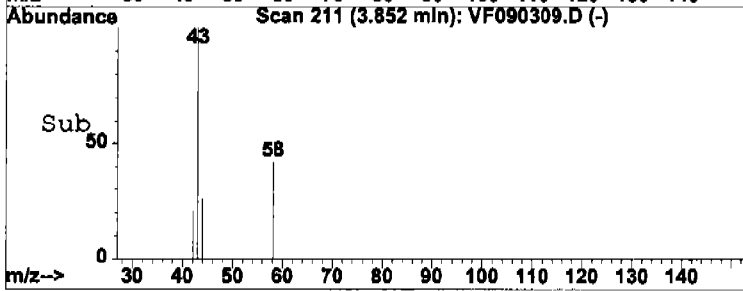
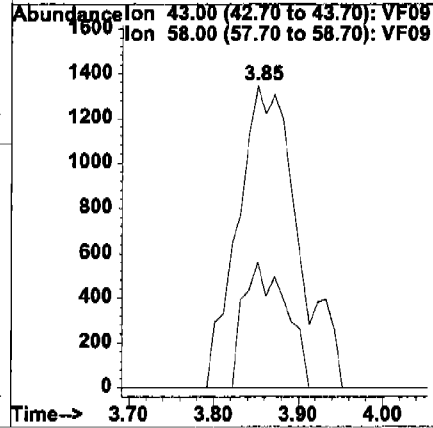
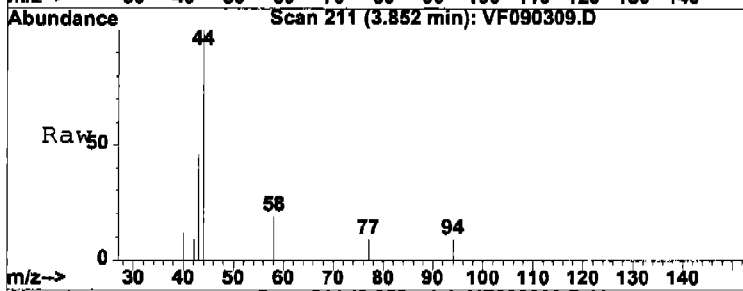
\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration



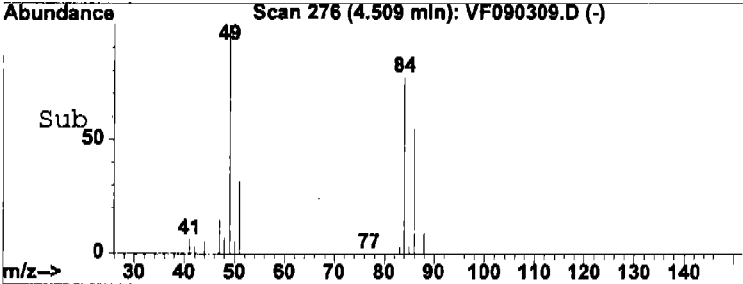
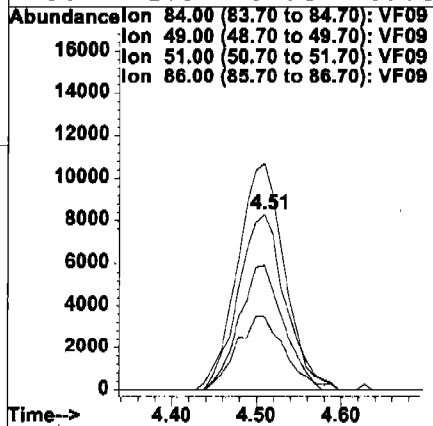
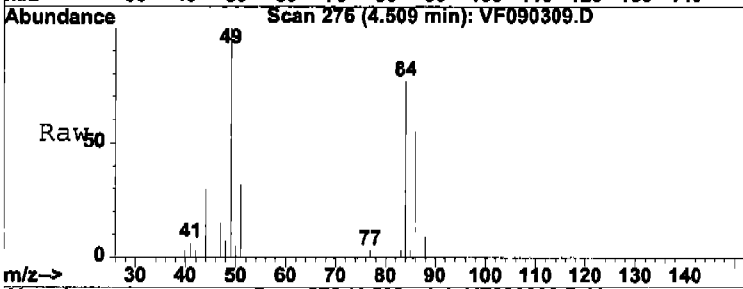
#12  
 Acetone  
 Concen: 2.38 ug/l  
 RT: 3.85 min Scan# 211  
 Delta R.T. 0.00 min  
 Lab File: VF090309.D  
 Acq: 3 Sep 2004 2:45 am

Tgt Ion	Resp	Lower	Upper
43	100		
58	41.5	31.4	47.2

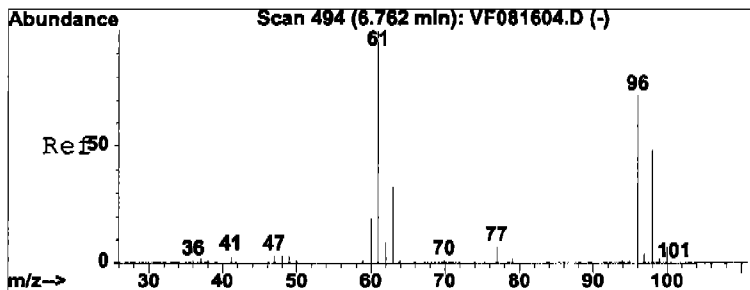


#14  
 Methylene Chloride  
 Concen: 0.61 ug/l  
 RT: 4.51 min Scan# 276  
 Delta R.T. 0.01 min  
 Lab File: VF090309.D  
 Acq: 3 Sep 2004 2:45 am

Tgt Ion	Resp	Lower	Upper
84	100		
49	129.2	108.6	163.0
51	42.0	0.0	84.4
86	71.3	54.2	81.2

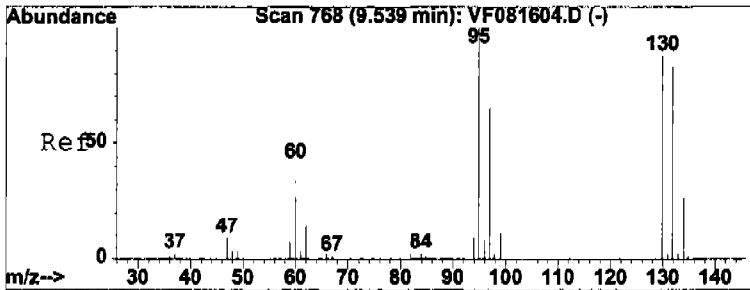
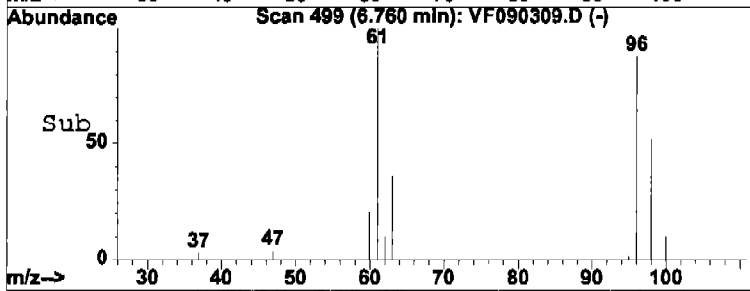
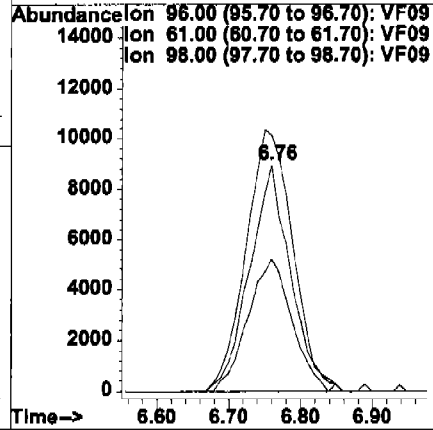
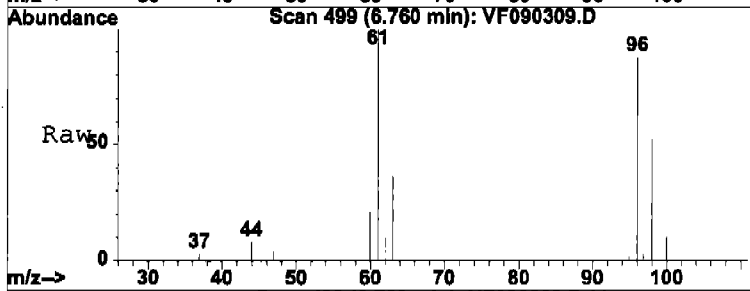






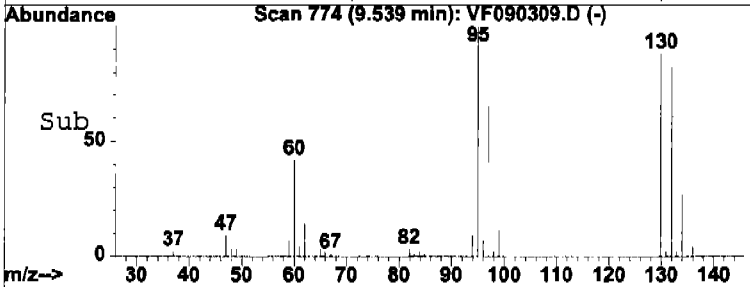
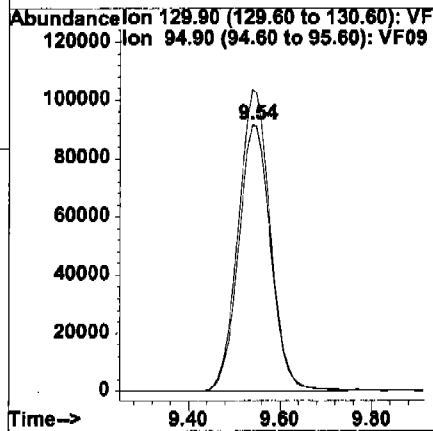
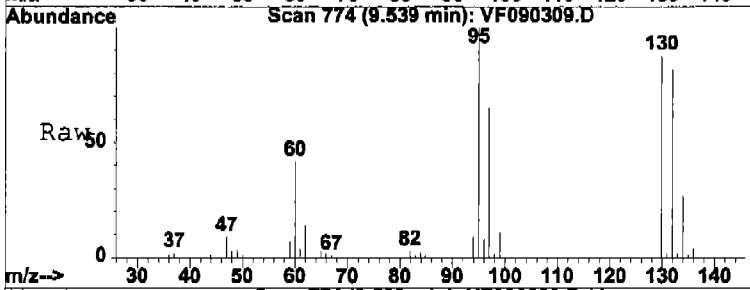
#19  
 cis-1,2-Dichloroethene  
 Concen: 0.52 ug/l  
 RT: 6.76 min Scan# 499  
 Delta R.T. 0.01 min  
 Lab File: VF090309.D  
 Acq: 3 Sep 2004 2:45 am

Tgt Ion:	96	Resp:	35770
Ion Ratio	Lower	Upper	
96	100		
61	131.6	0.0	403.7
98	62.7	32.9	98.6



#32  
 Trichloroethene  
 Concen: 5.67 ug/l  
 RT: 9.54 min Scan# 774  
 Delta R.T. -0.00 min  
 Lab File: VF090309.D  
 Acq: 3 Sep 2004 2:45 am

Tgt Ion:	130	Resp:	443645
Ion Ratio	Lower	Upper	
130	100		
95	113.3	90.9	136.3



Report of Analysis

Client:	Engineering	Date Collected:	8/26/2004
Project:	Service Ash Landfill Quarterly Monitor	Date Received:	8/28/2004
Client Sample ID:	TR2151	SDG No.:	S4414
Lab Sample ID:	S4414-06	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090212.D	1		9/2/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	0.09	U	1.0	0.09	ug/L
74-87-3	Chloromethane	0.11	U	1.0	0.11	ug/L
75-01-4	Vinyl Chloride	0.3	J	1.0	0.14	ug/L
74-83-9	Bromomethane	0.22	U	1.0	0.22	ug/L
75-00-3	Chloroethane	0.19	U	1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	0.09	U	1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	2.2	U	10	2.2	ug/L
60-29-7	Diethyl Ether	0.21	U	1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	0.2	J	1.0	0.16	ug/L
74-88-4	Iodomethane	0.14	U	1.0	0.14	ug/L
107-5-1	Allyl Chloride	0.18	U	1.0	0.18	ug/L
107-13-1	Acrylonitrile	0.94	U	2.0	0.94	ug/L
67-64-1	Acetone	1.7	J	5.8	1.5	ug/L
75-15-0	Carbon disulfide	0.18	U	1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	0.37	U	1.0	0.37	ug/L
79-20-9	Methyl acrylate	0.17	U	1.0	0.17	ug/L
75-09-2	Methylene Chloride	0.5	J	1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	J	1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.94	U	5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	0.22	U	1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	0.20	U	1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	100	E	1.0	0.24	ug/L
67-66-3	Chloroform	0.22	U	1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	1.4	U	2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L
108-20-3	Isopropyl Ether	0.21	U	1.0	0.21	ug/L
107-12-0	Propionitrile	3.3	U	10	3.3	ug/L
71-43-2	Benzene	0.24	U	1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	160	E	1.0	0.24	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/26/2004
Project:	Seneca Ash Landfill Quarterly Monit	Date Received:	8/28/2004
Client Sample ID:	TR2151	SDG No.:	S4414
Lab Sample ID:	S4414-06	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090212.D	1		9/2/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	0.21	U	1.0	0.21	ug/L
126-98-7	Methacrylonitrile	0.33	U	1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	0.78	U	2.4	0.78	ug/L
109-69-3	1-Chlorobutane	0.22	U	1.0	0.22	ug/L
74-95-3	Dibromomethane	0.24	U	1.0	0.24	ug/L
75-27-4	Bromodichloromethane	0.20	U	1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	1.0	U	5.0	1.0	ug/L
80-62-6	Methyl methacrylate	0.53	U	2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	0.25	U	1.0	0.25	ug/L
108-88-3	Toluene	0.22	U	1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L
591-78-6	2-Hexanone	1.1	U	5.0	1.1	ug/L
124-48-1	Dibromochloromethane	0.17	U	1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L
127-18-4	Tetrachloroethene	0.34	U	1.0	0.34	ug/L
108-90-7	Chlorobenzene	0.21	U	1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L
67-72-1	Hexachloroethane	0.20	U	1.0	0.20	ug/L
100-41-4	Ethyl Benzene	0.21	U	1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	0.43	U	1.0	0.43	ug/L
95-47-6	o-Xylene	0.21	U	1.0	0.21	ug/L
100-42-5	Styrene	0.19	U	1.0	0.19	ug/L
75-25-2	Bromoform	0.22	U	1.0	0.22	ug/L
108-86-1	Bromobenzene	0.21	U	1.0	0.21	ug/L
98-82-8	Isopropylbenzene	0.20	U	1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	0.28	U	1.0	0.28	ug/L
103-61-5	N-propylbenzene	0.24	U	1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	0.50	U	1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.22	U	1.0	0.22	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/26/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2151</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-06</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090212.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	0.22	U	1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	0.18	U	1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	0.20	U	1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	0.22	U	1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
104-51-8	n-Butylbenzene	0.20	U	1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.20	U	1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L
91-20-3	Naphthalene	0.17	U	1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.18	U	1.0	0.18	ug/L
<b>SURROGATES</b>						
2199-69-1	1,2-Dichlorobenzene-d4	1.05	105 %	80 - 120		SPK: 1
460-00-4	4-Bromofluorobenzene	1.01	101 %	80 - 120		SPK: 1
<b>INTERNAL STANDARDS</b>						
462-06-6	Fluorobenzene	230454	8.86			

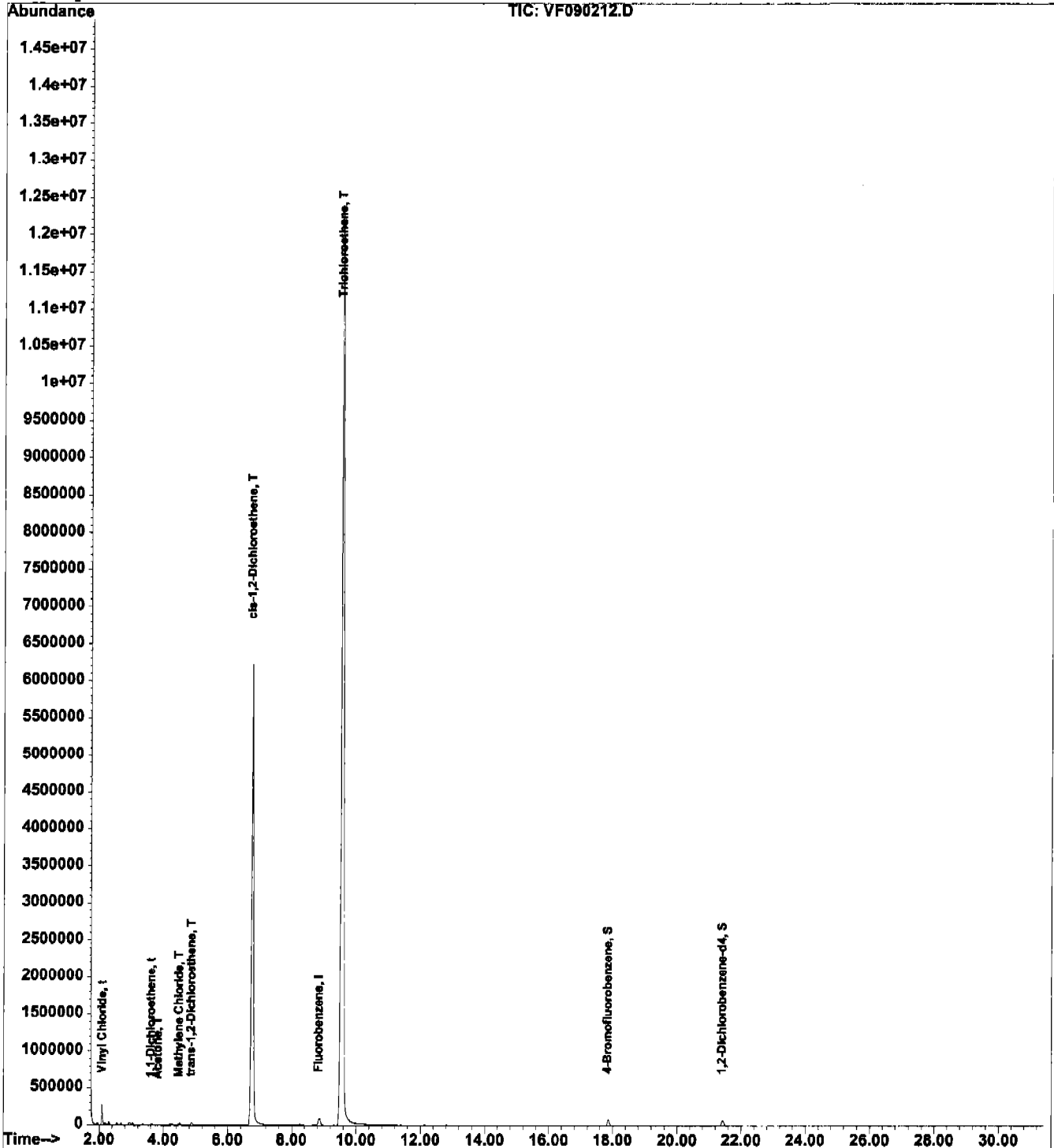
U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

Quantitation Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090212.D Vial: 13  
Acq On : 2 Sep 2004 4:12 pm Operator: SAM  
Sample : S4414-06 Inst : VOA F  
Misc : 5mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Sep 3 10:20 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090212.D Vial: 13  
 Acq On : 2 Sep 2004 4:12 pm Operator: SAM  
 Sample : S4414-06 Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 3 10:20 2004 Quant Results File: VF0816DW.RES

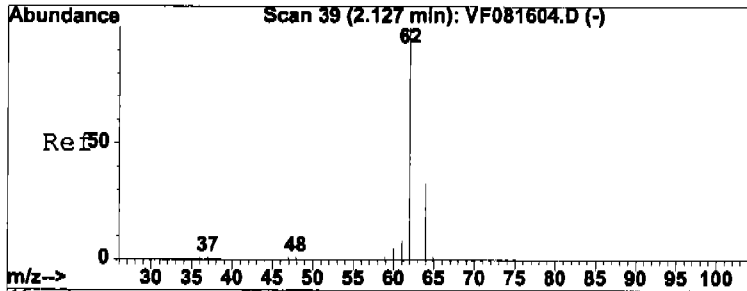
Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.86	96	230454	1.00	ug/l	0.00
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.86	95	109690	1.01	ug/l	0.00
Spiked Amount	1.000		Recovery	=	101.00%	
63) 1,2-Dichlorobenzene-	21.44	152	63069	1.05	ug/l	0.01
Spiked Amount	1.000		Recovery	=	105.00%	
Target Compounds						
4) Vinyl Chloride	2.12	62	18668	0.28	ug/l	100
8) 1,1-Dichloroethene	3.64	96	16792	0.25	ug/l	97
12) Acetone	3.85	43	4966	1.73	ug/l	92
14) Methylene Chloride	4.51	84	27641	0.51	ug/l	90
15) trans-1,2-Dichloroet	4.88	96	33988	0.48	ug/l	95
19) cis-1,2-Dichloroethe	6.76	96	7269561	103.62	ug/l	83
32) Trichloroethene	9.56	130	12722974	158.42	ug/l	93

-----  
 Analyst Signature: Sy Analyst Name Sy Date: 09/09/04  
 -----REASONS FOR MANUAL INTEGRATIONS-----

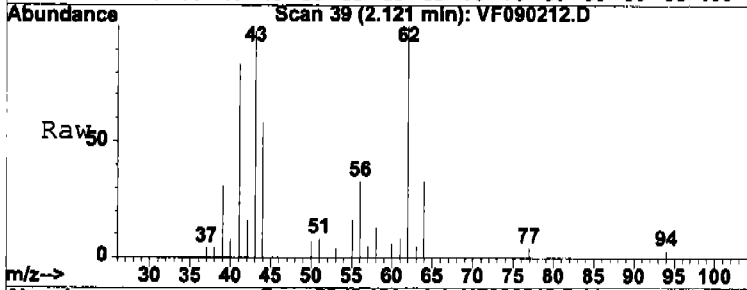
\_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound # : \_\_\_  
 \_\_\_ Peak integrated by software incorrectly.Compound # : \_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound # : \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

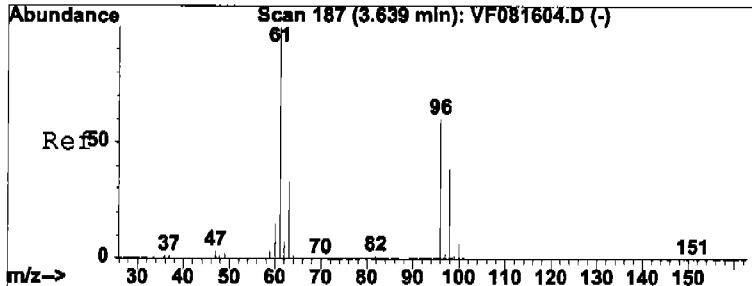
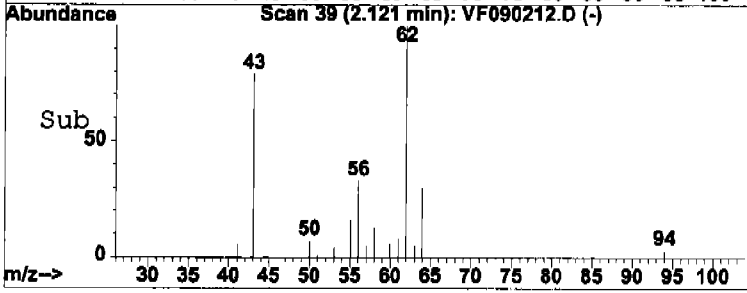
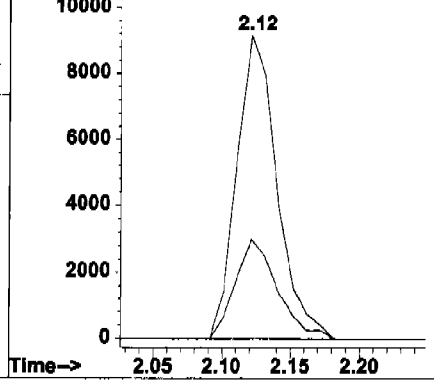


#4  
 Vinyl Chloride  
 Concen: 0.28 ug/l  
 RT: 2.12 min Scan# 39  
 Delta R.T. 0.01 min  
 Lab File: VF090212.D  
 Acq: 2 Sep 2004 4:12 pm

Tgt Ion:	Resp:	Lower	Upper
62	18668		
62	100		
64	32.7	26.2	39.2

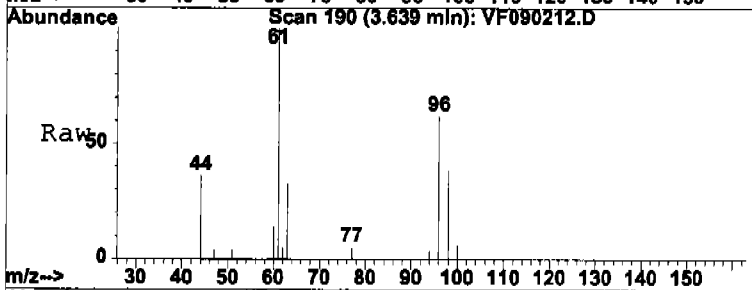


Abundance Ion 62.00 (61.70 to 62.70): VF09  
 Ion 64.00 (63.70 to 64.70): VF09

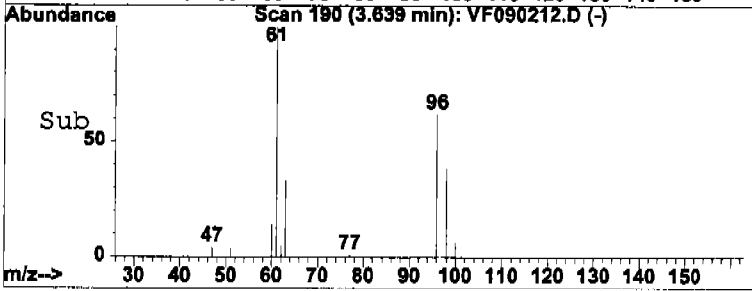
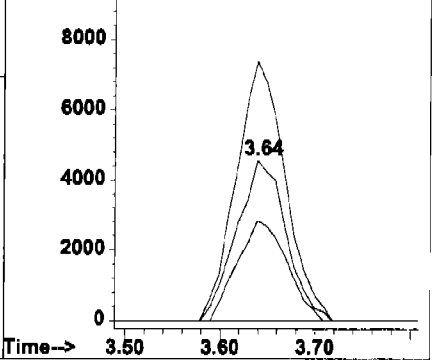


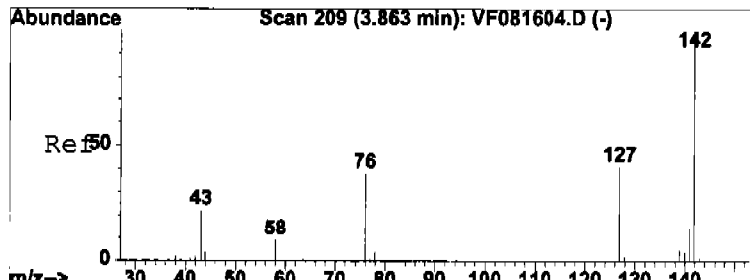
#8  
 1,1-Dichloroethene  
 Concen: 0.25 ug/l  
 RT: 3.64 min Scan# 190  
 Delta R.T. 0.01 min  
 Lab File: VF090212.D  
 Acq: 2 Sep 2004 4:12 pm

Tgt Ion:	Resp:	Lower	Upper
96	16792		
96	100		
61	161.8	0.0	498.0
98	62.0	0.0	131.0



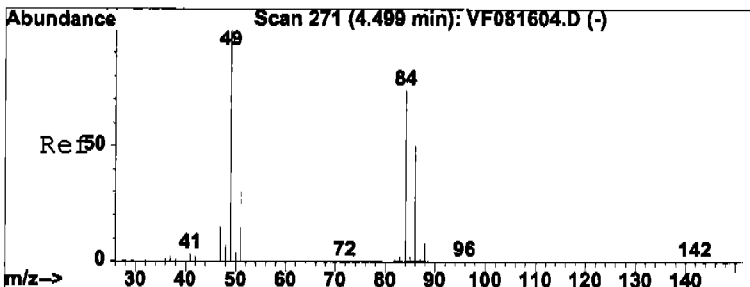
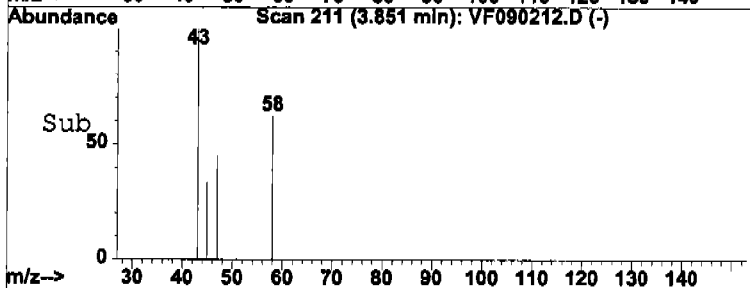
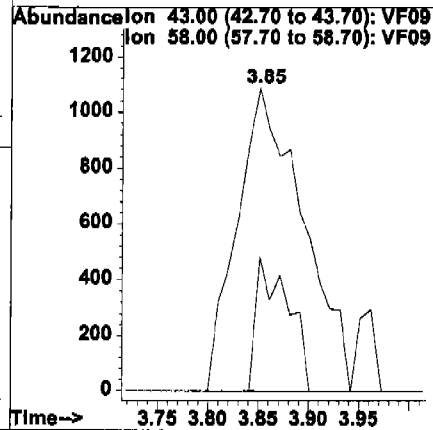
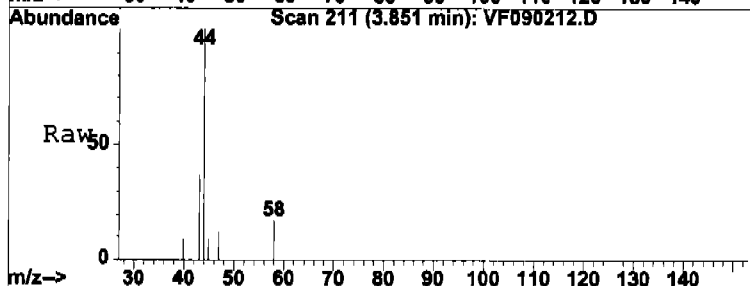
Abundance Ion 96.00 (95.70 to 96.70): VF09  
 Ion 61.00 (60.70 to 61.70): VF09  
 Ion 98.00 (97.70 to 98.70): VF09





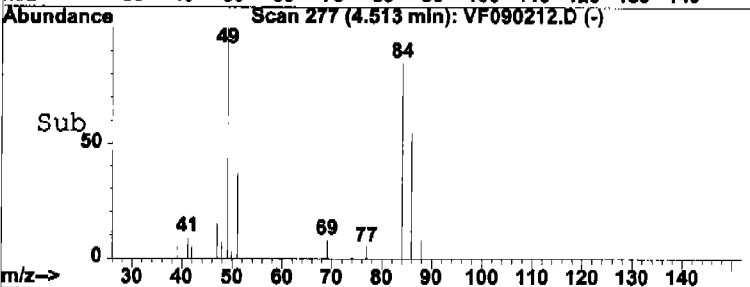
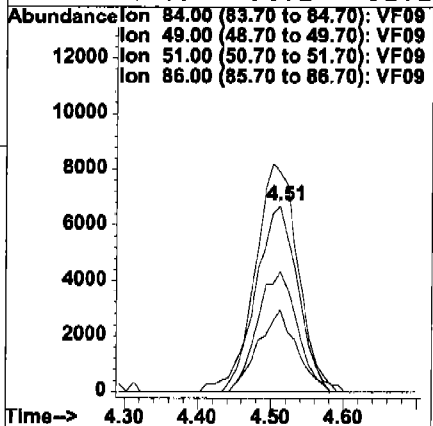
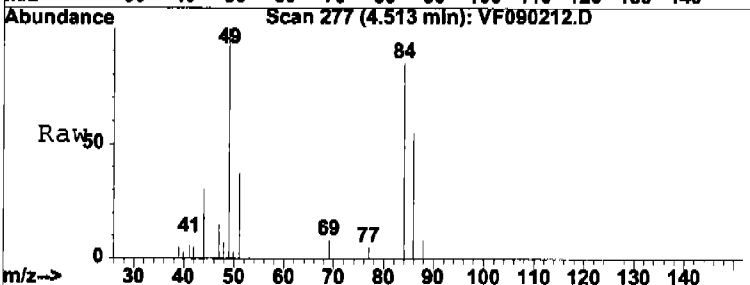
#12  
 Acetone  
 Concen: 1.73 ug/l  
 RT: 3.85 min Scan# 211  
 Delta R.T. 0.00 min  
 Lab File: VF090212.D  
 Acq: 2 Sep 2004 4:12 pm

Tgt Ion	Resp	Lower	Upper
43	100		
58	44.3	31.4	47.2

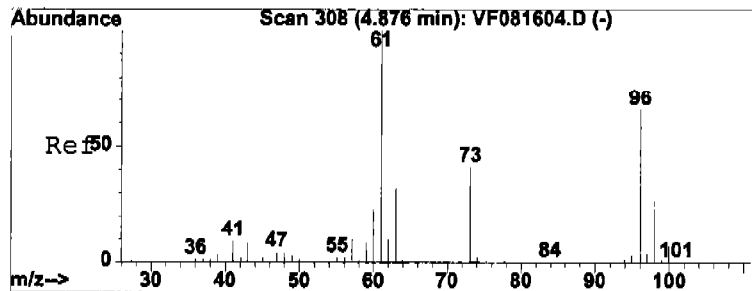


#14  
 Methylene Chloride  
 Concen: 0.51 ug/l  
 RT: 4.51 min Scan# 277  
 Delta R.T. 0.01 min  
 Lab File: VF090212.D  
 Acq: 2 Sep 2004 4:12 pm

Tgt Ion	Resp	Lower	Upper
84	100		
49	118.1	108.6	163.0
51	44.2	0.0	84.4
86	64.9	54.2	81.2

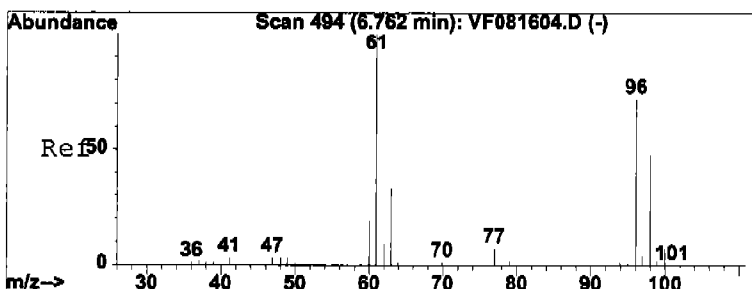
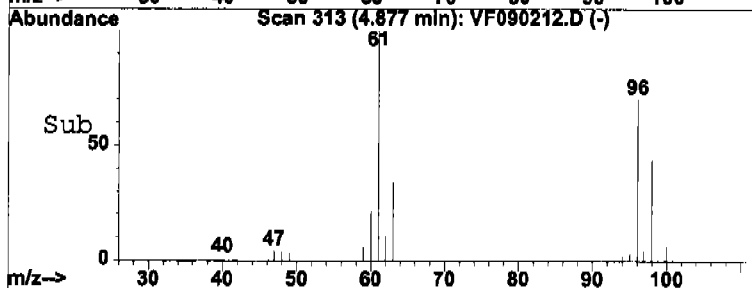
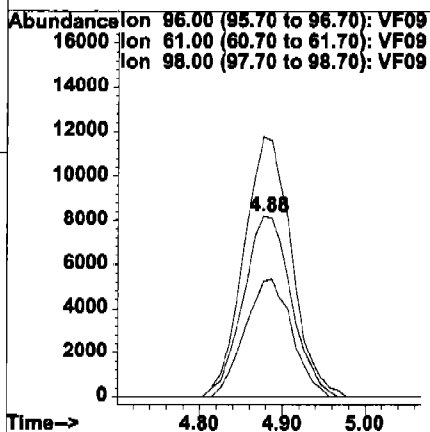
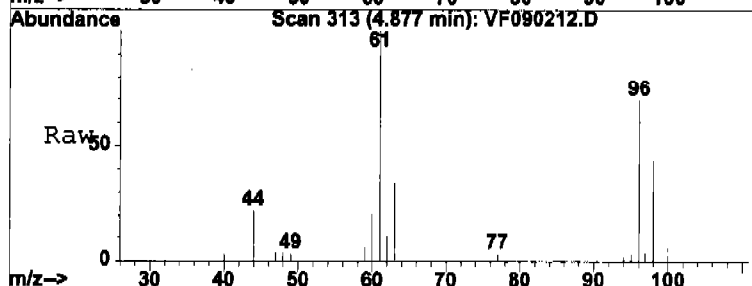






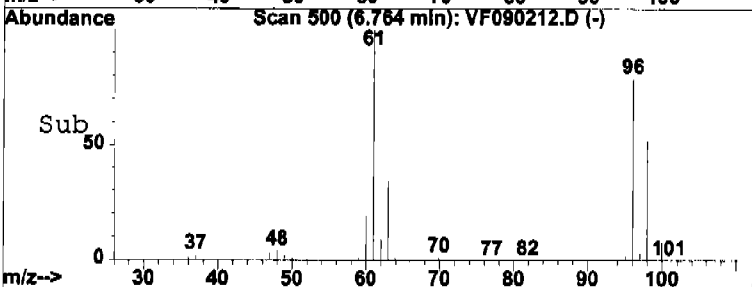
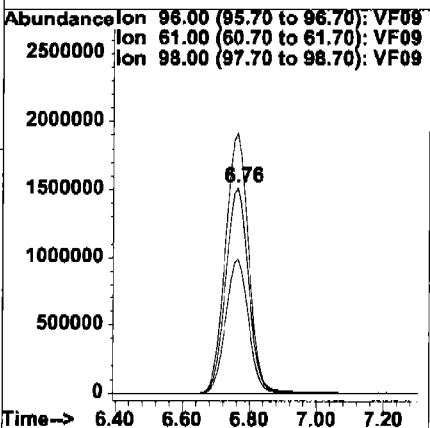
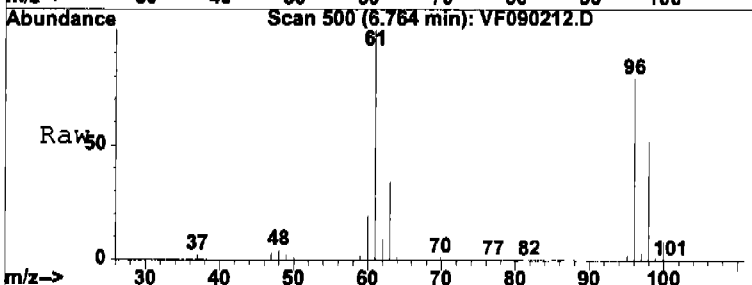
#15  
 trans-1,2-Dichloroethene  
 Concen: 0.48 ug/l  
 RT: 4.88 min Scan# 313  
 Delta R.T. 0.01 min  
 Lab File: VF090212.D  
 Acq: 2 Sep 2004 4:12 pm

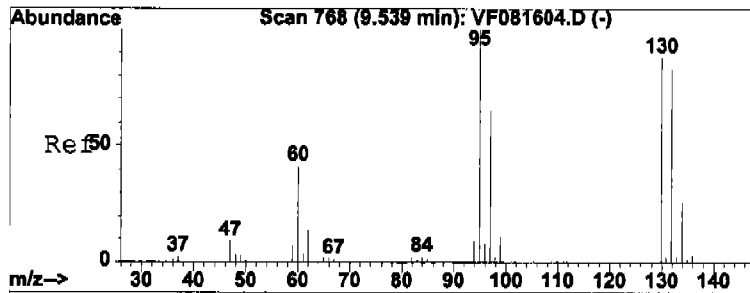
Tgt Ion:	96	Resp:	33988
Ion Ratio	Lower	Upper	
96	100		
61	143.8	121.8	182.6
98	64.0	51.7	77.5



#19  
 cis-1,2-Dichloroethene  
 Concen: 103.62 ug/l  
 RT: 6.76 min Scan# 500  
 Delta R.T. 0.01 min  
 Lab File: VF090212.D  
 Acq: 2 Sep 2004 4:12 pm

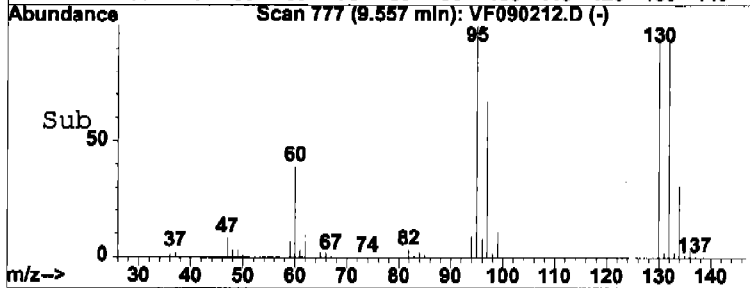
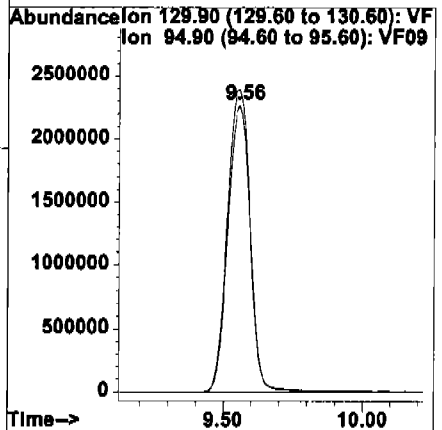
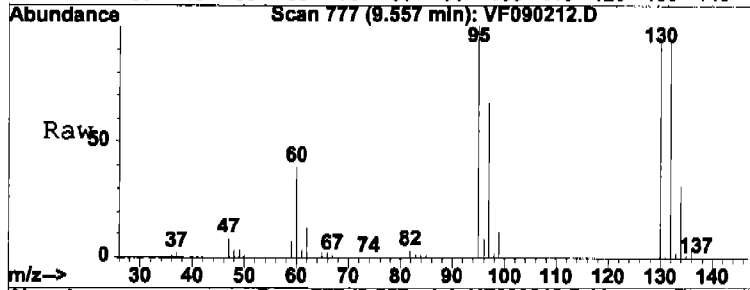
Tgt Ion:	96	Resp:	7269561
Ion Ratio	Lower	Upper	
96	100		
61	129.2	0.0	403.7
98	65.3	32.9	98.6





#32  
 Trichloroethene  
 Concen: 158.42 ug/l  
 RT: 9.56 min Scan# 777  
 Delta R.T. 0.02 min  
 Lab File: VF090212.D  
 Acq: 2 Sep 2004 4:12 pm

Tgt Ion: 130 Resp: 12722974  
 Ion Ratio Lower Upper  
 130 100  
 95 105.6 90.9 136.3



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090212.D Vial: 13  
 Acq On : 2 Sep 2004 4:12 pm Operator: SAM  
 Sample : S4414-06 Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

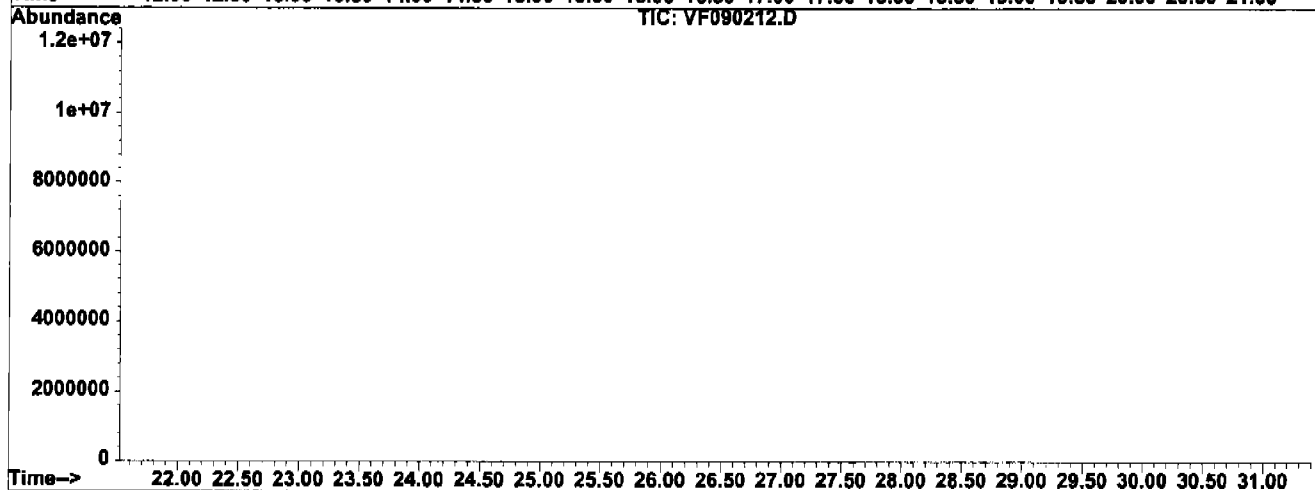
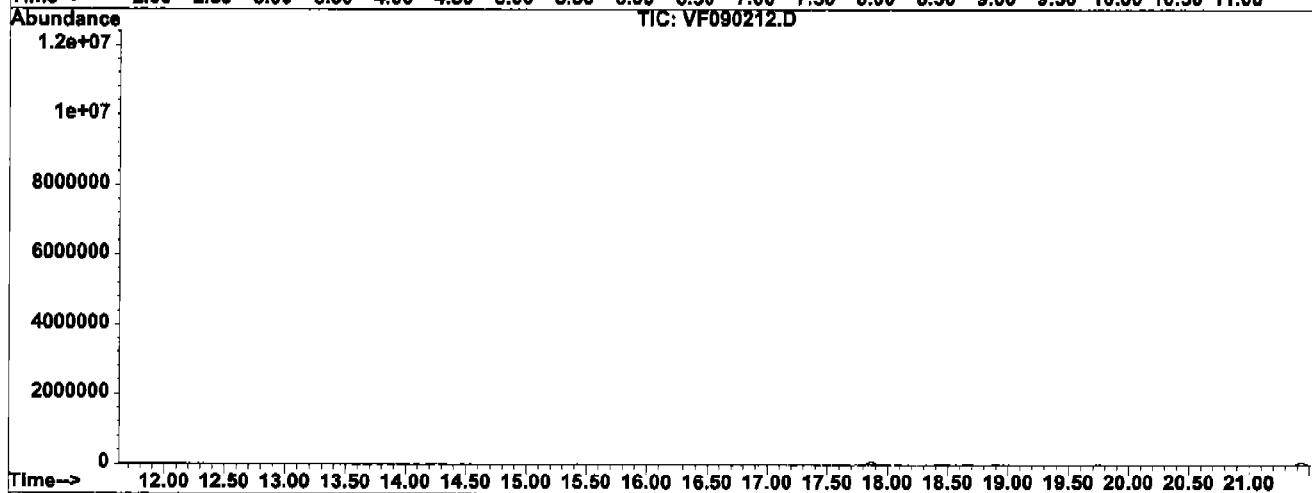
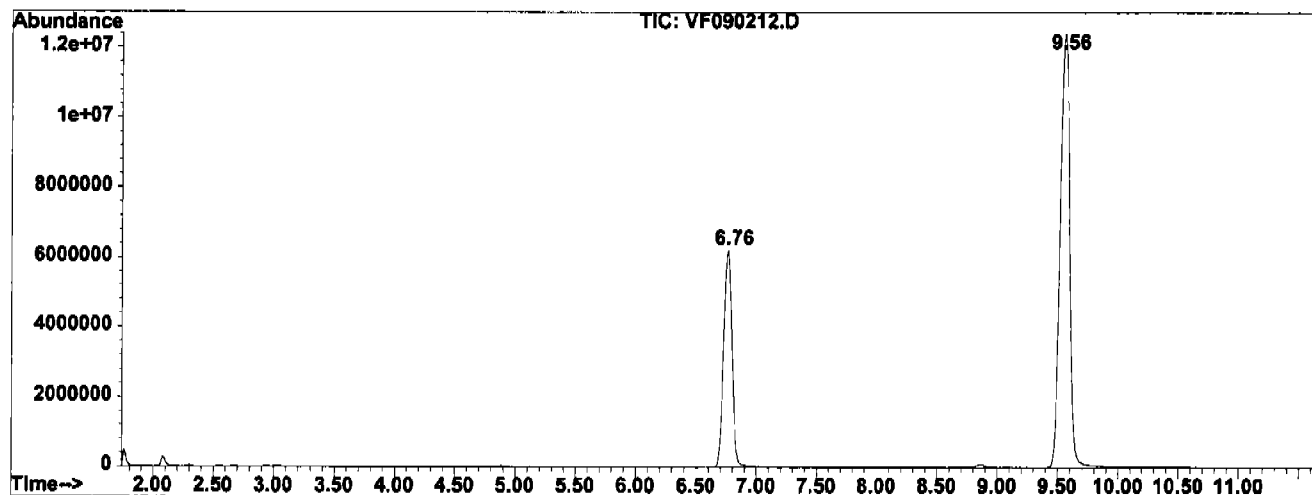
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	6.764	485	500	543	rBV	6218130	30153021	42.27%	29.710%
2	9.557	759	777	836	rBV	12406512	71337367	100.00%	70.290%

Sum of corrected areas: 101490388

VF090212.D VF0816DW.M Fri Sep 03 11:23:51 2004 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090212.D  
Operator : SAM  
Acquired : 2 Sep 2004 4:12 pm using AcqMethod VF\_VOA  
Instrument : VOA F  
Sample Name: S4414-06  
Misc Info : 5mL  
Vial Number: 13  
Quant File :VF0816DW.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: SAM Date Acquired: 2 Sep 2004 4:12 pm  
Data File: C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090212.D  
Name: S4414-06  
Misc: 5mL  
Method: C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title: METHOD 524.2 VOLATILES DRINKING WATER  
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
VF090212.D VF0816DW.M						Fri Sep 03 11:23:52 2004		RPT1

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/26/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2151DL</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-06DL</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090724.D</b>	<b>50</b>		<b>9/8/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	4.4	UD	50	4.4	ug/L
74-87-3	Chloromethane	5.5	UD	50	5.5	ug/L
75-01-4	Vinyl Chloride	7.2	UD	50	7.2	ug/L
74-83-9	Bromomethane	11	UD	50	11	ug/L
75-00-3	Chloroethane	9.5	UD	50	9.5	ug/L
75-69-4	Trichlorofluoromethane	4.6	UD	50	4.6	ug/L
75-65-0	tert-Butyl Alcohol	110	UD	500	110	ug/L
60-29-7	Diethyl Ether	11	UD	50	11	ug/L
75-35-4	1,1-Dichloroethene	8.1	UD	50	8.1	ug/L
74-88-4	Iodomethane	7.2	UD	50	7.2	ug/L
107-5-1	Allyl Chloride	9.1	UD	50	9.1	ug/L
107-13-1	Acrylonitrile	47	UD	100	47	ug/L
67-64-1	Acetone	150	JD	290	75	ug/L
75-15-0	Carbon disulfide	9.0	UD	50	9.0	ug/L
1634-04-4	Methyl tert-butyl Ether	19	UD	50	19	ug/L
79-20-9	Methyl acrylate	8.6	UD	50	8.6	ug/L
75-09-2	Methylene Chloride	17	JD	50	9.0	ug/L
156-60-5	trans-1,2-Dichloroethene	11	UD	50	11	ug/L
75-34-3	1,1-Dichloroethane	10	UD	50	10	ug/L
78-93-3	2-Butanone	47	UD	250	47	ug/L
56-23-5	Carbon Tetrachloride	11	UD	50	11	ug/L
594-20-7	2,2-Dichloropropane	10	UD	50	10	ug/L
156-59-2	cis-1,2-Dichloroethene	120	D	50	12	ug/L
67-66-3	Chloroform	11	UD	50	11	ug/L
71-55-6	1,1,1-Trichloroethane	12	UD	50	12	ug/L
110-57-6	t-1,4-Dichloro-2-butene	69	UD	100	69	ug/L
563-43-2	1,1-Dichloropropene	10	UD	50	10	ug/L
108-20-3	Isopropyl Ether	10	UD	50	10	ug/L
107-12-0	Propionitrile	160	UD	500	160	ug/L
71-43-2	Benzene	12	UD	50	12	ug/L
107-06-2	1,2-Dichloroethane	10	UD	50	10	ug/L
79-01-6	Trichloroethene	220	D	50	12	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	Parsons Engineering	<b>Date Collected:</b>	8/26/2004
<b>Project:</b>	Seneca Ash Landfill Quarterly Monito	<b>Date Received:</b>	8/28/2004
<b>Client Sample ID:</b>	TR2151DL	<b>SDG No.:</b>	S4414
<b>Lab Sample ID:</b>	S4414-06DL	<b>Matrix:</b>	WATER
<b>Analytical Method:</b>	524.2	<b>% Moisture:</b>	100
<b>Sample Wt/Wol:</b>	25.0 Units: mL	<b>Soil Extract Vol:</b>	uL
<b>Soil Aliquot Vol:</b>	mL		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
VF090724.D	50		9/8/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	11	UD	50	11	ug/L
126-98-7	Methacrylonitrile	16	UD	50	16	ug/L
109-99-9	Tetrahydrofuran	39	UD	120	39	ug/L
109-69-3	1-Chlorobutane	11	UD	50	11	ug/L
74-95-3	Dibromomethane	12	UD	50	12	ug/L
75-27-4	Bromodichloromethane	10	UD	50	10	ug/L
108-10-1	4-Methyl-2-Pentanone	51	UD	250	51	ug/L
80-62-6	Methyl methacrylate	27	UD	100	27	ug/L
97-63-2	Ethyl methacrylate	12	UD	50	12	ug/L
108-88-3	Toluene	11	UD	50	11	ug/L
10061-02-6	t-1,3-Dichloropropene	9.5	UD	50	9.5	ug/L
10061-01-5	cis-1,3-Dichloropropene	9.4	UD	50	9.4	ug/L
79-00-5	1,1,2-Trichloroethane	12	UD	50	12	ug/L
142-28-9	1,3-Dichloropropane	11	UD	50	11	ug/L
591-78-6	2-Hexanone	54	UD	250	54	ug/L
124-48-1	Dibromochloromethane	8.6	UD	50	8.6	ug/L
106-93-4	1,2-Dibromoethane	10	UD	50	10	ug/L
127-18-4	Tetrachloroethene	17	UD	50	17	ug/L
108-90-7	Chlorobenzene	10	UD	50	10	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	11	UD	50	11	ug/L
67-72-1	Hexachloroethane	9.8	UD	50	9.8	ug/L
100-41-4	Ethyl Benzene	11	UD	50	11	ug/L
136777-61-2	m/p-Xylenes	22	UD	50	22	ug/L
95-47-6	o-Xylene	11	UD	50	11	ug/L
100-42-5	Styrene	9.4	UD	50	9.4	ug/L
75-25-2	Bromoform	11	UD	50	11	ug/L
108-86-1	Bromobenzene	11	UD	50	11	ug/L
98-82-8	Isopropylbenzene	10	UD	50	10	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	10	UD	50	10	ug/L
96-18-4	1,2,3-Trichloropropane	14	UD	50	14	ug/L
103-61-5	N-propylbenzene	12	UD	50	12	ug/L
95-49-8	2-Chlorotoluene	25	UD	50	25	ug/L
108-67-8	1,3,5-Trimethylbenzene	11	UD	50	11	ug/L

U = Not Detected

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MDL = Method Detection Limit

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J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/26/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monitc</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2151DL</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-06DL</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090724.D</b>	<b>50</b>		<b>9/8/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	11	UD	50	11	ug/L
98-06-6	tert-Butylbenzene	9.2	UD	50	9.2	ug/L
95-63-6	1,2,4-Trimethylbenzene	12	UD	50	12	ug/L
135-98-8	Sec-butylbenzene	10	UD	50	10	ug/L
99-87-6	p-Isopropyltoluene	11	UD	50	11	ug/L
541-73-1	1,3-Dichlorobenzene	10	UD	50	10	ug/L
106-46-7	1,4-Dichlorobenzene	10	UD	50	10	ug/L
104-51-8	n-Butylbenzene	10	UD	50	10	ug/L
95-50-1	1,2-Dichlorobenzene	8.7	UD	50	8.7	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	10	UD	50	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	9.9	UD	50	9.9	ug/L
87-68-3	Hexachlorobutadiene	8.7	UD	50	8.7	ug/L
91-20-3	Naphthalene	8.7	UD	50	8.7	ug/L
87-61-6	1,2,3-Trichlorobenzene	9.0	UD	50	9.0	ug/L
<b>SURROGATES</b>						
2199-69-1	1,2-Dichlorobenzene-d4	0.95	95 %	80 - 120		SPK: 1
460-00-4	4-Bromofluorobenzene	0.9	90 %	80 - 120		SPK: 1
<b>INTERNAL STANDARDS</b>						
462-06-6	Fluorobenzene	228984	8.86			

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J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

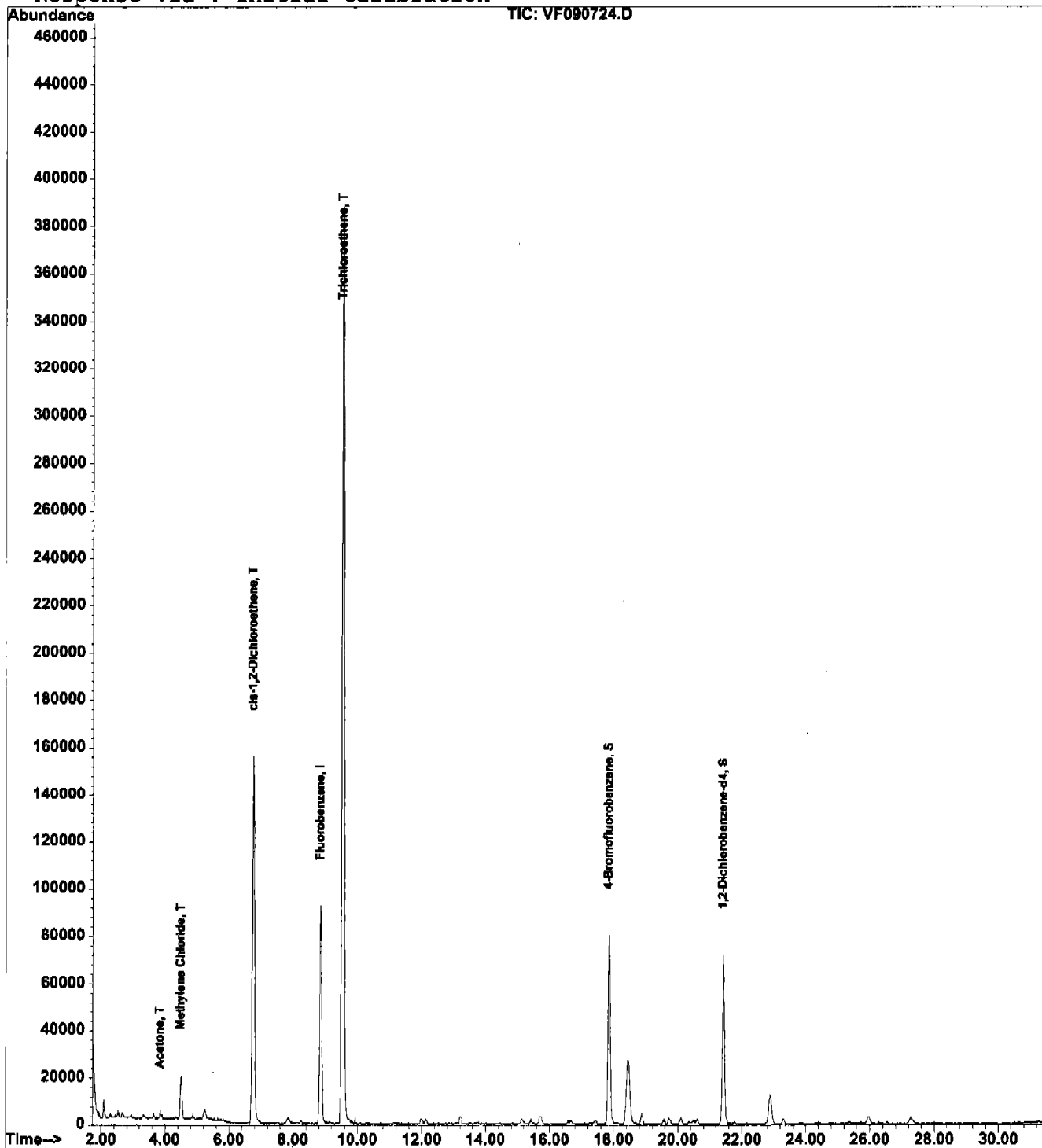


Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090724.D Vial: 14  
Acq On : 8 Sep 2004 2:50 am Operator: SAM  
Sample : S4414-06 50X Inst : VOA F  
Misc : 25mL Multiplr: 1.00

MS Integration Params: rteint.p  
Quant Time: Sep 9 14:48 2004

Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration

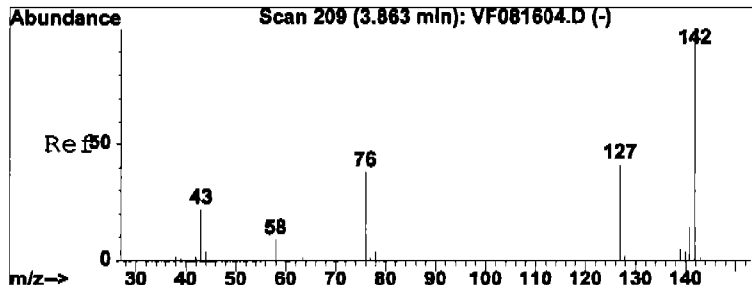


Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090724.D Vial: 14  
 Acq On : 8 Sep 2004 2:50 am Operator: SAM  
 Sample : S4414-06 50X Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 9 14:48 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

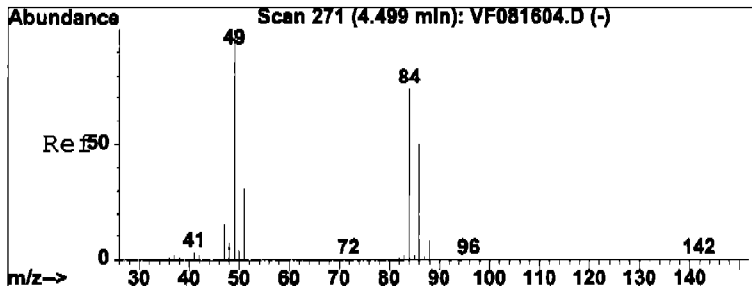
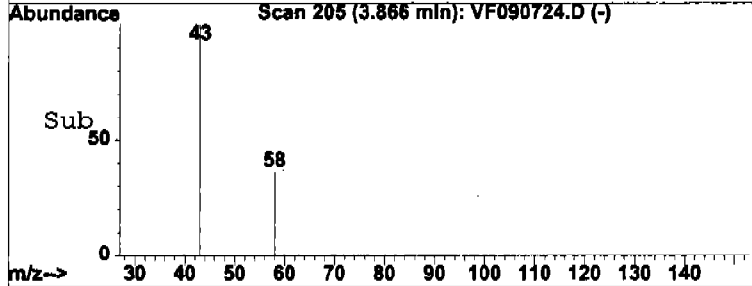
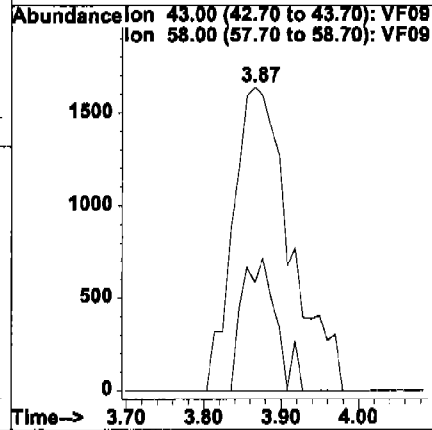
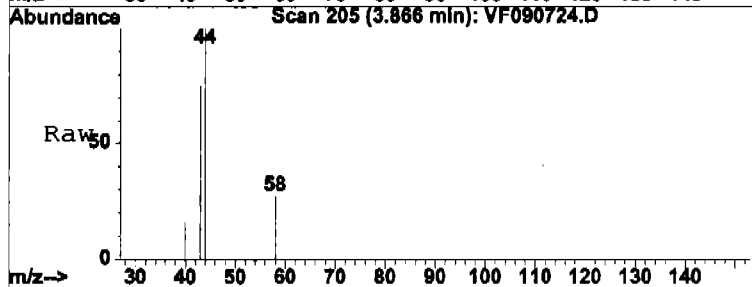
Internal Standards	R.T.	Qlon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.86	96	228984	1.00	ug/l	0.00
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.86	95	96800	0.90	ug/l	0.00
Spiked Amount	1.000		Recovery	=	90.00%	
63) 1,2-Dichlorobenzene-	21.43	152	56638	0.95	ug/l	0.00
Spiked Amount	1.000		Recovery	=	95.00%	
Target Compounds						Qvalue
12) Acetone	3.87	43	8368	2.94	ug/l	94
14) Methylene Chloride	4.51	84	18362	0.34	ug/l	88
19) cis-1,2-Dichloroethe	6.76	96	168346	2.41	ug/l	85
32) Trichloroethene	9.54	130	346530	4.34	ug/l	96

-----  
 Analyst Signature: Sy Analyst Name: Sy Date: 09/09/04  
 -----REASONS FOR MANUAL INTEGRATIONS-----  
 \_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_



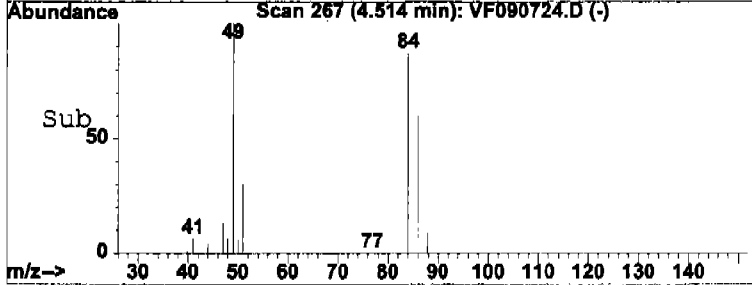
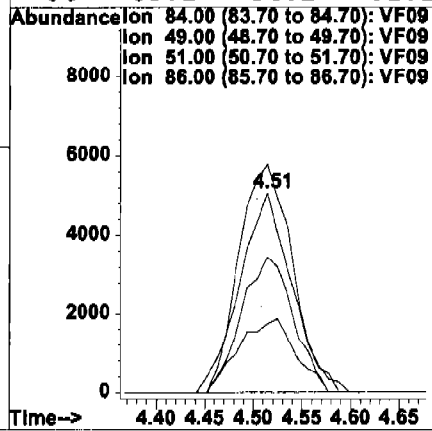
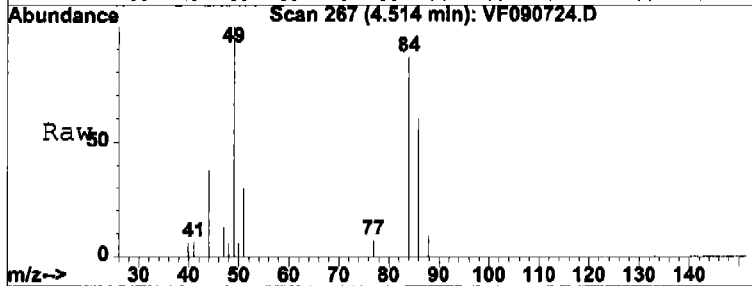
#12  
 Acetone  
 Concen: 2.94 ug/l  
 RT: 3.87 min Scan# 205  
 Delta R.T. 0.02 min  
 Lab File: VF090724.D  
 Acq: 8 Sep 2004 2:50 am

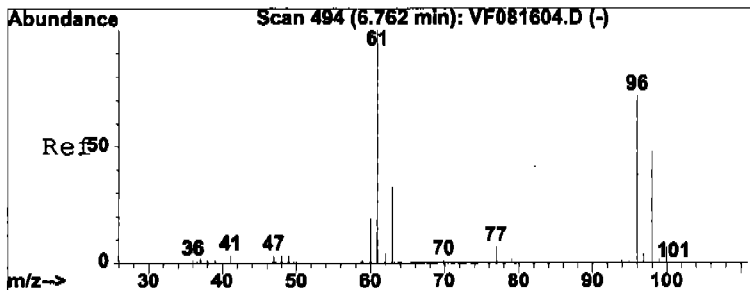
Tgt Ion: 43 Resp: 8368  
 Ion Ratio Lower Upper  
 43 100  
 58 35.6 31.4 47.2



#14  
 Methylene Chloride  
 Concen: 0.34 ug/l  
 RT: 4.51 min Scan# 267  
 Delta R.T. 0.02 min  
 Lab File: VF090724.D  
 Acq: 8 Sep 2004 2:50 am

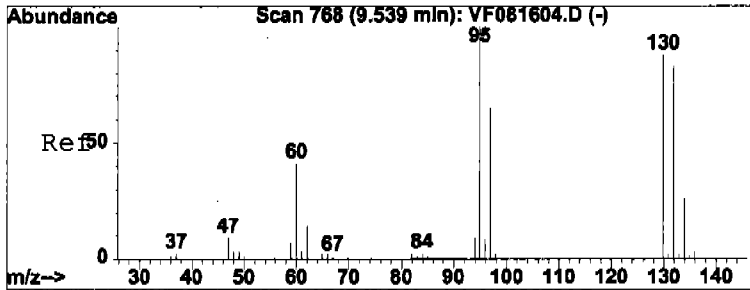
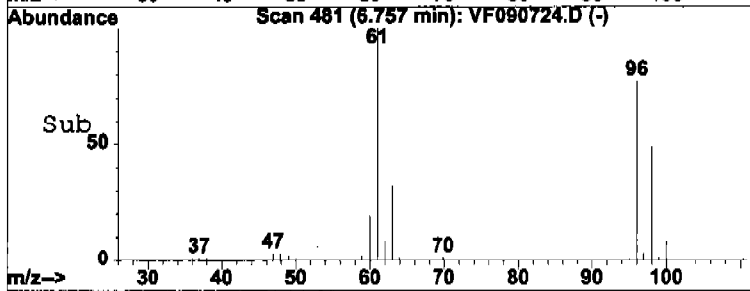
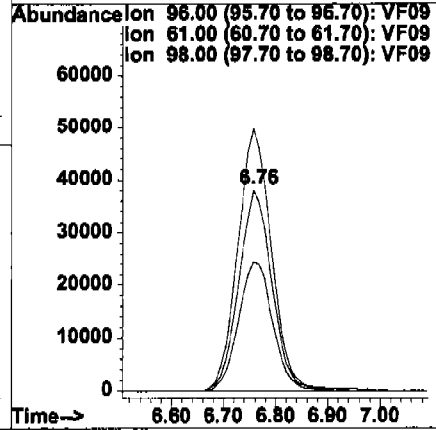
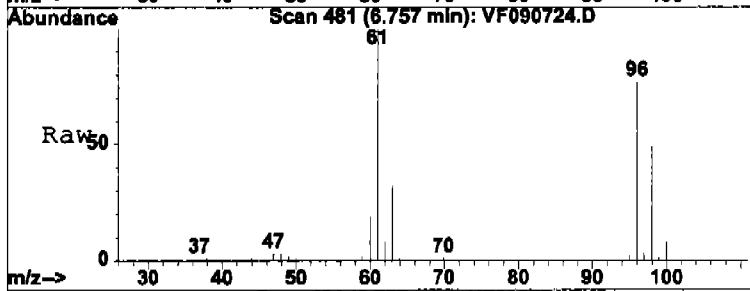
Tgt Ion: 84 Resp: 18362  
 Ion Ratio Lower Upper  
 84 100  
 49 114.3 108.6 163.0  
 51 34.6 0.0 84.4  
 86 68.2 54.2 81.2





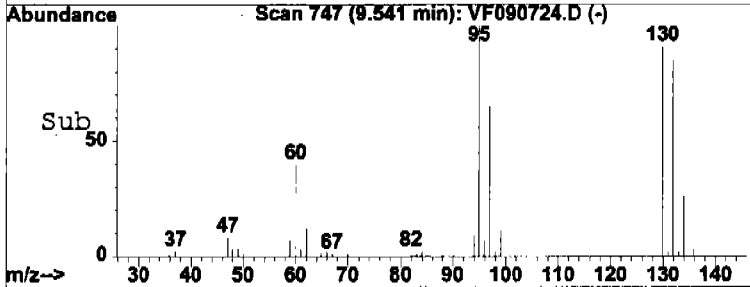
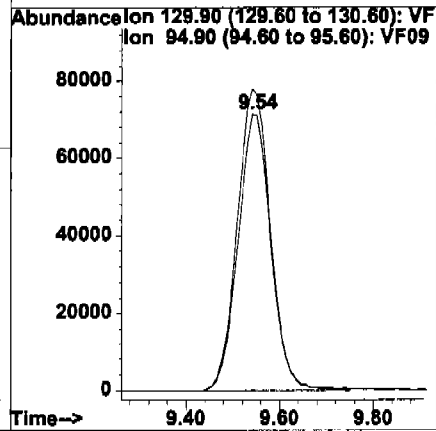
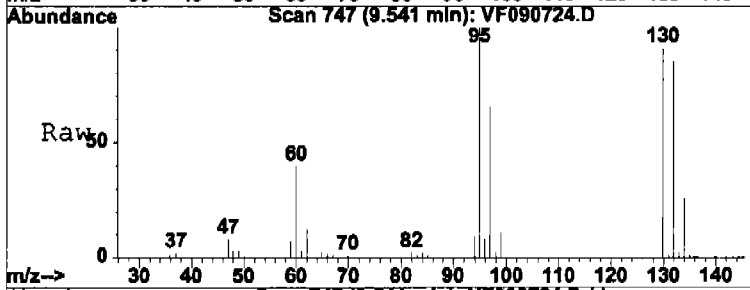
#19  
 cis-1,2-Dichloroethene  
 Concen: 2.41 ug/l  
 RT: 6.76 min Scan# 481  
 Delta R.T. 0.01 min  
 Lab File: VF090724.D  
 Acq: 8 Sep 2004 2:50 am

Tgt Ion:	96	Resp:	168346
Ion Ratio	Lower	Upper	
96	100		
61	133.1	0.0	403.7
98	66.1	32.9	98.6



#32  
 Trichloroethene  
 Concen: 4.34 ug/l  
 RT: 9.54 min Scan# 747  
 Delta R.T. 0.00 min  
 Lab File: VF090724.D  
 Acq: 8 Sep 2004 2:50 am

Tgt Ion:	130	Resp:	346530
Ion Ratio	Lower	Upper	
130	100		
95	109.4	90.9	136.3



## Analy

Client:	Parsons Engine	Date Collected:	8/26/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/28/2004
Client Sample ID:	TR2152	SDG No.:	S4414
Lab Sample ID:	S4414-07	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090213.D	1		9/2/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	0.09	U	1.0	0.09	ug/L
74-87-3	Chloromethane	0.11	U	1.0	0.11	ug/L
75-01-4	Vinyl Chloride	1.9		1.0	0.14	ug/L
74-83-9	Bromomethane	0.22	U	1.0	0.22	ug/L
75-00-3	Chloroethane	0.19	U	1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	0.09	U	1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	2.2	U	10	2.2	ug/L
60-29-7	Diethyl Ether	0.21	U	1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	0.16	U	1.0	0.16	ug/L
74-88-4	Iodomethane	0.14	U	1.0	0.14	ug/L
107-5-1	Allyl Chloride	0.18	U	1.0	0.18	ug/L
107-13-1	Acrylonitrile	0.94	U	2.0	0.94	ug/L
67-64-1	Acetone	3.6	J	5.8	1.5	ug/L
75-15-0	Carbon disulfide	0.18	U	1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	0.37	U	1.0	0.37	ug/L
79-20-9	Methyl acrylate	0.17	U	1.0	0.17	ug/L
75-09-2	Methylene Chloride	0.8	J	1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.94	U	5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	0.22	U	1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	0.20	U	1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	150	E	1.0	0.24	ug/L
67-66-3	Chloroform	0.22	U	1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	1.4	U	2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L
108-20-3	Isopropyl Ether	0.21	U	1.0	0.21	ug/L
107-12-0	Propionitrile	3.3	U	10	3.3	ug/L
71-43-2	Benzene	0.24	U	1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	1.8		1.0	0.24	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/26/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/28/2004
Client Sample ID:	TR2152	SDG No.:	S4414
Lab Sample ID:	S4414-07	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090213.D	1		9/2/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	0.21	U	1.0	0.21	ug/L
126-98-7	Methacrylonitrile	0.33	U	1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	0.78	U	2.4	0.78	ug/L
109-69-3	1-Chlorobutane	0.22	U	1.0	0.22	ug/L
74-95-3	Dibromomethane	0.24	U	1.0	0.24	ug/L
75-27-4	Bromodichloromethane	0.20	U	1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	1.0	U	5.0	1.0	ug/L
80-62-6	Methyl methacrylate	0.53	U	2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	0.25	U	1.0	0.25	ug/L
108-88-3	Toluene	0.22	U	1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L
591-78-6	2-Hexanone	1.1	U	5.0	1.1	ug/L
124-48-1	Dibromochloromethane	0.17	U	1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L
127-18-4	Tetrachloroethene	0.34	U	1.0	0.34	ug/L
108-90-7	Chlorobenzene	0.21	U	1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L
67-72-1	Hexachloroethane	0.20	U	1.0	0.20	ug/L
100-41-4	Ethyl Benzene	0.21	U	1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	0.43	U	1.0	0.43	ug/L
95-47-6	o-Xylene	0.21	U	1.0	0.21	ug/L
100-42-5	Styrene	0.19	U	1.0	0.19	ug/L
75-25-2	Bromoform	0.22	U	1.0	0.22	ug/L
108-86-1	Bromobenzene	0.21	U	1.0	0.21	ug/L
98-82-8	Isopropylbenzene	0.20	U	1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	0.28	U	1.0	0.28	ug/L
103-61-5	N-propylbenzene	0.24	U	1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	0.50	U	1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.22	U	1.0	0.22	ug/L

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E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/26/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monit</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2152</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-07</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090213.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	0.22	U	1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	0.18	U	1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	0.20	U	1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	0.22	U	1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
104-51-8	n-Butylbenzene	0.20	U	1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.20	U	1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L
91-20-3	Naphthalene	0.17	U	1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.18	U	1.0	0.18	ug/L
<b>SURROGATES</b>						
2199-69-1	1,2-Dichlorobenzene-d4	1.03	103 %	80 - 120		SPK: 1
460-00-4	4-Bromofluorobenzene	0.99	99 %	80 - 120		SPK: 1
<b>INTERNAL STANDARDS</b>						
462-06-6	Fluorobenzene	223368	8.87			

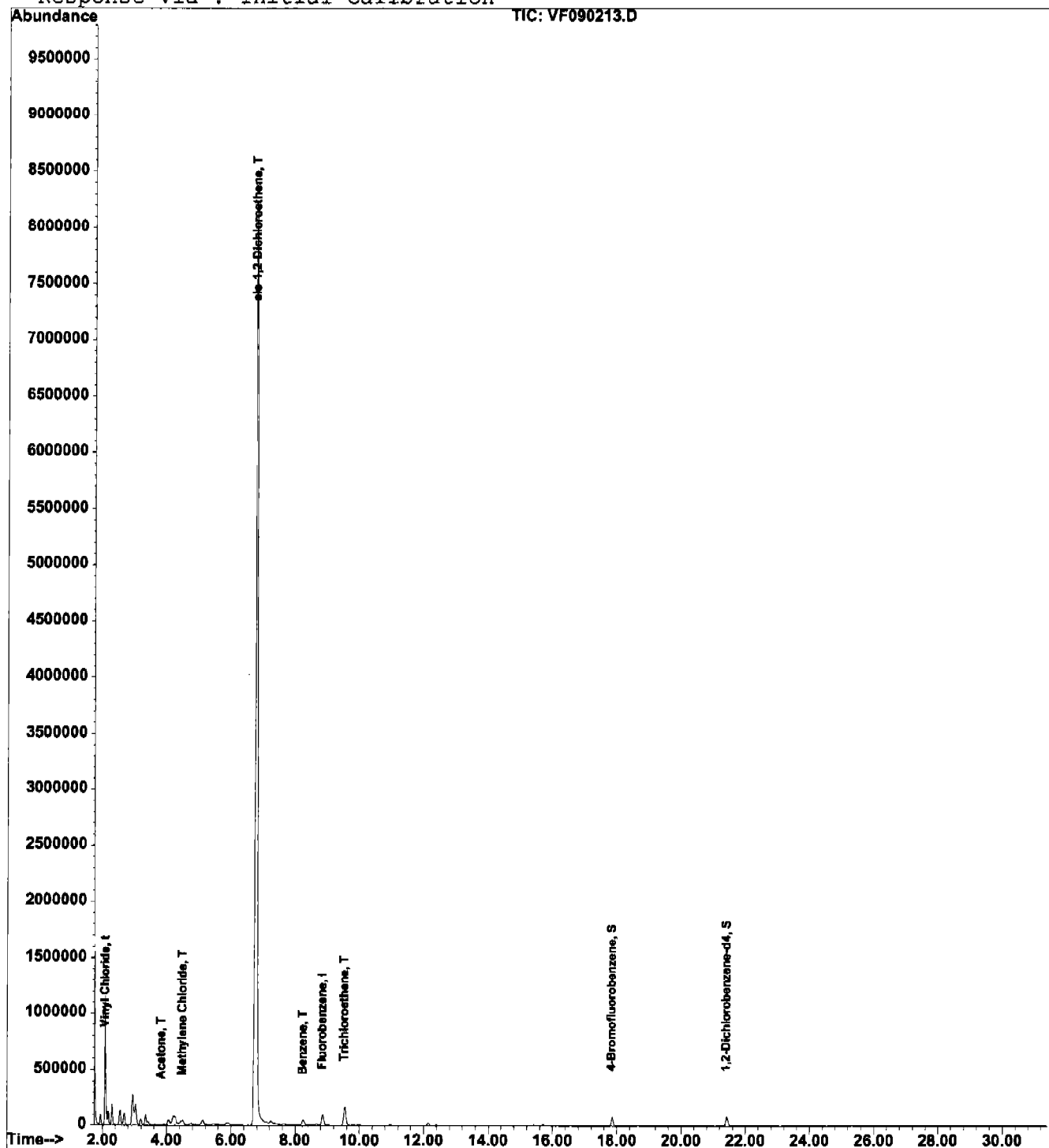
U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

Quantitation Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090213.D Vial: 14  
Acq On : 2 Sep 2004 4:52 pm Operator: SAM  
Sample : S4414-07 Inst : VOA F  
Misc : 5mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Sep 3 11:17 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration





CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090213.D Vial: 14  
 Acq On : 2 Sep 2004 4:52 pm Operator: SAM  
 Sample : S4414-07 Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 3 11:17 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

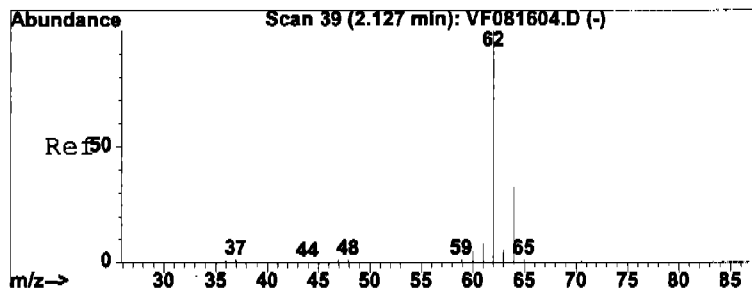
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.87	96	223368	1.00	ug/l	0.02
<b>System Monitoring Compounds</b>						
52) 4-Bromofluorobenzene	17.87	95	104110	0.99	ug/l	0.01
Spiked Amount	1.000		Recovery	=	99.00%	
63) 1,2-Dichlorobenzene-	21.43	152	60020	1.03	ug/l	0.00
Spiked Amount	1.000		Recovery	=	103.00%	
<b>Target Compounds</b>						
						Qvalue
4) Vinyl Chloride	2.12	62	125338	1.92	ug/l	98
12) Acetone	3.85	43	9972	3.59	ug/l	99
14) Methylene Chloride	4.51	84	41293	0.78	ug/l #	77
19) cis-1,2-Dichloroethe	6.76	96	9865485	145.08	ug/l	82
30) Benzene	8.26	78	107613	0.45	ug/l	96
32) Trichloroethene	9.55	130	143949	1.85	ug/l	99

Analyst Signature: Sy Analyst Name: Sy Date: 09/09/04

REASONS FOR MANUAL INTEGRATIONS

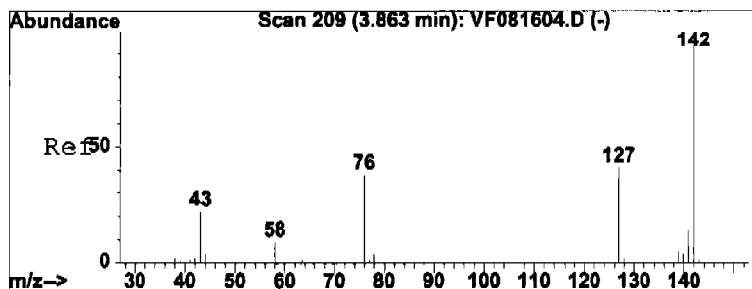
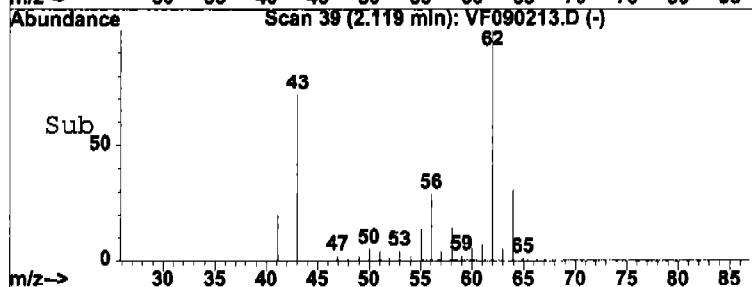
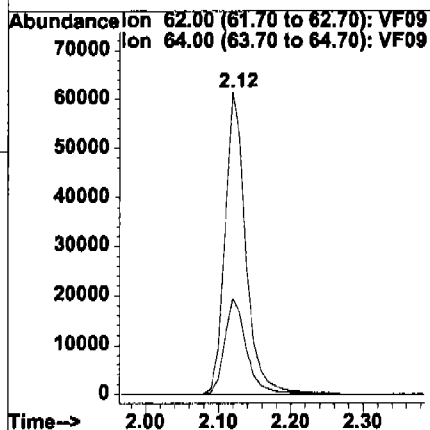
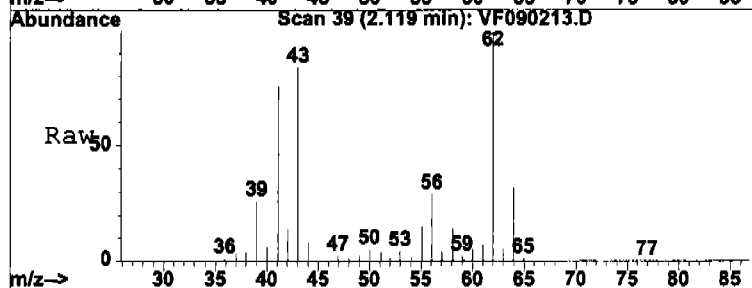
\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration



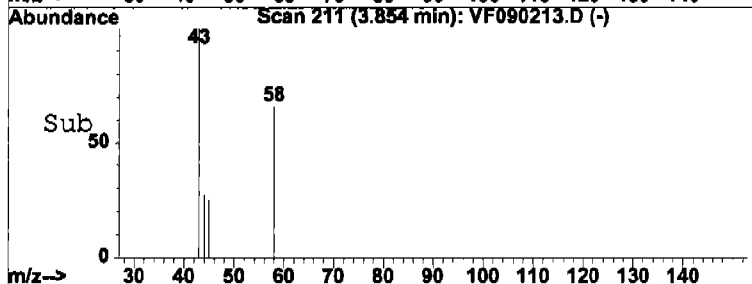
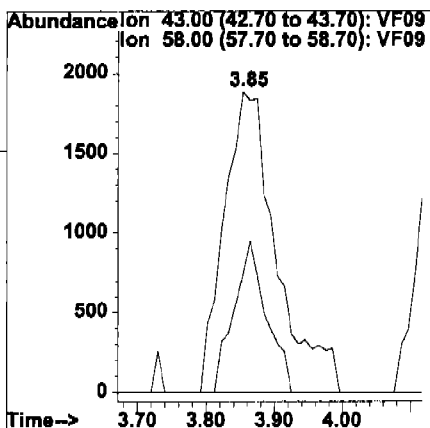
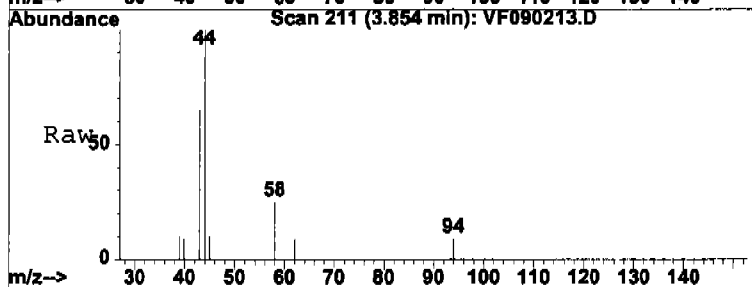
#4  
 Vinyl Chloride  
 Concen: 1.92 ug/l  
 RT: 2.12 min Scan# 39  
 Delta R.T. 0.00 min  
 Lab File: VF090213.D  
 Acq: 2 Sep 2004 4:52 pm

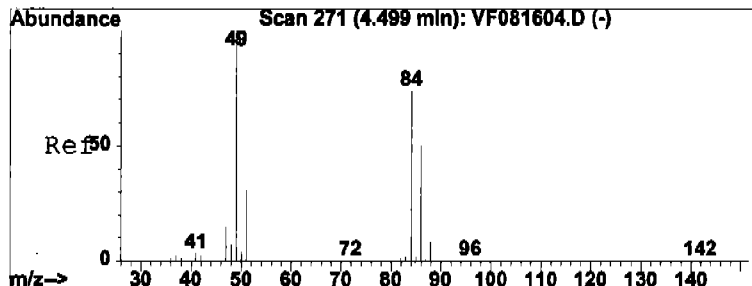
Tgt Ion: 62 Resp: 125338  
 Ion Ratio Lower Upper  
 62 100  
 64 31.6 26.2 39.2



#12  
 Acetone  
 Concen: 3.59 ug/l  
 RT: 3.85 min Scan# 211  
 Delta R.T. 0.00 min  
 Lab File: VF090213.D  
 Acq: 2 Sep 2004 4:52 pm

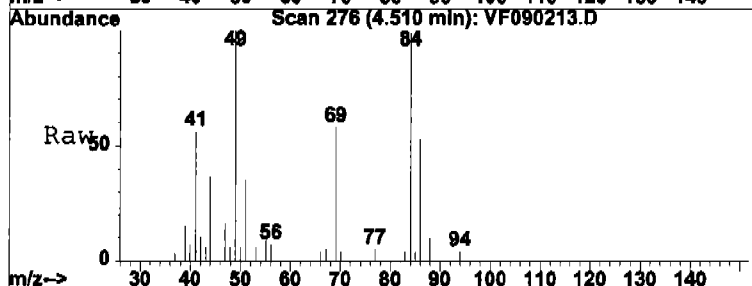
Tgt Ion: 43 Resp: 9972  
 Ion Ratio Lower Upper  
 43 100  
 58 39.0 31.4 47.2



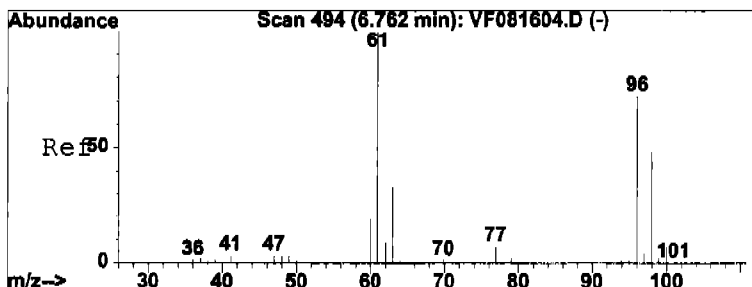
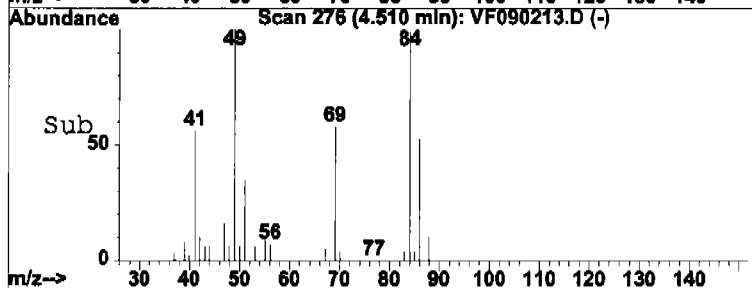
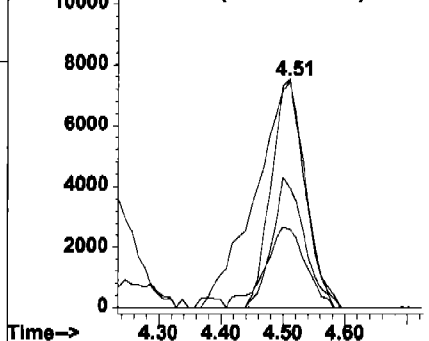


#14  
 Methylene Chloride  
 Concen: 0.78 ug/l  
 RT: 4.51 min Scan# 276  
 Delta R.T. 0.01 min  
 Lab File: VF090213.D  
 Acq: 2 Sep 2004 4:52 pm

Tgt Ion	Resp	Lower	Upper
84	41293		
49	101.1	108.6	163.0#
51	35.0	0.0	84.4
86	53.1	54.2	81.2#

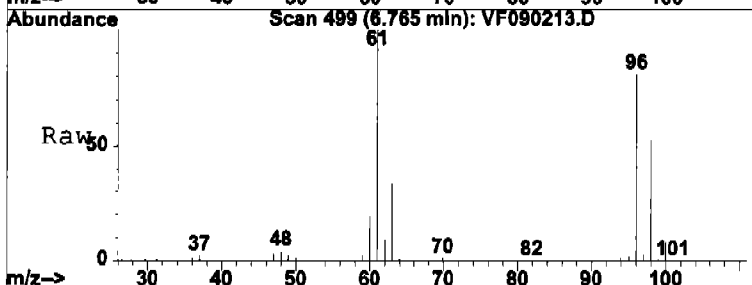


Abundance  
 Ion 84.00 (83.70 to 84.70): VF09  
 Ion 49.00 (48.70 to 49.70): VF09  
 Ion 51.00 (50.70 to 51.70): VF09  
 Ion 86.00 (85.70 to 86.70): VF09

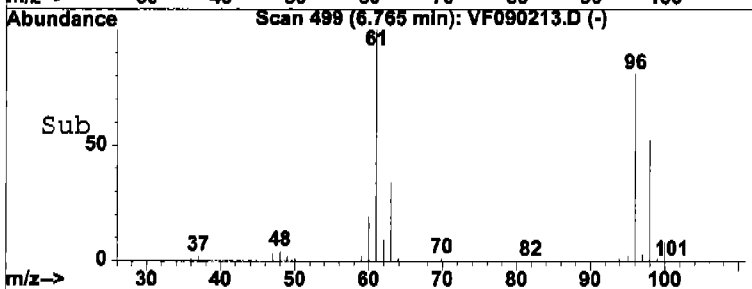
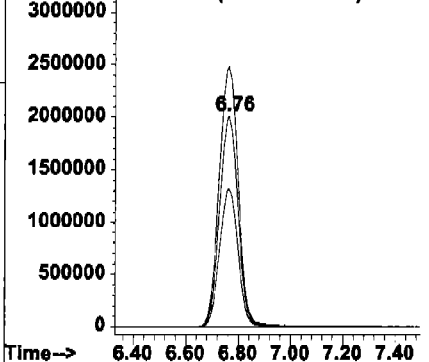


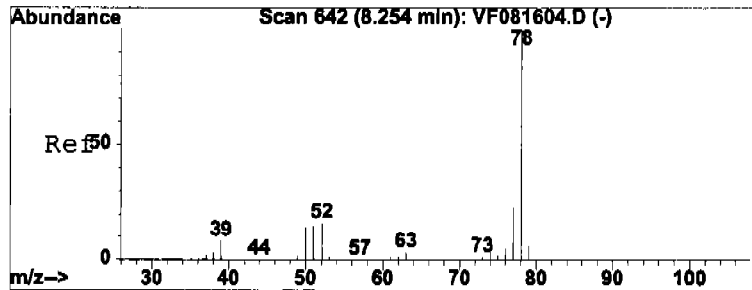
#19  
 cis-1,2-Dichloroethene  
 Concen: 145.08 ug/l  
 RT: 6.76 min Scan# 499  
 Delta R.T. 0.01 min  
 Lab File: VF090213.D  
 Acq: 2 Sep 2004 4:52 pm

Tgt Ion	Resp	Lower	Upper
96	9865485		
61	127.8	0.0	403.7
98	65.9	32.9	98.6



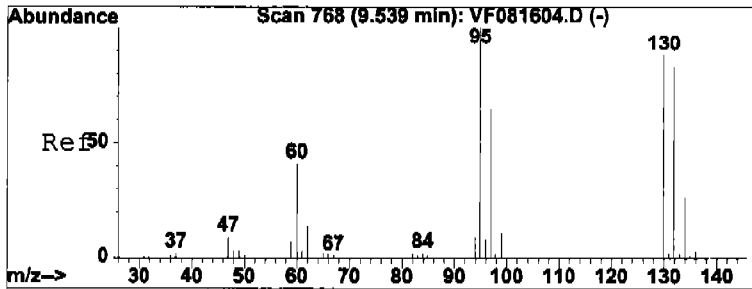
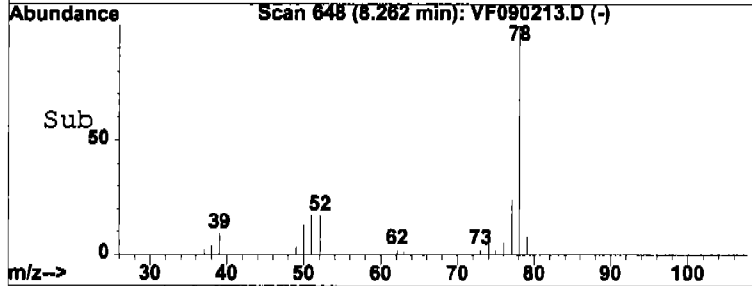
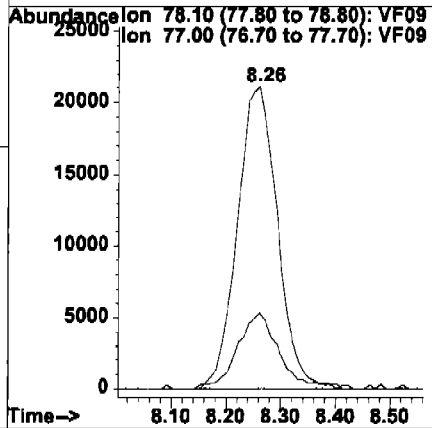
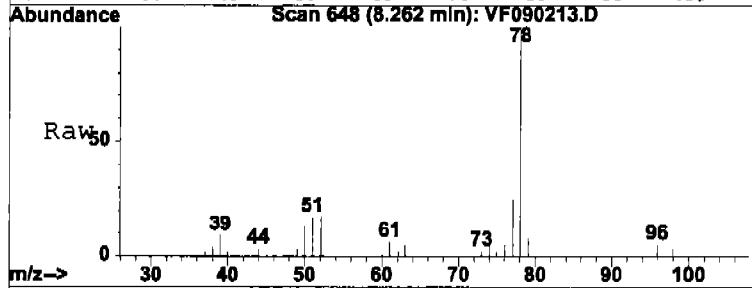
Abundance  
 Ion 96.00 (95.70 to 96.70): VF09  
 Ion 61.00 (60.70 to 61.70): VF09  
 Ion 98.00 (97.70 to 98.70): VF09





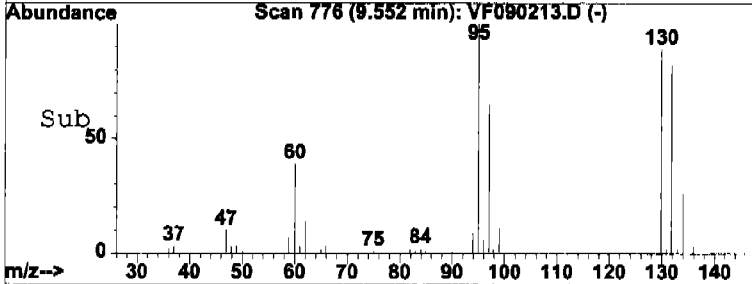
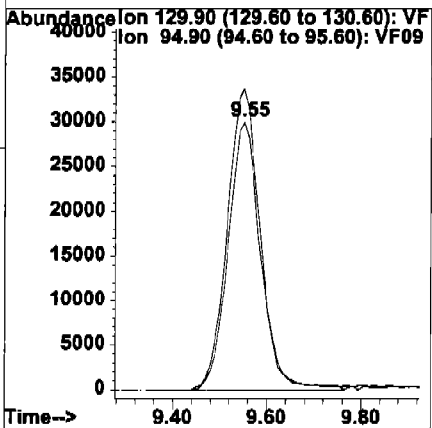
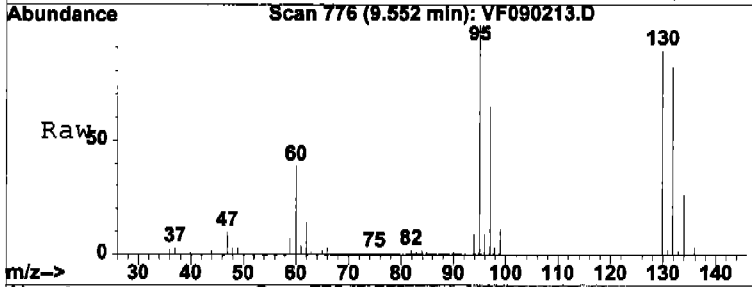
#30  
Benzene  
Concen: 0.45 ug/l  
RT: 8.26 min Scan# 648  
Delta R.T. 0.02 min  
Lab File: VF090213.D  
Acq: 2 Sep 2004 4:52 pm

Tgt Ion: 78 Resp: 107613  
Ion Ratio Lower Upper  
78 100  
77 25.3 18.6 27.8



#32  
Trichloroethene  
Concen: 1.85 ug/l  
RT: 9.55 min Scan# 776  
Delta R.T. 0.01 min  
Lab File: VF090213.D  
Acq: 2 Sep 2004 4:52 pm

Tgt Ion: 130 Resp: 143949  
Ion Ratio Lower Upper  
130 100  
95 112.4 90.9 136.3



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090213.D Vial: 14  
 Acq On : 2 Sep 2004 4:52 pm Operator: SAM  
 Sample : S4414-07 Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

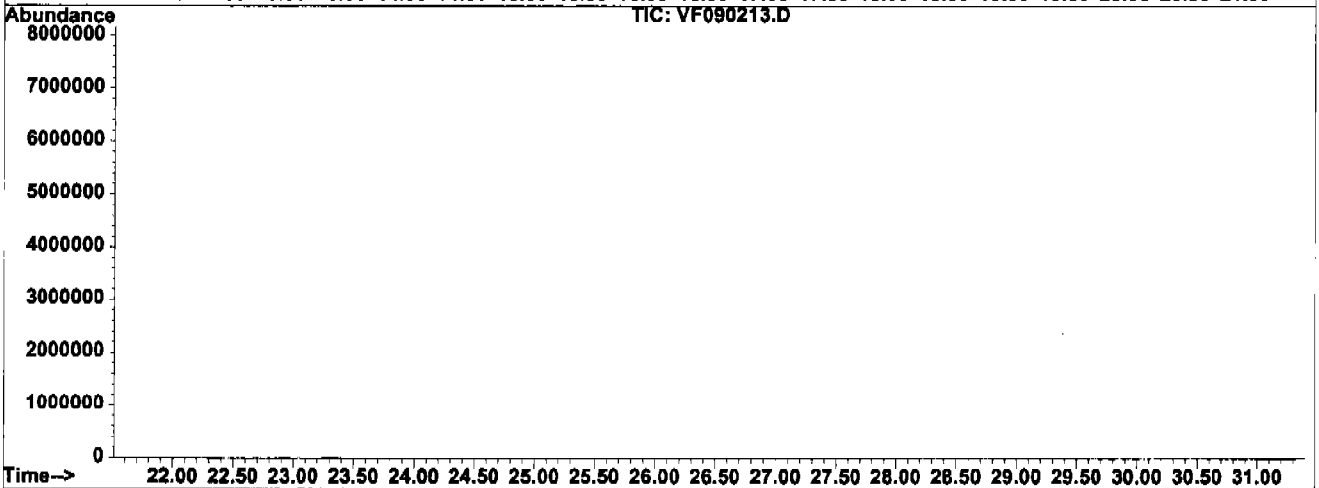
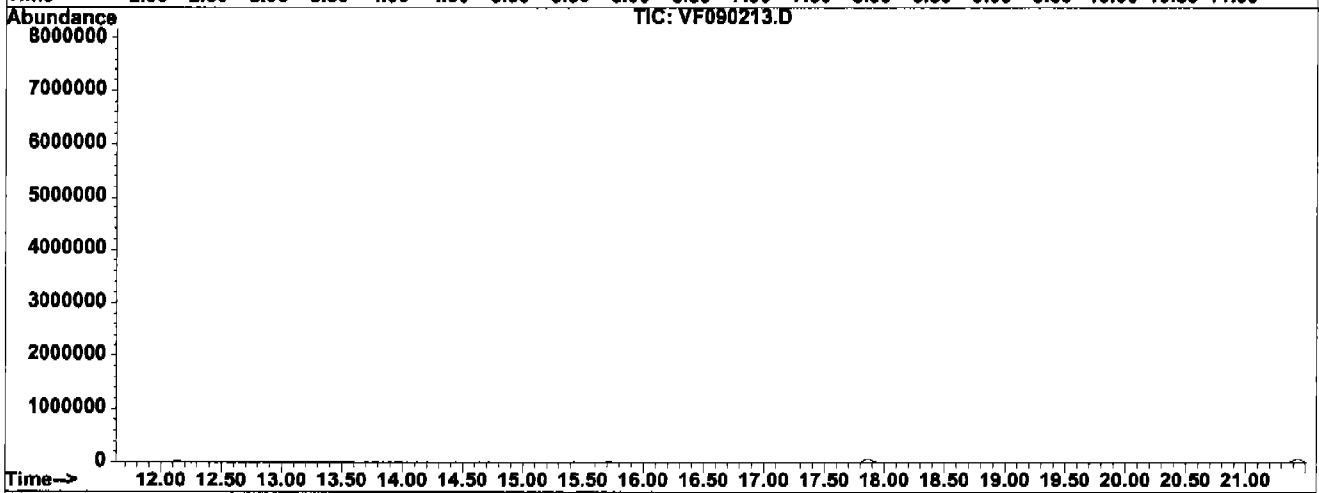
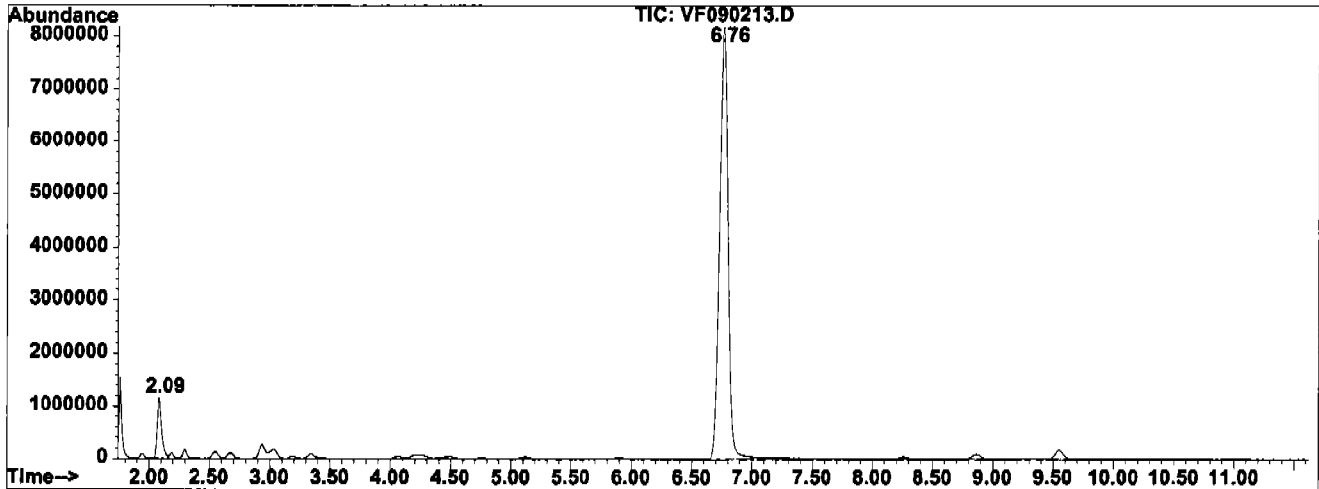
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	2.089	30	36	43	rBV3	1149351	3101710	7.59%	7.056%
2	6.765	484	499	529	rBV	8166049	40855521	100.00%	92.944%

Sum of corrected areas: 43957231

VF090213.D VF0816DW.M Fri Sep 03 11:24:17 2004 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090213.D  
Operator : SAM  
Acquired : 2 Sep 2004 4:52 pm using AcqMethod VF\_VOA  
Instrument : VOA F  
Sample Name: S4414-07  
Misc Info : 5mL  
Vial Number: 14  
Quant File :VF0816DW.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: SAM      Date Acquired: 2 Sep 2004 4:52 pm  
Data File: C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090213.D  
Name: S4414-07  
Misc: 5mL  
Method: C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title: METHOD 524.2 VOLATILES DRINKING WATER  
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
VF090213.D VF0816DW.M			Fri Sep 03 11:24:18 2004			RPT1		

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/26/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2152DL</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-07DL</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090308.D</b>	<b>25</b>		<b>9/3/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	2.2	UD	25	2.2	ug/L
74-87-3	Chloromethane	2.8	UD	25	2.8	ug/L
75-01-4	Vinyl Chloride	3.6	UD	25	3.6	ug/L
74-83-9	Bromomethane	5.4	UD	25	5.4	ug/L
75-00-3	Chloroethane	4.8	UD	25	4.8	ug/L
75-69-4	Trichlorofluoromethane	2.3	UD	25	2.3	ug/L
75-65-0	tert-Butyl Alcohol	54	UD	250	54	ug/L
60-29-7	Diethyl Ether	5.3	UD	25	5.3	ug/L
75-35-4	1,1-Dichloroethene	4.0	UD	25	4.0	ug/L
74-88-4	Iodomethane	3.6	UD	25	3.6	ug/L
107-5-1	Allyl Chloride	4.6	UD	25	4.6	ug/L
107-13-1	Acrylonitrile	23	UD	50	23	ug/L
67-64-1	Acetone	62	JD	140	38	ug/L
75-15-0	Carbon disulfide	4.5	UD	25	4.5	ug/L
1634-04-4	Methyl tert-butyl Ether	9.3	UD	25	9.3	ug/L
79-20-9	Methyl acrylate	4.3	UD	25	4.3	ug/L
75-09-2	Methylene Chloride	12	JD	25	4.5	ug/L
156-60-5	trans-1,2-Dichloroethene	5.4	UD	25	5.4	ug/L
75-34-3	1,1-Dichloroethane	5.2	UD	25	5.2	ug/L
78-93-3	2-Butanone	23	UD	120	23	ug/L
56-23-5	Carbon Tetrachloride	5.6	UD	25	5.6	ug/L
594-20-7	2,2-Dichloropropane	5.1	UD	25	5.1	ug/L
156-59-2	cis-1,2-Dichloroethene	150	D	25	6.0	ug/L
67-66-3	Chloroform	5.4	UD	25	5.4	ug/L
71-55-6	1,1,1-Trichloroethane	6.1	UD	25	6.1	ug/L
110-57-6	t-1,4-Dichloro-2-butene	35	UD	50	35	ug/L
563-43-2	1,1-Dichloropropene	5.2	UD	25	5.2	ug/L
108-20-3	Isopropyl Ether	5.2	UD	25	5.2	ug/L
107-12-0	Propionitrile	82	UD	250	82	ug/L
71-43-2	Benzene	5.9	UD	25	5.9	ug/L
107-06-2	1,2-Dichloroethane	5.2	UD	25	5.2	ug/L
79-01-6	Trichloroethene	6.0	UD	25	6.0	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound



**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/26/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2152DL</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-07DL</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090308.D</b>	<b>25</b>		<b>9/3/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	5.3	UD	25	5.3	ug/L
126-98-7	Methacrylonitrile	8.2	UD	25	8.2	ug/L
109-99-9	Tetrahydrofuran	19	UD	60	19	ug/L
109-69-3	1-Chlorobutane	5.6	UD	25	5.6	ug/L
74-95-3	Dibromomethane	5.9	UD	25	5.9	ug/L
75-27-4	Bromodichloromethane	5.0	UD	25	5.0	ug/L
108-10-1	4-Methyl-2-Pentanone	25	UD	120	25	ug/L
80-62-6	Methyl methacrylate	13	UD	50	13	ug/L
97-63-2	Ethyl methacrylate	6.2	UD	25	6.2	ug/L
108-88-3	Toluene	5.6	UD	25	5.6	ug/L
10061-02-6	t-1,3-Dichloropropene	4.8	UD	25	4.8	ug/L
10061-01-5	cis-1,3-Dichloropropene	4.7	UD	25	4.7	ug/L
79-00-5	1,1,2-Trichloroethane	5.9	UD	25	5.9	ug/L
142-28-9	1,3-Dichloropropane	5.6	UD	25	5.6	ug/L
591-78-6	2-Hexanone	27	UD	120	27	ug/L
124-48-1	Dibromochloromethane	4.3	UD	25	4.3	ug/L
106-93-4	1,2-Dibromoethane	5.0	UD	25	5.0	ug/L
127-18-4	Tetrachloroethene	8.6	UD	25	8.6	ug/L
108-90-7	Chlorobenzene	5.2	UD	25	5.2	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	5.6	UD	25	5.6	ug/L
67-72-1	Hexachloroethane	4.9	UD	25	4.9	ug/L
100-41-4	Ethyl Benzene	5.3	UD	25	5.3	ug/L
136777-61-2	m/p-Xylenes	11	UD	25	11	ug/L
95-47-6	o-Xylene	5.3	UD	25	5.3	ug/L
100-42-5	Styrene	4.7	UD	25	4.7	ug/L
75-25-2	Bromoform	5.6	UD	25	5.6	ug/L
108-86-1	Bromobenzene	5.4	UD	25	5.4	ug/L
98-82-8	Isopropylbenzene	5.1	UD	25	5.1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	5.2	UD	25	5.2	ug/L
96-18-4	1,2,3-Trichloropropane	7.1	UD	25	7.1	ug/L
103-61-5	N-propylbenzene	6.1	UD	25	6.1	ug/L
95-49-8	2-Chlorotoluene	12	UD	25	12	ug/L
108-67-8	1,3,5-Trimethylbenzene	5.6	UD	25	5.6	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/26/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2152DL</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-07DL</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090308.D</b>	<b>25</b>		<b>9/3/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	5.4	UD	25	5.4	ug/L
98-06-6	tert-Butylbenzene	4.6	UD	25	4.6	ug/L
95-63-6	1,2,4-Trimethylbenzene	5.9	UD	25	5.9	ug/L
135-98-8	Sec-butylbenzene	5.1	UD	25	5.1	ug/L
99-87-6	p-Isopropyltoluene	5.5	UD	25	5.5	ug/L
541-73-1	1,3-Dichlorobenzene	5.0	UD	25	5.0	ug/L
106-46-7	1,4-Dichlorobenzene	5.0	UD	25	5.0	ug/L
104-51-8	n-Butylbenzene	5.1	UD	25	5.1	ug/L
95-50-1	1,2-Dichlorobenzene	4.4	UD	25	4.4	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	UD	25	5.0	ug/L
120-82-1	1,2,4-Trichlorobenzene	5.0	UD	25	5.0	ug/L
87-68-3	Hexachlorobutadiene	4.4	UD	25	4.4	ug/L
91-20-3	Naphthalene	4.4	UD	25	4.4	ug/L
87-61-6	1,2,3-Trichlorobenzene	4.5	UD	25	4.5	ug/L
<b>SURROGATES</b>						
2199-69-1	1,2-Dichlorobenzene-d4	1.09	109 %	80 - 120		SPK: 1
460-00-4	4-Bromofluorobenzene	0.97	97 %	80 - 120		SPK: 1
<b>INTERNAL STANDARDS</b>						
462-06-6	Fluorobenzene	243870	8.86			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

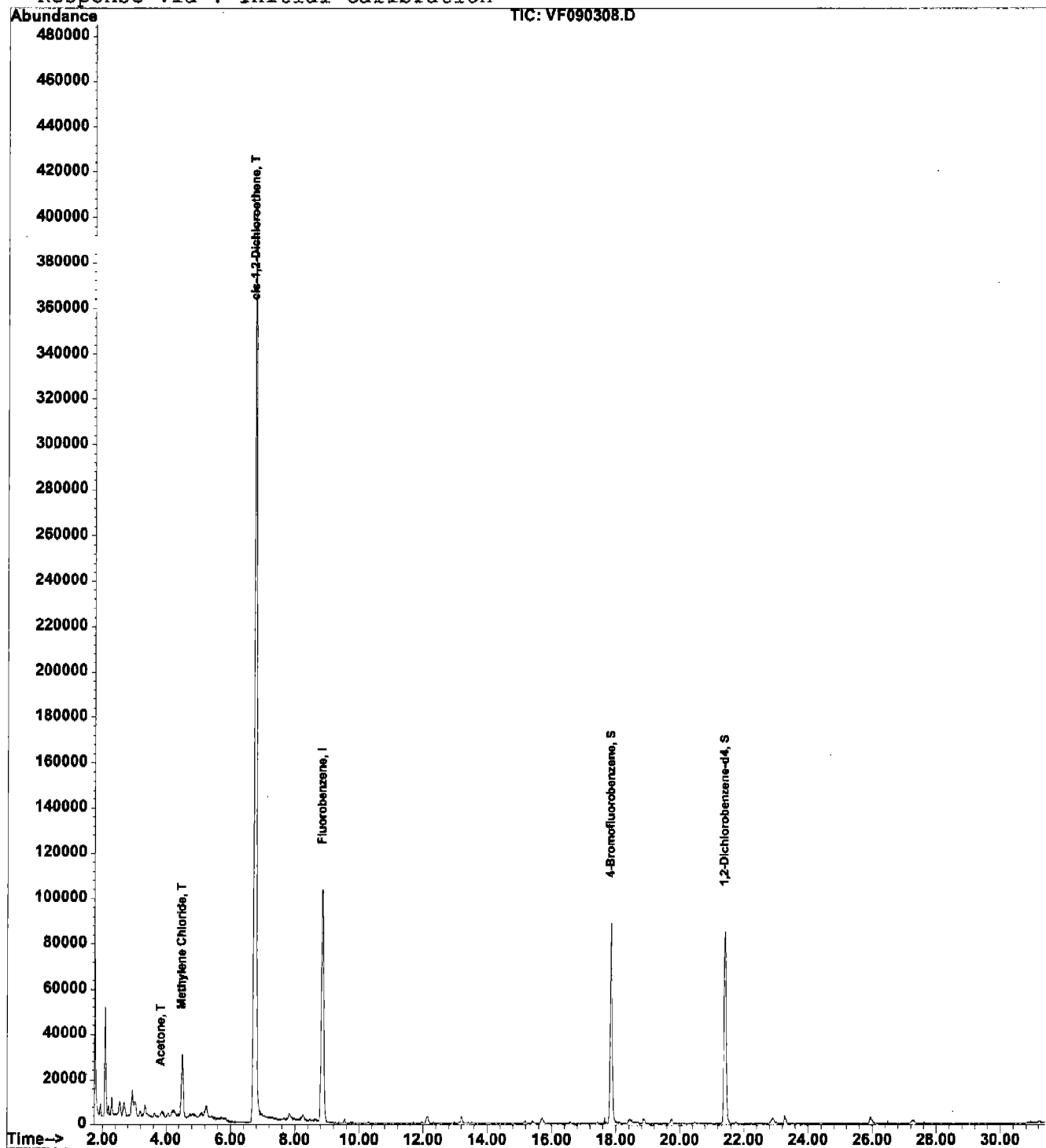
J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090308.D Vial: 9  
Acq On : 3 Sep 2004 2:05 am Operator: SAM  
Sample : S4414-07 25X Inst : VOA F  
Misc : 25mL Multiplr: 1.00

MS Integration Params: rteint.p  
Quant Time: Sep 7 12:14 2004

Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration

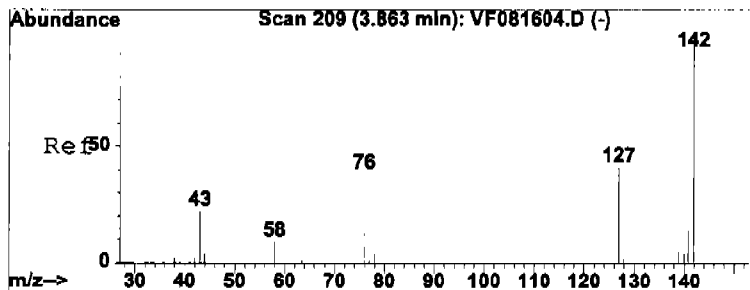


Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090308.D Vial: 9  
 Acq On : 3 Sep 2004 2:05 am Operator: SAM  
 Sample : S4414-07 25X Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 7 12:14 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

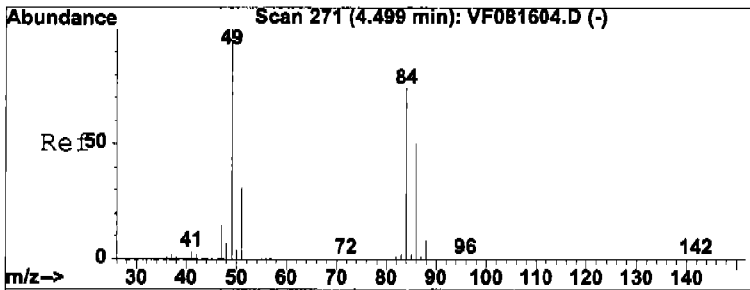
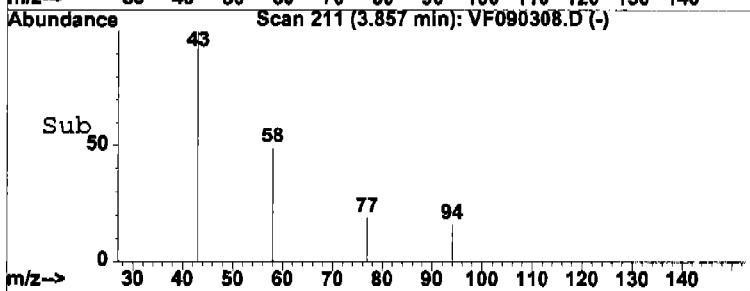
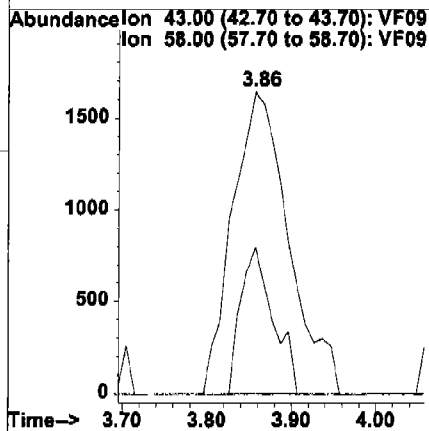
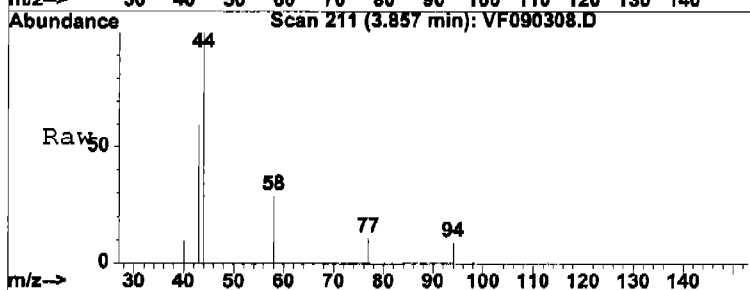
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.86	96	243870	1.00	ug/l	0.01
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.86	95	111697	0.97	ug/l	0.00
Spiked Amount	1.000		Recovery	=	97.00%	
63) 1,2-Dichlorobenzene-	21.43	152	69382	1.09	ug/l	0.00
Spiked Amount	1.000		Recovery	=	109.00%	
Target Compounds						Qvalue
12) Acetone	3.86	43	7512	2.48	ug/l	# 85
14) Methylene Chloride	4.50	84	27130	0.47	ug/l	93
19) cis-1,2-Dichloroethe	6.75	96	445723	6.00	ug/l	86

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 Analyst Signature: Cy Analyst Name: Cy Date: 09/09/04  
 -----REASONS FOR MANUAL INTEGRATIONS-----  
 \_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly.Compound #: \_\_\_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_



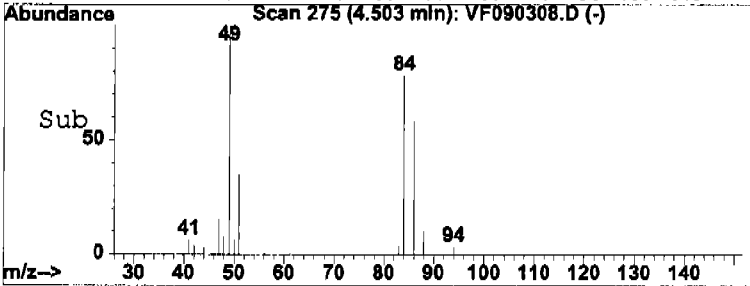
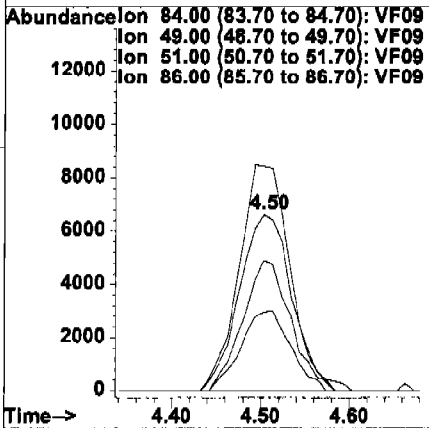
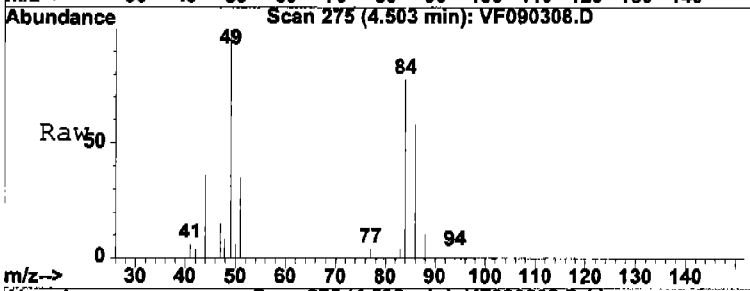
#12  
 Acetone  
 Concen: 2.48 ug/l  
 RT: 3.86 min Scan# 211  
 Delta R.T. 0.01 min  
 Lab File: VF090308.D  
 Acq: 3 Sep 2004 2:05 am

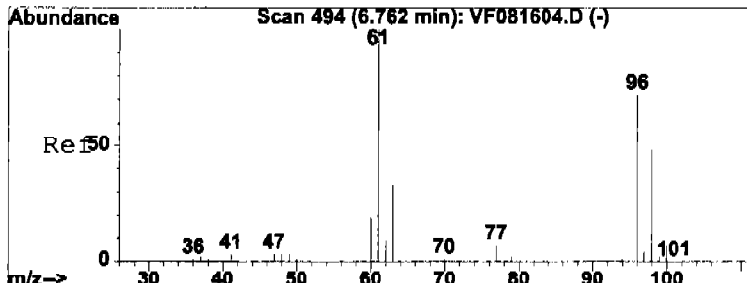
Tgt Ion: 43 Resp: 7512  
 Ion Ratio Lower Upper  
 43 100  
 58 48.6 31.4 47.2#



#14  
 Methylene Chloride  
 Concen: 0.47 ug/l  
 RT: 4.50 min Scan# 275  
 Delta R.T. 0.01 min  
 Lab File: VF090308.D  
 Acq: 3 Sep 2004 2:05 am

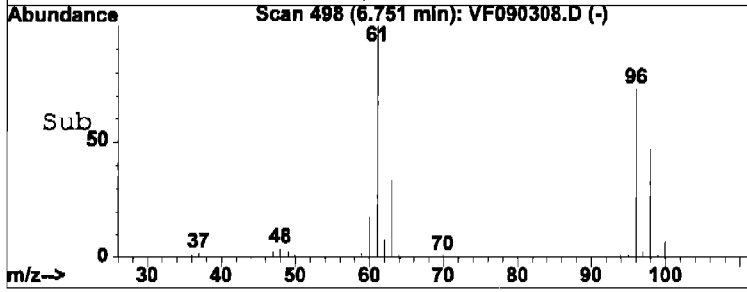
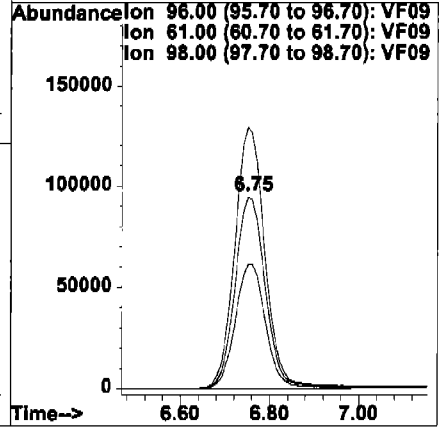
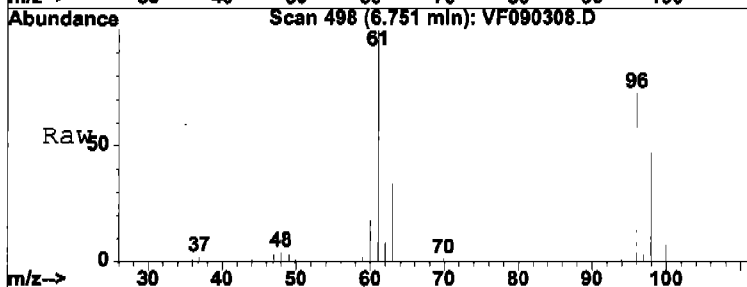
Tgt Ion: 84 Resp: 27130  
 Ion Ratio Lower Upper  
 84 100  
 49 127.6 108.6 163.0  
 51 44.8 0.0 84.4  
 86 74.0 54.2 81.2





#19  
 cis-1,2-Dichloroethene  
 Concen: 6.00 ug/l  
 RT: 6.75 min Scan# 498  
 Delta R.T. 0.00 min  
 Lab File: VF090308.D  
 Acq: 3 Sep 2004 2:05 am

Tgt Ion	Resp	Lower	Upper
96	445723		
61	136.4	0.0	403.7
98	64.7	32.9	98.6



**Report of Analysis**

Client:	Parsons Engineering	Date Collected:	8/27/2004
Project:	Seneca Ash Landfill Quarterly Monite	Date Received:	8/28/2004
Client Sample ID:	TR2159	SDG No.:	S4414
Lab Sample ID:	S4414-08	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090214.D	1		9/2/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
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**TARGETS**

75-71-8	Dichlorodifluoromethane	0.09	U	1.0	0.09	ug/L
74-87-3	Chloromethane	0.11	U	1.0	0.11	ug/L
75-01-4	Vinyl Chloride	0.14	U	1.0	0.14	ug/L
74-83-9	Bromomethane	0.22	U	1.0	0.22	ug/L
75-00-3	Chloroethane	0.19	U	1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	0.09	U	1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	2.2	U	10	2.2	ug/L
60-29-7	Diethyl Ether	0.21	U	1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	0.16	U	1.0	0.16	ug/L
74-88-4	Iodomethane	0.14	U	1.0	0.14	ug/L
107-5-1	Allyl Chloride	0.18	U	1.0	0.18	ug/L
107-13-1	Acrylonitrile	0.94	U	2.0	0.94	ug/L
67-64-1	Acetone	3.0	J	5.8	1.5	ug/L
75-15-0	Carbon disulfide	0.18	U	1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	0.37	U	1.0	0.37	ug/L
79-20-9	Methyl acrylate	0.17	U	1.0	0.17	ug/L
75-09-2	Methylene Chloride	0.4	J	1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	0.8	J	1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	0.5	J	1.0	0.21	ug/L
78-93-3	2-Butanone	0.94	U	5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	0.22	U	1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	0.20	U	1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	98	E	1.0	0.24	ug/L
67-66-3	Chloroform	0.22	U	1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	0.4	J	1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	1.4	U	2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L
108-20-3	Isopropyl Ether	0.21	U	1.0	0.21	ug/L
107-12-0	Propionitrile	3.3	U	10	3.3	ug/L
71-43-2	Benzene	0.24	U	1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	22		1.0	0.24	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/27/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2159</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-08</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090214.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	0.21	U	1.0	0.21	ug/L
126-98-7	Methacrylonitrile	0.33	U	1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	0.78	U	2.4	0.78	ug/L
109-69-3	1-Chlorobutane	0.22	U	1.0	0.22	ug/L
74-95-3	Dibromomethane	0.24	U	1.0	0.24	ug/L
75-27-4	Bromodichloromethane	0.20	U	1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	1.0	U	5.0	1.0	ug/L
80-62-6	Methyl methacrylate	0.53	U	2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	0.25	U	1.0	0.25	ug/L
108-88-3	Toluene	0.22	U	1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L
591-78-6	2-Hexanone	1.1	U	5.0	1.1	ug/L
124-48-1	Dibromochloromethane	0.17	U	1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L
127-18-4	Tetrachloroethene	0.34	U	1.0	0.34	ug/L
108-90-7	Chlorobenzene	0.21	U	1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L
67-72-1	Hexachloroethane	0.20	U	1.0	0.20	ug/L
100-41-4	Ethyl Benzene	0.21	U	1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	0.43	U	1.0	0.43	ug/L
95-47-6	o-Xylene	0.21	U	1.0	0.21	ug/L
100-42-5	Styrene	0.19	U	1.0	0.19	ug/L
75-25-2	Bromoform	0.22	U	1.0	0.22	ug/L
108-86-1	Bromobenzene	0.21	U	1.0	0.21	ug/L
98-82-8	Isopropylbenzene	0.20	U	1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	0.28	U	1.0	0.28	ug/L
103-61-5	N-propylbenzene	0.24	U	1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	0.50	U	1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.22	U	1.0	0.22	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound



**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/27/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2159</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-08</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090214.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VF081604</b>

<b>CAS Number</b>	<b>Parameter</b>	<b>Conc.</b>	<b>Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
106-43-4	4-Chlorotoluene	0.22	U	1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	0.18	U	1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	0.20	U	1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	0.22	U	1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
104-51-8	n-Butylbenzene	0.20	U	1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.20	U	1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L
91-20-3	Naphthalene	0.17	U	1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.18	U	1.0	0.18	ug/L
<b>SURROGATES</b>						
2199-69-1	1,2-Dichlorobenzene-d4	1.08	108 %	80 - 120		SPK: 1
460-00-4	4-Bromofluorobenzene	1.02	102 %	80 - 120		SPK: 1
<b>INTERNAL STANDARDS</b>						
462-06-6	Fluorobenzene	214405	8.87			

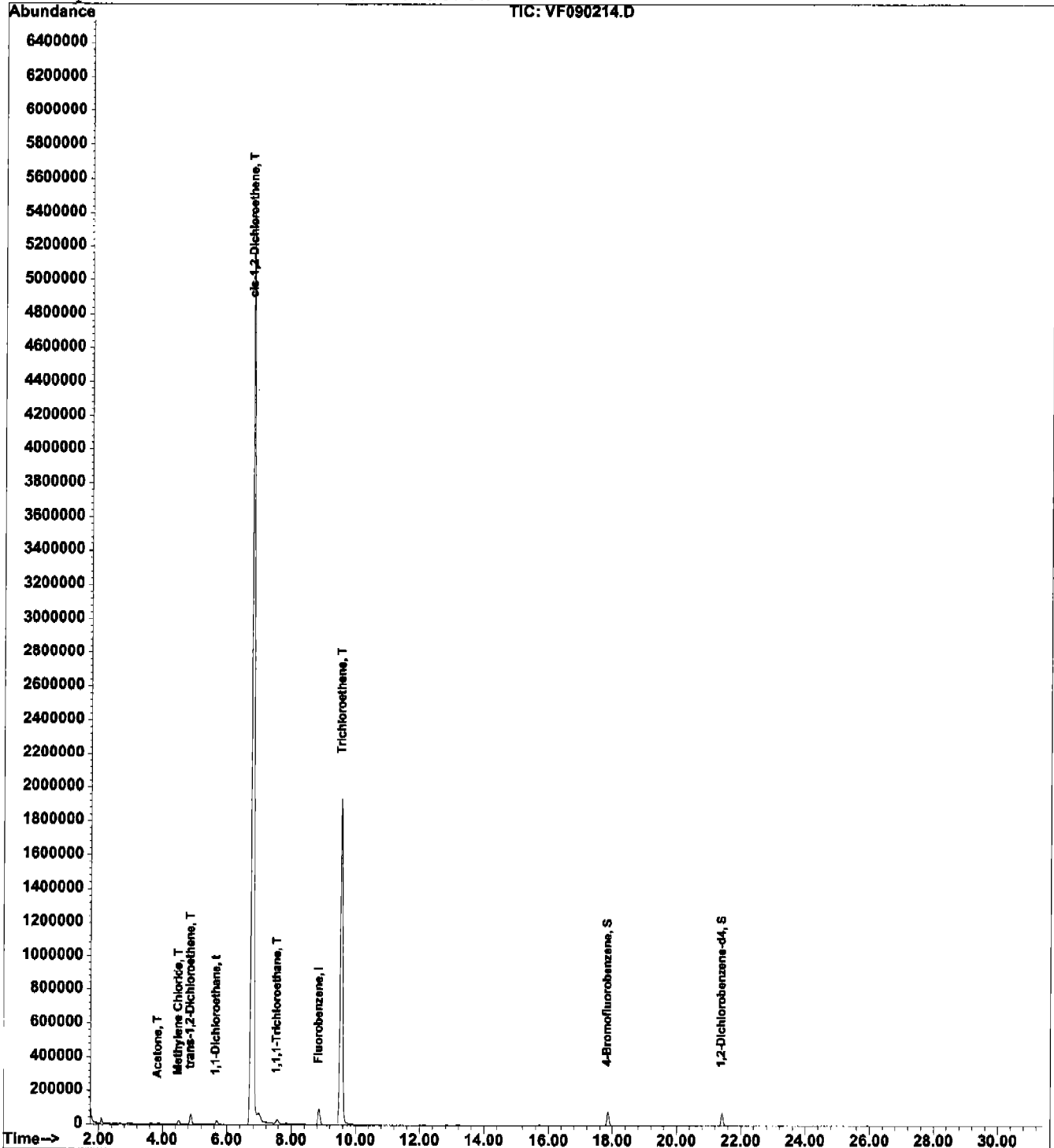
U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

Quantitation Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090214.D Vial: 15  
Acq On : 2 Sep 2004 5:31 pm Operator: SAM  
Sample : S4414-08 Inst : VOA F  
Misc : 5mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Sep 3 10:23 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



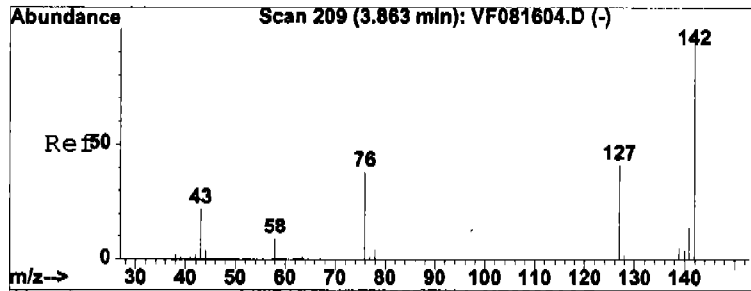
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090214.D Vial: 15  
 Acq On : 2 Sep 2004 5:31 pm Operator: SAM  
 Sample : S4414-08 Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 3 10:23 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.87	96	214405	1.00	ug/l	0.02
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.86	95	102570	1.02	ug/l	0.00
Spiked Amount	1.000		Recovery	=	102.00%	
63) 1,2-Dichlorobenzene-	21.43	152	60191	1.08	ug/l	0.00
Spiked Amount	1.000		Recovery	=	108.00%	
Target Compounds						
12) Acetone	3.86	43	8098	3.04	ug/l	88
14) Methylene Chloride	4.52	84	21687	0.43	ug/l	86
15) trans-1,2-Dichloroet	4.88	96	51973	0.78	ug/l	97
16) 1,1-Dichloroethane	5.68	63	55180	0.47	ug/l	99
19) cis-1,2-Dichloroethe	6.76	96	6383424	97.80	ug/l	82
25) 1,1,1-Trichloroethan	7.57	97	47818	0.43	ug/l	94
32) Trichloroethene	9.55	130	1670881	22.36	ug/l	98

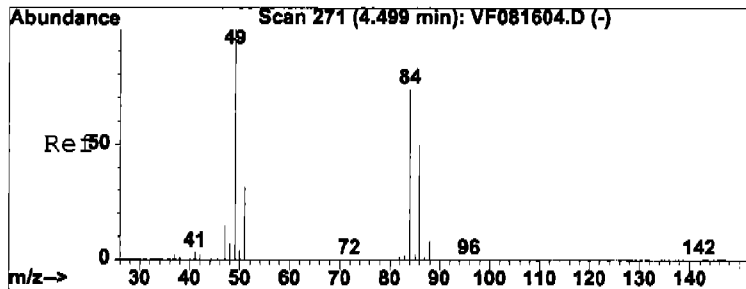
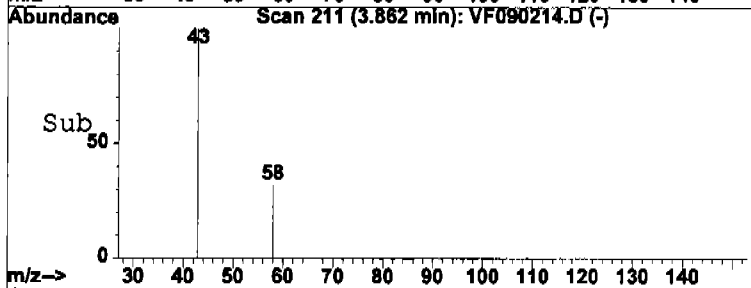
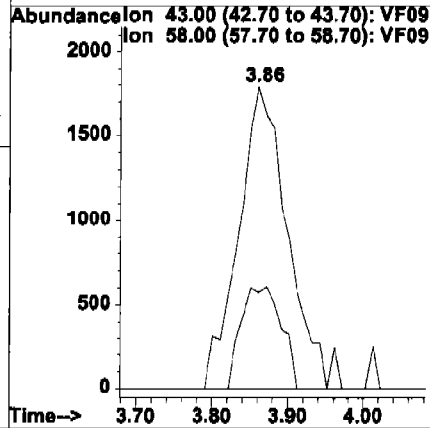
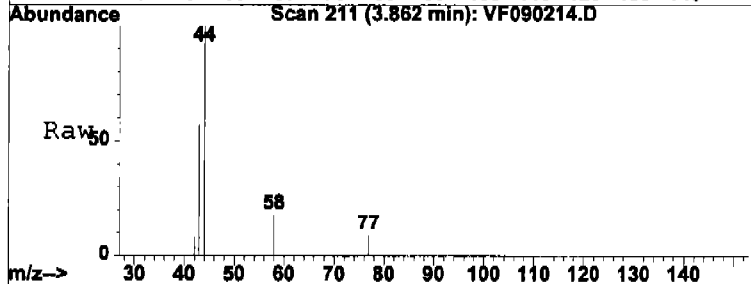
Analyst Signature: Sy Analyst Name: Sy Date: 09/09/04

-----REASONS FOR MANUAL INTEGRATIONS-----  
 \_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly.Compound #: \_\_\_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_



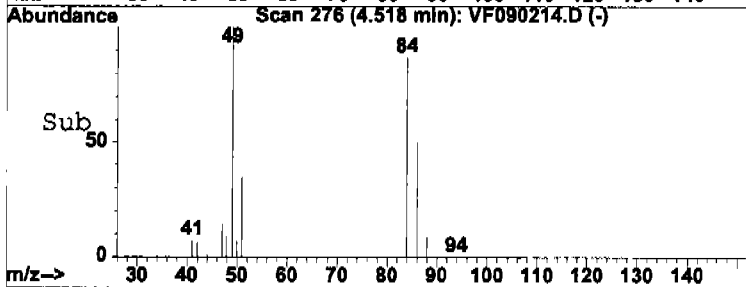
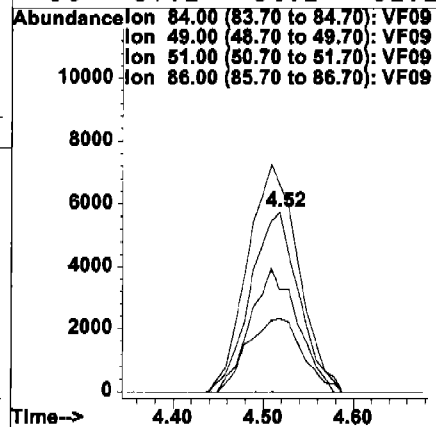
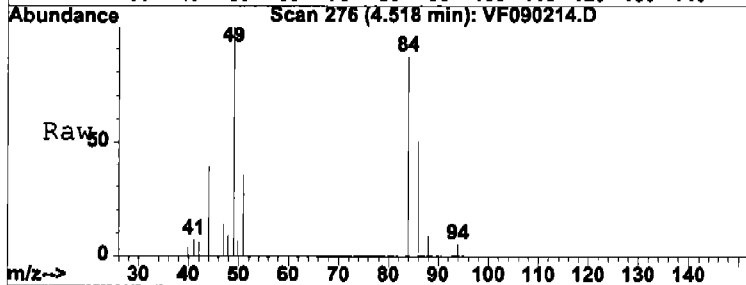
#12  
 Acetone  
 Concen: 3.04 ug/l  
 RT: 3.86 min Scan# 211  
 Delta R.T. 0.01 min  
 Lab File: VF090214.D  
 Acq: 2 Sep 2004 5:31 pm

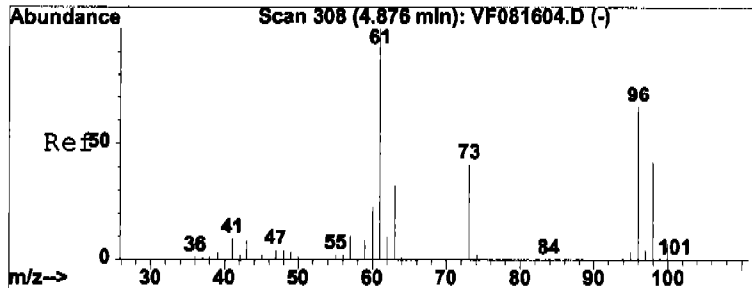
Tgt Ion: 43 Resp: 8098  
 Ion Ratio Lower Upper  
 43 100  
 58 32.0 31.4 47.2



#14  
 Methylene Chloride  
 Concen: 0.43 ug/l  
 RT: 4.52 min Scan# 276  
 Delta R.T. 0.02 min  
 Lab File: VF090214.D  
 Acq: 2 Sep 2004 5:31 pm

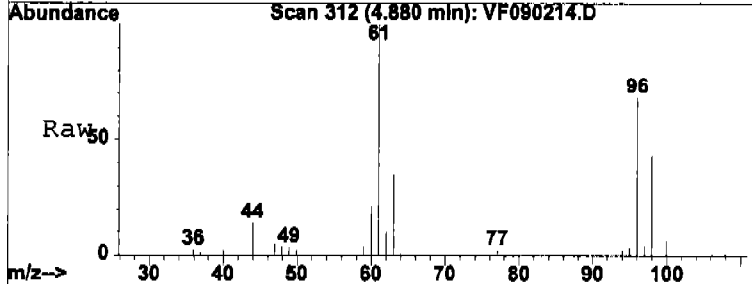
Tgt Ion: 84 Resp: 21687  
 Ion Ratio Lower Upper  
 84 100  
 49 115.2 108.6 163.0  
 51 40.6 0.0 84.4  
 86 57.2 54.2 81.2



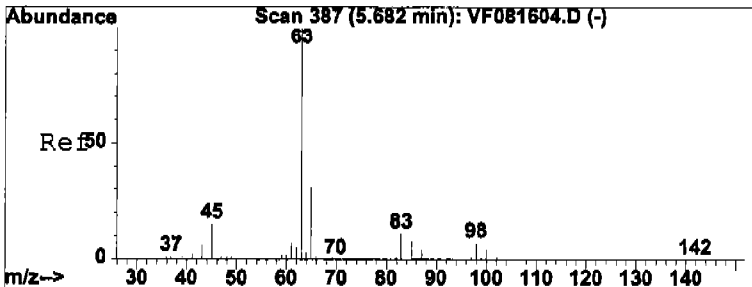
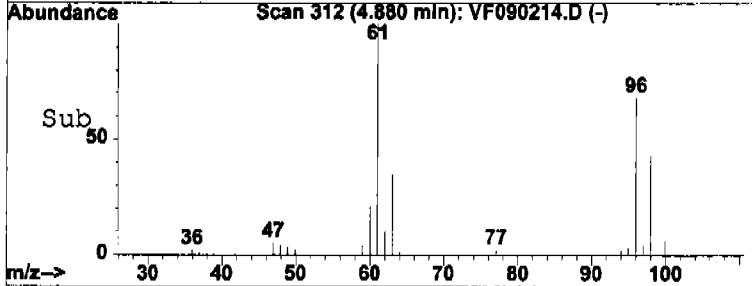
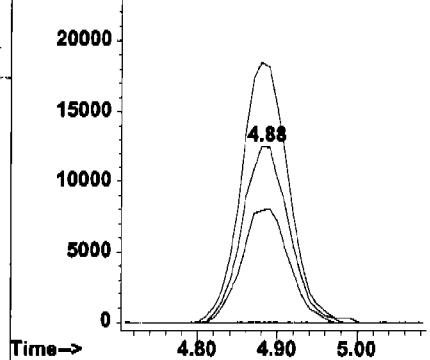


#15  
 trans-1,2-Dichloroethene  
 Concen: 0.78 ug/l  
 RT: 4.88 min Scan# 312  
 Delta R.T. 0.01 min  
 Lab File: VF090214.D  
 Acq: 2 Sep 2004 5:31 pm

Tgt Ion	Resp	Lower	Upper
96	51973		
61	100	147.9	182.6
98	63.5	51.7	77.5

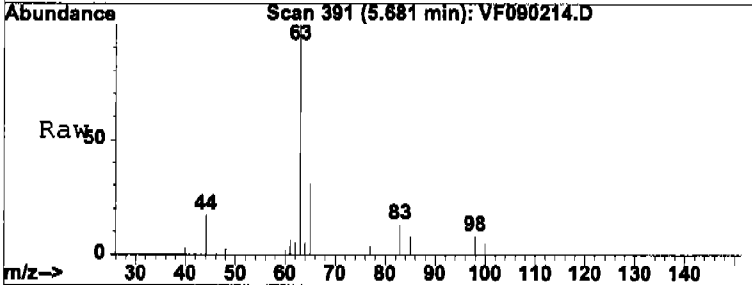


Abundance Ion 96.00 (95.70 to 96.70): VF09  
 Ion 61.00 (60.70 to 61.70): VF09  
 Ion 98.00 (97.70 to 98.70): VF09

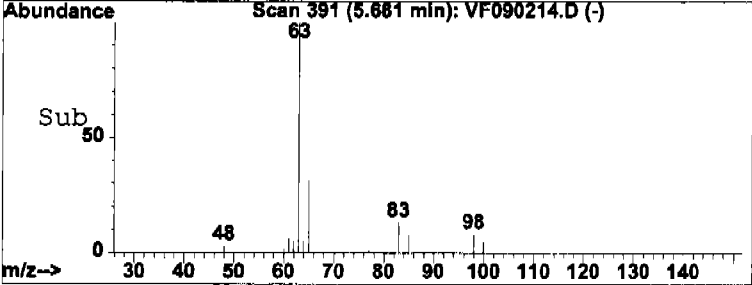
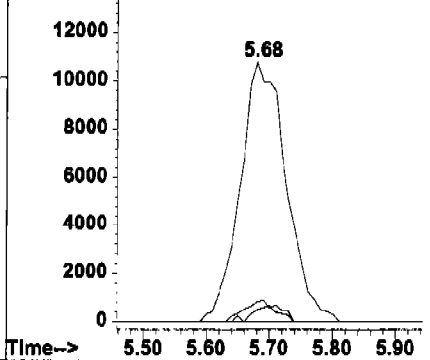


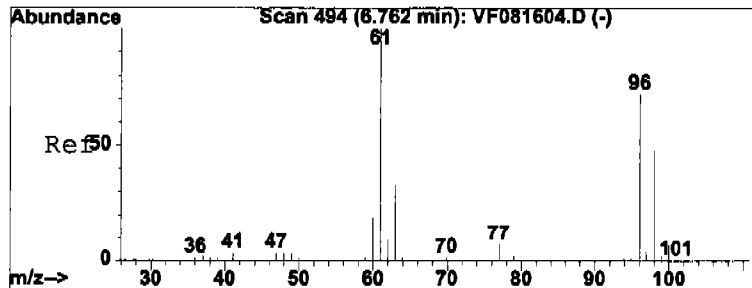
#16  
 1,1-Dichloroethane  
 Concen: 0.47 ug/l  
 RT: 5.68 min Scan# 391  
 Delta R.T. -0.00 min  
 Lab File: VF090214.D  
 Acq: 2 Sep 2004 5:31 pm

Tgt Ion	Resp	Lower	Upper
63	55180		
98	100	7.6	10.8
100	4.6	2.2	6.6



Abundance Ion 63.00 (62.70 to 63.70): VF09  
 Ion 98.00 (97.70 to 98.70): VF09  
 Ion 100.00 (99.70 to 100.70): VF09

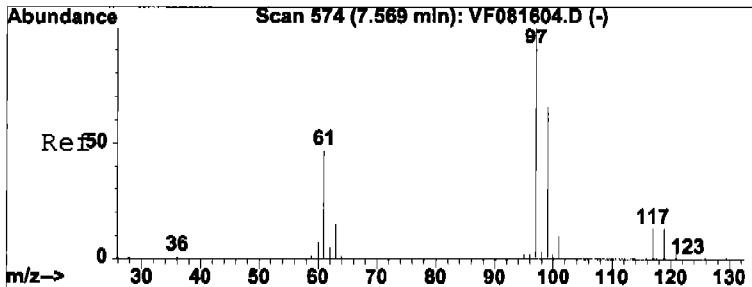
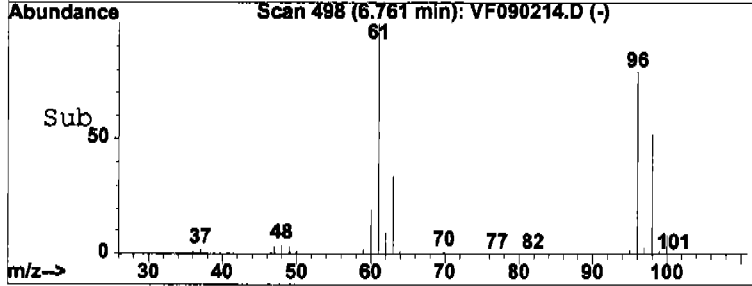
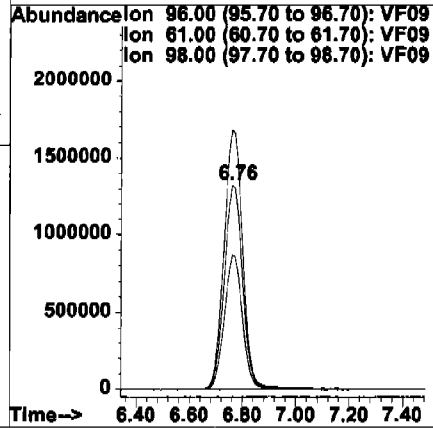
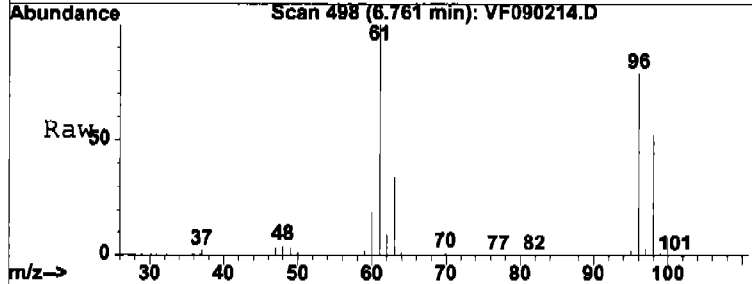




#19  
 cis-1,2-Dichloroethene  
 Concen: 97.80 ug/l  
 RT: 6.76 min Scan# 498  
 Delta R.T. 0.01 min  
 Lab File: VF090214.D  
 Acq: 2 Sep 2004 5:31 pm

Tgt Ion: 96 Resp: 6383424

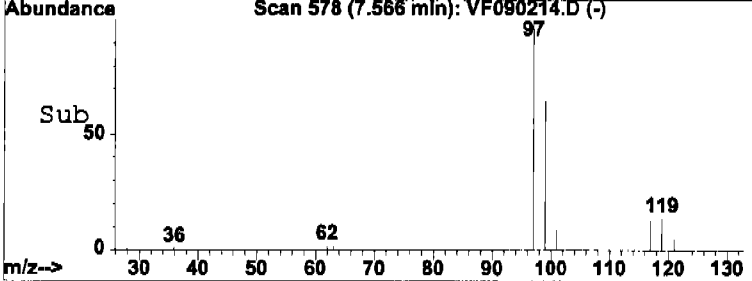
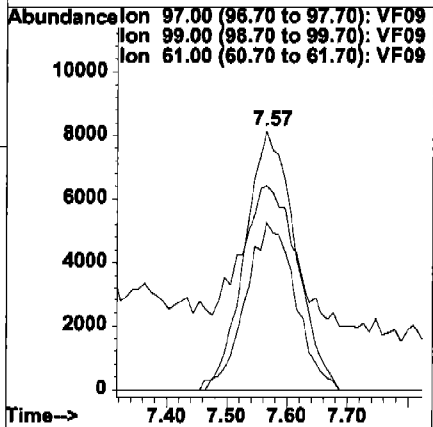
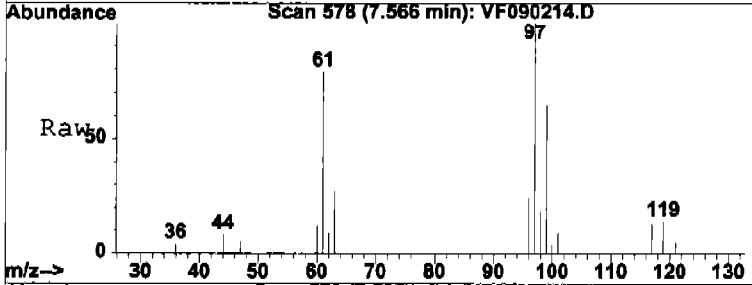
Ion	Ratio	Lower	Upper
96	100		
61	129.4	0.0	403.7
98	64.7	32.9	98.6

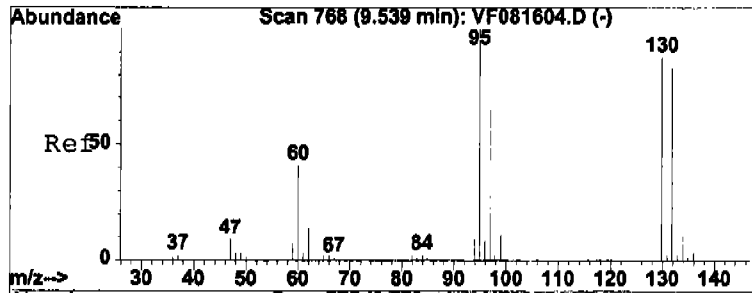


#25  
 1,1,1-Trichloroethane  
 Concen: 0.43 ug/l  
 RT: 7.57 min Scan# 578  
 Delta R.T. 0.01 min  
 Lab File: VF090214.D  
 Acq: 2 Sep 2004 5:31 pm

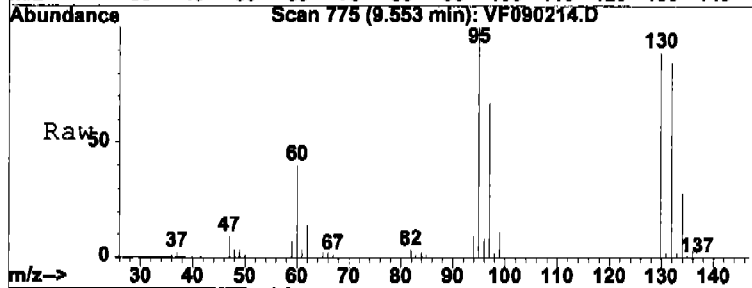
Tgt Ion: 97 Resp: 47818

Ion	Ratio	Lower	Upper
97	100		
99	63.6	32.4	97.1
61	56.7	24.0	71.8

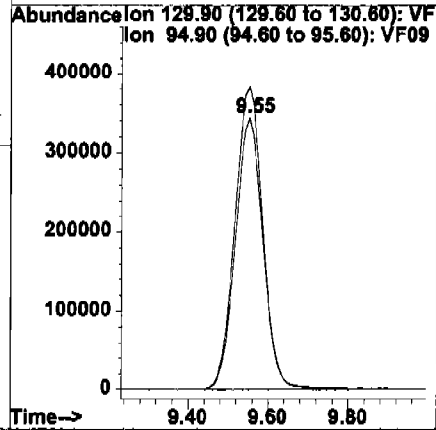
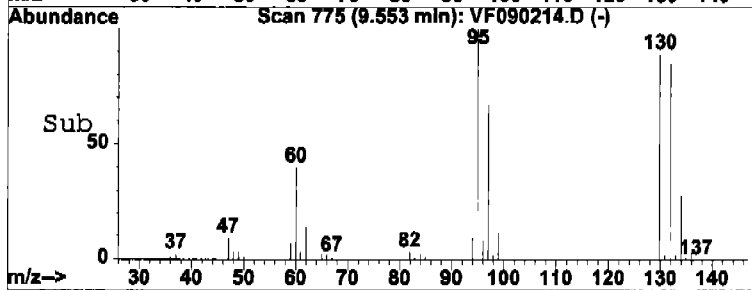




#32  
 Trichloroethene  
 Concen: 22.36 ug/l  
 RT: 9.55 min Scan# 775  
 Delta R.T. 0.01 min  
 Lab File: VF090214.D  
 Acq: 2 Sep 2004 5:31 pm



Tgt Ion: 130 Resp: 1670881  
 Ion Ratio Lower Upper  
 130 100  
 95 111.7 90.9 136.3



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090214.D Vial: 15  
 Acq On : 2 Sep 2004 5:31 pm Operator: SAM  
 Sample : S4414-08 Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	6.761	483	498	514	rBV	5443075	26092573	100.00%	73.379%
2	9.553	761	775	806	rBV	1932048	9465951	36.28%	26.621%

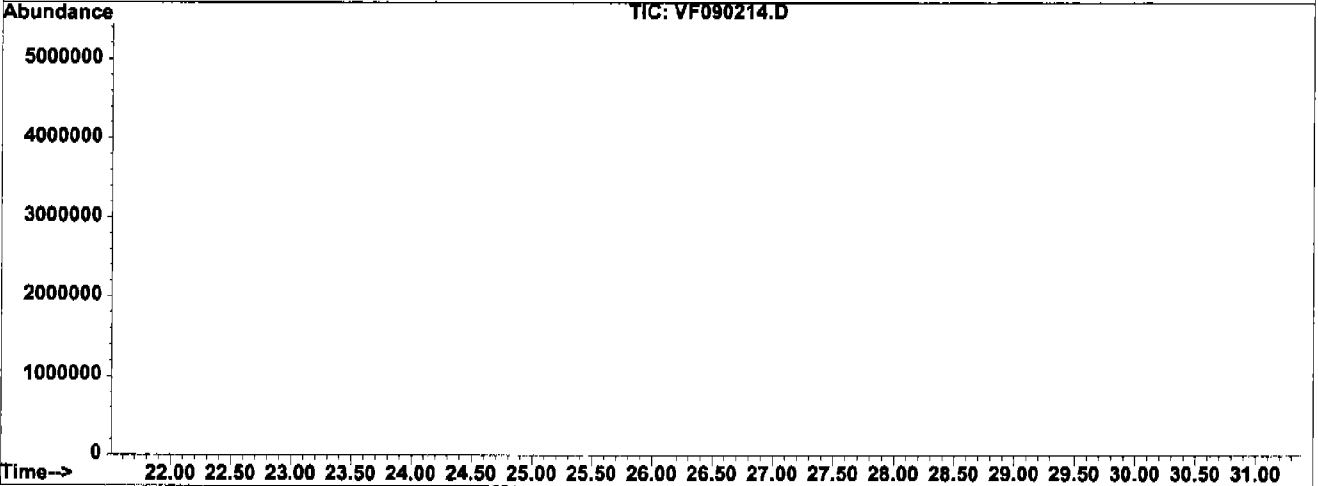
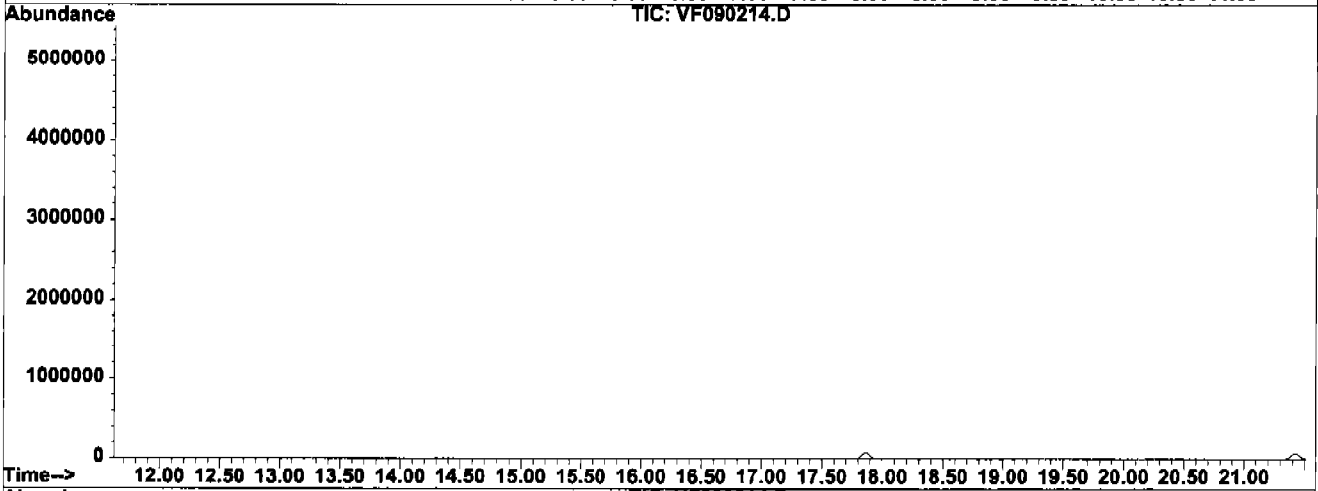
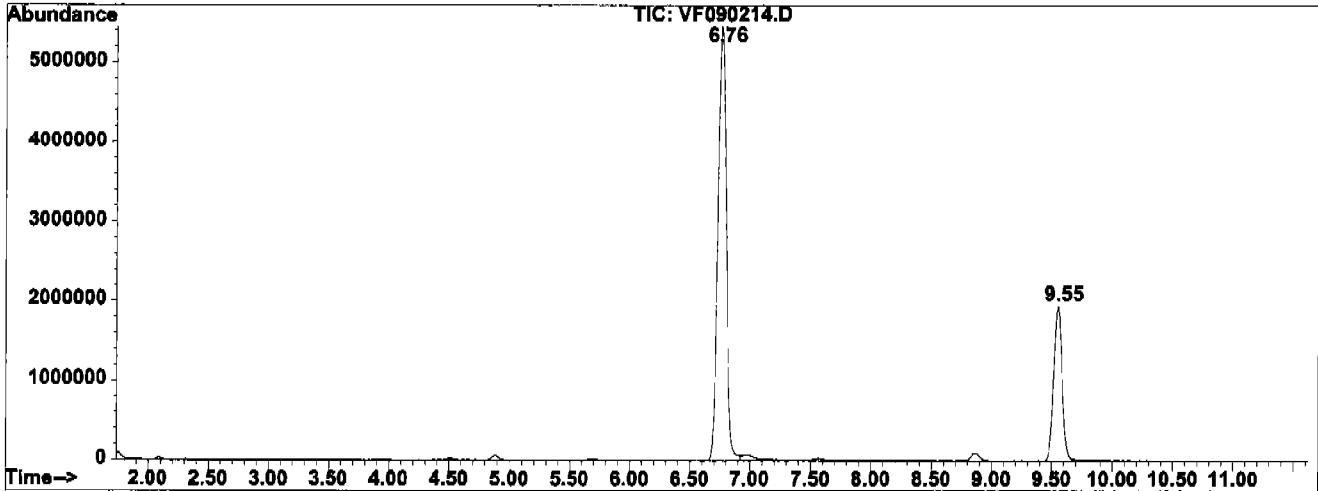
Sum of corrected areas: 35558524

VF090214.D VF0816DW.M Fri Sep 03 11:24:41 2004 RPT1



LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090214.D  
Operator : SAM  
Acquired : 2 Sep 2004 5:31 pm using AcqMethod VF\_VOA  
Instrument : VOA F  
Sample Name: S4414-08  
Misc Info : 5mL  
Vial Number: 15  
Quant File : VF0816DW.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: SAM      Date Acquired: 2 Sep 2004 5:31 pm  
Data File: C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090214.D  
Name: S4414-08  
Misc: 5mL  
Method: C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title: METHOD 524.2 VOLATILES DRINKING WATER  
Library Searched: C:\DATABASE\NBS75K.L

TIC	Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
VF090214.D	VF0816DW.M								

-----

VF090214.D VF0816DW.M      Fri Sep 03 11:24:41 2004      RPT1

Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/27/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/28/2004
Client Sample ID:	TR2159DL	SDG No.:	S4414
Lab Sample ID:	S4414-08DL	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090723.D	25		9/8/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	2.2	UD	25	2.2	ug/L
74-87-3	Chloromethane	2.8	UD	25	2.8	ug/L
75-01-4	Vinyl Chloride	3.6	UD	25	3.6	ug/L
74-83-9	Bromomethane	5.4	UD	25	5.4	ug/L
75-00-3	Chloroethane	4.8	UD	25	4.8	ug/L
75-69-4	Trichlorofluoromethane	2.3	UD	25	2.3	ug/L
75-65-0	tert-Butyl Alcohol	54	UD	250	54	ug/L
60-29-7	Diethyl Ether	5.3	UD	25	5.3	ug/L
75-35-4	1,1-Dichloroethene	4.0	UD	25	4.0	ug/L
74-88-4	Iodomethane	3.6	UD	25	3.6	ug/L
107-5-1	Allyl Chloride	4.6	UD	25	4.6	ug/L
107-13-1	Acrylonitrile	23	UD	50	23	ug/L
67-64-1	Acetone	98	JD	140	38	ug/L
75-15-0	Carbon disulfide	4.5	UD	25	4.5	ug/L
1634-04-4	Methyl tert-butyl Ether	9.3	UD	25	9.3	ug/L
79-20-9	Methyl acrylate	4.3	UD	25	4.3	ug/L
75-09-2	Methylene Chloride	8.8	JD	25	4.5	ug/L
156-60-5	trans-1,2-Dichloroethene	5.4	UD	25	5.4	ug/L
75-34-3	1,1-Dichloroethane	5.2	UD	25	5.2	ug/L
78-93-3	2-Butanone	23	UD	120	23	ug/L
56-23-5	Carbon Tetrachloride	5.6	UD	25	5.6	ug/L
594-20-7	2,2-Dichloropropane	5.1	UD	25	5.1	ug/L
156-59-2	cis-1,2-Dichloroethene	110	D	25	6.0	ug/L
67-66-3	Chloroform	5.4	UD	25	5.4	ug/L
71-55-6	1,1,1-Trichloroethane	6.1	UD	25	6.1	ug/L
110-57-6	t-1,4-Dichloro-2-butene	35	UD	50	35	ug/L
563-43-2	1,1-Dichloropropene	5.2	UD	25	5.2	ug/L
108-20-3	Isopropyl Ether	5.2	UD	25	5.2	ug/L
107-12-0	Propionitrile	82	UD	250	82	ug/L
71-43-2	Benzene	5.9	UD	25	5.9	ug/L
107-06-2	1,2-Dichloroethane	5.2	UD	25	5.2	ug/L
79-01-6	Trichloroethene	25	JD	25	6.0	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/27/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2159DL</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-08DL</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090723.D</b>	<b>25</b>		<b>9/8/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	5.3	UD	25	5.3	ug/L
126-98-7	Methacrylonitrile	8.2	UD	25	8.2	ug/L
109-99-9	Tetrahydrofuran	19	UD	60	19	ug/L
109-69-3	1-Chlorobutane	5.6	UD	25	5.6	ug/L
74-95-3	Dibromomethane	5.9	UD	25	5.9	ug/L
75-27-4	Bromodichloromethane	5.0	UD	25	5.0	ug/L
108-10-1	4-Methyl-2-Pentanone	25	UD	120	25	ug/L
80-62-6	Methyl methacrylate	13	UD	50	13	ug/L
97-63-2	Ethyl methacrylate	6.2	UD	25	6.2	ug/L
108-88-3	Toluene	5.6	UD	25	5.6	ug/L
10061-02-6	t-1,3-Dichloropropene	4.8	UD	25	4.8	ug/L
10061-01-5	cis-1,3-Dichloropropene	4.7	UD	25	4.7	ug/L
79-00-5	1,1,2-Trichloroethane	5.9	UD	25	5.9	ug/L
142-28-9	1,3-Dichloropropane	5.6	UD	25	5.6	ug/L
591-78-6	2-Hexanone	27	UD	120	27	ug/L
124-48-1	Dibromochloromethane	4.3	UD	25	4.3	ug/L
106-93-4	1,2-Dibromoethane	5.0	UD	25	5.0	ug/L
127-18-4	Tetrachloroethene	8.6	UD	25	8.6	ug/L
108-90-7	Chlorobenzene	5.2	UD	25	5.2	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	5.6	UD	25	5.6	ug/L
67-72-1	Hexachloroethane	4.9	UD	25	4.9	ug/L
100-41-4	Ethyl Benzene	5.3	UD	25	5.3	ug/L
136777-61-2	m/p-Xylenes	11	UD	25	11	ug/L
95-47-6	o-Xylene	5.3	UD	25	5.3	ug/L
100-42-5	Styrene	4.7	UD	25	4.7	ug/L
75-25-2	Bromoform	5.6	UD	25	5.6	ug/L
108-86-1	Bromobenzene	5.4	UD	25	5.4	ug/L
98-82-8	Isopropylbenzene	5.1	UD	25	5.1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	5.2	UD	25	5.2	ug/L
96-18-4	1,2,3-Trichloropropane	7.1	UD	25	7.1	ug/L
103-61-5	N-propylbenzene	6.1	UD	25	6.1	ug/L
95-49-8	2-Chlorotoluene	12	UD	25	12	ug/L
108-67-8	1,3,5-Trimethylbenzene	5.6	UD	25	5.6	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/27/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/28/2004
Client Sample ID:	TR2159DL	SDG No.:	S4414
Lab Sample ID:	S4414-08DL	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Woi:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090723.D	25		9/8/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	5.4	UD	25	5.4	ug/L
98-06-6	tert-Butylbenzene	4.6	UD	25	4.6	ug/L
95-63-6	1,2,4-Trimethylbenzene	5.9	UD	25	5.9	ug/L
135-98-8	Sec-butylbenzene	5.1	UD	25	5.1	ug/L
99-87-6	p-Isopropyltoluene	5.5	UD	25	5.5	ug/L
541-73-1	1,3-Dichlorobenzene	5.0	UD	25	5.0	ug/L
106-46-7	1,4-Dichlorobenzene	5.0	UD	25	5.0	ug/L
104-51-8	n-Butylbenzene	5.1	UD	25	5.1	ug/L
95-50-1	1,2-Dichlorobenzene	4.4	UD	25	4.4	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	UD	25	5.0	ug/L
120-82-1	1,2,4-Trichlorobenzene	5.0	UD	25	5.0	ug/L
87-68-3	Hexachlorobutadiene	4.4	UD	25	4.4	ug/L
91-20-3	Naphthalene	4.4	UD	25	4.4	ug/L
87-61-6	1,2,3-Trichlorobenzene	4.5	UD	25	4.5	ug/L

**SURROGATES**

2199-69-1	1,2-Dichlorobenzene-d4	1.03	103 %	80 - 120	SPK: 1
460-00-4	4-Bromofluorobenzene	0.95	95 %	80 - 120	SPK: 1

**INTERNAL STANDARDS**

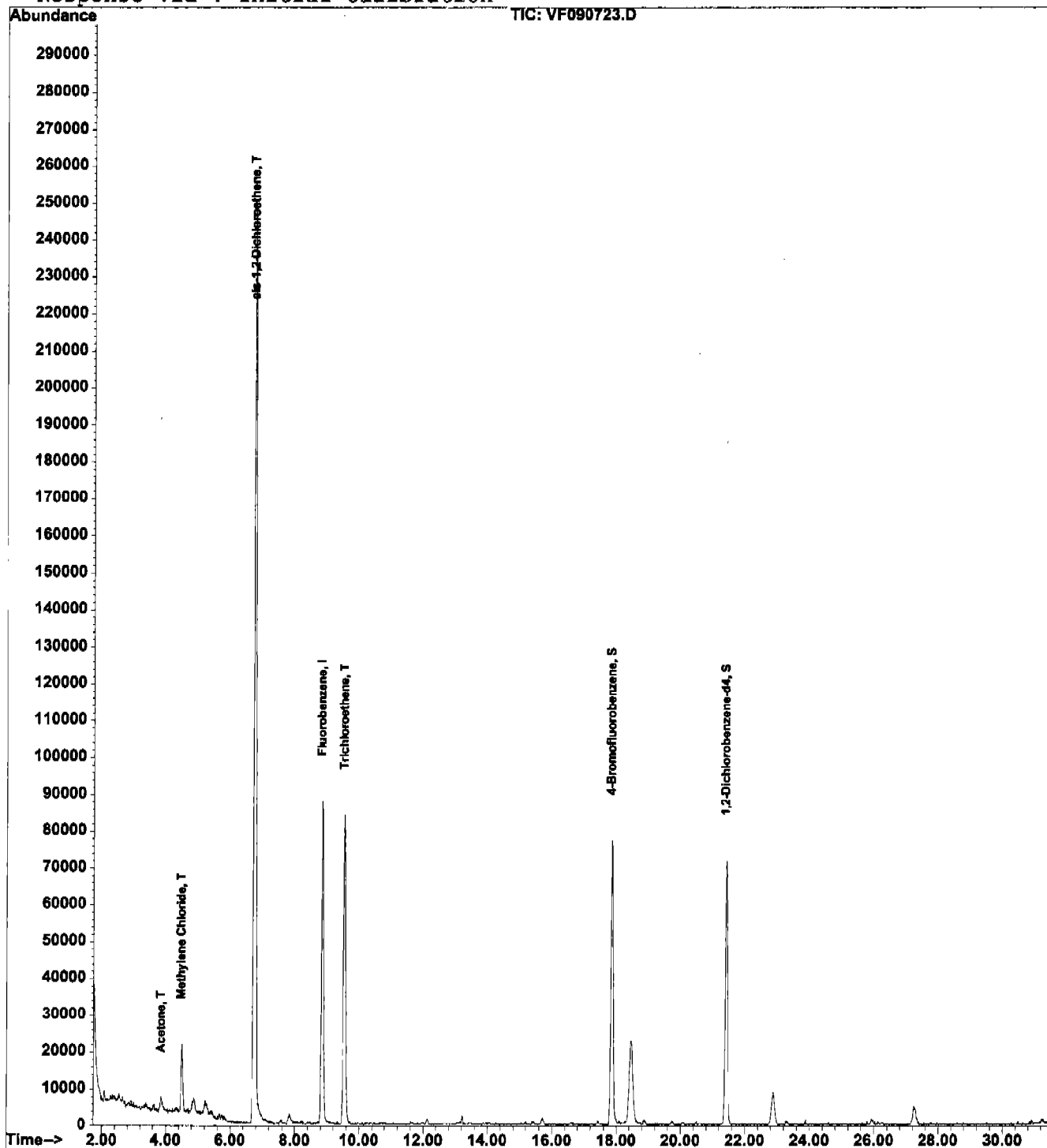
462-06-6	Fluorobenzene	216644	8.85		
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U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090723.D Vial: 14  
Acq On : 8 Sep 2004 2:10 am Operator: SAM  
Sample : S4414-08 25X Inst : VOA F  
Misc : 25mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Sep 9 15:53 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



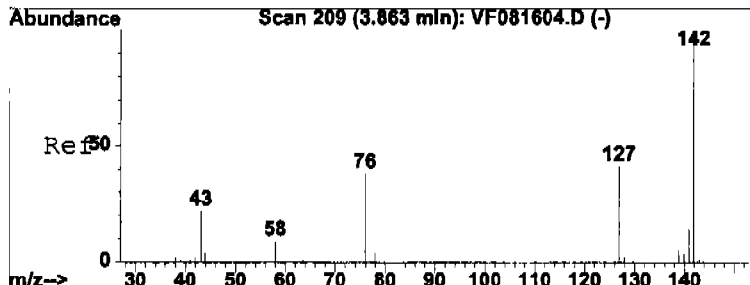
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090723.D Vial: 14  
 Acq On : 8 Sep 2004 2:10 am Operator: SAM  
 Sample : S4414-08 25X Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 9 15:53 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	8.85	96	216644	1.00	ug/l	0.00
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.86	95	96774	0.95	ug/l	0.00
Spiked Amount	1.000		Recovery	=	95.00%	
63) 1,2-Dichlorobenzene-	21.42	152	58068	1.03	ug/l	0.00
Spiked Amount	1.000		Recovery	=	103.00%	
Target Compounds						
12) Acetone	3.88	43	10581	3.93	ug/l #	87
14) Methylene Chloride	4.51	84	18171	0.35	ug/l #	80
19) cis-1,2-Dichloroethe	6.76	96	283077	4.29	ug/l	84
32) Trichloroethene	9.54	130	75618	1.00	ug/l	98

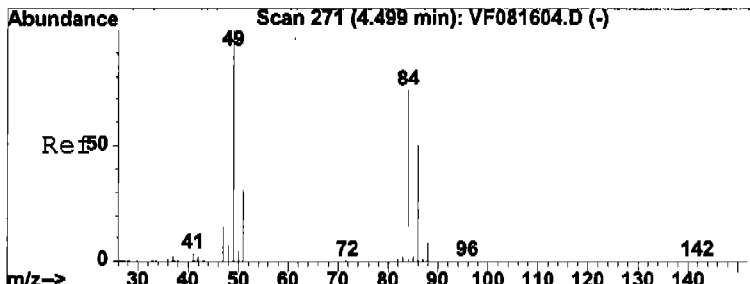
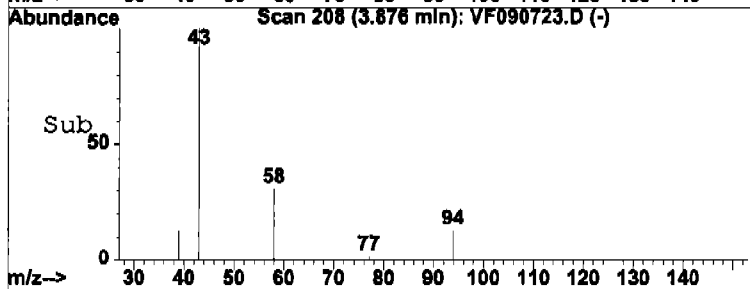
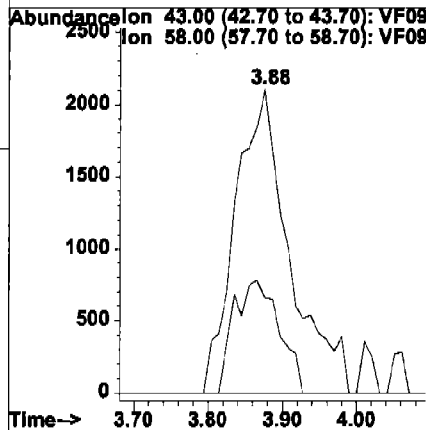
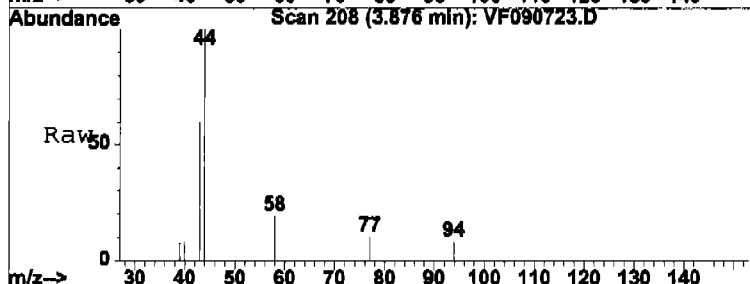
Analyst Signature: Sy Analyst Name: 24 Date: 09/09/04

-----REASONS FOR MANUAL INTEGRATIONS-----  
 \_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound #:  
 \_\_\_ Peak integrated by software incorrectly.Compound #:  
 \_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_



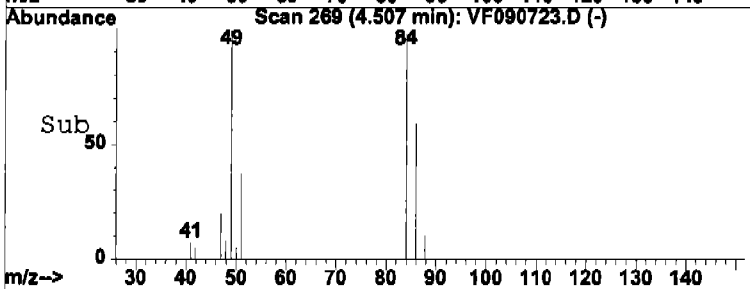
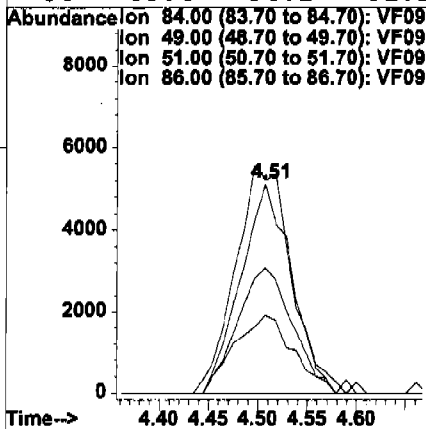
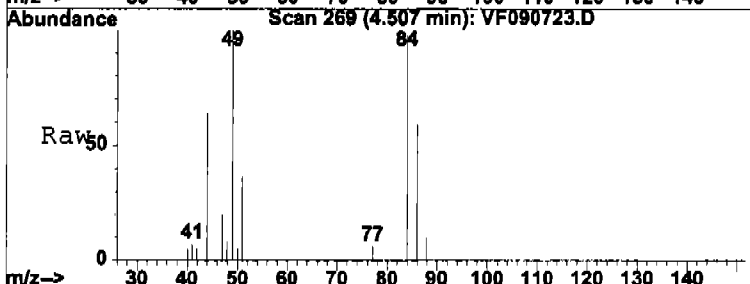
#12  
 Acetone  
 Concen: 3.93 ug/l  
 RT: 3.88 min Scan# 208  
 Delta R.T. 0.03 min  
 Lab File: VF090723.D  
 Acq: 8 Sep 2004 2:10 am

Tgt Ion: 43 Resp: 10581  
 Ion Ratio Lower Upper  
 43 100  
 58 31.4 31.4 47.2#

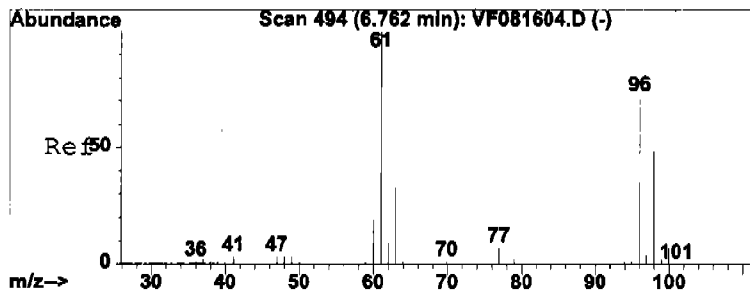


#14  
 Methylene Chloride  
 Concen: 0.35 ug/l  
 RT: 4.51 min Scan# 269  
 Delta R.T. 0.01 min  
 Lab File: VF090723.D  
 Acq: 8 Sep 2004 2:10 am

Tgt Ion: 84 Resp: 18171  
 Ion Ratio Lower Upper  
 84 100  
 49 101.7 108.6 163.0#  
 51 37.5 0.0 84.4  
 86 60.4 54.2 81.2

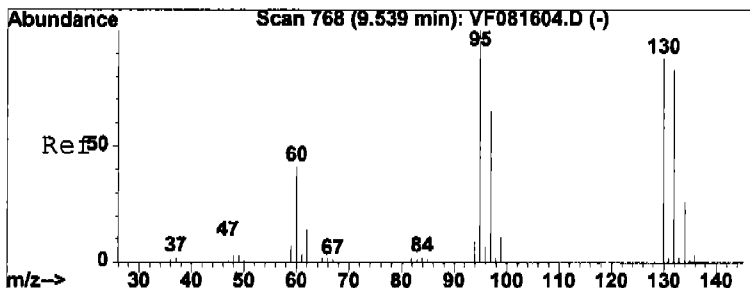
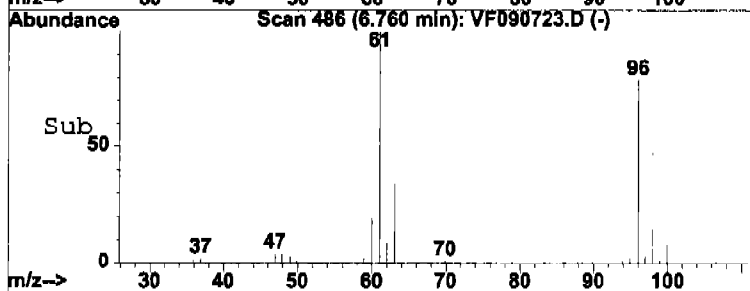
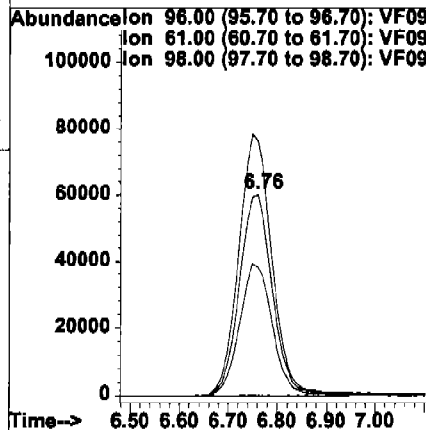
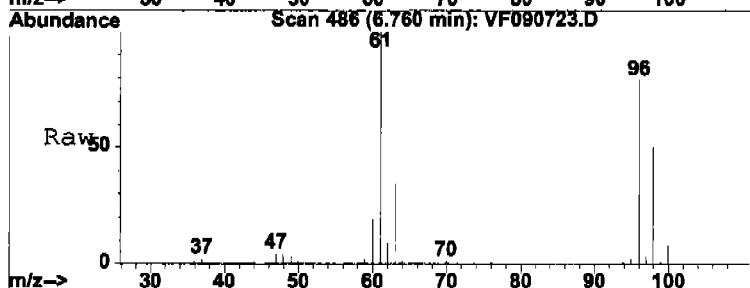






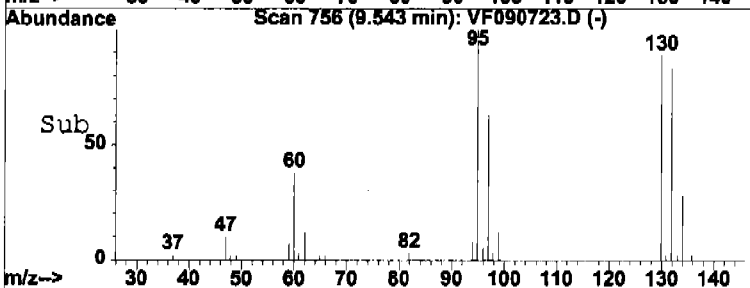
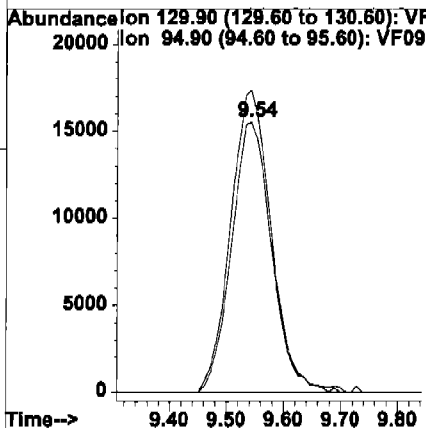
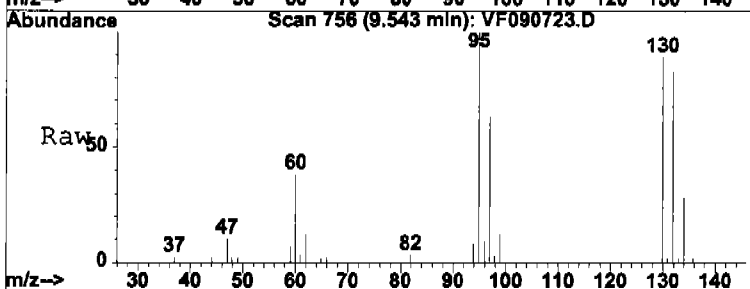
#19  
 cis-1,2-Dichloroethene  
 Concen: 4.29 ug/l  
 RT: 6.76 min Scan# 486  
 Delta R.T. 0.01 min  
 Lab File: VF090723.D  
 Acq: 8 Sep 2004 2:10 am

Tgt Ion	Resp	Lower	Upper
96	283077		
61	131.5	0.0	403.7
98	65.4	32.9	98.6



#32  
 Trichloroethene  
 Concen: 1.00 ug/l  
 RT: 9.54 min Scan# 756  
 Delta R.T. 0.00 min  
 Lab File: VF090723.D  
 Acq: 8 Sep 2004 2:10 am

Tgt Ion	Resp	Lower	Upper
130	75618		
95	111.8	90.9	136.3



**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/27/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monitc</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2160</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-11</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090313.D</b>	<b>1</b>		<b>9/3/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	0.09	U	1.0	0.09	ug/L
74-87-3	Chloromethane	0.11	U	1.0	0.11	ug/L
75-01-4	Vinyl Chloride	0.14	U	1.0	0.14	ug/L
74-83-9	Bromomethane	0.22	U	1.0	0.22	ug/L
75-00-3	Chloroethane	0.19	U	1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	0.09	U	1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	2.2	U	10	2.2	ug/L
60-29-7	Diethyl Ether	0.21	U	1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	0.16	U	1.0	0.16	ug/L
74-88-4	Iodomethane	0.14	U	1.0	0.14	ug/L
107-5-1	Allyl Chloride	0.18	U	1.0	0.18	ug/L
107-13-1	Acrylonitrile	0.94	U	2.0	0.94	ug/L
67-64-1	Acetone	2.8	J	5.8	1.5	ug/L
75-15-0	Carbon disulfide	0.18	U	1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	0.37	U	1.0	0.37	ug/L
79-20-9	Methyl acrylate	0.17	U	1.0	0.17	ug/L
75-09-2	Methylene Chloride	0.4	J	1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	0.8	J	1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	0.4	J	1.0	0.21	ug/L
78-93-3	2-Butanone	0.94	U	5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	0.22	U	1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	0.20	U	1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	94	E	1.0	0.24	ug/L
67-66-3	Chloroform	0.22	U	1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	0.4	J	1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	1.4	U	2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L
108-20-3	Isopropyl Ether	0.21	U	1.0	0.21	ug/L
107-12-0	Propionitrile	3.3	U	10	3.3	ug/L
71-43-2	Benzene	0.24	U	1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	22		1.0	0.24	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/27/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monitc</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2160</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-11</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090313.D</b>	<b>1</b>		<b>9/3/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	0.21	U	1.0	0.21	ug/L
126-98-7	Methacrylonitrile	0.33	U	1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	0.78	U	2.4	0.78	ug/L
109-69-3	1-Chlorobutane	0.22	U	1.0	0.22	ug/L
74-95-3	Dibromomethane	0.24	U	1.0	0.24	ug/L
75-27-4	Bromodichloromethane	0.20	U	1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	1.0	U	5.0	1.0	ug/L
80-62-6	Methyl methacrylate	0.53	U	2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	0.25	U	1.0	0.25	ug/L
108-88-3	Toluene	0.22	U	1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L
591-78-6	2-Hexanone	1.1	U	5.0	1.1	ug/L
124-48-1	Dibromochloromethane	0.17	U	1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L
127-18-4	Tetrachloroethene	0.34	U	1.0	0.34	ug/L
108-90-7	Chlorobenzene	0.21	U	1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L
67-72-1	Hexachloroethane	0.20	U	1.0	0.20	ug/L
100-41-4	Ethyl Benzene	0.21	U	1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	0.43	U	1.0	0.43	ug/L
95-47-6	o-Xylene	0.21	U	1.0	0.21	ug/L
100-42-5	Styrene	0.19	U	1.0	0.19	ug/L
75-25-2	Bromoform	0.22	U	1.0	0.22	ug/L
108-86-1	Bromobenzene	0.21	U	1.0	0.21	ug/L
98-82-8	Isopropylbenzene	0.20	U	1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	0.28	U	1.0	0.28	ug/L
103-61-5	N-propylbenzene	0.24	U	1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	0.50	U	1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.22	U	1.0	0.22	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/27/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2160</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-11</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090313.D</b>	<b>1</b>		<b>9/3/2004</b>	<b>VF081604</b>

<b>CAS Number</b>	<b>Parameter</b>	<b>Conc.</b>	<b>Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
106-43-4	4-Chlorotoluene	0.22	U	1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	0.18	U	1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	0.20	U	1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	0.22	U	1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
104-51-8	n-Butylbenzene	0.20	U	1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.20	U	1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L
91-20-3	Naphthalene	0.17	U	1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.18	U	1.0	0.18	ug/L
<b>SURROGATES</b>						
2199-69-1	1,2-Dichlorobenzene-d4	0.97	97 %	80 - 120		SPK: 1
460-00-4	4-Bromofluorobenzene	0.96	96 %	80 - 120		SPK: 1
<b>INTERNAL STANDARDS</b>						
462-06-6	Fluorobenzene	234388	8.86			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

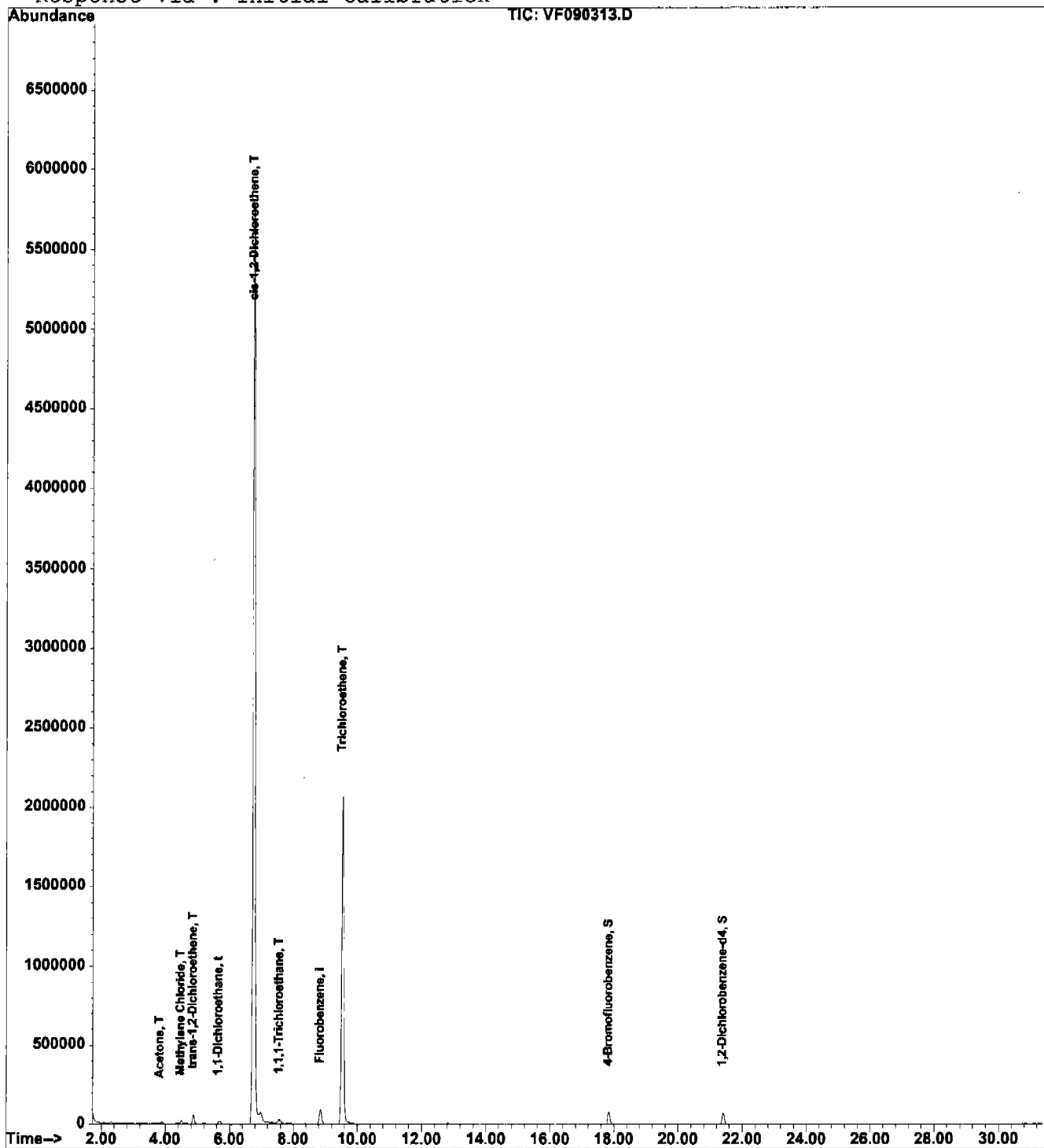
J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090313.D Vial: 14  
Acq On : 3 Sep 2004 5:21 am Operator: SAM  
Sample : S4414-11 Inst : VOA F  
Misc : 25mL Multiplr: 1.00

MS Integration Params: rteint.p  
Quant Time: Sep 7 12:18 2004

Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090313.D Vial: 14  
 Acq On : 3 Sep 2004 5:21 am Operator: SAM  
 Sample : S4414-11 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00

MS Integration Params: rteint.p  
 Quant Time: Sep 7 12:18 2004

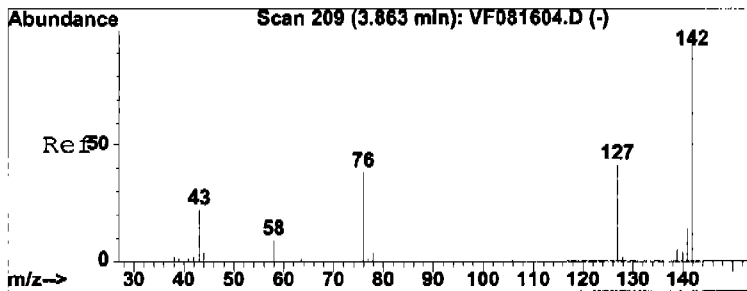
Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.86	96	234388	1.00	ug/l	0.01
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.85	95	105354	0.96	ug/l	0.00
Spiked Amount	1.000		Recovery	=	96.00%	
63) 1,2-Dichlorobenzene-	21.40	152	59389	0.97	ug/l	-0.02
Spiked Amount	1.000		Recovery	=	97.00%	
Target Compounds						
12) Acetone	3.85	43	8255	2.83	ug/l	# 85
14) Methylene Chloride	4.50	84	20125	0.36	ug/l	91
15) trans-1,2-Dichloroet	4.89	96	56325	0.78	ug/l	94
16) 1,1-Dichloroethane	5.67	63	58321	0.45	ug/l	98
19) cis-1,2-Dichloroethe	6.75	96	6679011	93.60	ug/l	84
25) 1,1,1-Trichloroethan	7.57	97	50988	0.42	ug/l	93
32) Trichloroethene	9.54	130	1823773	22.33	ug/l	99

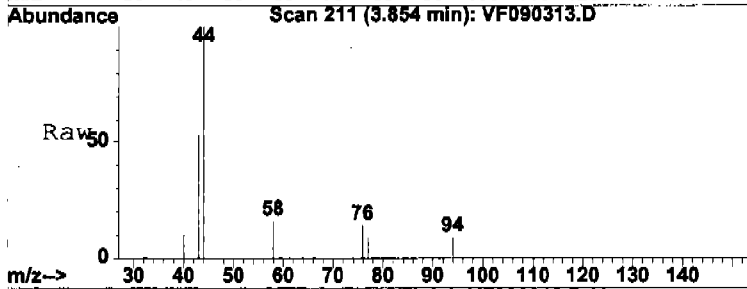
Analyst Signature: Sy Analyst Name: Sy Date: 09/09/04

-----REASONS FOR MANUAL INTEGRATIONS-----  
 \_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

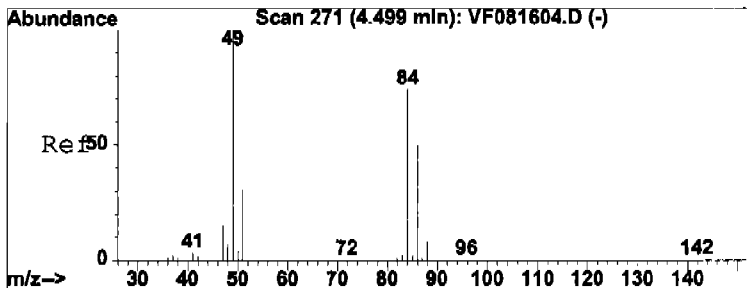
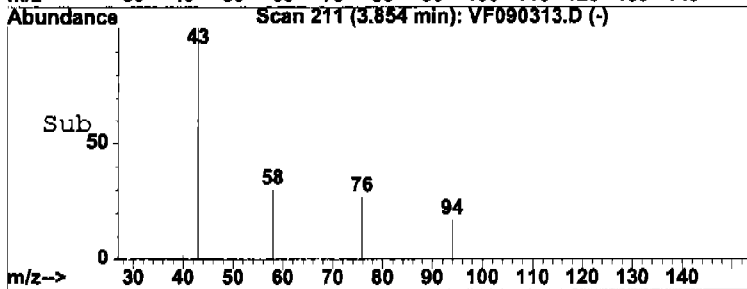
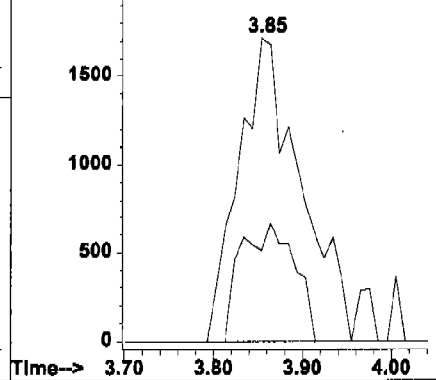


#12  
 Acetone  
 Concen: 2.83 ug/l  
 RT: 3.85 min Scan# 211  
 Delta R.T. 0.00 min  
 Lab File: VF090313.D  
 Acq: 3 Sep 2004 5:21 am

Tgt Ion: 43 Resp: 8255  
 Ion Ratio Lower Upper  
 43 100  
 58 29.8 31.4 47.2#

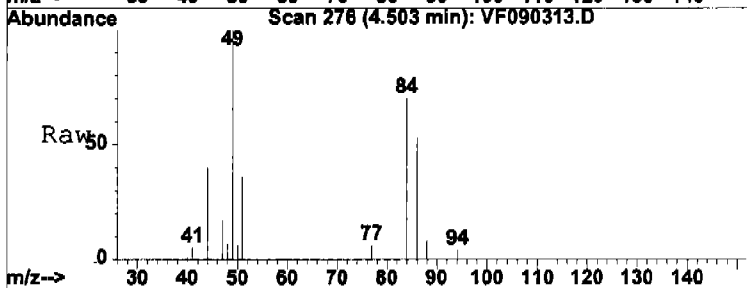


Abundance Ion 43.00 (42.70 to 43.70): VF09  
 2000 Ion 58.00 (57.70 to 58.70): VF09

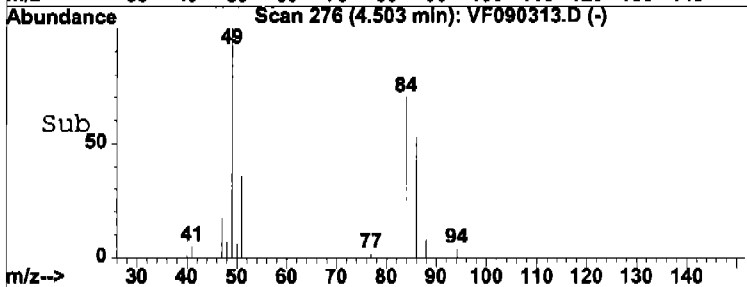
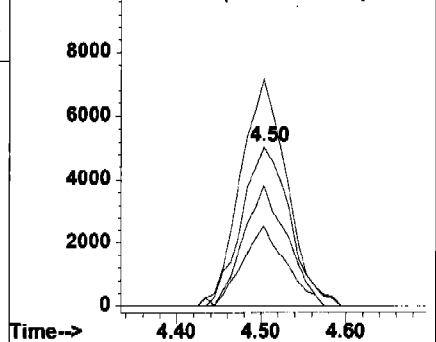


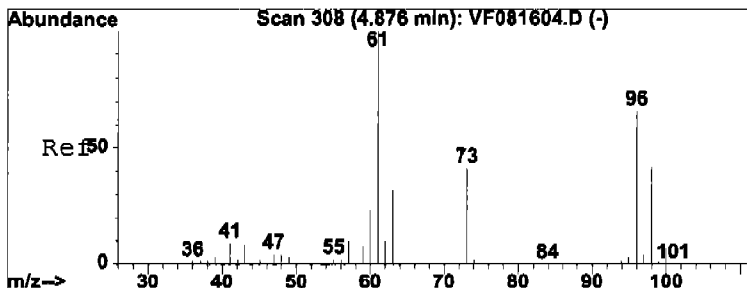
#14  
 Methylene Chloride  
 Concen: 0.36 ug/l  
 RT: 4.50 min Scan# 276  
 Delta R.T. 0.01 min  
 Lab File: VF090313.D  
 Acq: 3 Sep 2004 5:21 am

Tgt Ion: 84 Resp: 20125  
 Ion Ratio Lower Upper  
 84 100  
 49 142.7 108.6 163.0  
 51 50.8 0.0 84.4  
 86 76.4 54.2 81.2



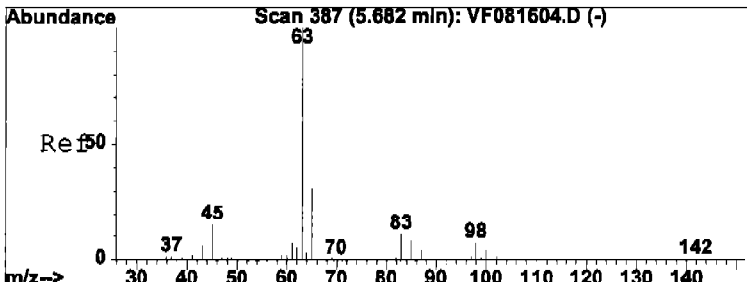
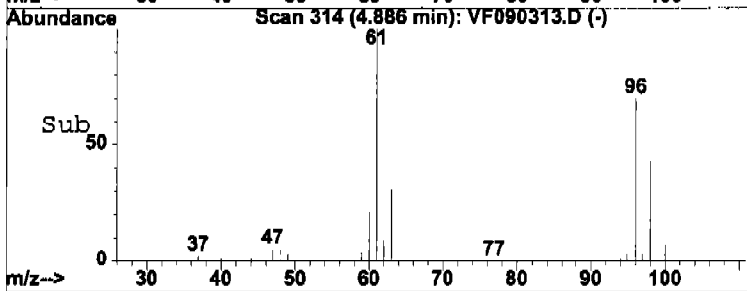
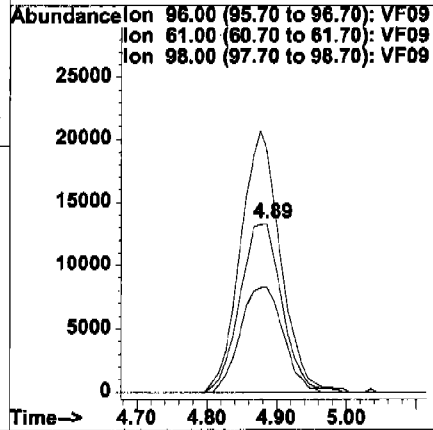
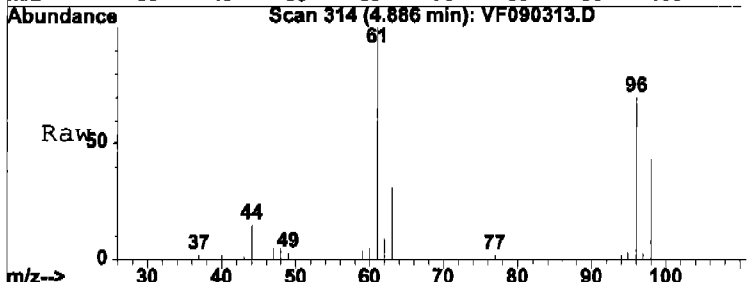
Abundance Ion 84.00 (83.70 to 84.70): VF09  
 Ion 49.00 (48.70 to 49.70): VF09  
 Ion 51.00 (50.70 to 51.70): VF09  
 Ion 86.00 (85.70 to 86.70): VF09





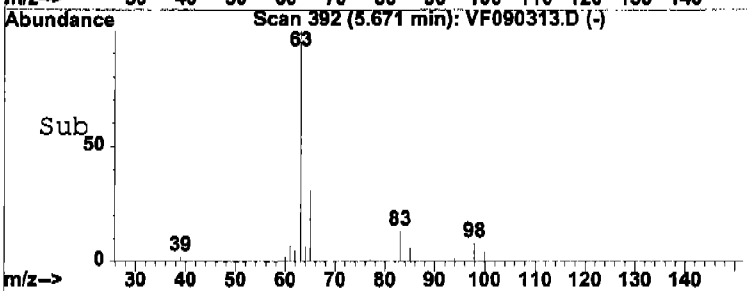
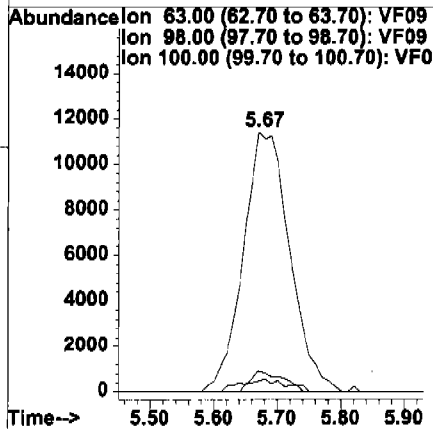
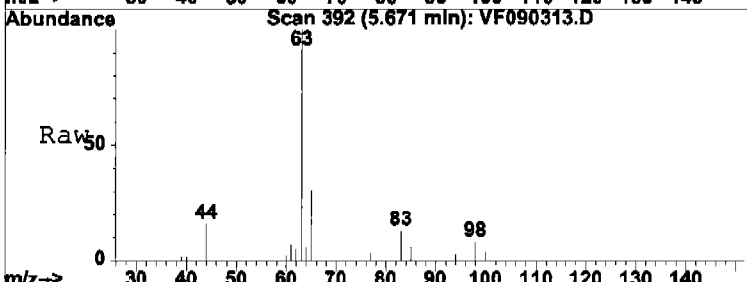
#15  
 trans-1,2-Dichloroethene  
 Concen: 0.78 ug/l  
 RT: 4.89 min Scan# 314  
 Delta R.T. 0.02 min  
 Lab File: VF090313.D  
 Acq: 3 Sep 2004 5:21 am

Tgt Ion	Resp	Lower	Upper
96	56325		
61	143.1	121.8	182.6
98	62.0	51.7	77.5

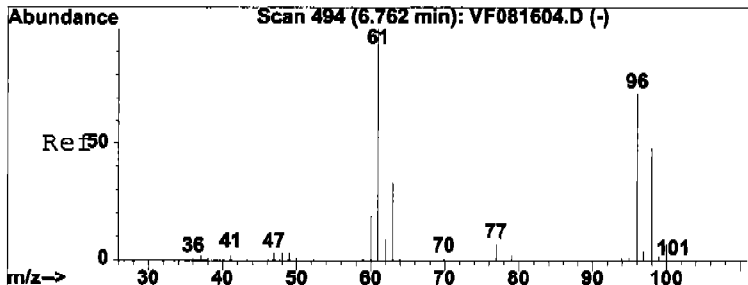


#16  
 1,1-Dichloroethane  
 Concen: 0.45 ug/l  
 RT: 5.67 min Scan# 392  
 Delta R.T. -0.01 min  
 Lab File: VF090313.D  
 Acq: 3 Sep 2004 5:21 am

Tgt Ion	Resp	Lower	Upper
63	58321		
98	8.1	3.6	10.8
100	4.1	2.2	6.6

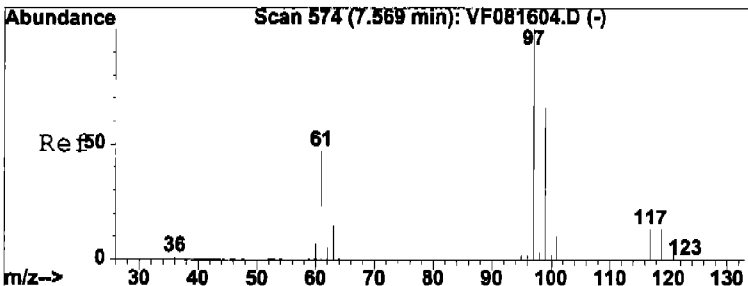
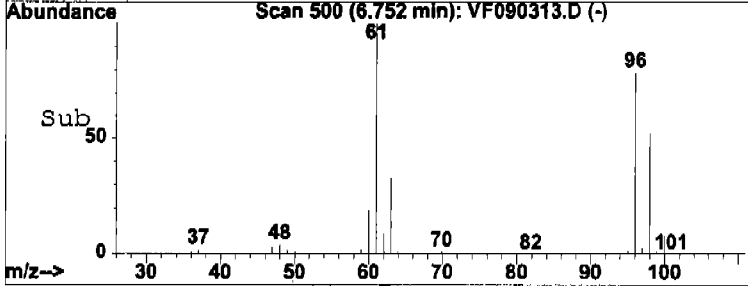
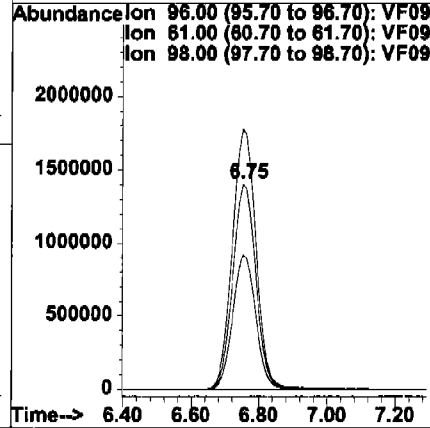
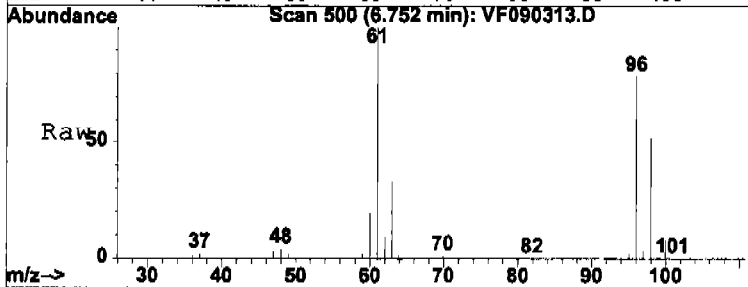






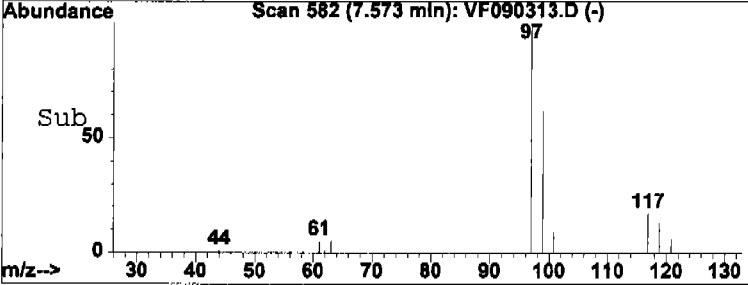
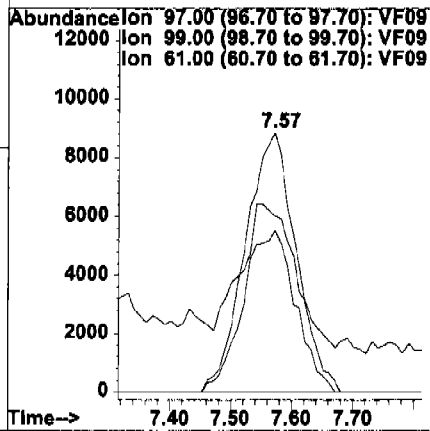
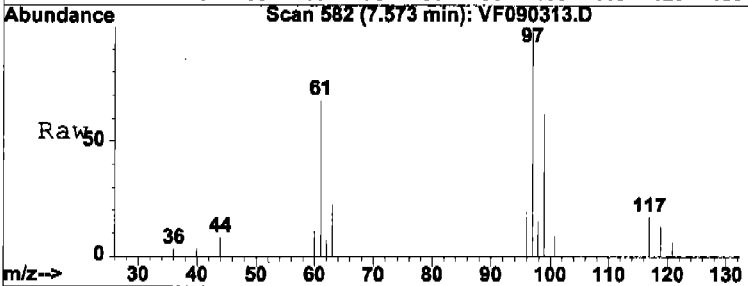
#19  
 cis-1,2-Dichloroethene  
 Concen: 93.60 ug/l  
 RT: 6.75 min Scan# 500  
 Delta R.T. 0.00 min  
 Lab File: VF090313.D  
 Acq: 3 Sep 2004 5:21 am

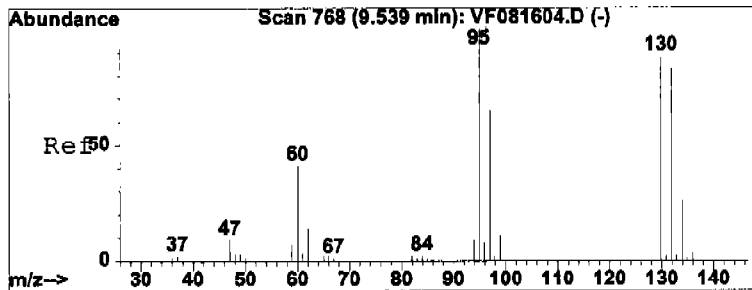
Tgt Ion:	96	61	98
Resp:	6679011	131.1	65.4
Ion Ratio:	100	0.0	32.9
Lower:		403.7	98.6
Upper:			



#25  
 1,1,1-Trichloroethane  
 Concen: 0.42 ug/l  
 RT: 7.57 min Scan# 582  
 Delta R.T. 0.01 min  
 Lab File: VF090313.D  
 Acq: 3 Sep 2004 5:21 am

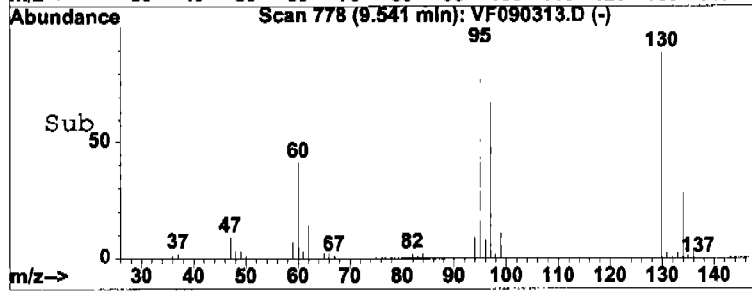
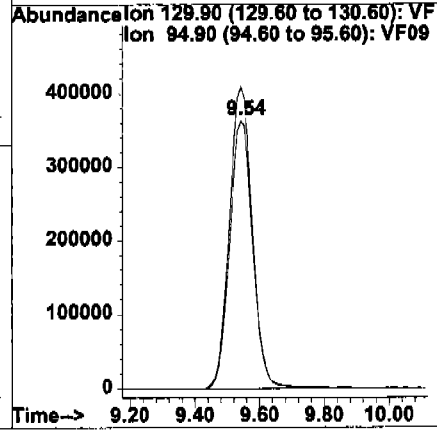
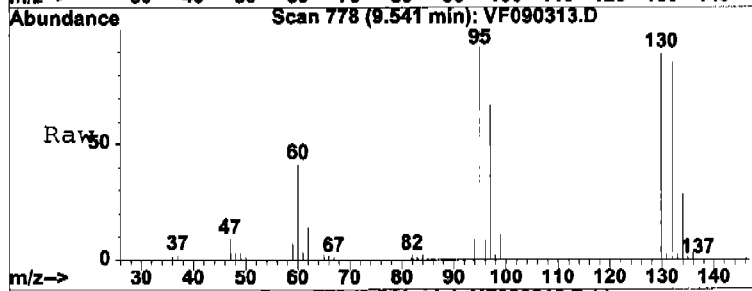
Tgt Ion:	97	99	61
Resp:	50988	64.4	58.9
Ion Ratio:	100	32.4	24.0
Lower:		97.1	71.8
Upper:			





#32  
 Trichloroethene  
 Concen: 22.33 ug/l  
 RT: 9.54 min Scan# 778  
 Delta R.T. 0.00 min  
 Lab File: VF090313.D  
 Acq: 3 Sep 2004 5:21 am

Tgt Ion: 130 Resp: 1823773  
 Ion Ratio Lower Upper  
 130 100  
 95 112.7 90.9 136.3



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090313.D Vial: 14  
Acq On : 3 Sep 2004 5:21 am Operator: SAM  
Sample : S4414-11 Inst : VOA F  
Misc : 25mL Multiplr: 1.00

MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Smoothing : ON Filtering: 5  
Sampling : 1 Min Area: 3 % of largest Peak  
Start Thrs: 0.02 Max Peaks: 100  
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
Peak separation: 5

Signal : TIC

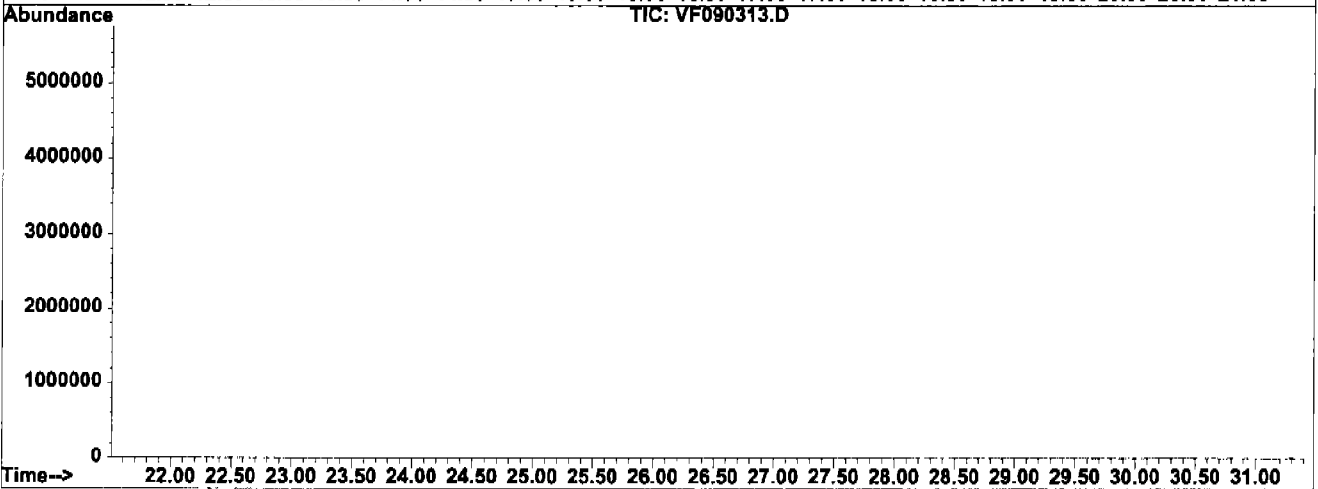
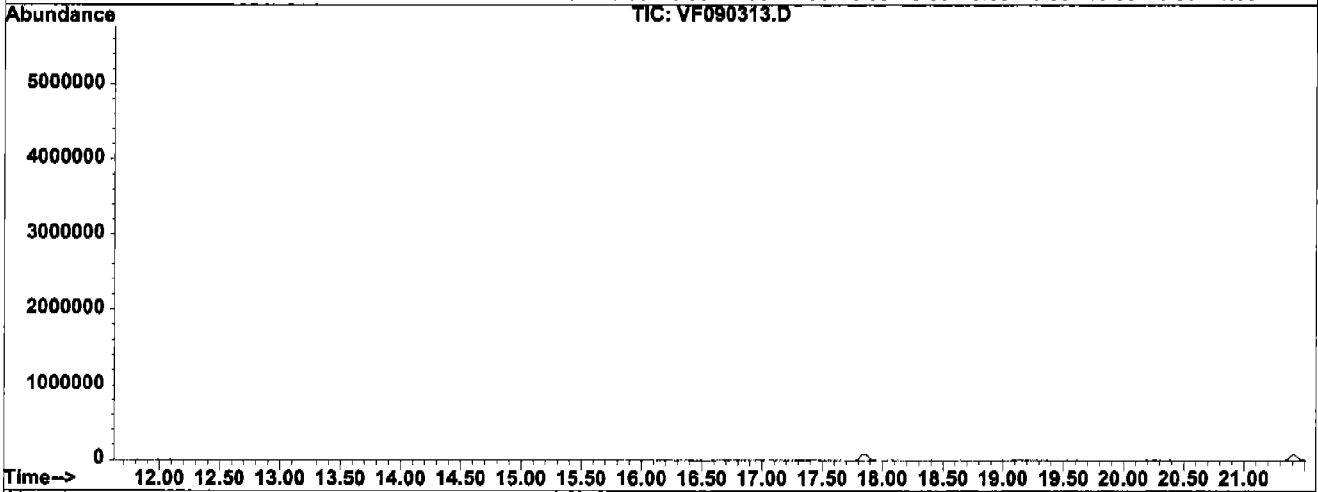
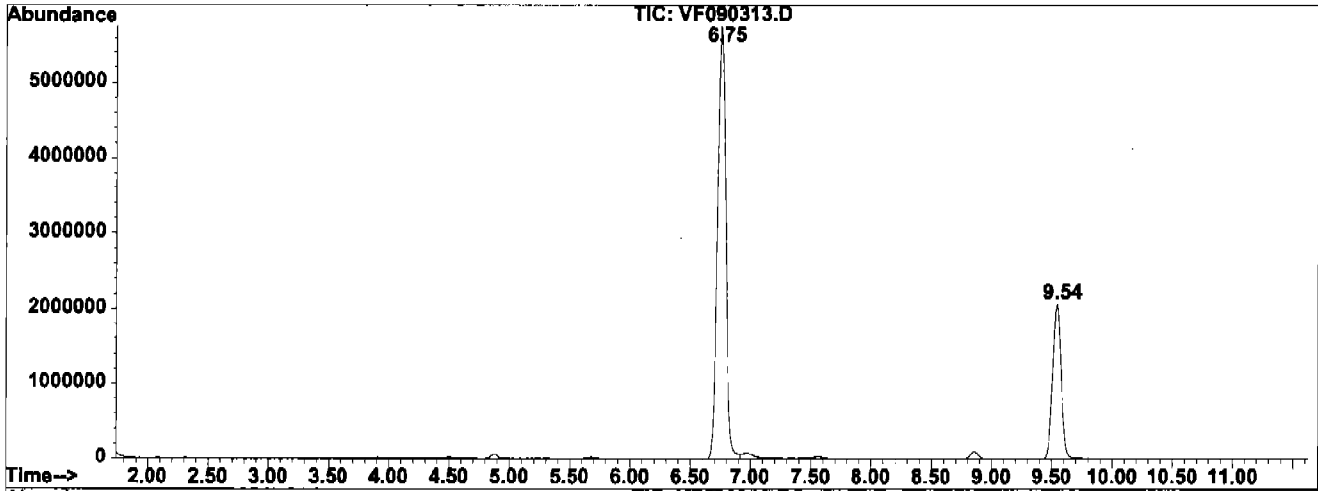
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	6.752	486	500	516	rBV	5761007	27657900	100.00%	72.769%
2	9.541	765	778	817	rBV	2065051	10349665	37.42%	27.231%

Sum of corrected areas: 38007565

VF090313.D VF0816DW.M Thu Sep 09 12:40:37 2004 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090313.D  
Operator : SAM  
Acquired : 3 Sep 2004 5:21 am using AcqMethod VF\_VOA  
Instrument : VOA F  
Sample Name: S4414-11  
Misc Info : 25mL  
Vial Number: 14  
Quant File :VF0816DW.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: SAM      Date Acquired: 3 Sep 2004 5:21 am  
Data File: C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090313.D  
Name: S4414-11  
Misc: 25mL  
Method: C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title: METHOD 524.2 VOLATILES DRINKING WATER  
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
VF090313.D VF0816DW.M						Thu Sep 09 12:40:37 2004		RPT1

Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/27/2004
Project:	Seneca Ash Landfill Quarterly Monitc	Date Received:	8/28/2004
Client Sample ID:	TR2160DL	SDG No.:	S4414
Lab Sample ID:	S4414-11DL	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090409.D	10		9/4/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	0.88	UD	10	0.88	ug/L
74-87-3	Chloromethane	1.1	UD	10	1.1	ug/L
75-01-4	Vinyl Chloride	1.4	UD	10	1.4	ug/L
74-83-9	Bromomethane	2.2	UD	10	2.2	ug/L
75-00-3	Chloroethane	1.9	UD	10	1.9	ug/L
75-69-4	Trichlorofluoromethane	0.93	UD	10	0.93	ug/L
75-65-0	tert-Butyl Alcohol	22	UD	100	22	ug/L
60-29-7	Diethyl Ether	2.1	UD	10	2.1	ug/L
75-35-4	1,1-Dichloroethene	1.6	UD	10	1.6	ug/L
74-88-4	Iodomethane	1.4	UD	10	1.4	ug/L
107-5-1	Allyl Chloride	1.8	UD	10	1.8	ug/L
107-13-1	Acrylonitrile	9.4	UD	20	9.4	ug/L
67-64-1	Acetone	32	JD	58	15	ug/L
75-15-0	Carbon disulfide	1.8	UD	10	1.8	ug/L
1634-04-4	Methyl tert-butyl Ether	3.7	UD	10	3.7	ug/L
79-20-9	Methyl acrylate	1.7	UD	10	1.7	ug/L
75-09-2	Methylene Chloride	2.5	JD	10	1.8	ug/L
156-60-5	trans-1,2-Dichloroethene	2.2	UD	10	2.2	ug/L
75-34-3	1,1-Dichloroethane	2.1	UD	10	2.1	ug/L
78-93-3	2-Butanone	9.4	UD	50	9.4	ug/L
56-23-5	Carbon Tetrachloride	2.2	UD	10	2.2	ug/L
594-20-7	2,2-Dichloropropane	2.0	UD	10	2.0	ug/L
156-59-2	cis-1,2-Dichloroethene	100	D	10	2.4	ug/L
67-66-3	Chloroform	2.2	UD	10	2.2	ug/L
71-55-6	1,1,1-Trichloroethane	2.4	UD	10	2.4	ug/L
110-57-6	t-1,4-Dichloro-2-butene	14	UD	20	14	ug/L
563-43-2	1,1-Dichloropropene	2.1	UD	10	2.1	ug/L
108-20-3	Isopropyl Ether	2.1	UD	10	2.1	ug/L
107-12-0	Propionitrile	33	UD	100	33	ug/L
71-43-2	Benzene	2.4	UD	10	2.4	ug/L
107-06-2	1,2-Dichloroethane	2.1	UD	10	2.1	ug/L
79-01-6	Trichloroethene	23	D	10	2.4	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	Parsons Engineering	<b>Date Collected:</b>	8/27/2004
<b>Project:</b>	Seneca Ash Landfill Quarterly Monit	<b>Date Received:</b>	8/28/2004
<b>Client Sample ID:</b>	TR2160DL	<b>SDG No.:</b>	S4414
<b>Lab Sample ID:</b>	S4414-11DL	<b>Matrix:</b>	WATER
<b>Analytical Method:</b>	524.2	<b>% Moisture:</b>	100
<b>Sample Wt/Wol:</b>	25.0 Units: mL	<b>Soil Extract Vol:</b>	uL
<b>Soil Aliquot Vol:</b>	mL		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
VF090409.D	10		9/4/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	2.1	UD	10	2.1	ug/L
126-98-7	Methacrylonitrile	3.3	UD	10	3.3	ug/L
109-99-9	Tetrahydrofuran	7.8	UD	24	7.8	ug/L
109-69-3	1-Chlorobutane	2.2	UD	10	2.2	ug/L
74-95-3	Dibromomethane	2.4	UD	10	2.4	ug/L
75-27-4	Bromodichloromethane	2.0	UD	10	2.0	ug/L
108-10-1	4-Methyl-2-Pentanone	10	UD	50	10	ug/L
80-62-6	Methyl methacrylate	5.3	UD	20	5.3	ug/L
97-63-2	Ethyl methacrylate	2.5	UD	10	2.5	ug/L
108-88-3	Toluene	2.2	UD	10	2.2	ug/L
10061-02-6	t-1,3-Dichloropropene	1.9	UD	10	1.9	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.9	UD	10	1.9	ug/L
79-00-5	1,1,2-Trichloroethane	2.4	UD	10	2.4	ug/L
142-28-9	1,3-Dichloropropane	2.2	UD	10	2.2	ug/L
591-78-6	2-Hexanone	11	UD	50	11	ug/L
124-48-1	Dibromochloromethane	1.7	UD	10	1.7	ug/L
106-93-4	1,2-Dibromoethane	2.0	UD	10	2.0	ug/L
127-18-4	Tetrachloroethene	3.4	UD	10	3.4	ug/L
108-90-7	Chlorobenzene	2.1	UD	10	2.1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	2.2	UD	10	2.2	ug/L
67-72-1	Hexachloroethane	2.0	UD	10	2.0	ug/L
100-41-4	Ethyl-Benzene	2.1	UD	10	2.1	ug/L
136777-61-2	m/p-Xylenes	4.3	UD	10	4.3	ug/L
95-47-6	o-Xylene	2.1	UD	10	2.1	ug/L
100-42-5	Styrene	1.9	UD	10	1.9	ug/L
75-25-2	Bromoform	2.2	UD	10	2.2	ug/L
108-86-1	Bromobenzene	2.1	UD	10	2.1	ug/L
98-82-8	Isopropylbenzene	2.0	UD	10	2.0	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	2.1	UD	10	2.1	ug/L
96-18-4	1,2,3-Trichloropropane	2.8	UD	10	2.8	ug/L
103-61-5	N-propylbenzene	2.4	UD	10	2.4	ug/L
95-49-8	2-Chlorotoluene	5.0	UD	10	5.0	ug/L
108-67-8	1,3,5-Trimethylbenzene	2.2	UD	10	2.2	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/27/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2160DL</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-11DL</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090409.D</b>	<b>10</b>		<b>9/4/2004</b>	<b>VF081604</b>

<b>CAS Number</b>	<b>Parameter</b>	<b>Conc.</b>	<b>Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
106-43-4	4-Chlorotoluene	2.2	UD	10	2.2	ug/L
98-06-6	tert-Butylbenzene	1.8	UD	10	1.8	ug/L
95-63-6	1,2,4-Trimethylbenzene	2.4	UD	10	2.4	ug/L
135-98-8	Sec-butylbenzene	2.0	UD	10	2.0	ug/L
99-87-6	p-Isopropyltoluene	2.2	UD	10	2.2	ug/L
541-73-1	1,3-Dichlorobenzene	2.0	UD	10	2.0	ug/L
106-46-7	1,4-Dichlorobenzene	2.0	UD	10	2.0	ug/L
104-51-8	n-Butylbenzene	2.0	UD	10	2.0	ug/L
95-50-1	1,2-Dichlorobenzene	1.7	UD	10	1.7	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	UD	10	2.0	ug/L
120-82-1	1,2,4-Trichlorobenzene	2.0	UD	10	2.0	ug/L
87-68-3	Hexachlorobutadiene	1.7	UD	10	1.7	ug/L
91-20-3	Naphthalene	1.7	UD	10	1.7	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.8	UD	10	1.8	ug/L
<b>SURROGATES</b>						
2199-69-1	1,2-Dichlorobenzene-d4	1.02	102 %	80 - 120		SPK: 1
460-00-4	4-Bromofluorobenzene	0.98	98 %	80 - 120		SPK: 1
<b>INTERNAL STANDARDS</b>						
462-06-6	Fluorobenzene	218649	8.86			

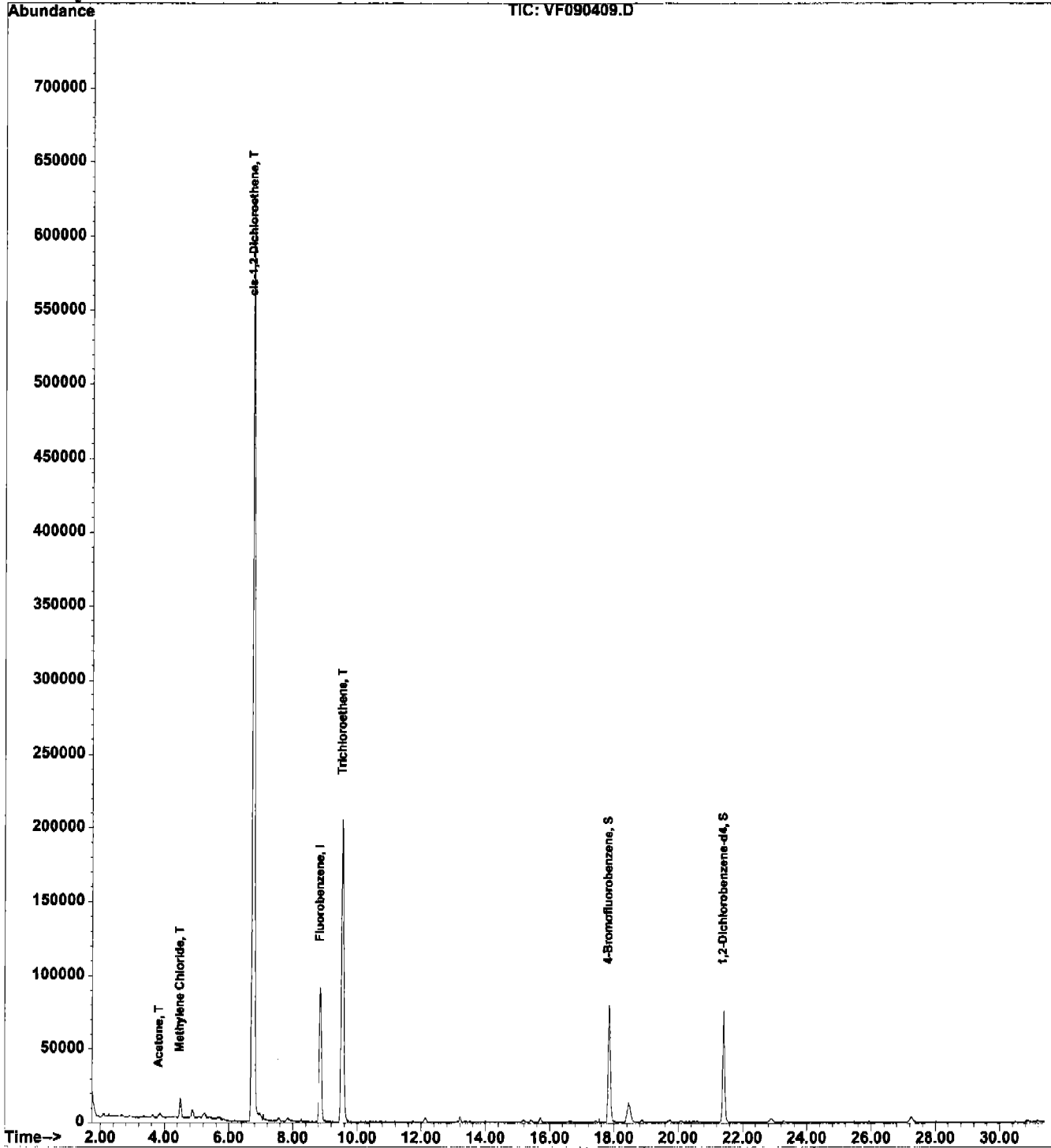
U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090409.D Vial: 10  
Acq On : 4 Sep 2004 2:58 am Operator: SAM  
Sample : S4414-11 10X Inst : VOA F  
Misc : 25mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Sep 7 11:39 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090409.D Vial: 10  
 Acq On : 4 Sep 2004 2:58 am Operator: SAM  
 Sample : S4414-11 10X Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 7 11:39 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

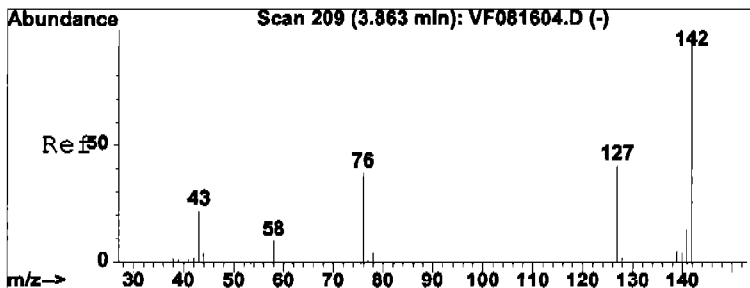
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.86	96	218649	1.00	ug/l	0.00
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.84	95	100355	0.98	ug/l	-0.01
Spiked Amount	1.000		Recovery	=	98.00%	
63) 1,2-Dichlorobenzene-	21.42	152	58474	1.02	ug/l	0.00
Spiked Amount	1.000		Recovery	=	102.00%	
Target Compounds						Qvalue
12) Acetone	3.86	43	8727	3.21	ug/l	90
14) Methylene Chloride	4.51	84	12903	0.25	ug/l	90
19) cis-1,2-Dichloroethe	6.75	96	674309	10.13	ug/l	86
32) Trichloroethene	9.55	130	174056	2.28	ug/l	100

Analyst Signature: Sy Analyst Name: Sy Date: 09/09/04

-----REASONS FOR MANUAL INTEGRATIONS-----

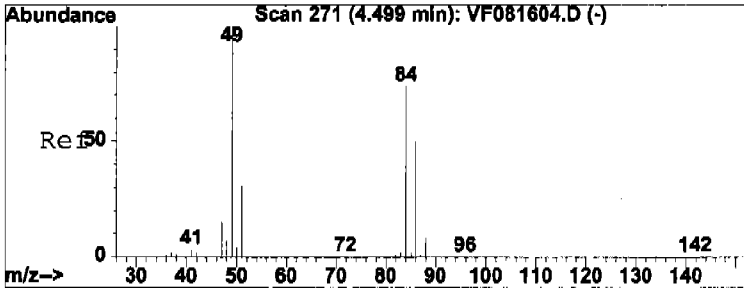
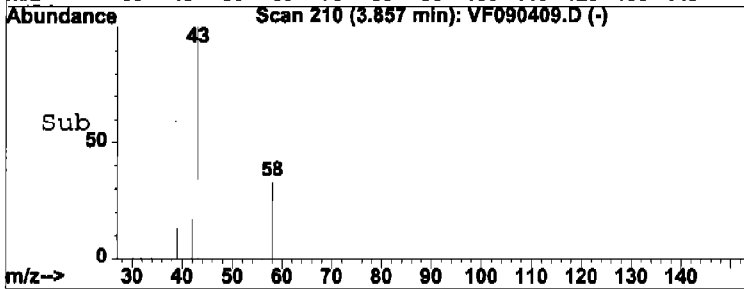
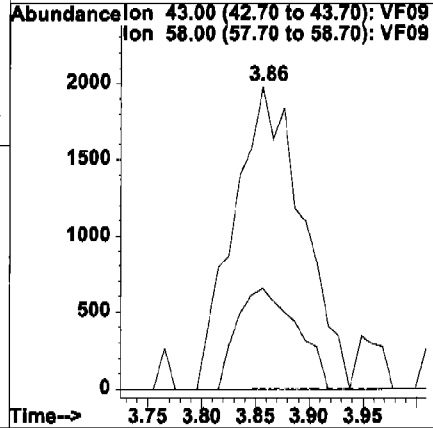
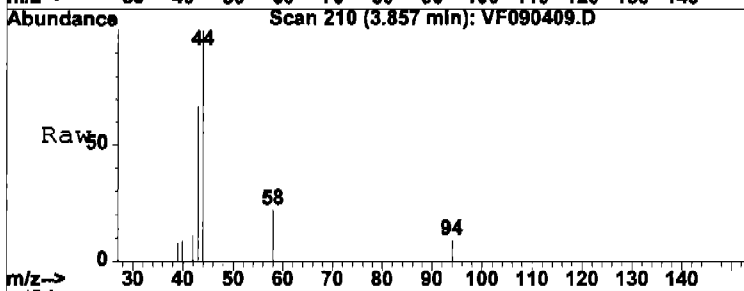
\_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound # : \_\_\_  
 \_\_\_ Peak integrated by software incorrectly.Compound # : \_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound # : \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration



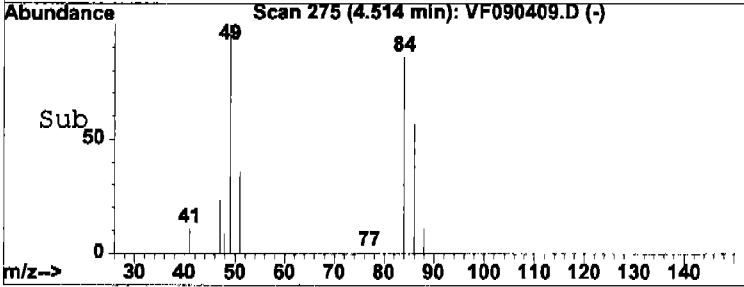
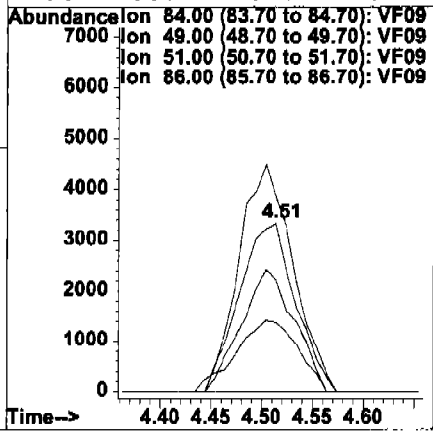
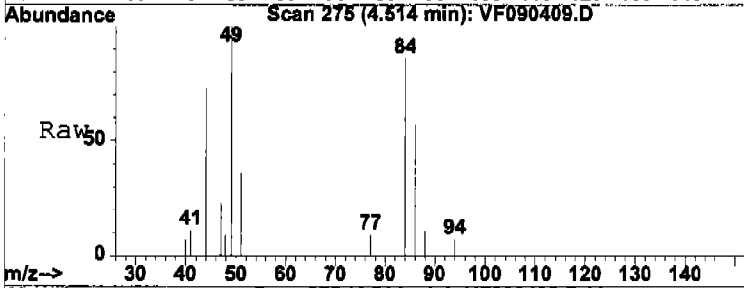
#12  
 Acetone  
 Concen: 3.21 ug/l  
 RT: 3.86 min Scan# 210  
 Delta R.T. 0.01 min  
 Lab File: VF090409.D  
 Acq: 4 Sep 2004 2:58 am

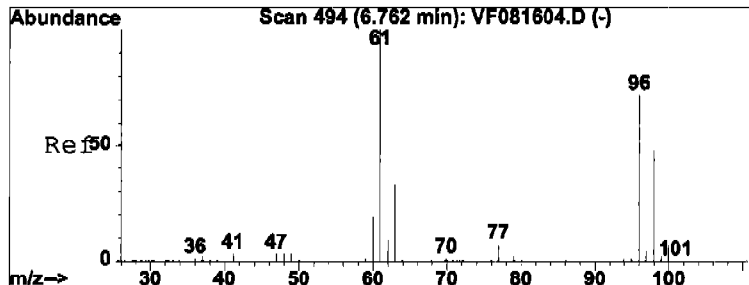
Tgt Ion: 43 Resp: 8727  
 Ion Ratio Lower Upper  
 43 100  
 58 32.9 31.4 47.2



#14  
 Methylene Chloride  
 Concen: 0.25 ug/l  
 RT: 4.51 min Scan# 275  
 Delta R.T. 0.02 min  
 Lab File: VF090409.D  
 Acq: 4 Sep 2004 2:58 am

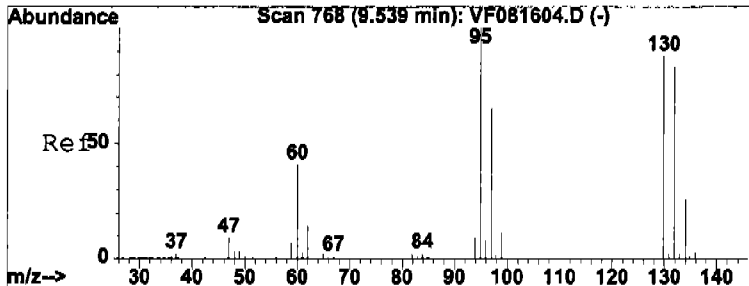
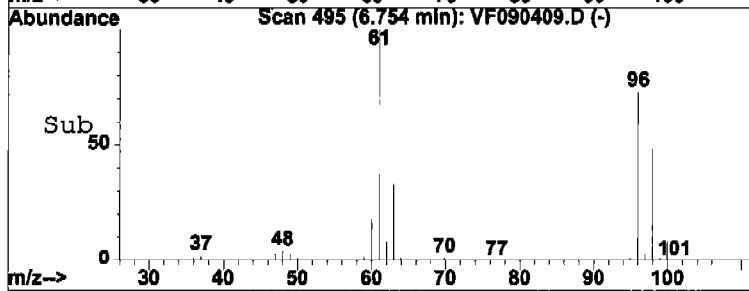
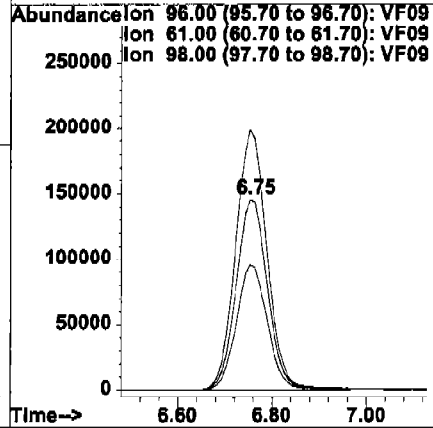
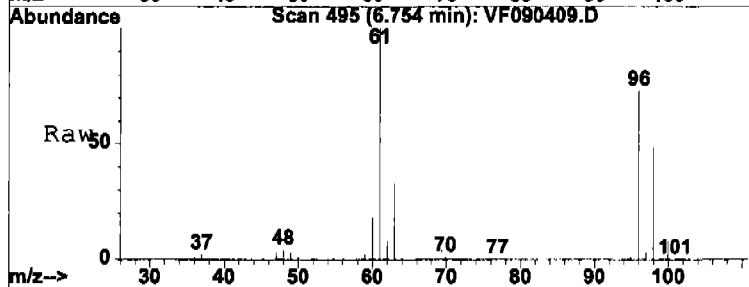
Tgt Ion: 84 Resp: 12903  
 Ion Ratio Lower Upper  
 84 100  
 49 116.2 108.6 163.0  
 51 41.6 0.0 84.4  
 86 66.7 54.2 81.2





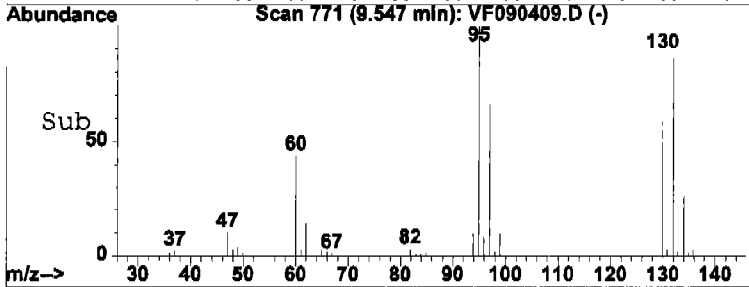
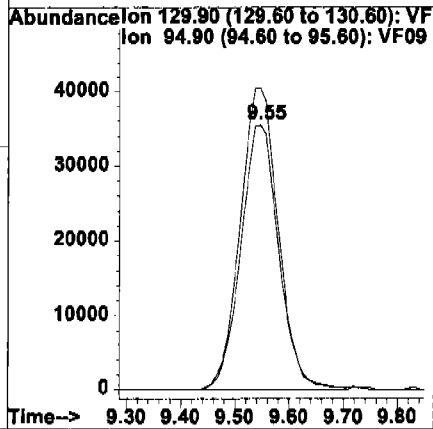
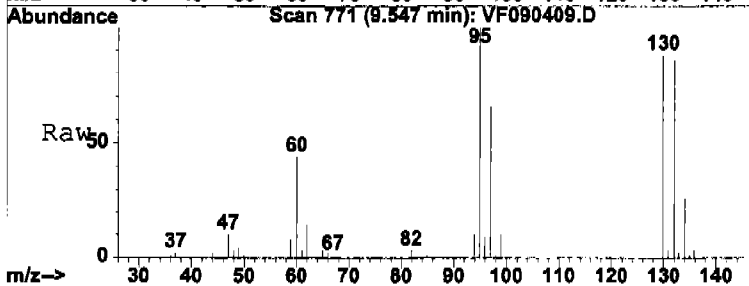
#19  
 cis-1,2-Dichloroethene  
 Concen: 10.13 ug/l  
 RT: 6.75 min Scan# 495  
 Delta R.T. 0.00 min  
 Lab File: VF090409.D  
 Acq: 4 Sep 2004 2:58 am

Tgt Ion	Resp	Lower	Upper
96	100		
61	136.4	0.0	403.7
98	65.2	32.9	98.6



#32  
 Trichloroethene  
 Concen: 2.28 ug/l  
 RT: 9.55 min Scan# 771  
 Delta R.T. 0.01 min  
 Lab File: VF090409.D  
 Acq: 4 Sep 2004 2:58 am

Tgt Ion	Resp	Lower	Upper
130	100		
95	114.0	90.9	136.3



## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/27/2004
Project:	Seneca Ash Landfill Quarterly Monitc	Date Received:	8/28/2004
Client Sample ID:	TR2158	SDG No.:	S4414
Lab Sample ID:	S4414-12	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090407.D	1		9/4/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	0.09	U	1.0	0.09	ug/L
74-87-3	Chloromethane	0.11	U	1.0	0.11	ug/L
75-01-4	Vinyl Chloride	0.14	U	1.0	0.14	ug/L
74-83-9	Bromomethane	0.22	U	1.0	0.22	ug/L
75-00-3	Chloroethane	0.19	U	1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	0.09	U	1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	2.2	U	10	2.2	ug/L
60-29-7	Diethyl Ether	0.21	U	1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	0.16	U	1.0	0.16	ug/L
74-88-4	Iodomethane	0.14	U	1.0	0.14	ug/L
107-5-1	Allyl Chloride	0.18	U	1.0	0.18	ug/L
107-13-1	Acrylonitrile	0.94	U	2.0	0.94	ug/L
67-64-1	Acetone	1.5	U	5.8	1.5	ug/L
75-15-0	Carbon disulfide	0.18	U	1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	0.37	U	1.0	0.37	ug/L
79-20-9	Methyl acrylate	0.17	U	1.0	0.17	ug/L
75-09-2	Methylene Chloride	0.7	J	1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	0.6	J	1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.94	U	5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	0.22	U	1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	0.20	U	1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	16		1.0	0.24	ug/L
67-66-3	Chloroform	0.22	U	1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	1.4	U	2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L
108-20-3	Isopropyl Ether	0.21	U	1.0	0.21	ug/L
107-12-0	Propionitrile	3.3	U	10	3.3	ug/L
71-43-2	Benzene	1.1		1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	0.8	J	1.0	0.24	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

Client:	Parsons Engineering	Date Collected:	8/27/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/28/2004
Client Sample ID:	TR2158	SDG No.:	S4414
Lab Sample ID:	S4414-12	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090407.D	1		9/4/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	0.21	U	1.0	0.21	ug/L
126-98-7	Methacrylonitrile	0.33	U	1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	0.78	U	2.4	0.78	ug/L
109-69-3	1-Chlorobutane	0.22	U	1.0	0.22	ug/L
74-95-3	Dibromomethane	0.24	U	1.0	0.24	ug/L
75-27-4	Bromodichloromethane	0.20	U	1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	1.0	U	5.0	1.0	ug/L
80-62-6	Methyl methacrylate	0.53	U	2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	0.25	U	1.0	0.25	ug/L
108-88-3	Toluene	0.5	J	1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L
591-78-6	2-Hexanone	1.1	U	5.0	1.1	ug/L
124-48-1	Dibromochloromethane	0.17	U	1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L
127-18-4	Tetrachloroethene	0.34	U	1.0	0.34	ug/L
108-90-7	Chlorobenzene	0.21	U	1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L
67-72-1	Hexachloroethane	0.20	U	1.0	0.20	ug/L
100-41-4	Ethyl Benzene	0.21	U	1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	0.43	U	1.0	0.43	ug/L
95-47-6	o-Xylene	0.21	U	1.0	0.21	ug/L
100-42-5	Styrene	0.19	U	1.0	0.19	ug/L
75-25-2	Bromoform	0.22	U	1.0	0.22	ug/L
108-86-1	Bromobenzene	0.21	U	1.0	0.21	ug/L
98-82-8	Isopropylbenzene	0.20	U	1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	0.28	U	1.0	0.28	ug/L
103-61-5	N-propylbenzene	0.24	U	1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	0.50	U	1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzenc	0.22	U	1.0	0.22	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/27/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2158</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-12</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090407.D</b>	<b>1</b>		<b>9/4/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	0.22	U	1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	0.18	U	1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	0.20	U	1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	0.22	U	1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
104-51-8	n-Butylbenzene	0.20	U	1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.20	U	1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L
91-20-3	Naphthalene	0.17	U	1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.18	U	1.0	0.18	ug/L

**SURROGATES**

2199-69-1	1,2-Dichlorobenzene-d4	1.05	105 %	80 - 120	SPK: 1
460-00-4	4-Bromofluorobenzene	0.99	99 %	80 - 120	SPK: 1

**INTERNAL STANDARDS**

462-06-6	Fluorobenzene	226824	8.85		
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**TENTITIVE IDENTIFIED COMPOUNDS**

75285	Isobutane	0.74	J	1.94	ug/L
106989	1-Butene	8.4	J	2.08	ug/L
115117	1-Propene, 2-methyl-	0.80	J	2.19	ug/L
	Unknown	0.91	J	2.29	ug/L
563462	1-Butene, 2-methyl-	1.5	J	2.55	ug/L
78784	Butane, 2-methyl-	1.1	J	2.67	ug/L
109671	1-Pentene	2.5	J	2.93	ug/L
627203	2-Pentene, (Z)-	1.9	J	3.03	ug/L
109682	2-Pentene	0.51	J	3.19	ug/L
930187	Cyclopropane, 1,2-dimethyl-, cis-	0.63	J	3.34	ug/L
142290	Cyclopentene	1.8	J	4.24	ug/L
4461487	2-Pentene, 4-methyl-	0.69	J	4.45	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	Environmental Engineering	<b>Date Collected:</b>	8/27/2004
<b>Project:</b>	Seneca Ash Landfill Quarterly Monito	<b>Date Received:</b>	8/28/2004
<b>Client Sample ID:</b>	TR2158	<b>SDG No.:</b>	S4414
<b>Lab Sample ID:</b>	S4414-12	<b>Matrix:</b>	WATER
<b>Analytical Method:</b>	524.2	<b>% Moisture:</b>	100
<b>Sample Wt/Wol:</b>	25.0 Units: mL	<b>Soil Extract Vol:</b>	uL
<b>Soil Aliquot Vol:</b>	mL		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
VF090407.D	1		9/4/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
592416	1-Hexene	0.74	J	5.11		ug/L
592438	2-Hexene	0.40	J	5.89		ug/L

U = Not Detected  
RL = Reporting Limit  
MDL = Method Detection Limit  
E = Value Exceeds Calibration Range

J = Estimated Value  
B = Analyte Found in Associated Method Blank  
N = Presumptive Evidence of a Compound

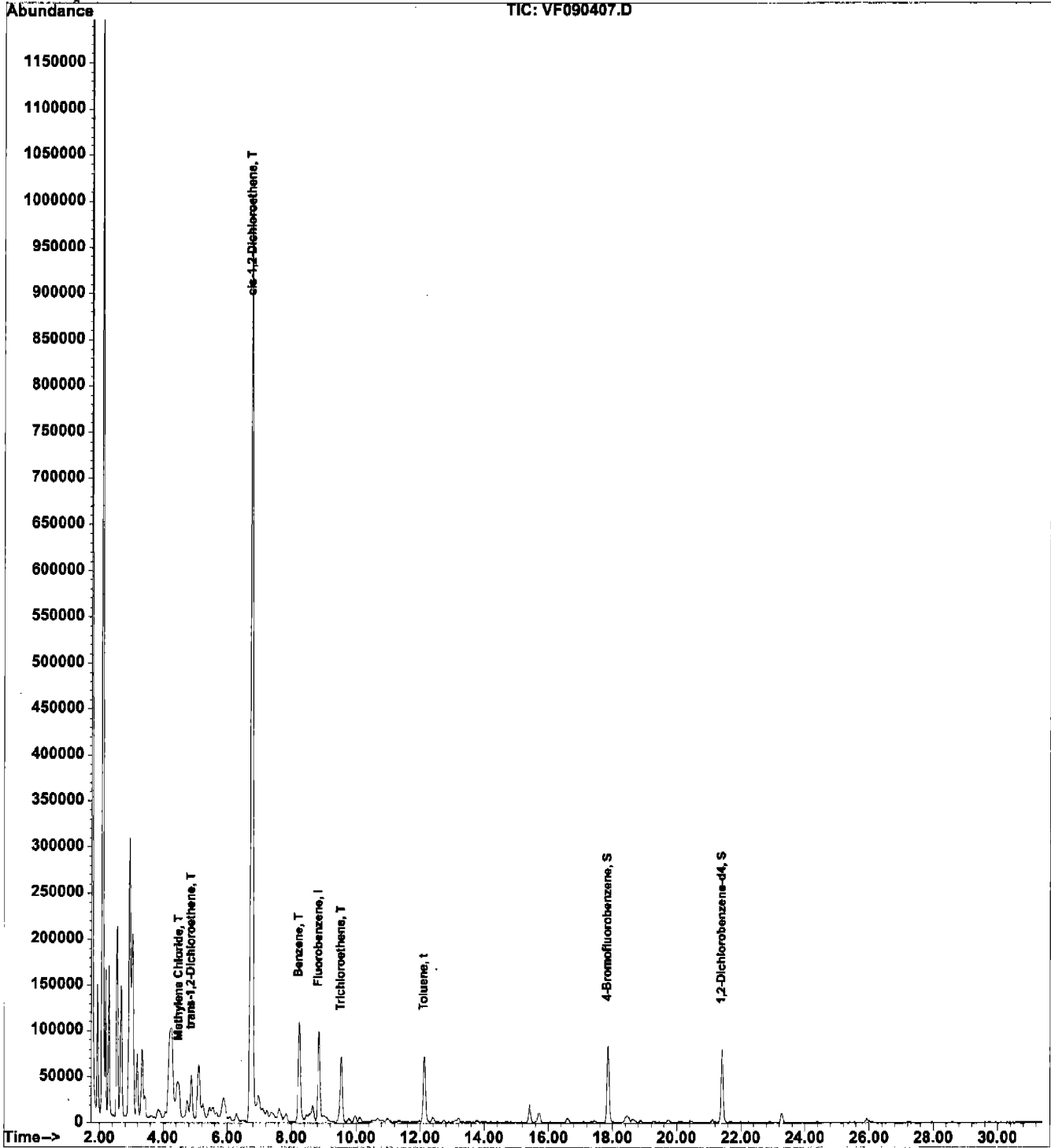


Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090407.D Vial: 8  
Acq On : 4 Sep 2004 1:40 am Operator: SAM  
Sample : S4414-12 Inst : VOA F  
Misc : 25mL Multiplr: 1.00

MS Integration Params: rteint.p  
Quant Time: Sep 7 11:37 2004

Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090407.D Vial: 8  
 Acq On : 4 Sep 2004 1:40 am Operator: SAM  
 Sample : S4414-12 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00

MS Integration Params: rteint.p  
 Quant Time: Sep 7 11:37 2004

Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.85	96	226824	1.00	ug/l	0.00
<b>System Monitoring Compounds</b>						
52) 4-Bromofluorobenzene	17.84	95	105556	0.99	ug/l	-0.01
Spiked Amount	1.000		Recovery	=	99.00%	
63) 1,2-Dichlorobenzene-	21.41	152	61951	1.05	ug/l	-0.01
Spiked Amount	1.000		Recovery	=	105.00%	
<b>Target Compounds</b>						
						Qvalue
14) Methylene Chloride	4.51	84	36252	0.67	ug/l	# 69
15) trans-1,2-Dichloroet	4.88	96	40765	0.58	ug/l	95
19) cis-1,2-Dichloroethe	6.76	96	1104474	15.99	ug/l	86
30) Benzene	8.24	78	256794	1.06	ug/l	99
32) Trichloroethene	9.54	130	62635	0.79	ug/l	98
44) Toluene	12.13	92	85322	0.54	ug/l	98

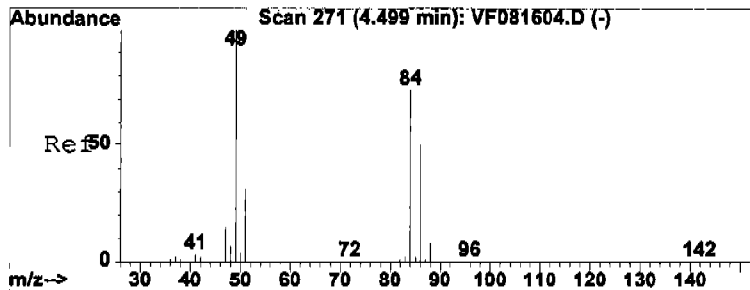
Analyst Signature: Su Analyst Name: Su Date: 09/09/04

REASONS FOR MANUAL INTEGRATIONS

Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

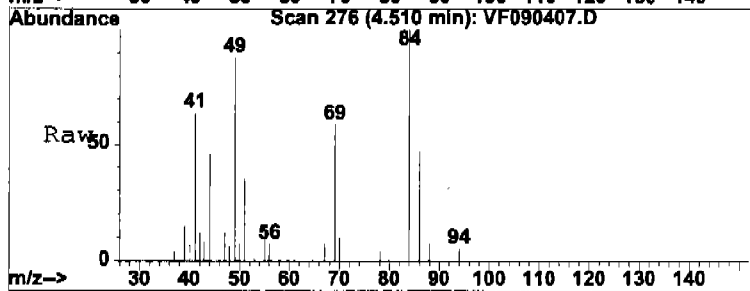
(#) = qualifier out of range (m) = manual integration  
 VF090407.D VF0816DW.M Thu Sep 09 12:53:19 2004

RPT1

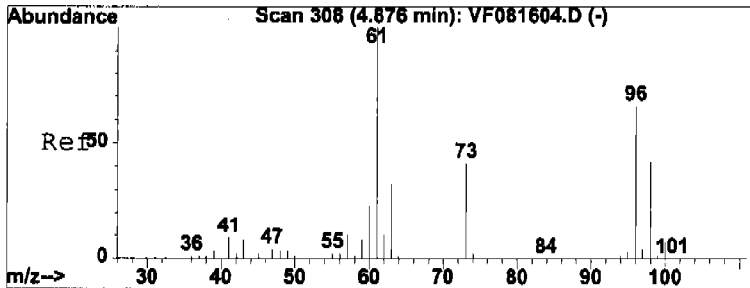
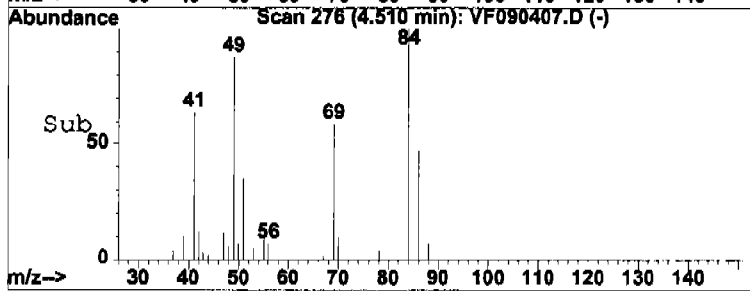
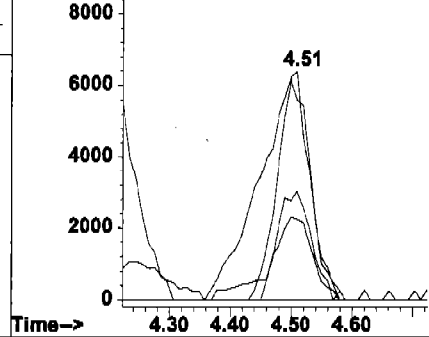


#14  
 Methylene Chloride  
 Concen: 0.67 ug/l  
 RT: 4.51 min Scan# 276  
 Delta R.T. 0.01 min  
 Lab File: VF090407.D  
 Acq: 4 Sep 2004 1:40 am

Tgt Ion:	84	Resp:	36252
Ion Ratio	Lower	Upper	
84	100		
49	87.8	108.6	163.0#
51	35.2	0.0	84.4
86	47.5	54.2	81.2#

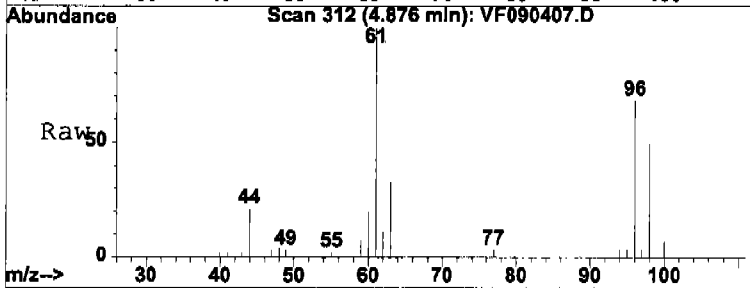


Abundance  
 Ion 84.00 (83.70 to 84.70): VF09  
 Ion 49.00 (48.70 to 49.70): VF09  
 Ion 51.00 (50.70 to 51.70): VF09  
 Ion 86.00 (85.70 to 86.70): VF09

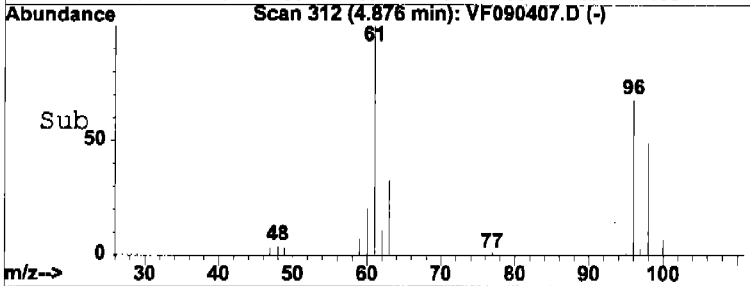
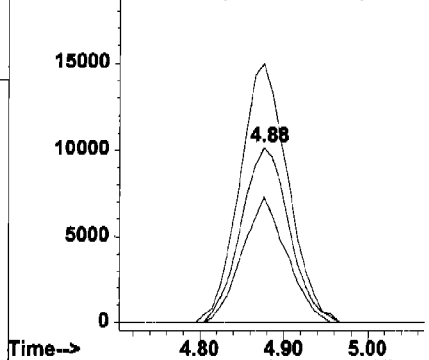


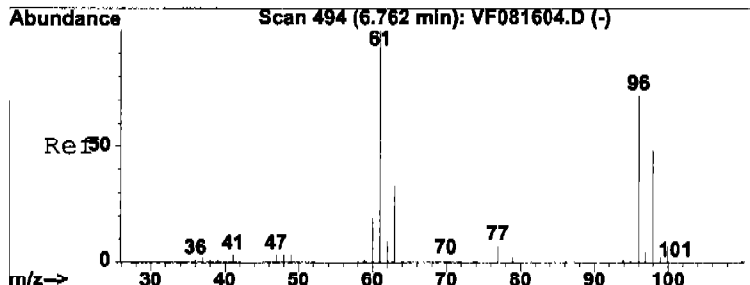
#15  
 trans-1,2-Dichloroethene  
 Concen: 0.58 ug/l  
 RT: 4.88 min Scan# 312  
 Delta R.T. 0.01 min  
 Lab File: VF090407.D  
 Acq: 4 Sep 2004 1:40 am

Tgt Ion:	96	Resp:	40765
Ion Ratio	Lower	Upper	
96	100		
61	147.6	121.8	182.6
98	71.8	51.7	77.5



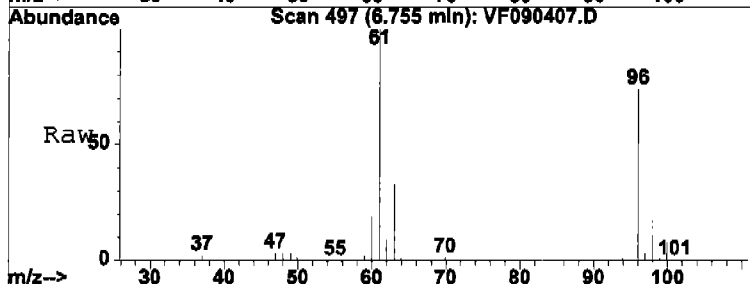
Abundance  
 Ion 96.00 (95.70 to 96.70): VF09  
 Ion 61.00 (60.70 to 61.70): VF09  
 Ion 98.00 (97.70 to 98.70): VF09



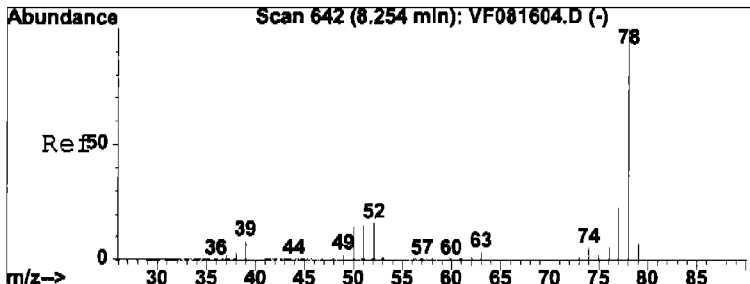
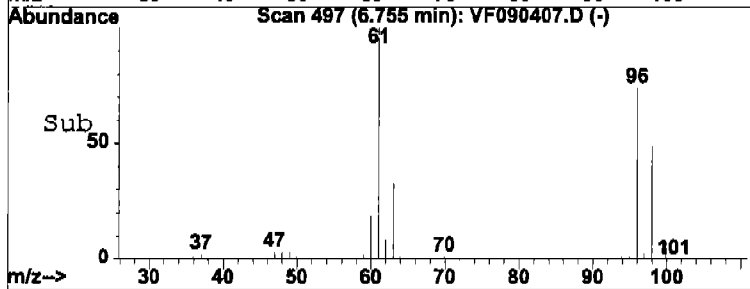
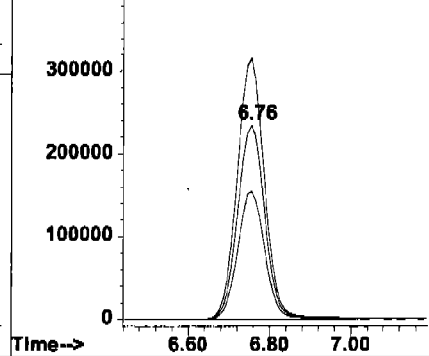


#19  
 cis-1,2-Dichloroethene  
 Concen: 15.99 ug/l  
 RT: 6.76 min Scan# 497  
 Delta R.T. 0.00 min  
 Lab File: VF090407.D  
 Acq: 4 Sep 2004 1:40 am

Tgt Ion	Resp	Lower	Upper
96	1104474		
96	100		
61	135.6	0.0	403.7
98	65.6	32.9	98.6

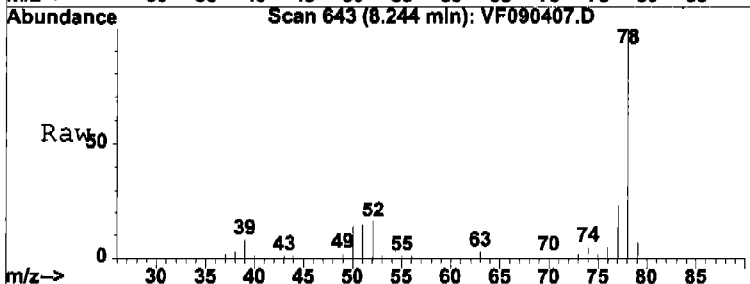


Abundance Ion 96.00 (95.70 to 96.70): VF09  
 Ion 61.00 (60.70 to 61.70): VF09  
 400000 Ion 98.00 (97.70 to 98.70): VF09

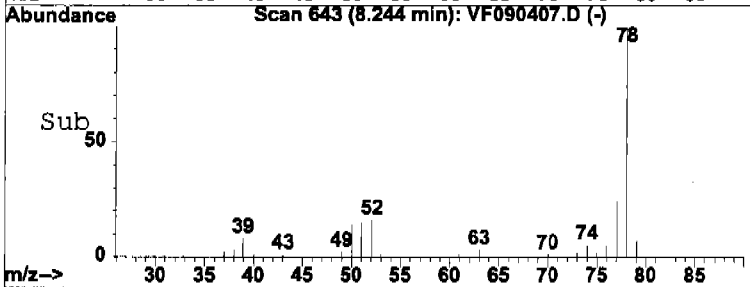
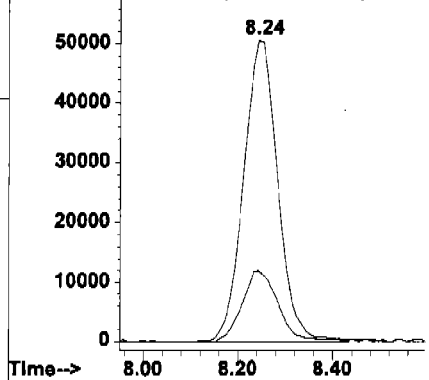


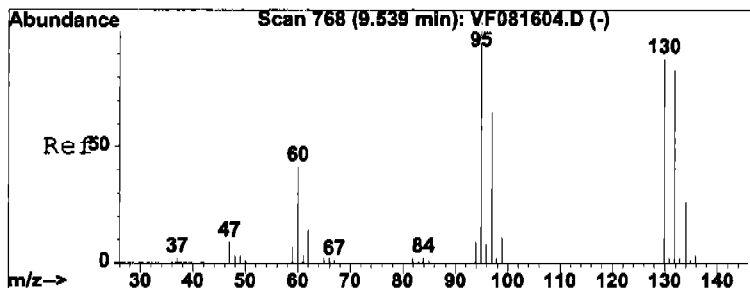
#30  
 Benzene  
 Concen: 1.06 ug/l  
 RT: 8.24 min Scan# 643  
 Delta R.T. 0.00 min  
 Lab File: VF090407.D  
 Acq: 4 Sep 2004 1:40 am

Tgt Ion	Resp	Lower	Upper
78	256794		
78	100		
77	23.7	18.6	27.8



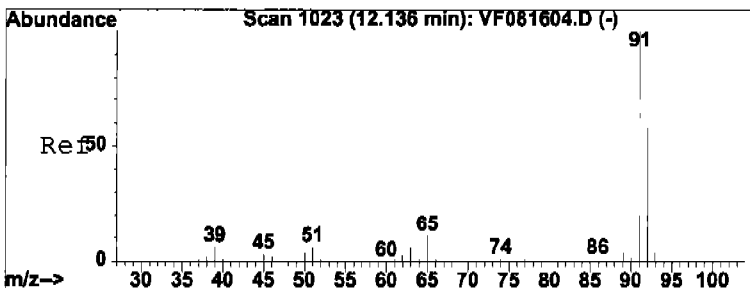
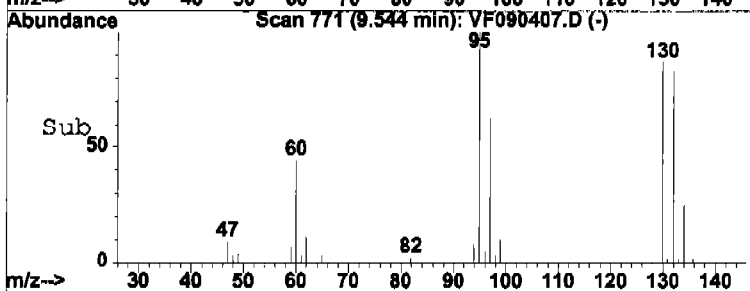
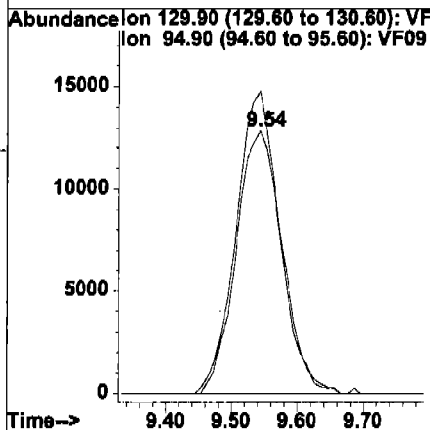
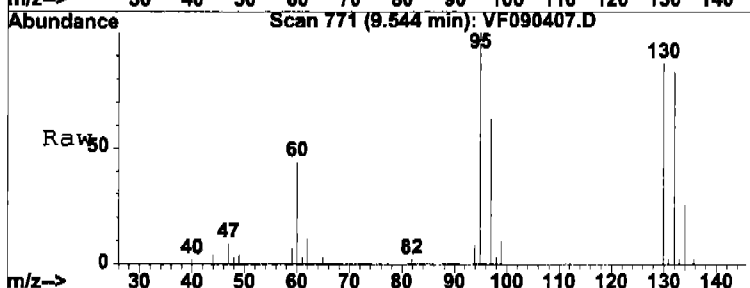
Abundance Ion 78.10 (77.80 to 78.80): VF09  
 Ion 77.00 (76.70 to 77.70): VF09





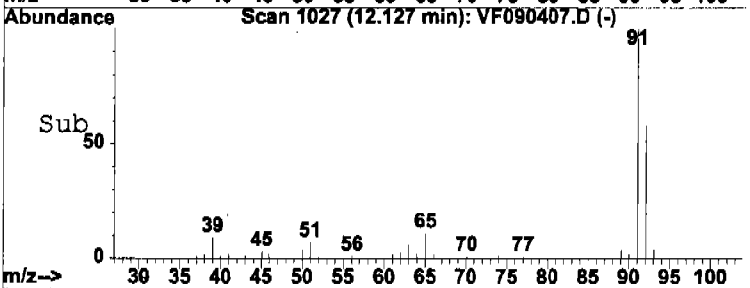
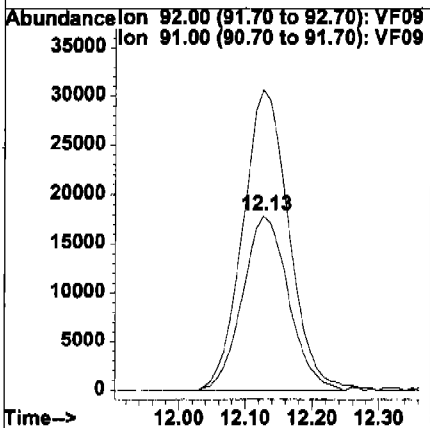
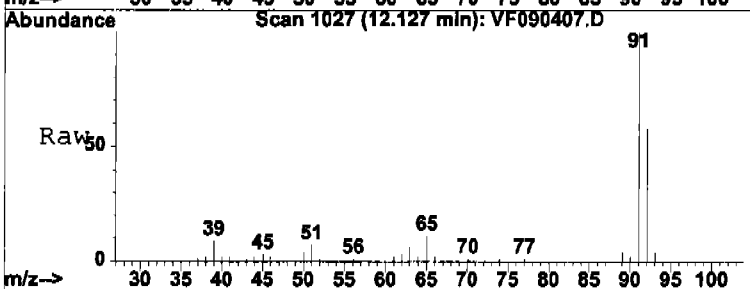
#32  
 Trichloroethene  
 Concen: 0.79 ug/l  
 RT: 9.54 min Scan# 771  
 Delta R.T. 0.00 min  
 Lab File: VF090407.D  
 Acq: 4 Sep 2004 1:40 am

Tgt Ion: 130 Resp: 62635  
 Ion Ratio Lower Upper  
 130 100  
 95 115.3 90.9 136.3



#44  
 Toluene  
 Concen: 0.54 ug/l  
 RT: 12.13 min Scan# 1027  
 Delta R.T. 0.00 min  
 Lab File: VF090407.D  
 Acq: 4 Sep 2004 1:40 am

Tgt Ion: 92 Resp: 85322  
 Ion Ratio Lower Upper  
 92 100  
 91 173.4 136.2 204.4



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090407.D Vial: 8  
 Acq On : 4 Sep 2004 1:40 am Operator: SAM  
 Sample : S4414-12 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

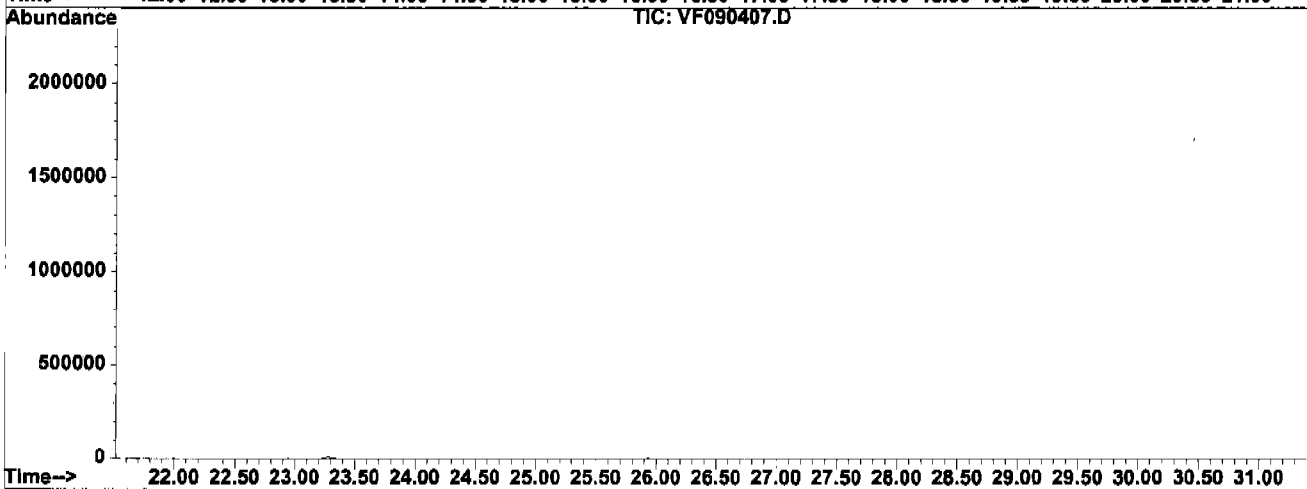
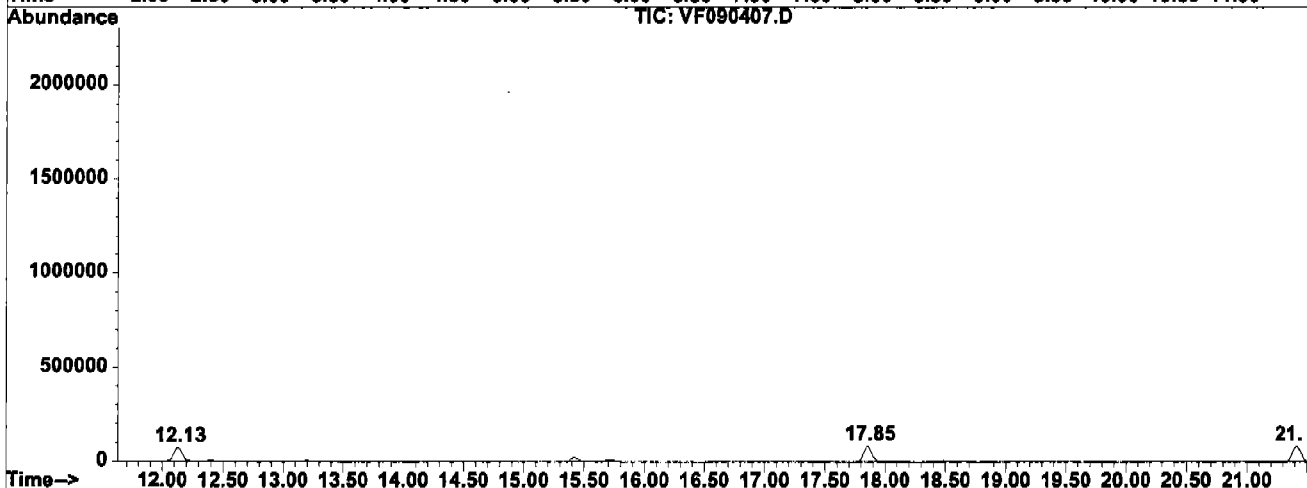
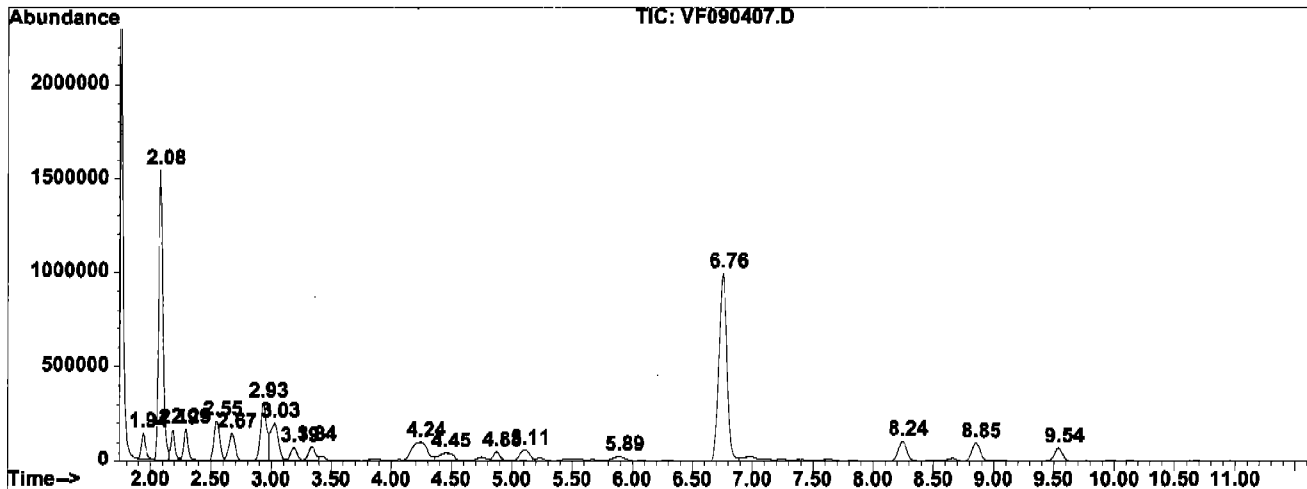
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.939	17	21	30	rVB	140066	346007	7.47%	1.927%
2	2.082	30	35	42	rVV2	1537992	3937046	85.02%	21.929%
3	2.192	42	46	52	rVV	158942	377785	8.16%	2.104%
4	2.291	52	56	69	rVB	164465	425496	9.19%	2.370%
5	2.551	74	82	88	rBV	207341	684257	14.78%	3.811%
6	2.670	88	94	107	rVB	142858	517131	11.17%	2.880%
7	2.931	107	120	125	rBV	302703	1155007	24.94%	6.433%
8	3.030	125	130	139	rVV3	198788	909859	19.65%	5.068%
9	3.194	139	146	153	rVV	68472	238355	5.15%	1.328%
10	3.335	153	160	166	rVV	74056	296539	6.40%	1.652%
11	4.245	236	250	261	rBV7	94130	828682	17.90%	4.616%
12	4.450	261	270	286	rVB6	39612	325896	7.04%	1.815%
13	4.876	306	312	322	rVB	47146	196616	4.25%	1.095%
14	5.109	322	335	344	rBV2	58428	347828	7.51%	1.937%
15	5.889	397	411	425	rVB6	24060	188972	4.08%	1.053%
16	6.755	484	497	510	rBV	996625	4630579	100.00%	25.792%
17	8.244	630	643	657	rBV	107834	567557	12.26%	3.161%
18	8.851	692	703	714	rBV	96364	469483	10.14%	2.615%
19	9.544	755	771	783	rVB	71308	360068	7.78%	2.006%
20	12.127	1017	1027	1044	rVB	71561	351491	7.59%	1.958%
21	17.855	1581	1591	1609	rVB2	82604	395428	8.54%	2.203%
22	21.418	1928	1942	1957	rVB2	79668	403318	8.71%	2.246%

Sum of corrected areas: 17953400

VF090407.D VF0816DW.M Thu Sep 09 12:53:30 2004 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090407.D  
Operator : SAM  
Acquired : 4 Sep 2004 1:40 am using AcqMethod VF\_VOA  
Instrument : VOA F  
Sample Name: S4414-12  
Misc Info : 25mL  
Vial Number: 8  
Quant File : VF0816DW.RES (RTE Integrator)



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090407.D Vial: 8  
 Acq On : 4 Sep 2004 1:40 am Operator: SAM  
 Sample : S4414-12 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

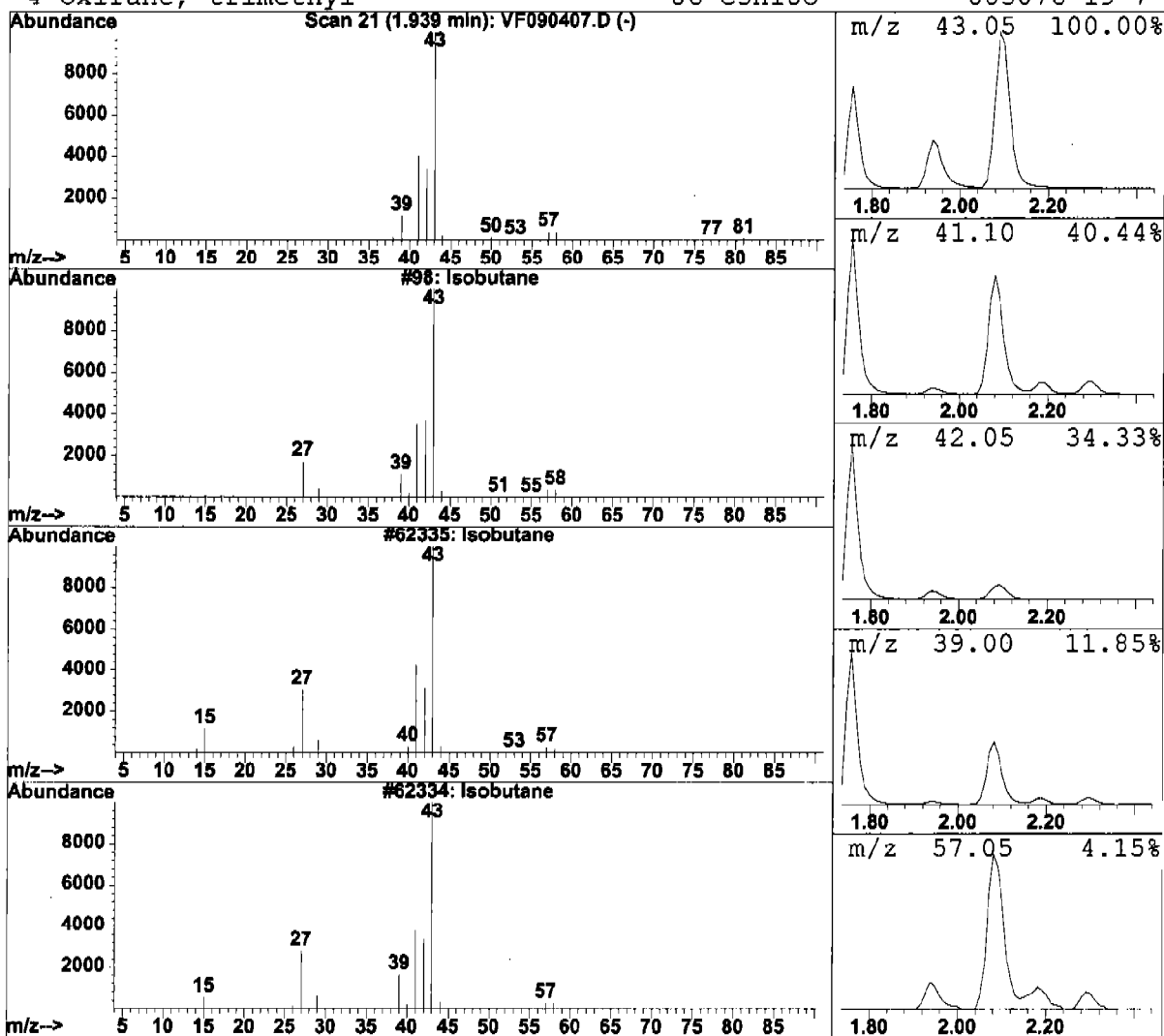
Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 1 Isobutane Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.94	0.74 ug/l	346007	Fluorobenzene	8.85

Hit#	of 5	Tentative ID	MW	MolForm	CAS#	Qual
1		Isobutane	58	C4H10	000075-28-5	80
2		Isobutane	58	C4H10	000075-28-5	64
3		Isobutane	58	C4H10	000075-28-5	64
4		Oxirane, trimethyl-	86	C5H10O	005076-19-7	4





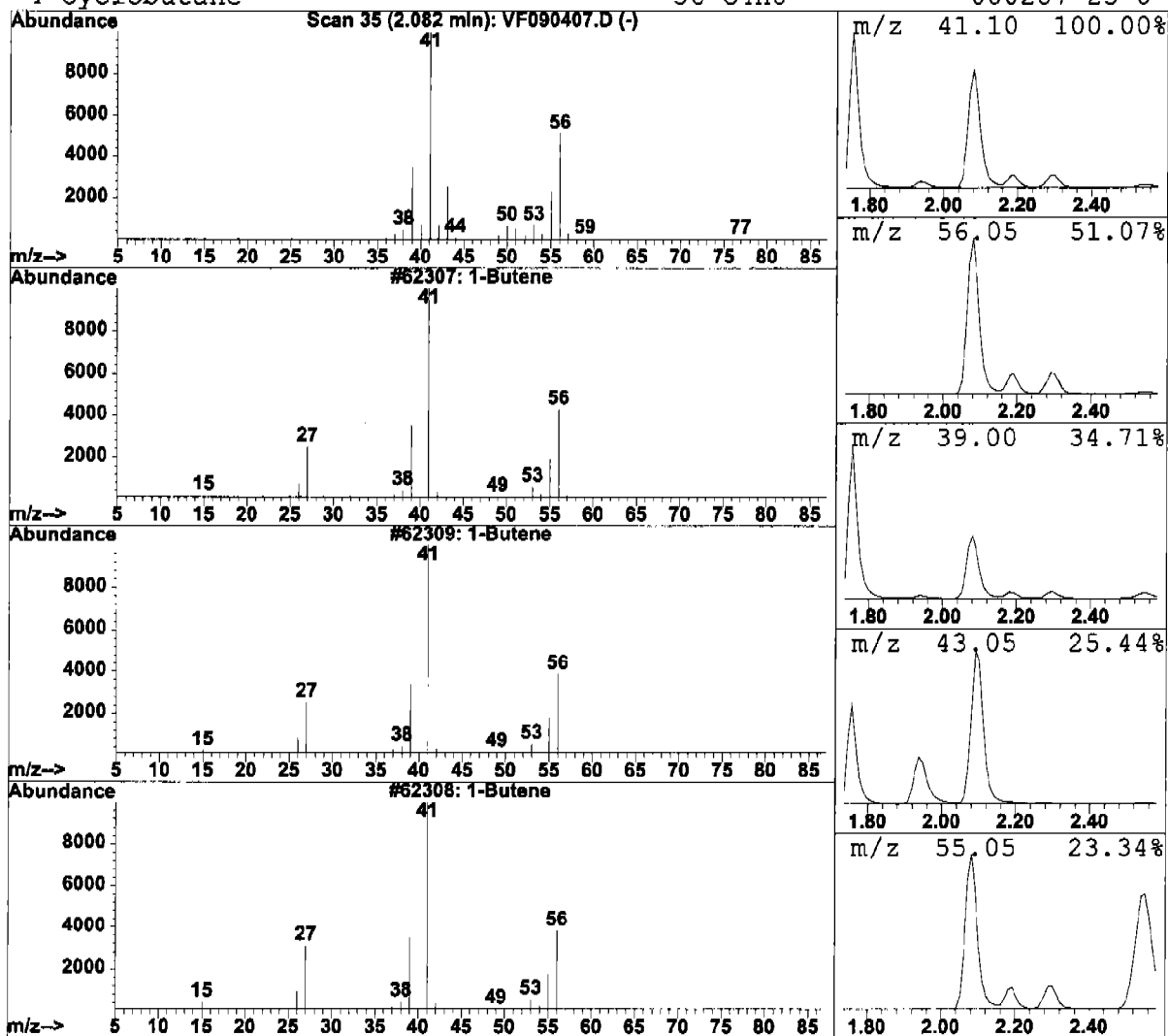
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090407.D Vial: 8  
 Acq On : 4 Sep 2004 1:40 am Operator: SAM  
 Sample : S4414-12 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 2 1-Butene Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.08	8.39 ug/l	3937050	Fluorobenzene	8.85

Hit#	of 5	Tentative ID	MW	MolForm	CAS#	Qual
1		1-Butene	56	C4H8	000106-98-9	74
2		1-Butene	56	C4H8	000106-98-9	74
3		1-Butene	56	C4H8	000106-98-9	74
4		Cyclobutane	56	C4H8	000287-23-0	72



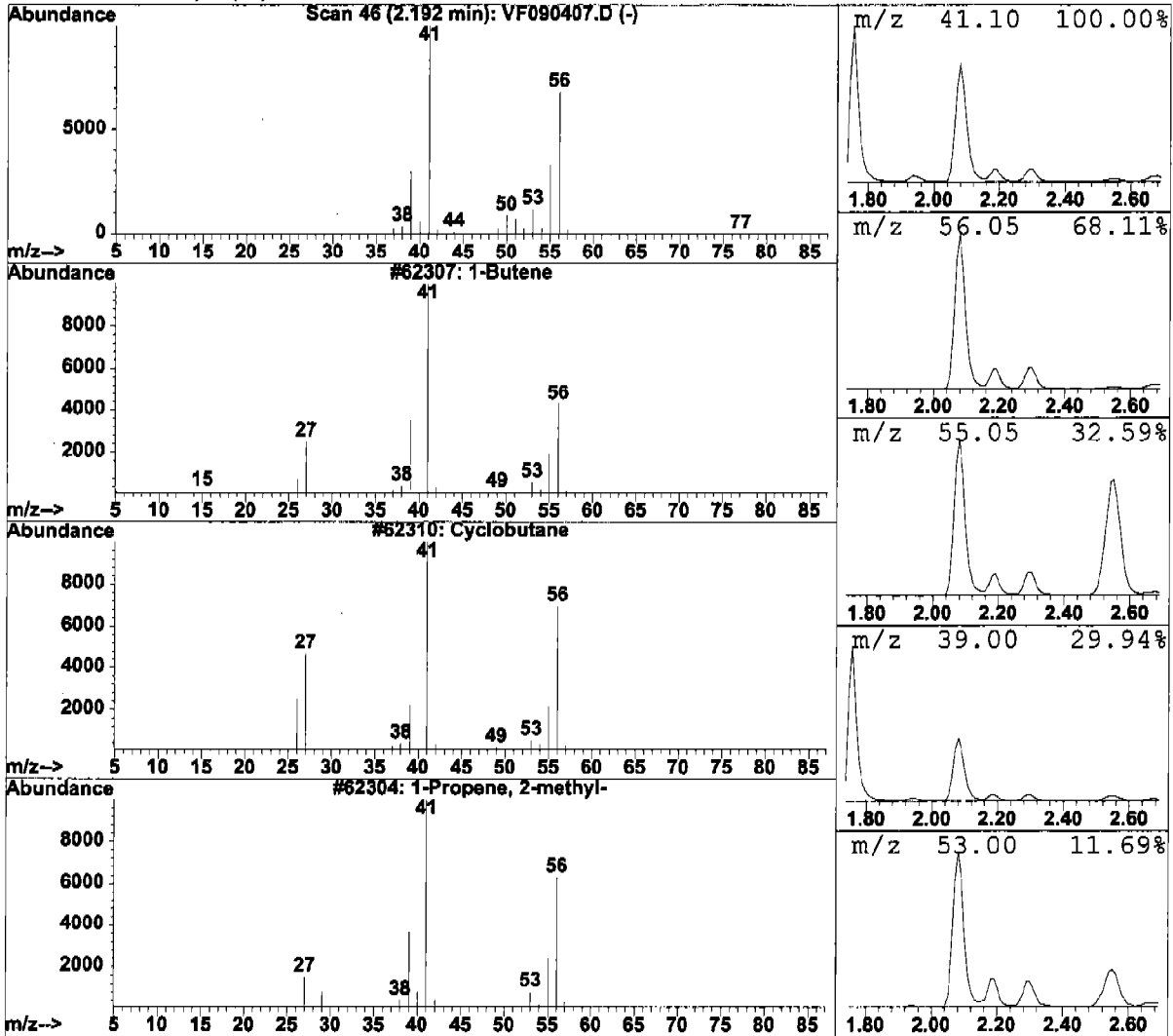
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090407.D Vial: 8  
 Acq On : 4 Sep 2004 1:40 am Operator: SAM  
 Sample : S4414-12 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 3 1-Butene Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.19	0.80 ug/l	377785	Fluorobenzene	8.85

Hit#	of 5	Tentative ID	MW	MolForm	CAS#	Qual
1		1-Butene	56	C4H8	000106-98-9	80
2		Cyclobutane	56	C4H8	000287-23-0	72
3		1-Propene, 2-methyl-	56	C4H8	000115-11-7	64
4		2-Butene, (E)-	56	C4H8	000624-64-6	59



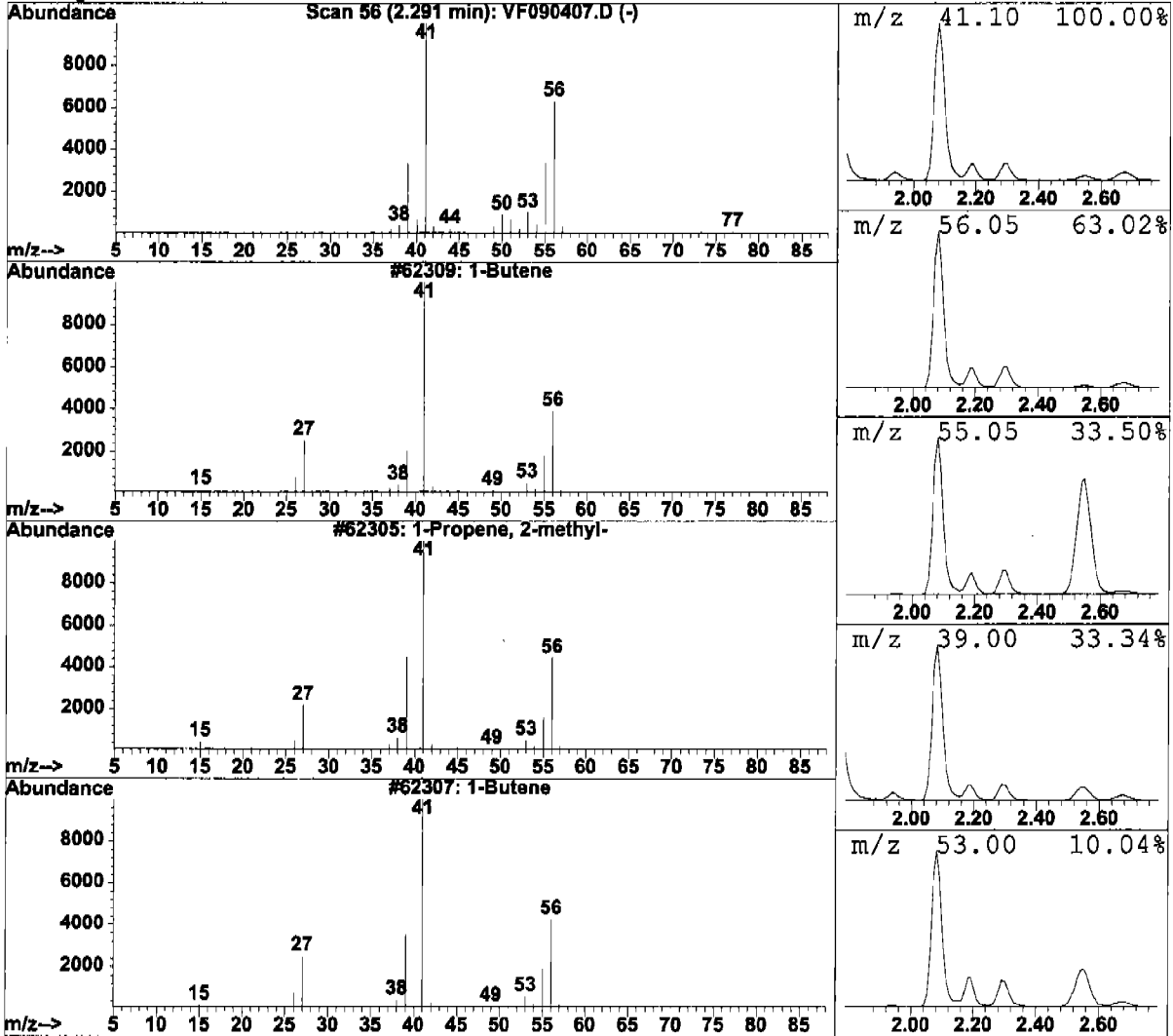
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090407.D Vial: 8  
 Acq On : 4 Sep 2004 1:40 am Operator: SAM  
 Sample : S4414-12 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 4 1-Butene Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.29	0.91 ug/l	425496	Fluorobenzene	8.85

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	1-Butene	56	C4H8	000106-98-9	81
2		1-Propene, 2-methyl-	56	C4H8	000115-11-7	72
3		1-Butene	56	C4H8	000106-98-9	72
4		Cyclobutane	56	C4H8	000287-23-0	72



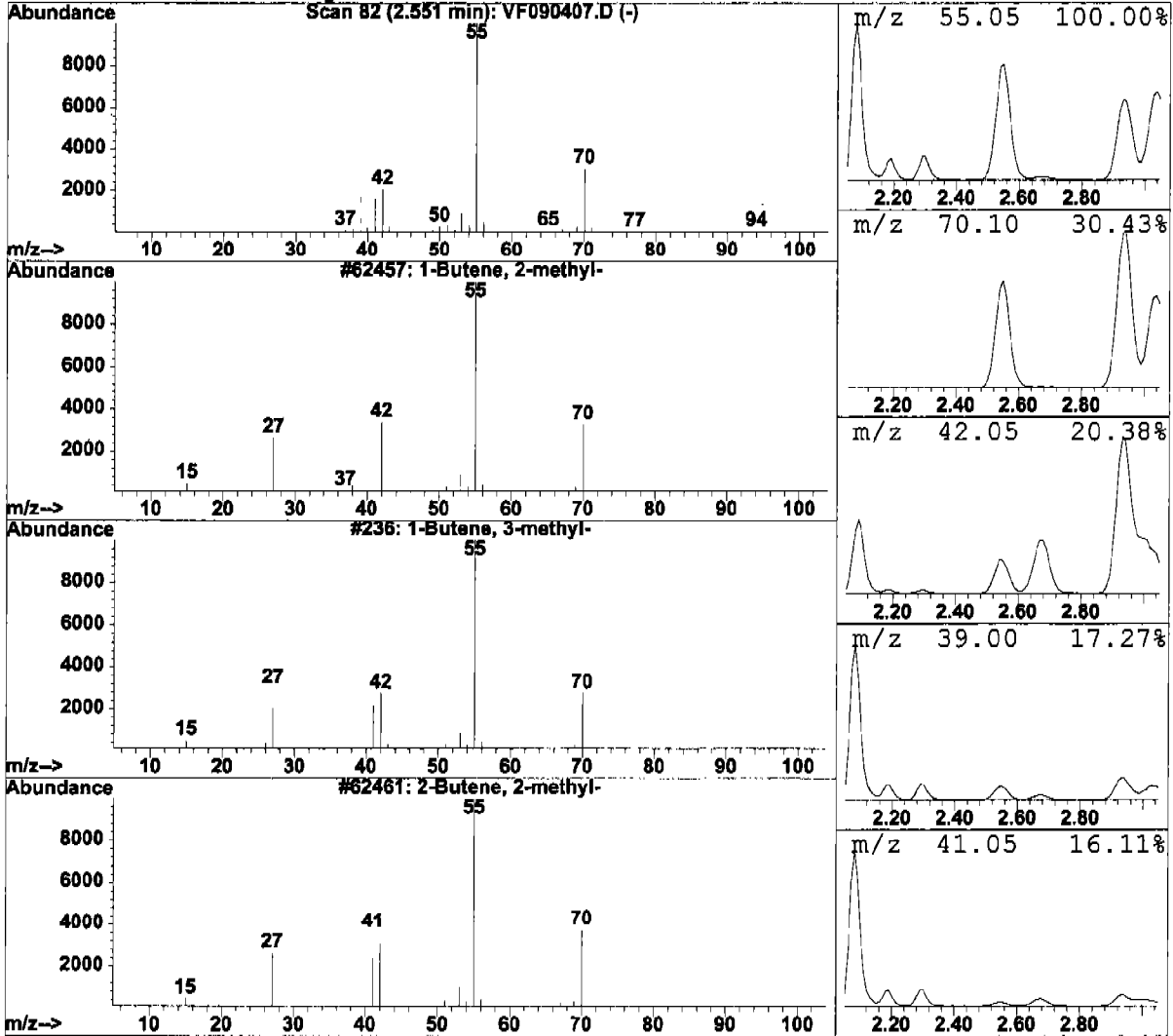
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090407.D Vial: 8  
 Acq On : 4 Sep 2004 1:40 am Operator: SAM  
 Sample : S4414-12 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 5 1-Butene, 2-methyl- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.55	1.46 ug/l	684257	Fluorobenzene	8.85

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	1-Butene, 2-methyl-	70	C5H10	000563-46-2	87
2		1-Butene, 3-methyl-	70	C5H10	000563-45-1	86
3		2-Butene, 2-methyl-	70	C5H10	000513-35-9	80
4		1-Butene, 2-methyl-	70	C5H10	000563-46-2	78



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090407.D Vial: 8  
 Acq On : 4 Sep 2004 1:40 am Operator: SAM  
 Sample : S4414-12 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

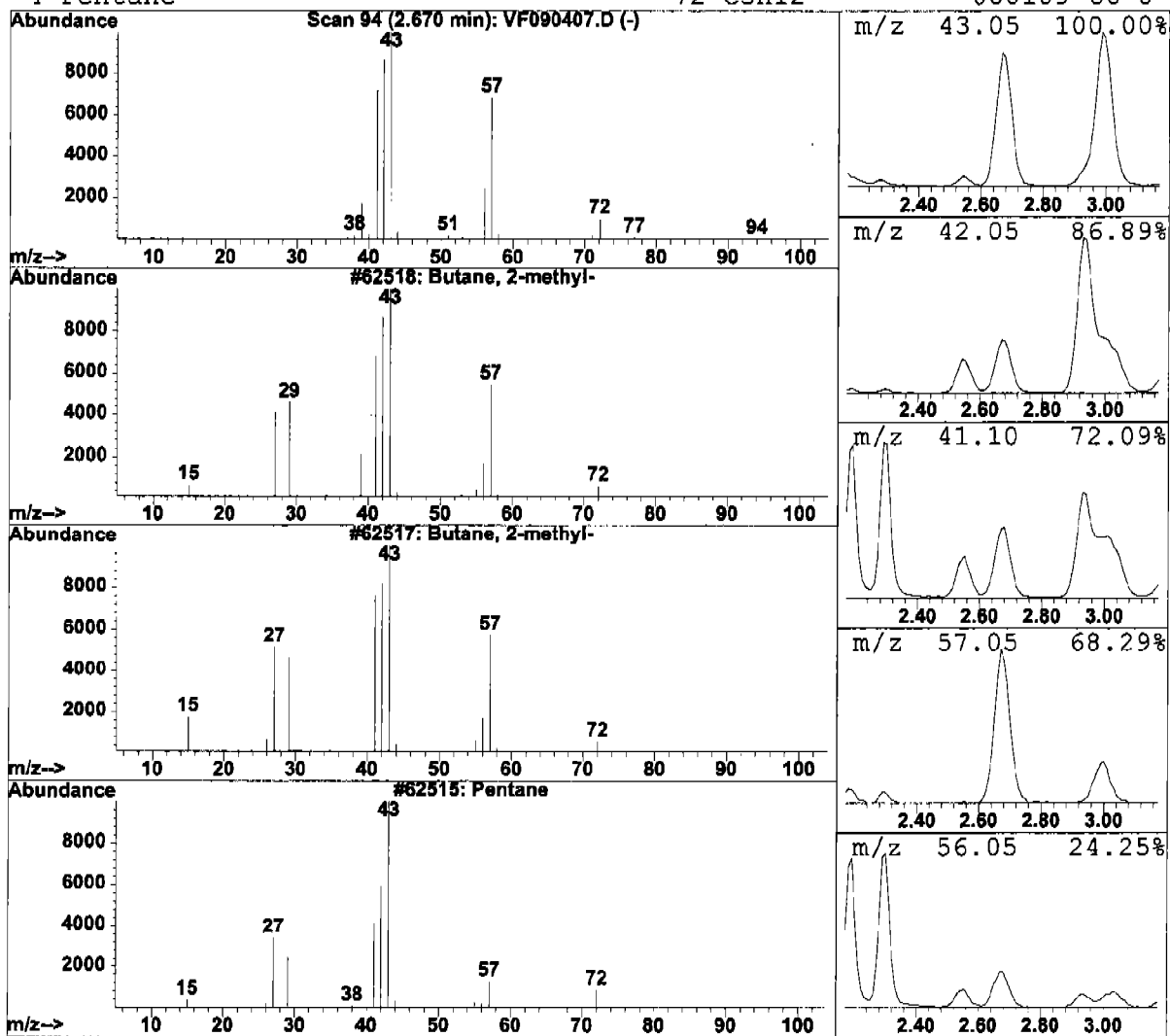
Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 6 Butane, 2-methyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.67	1.10 ug/l	517131	Fluorobenzene	8.85

Hit#	of 5	Tentative ID	MW	MolForm	CAS#	Qual
1		Butane, 2-methyl-	72	C5H12	000078-78-4	91
2		Butane, 2-methyl-	72	C5H12	000078-78-4	72
3		Pentane	72	C5H12	000109-66-0	72
4		Pentane	72	C5H12	000109-66-0	56



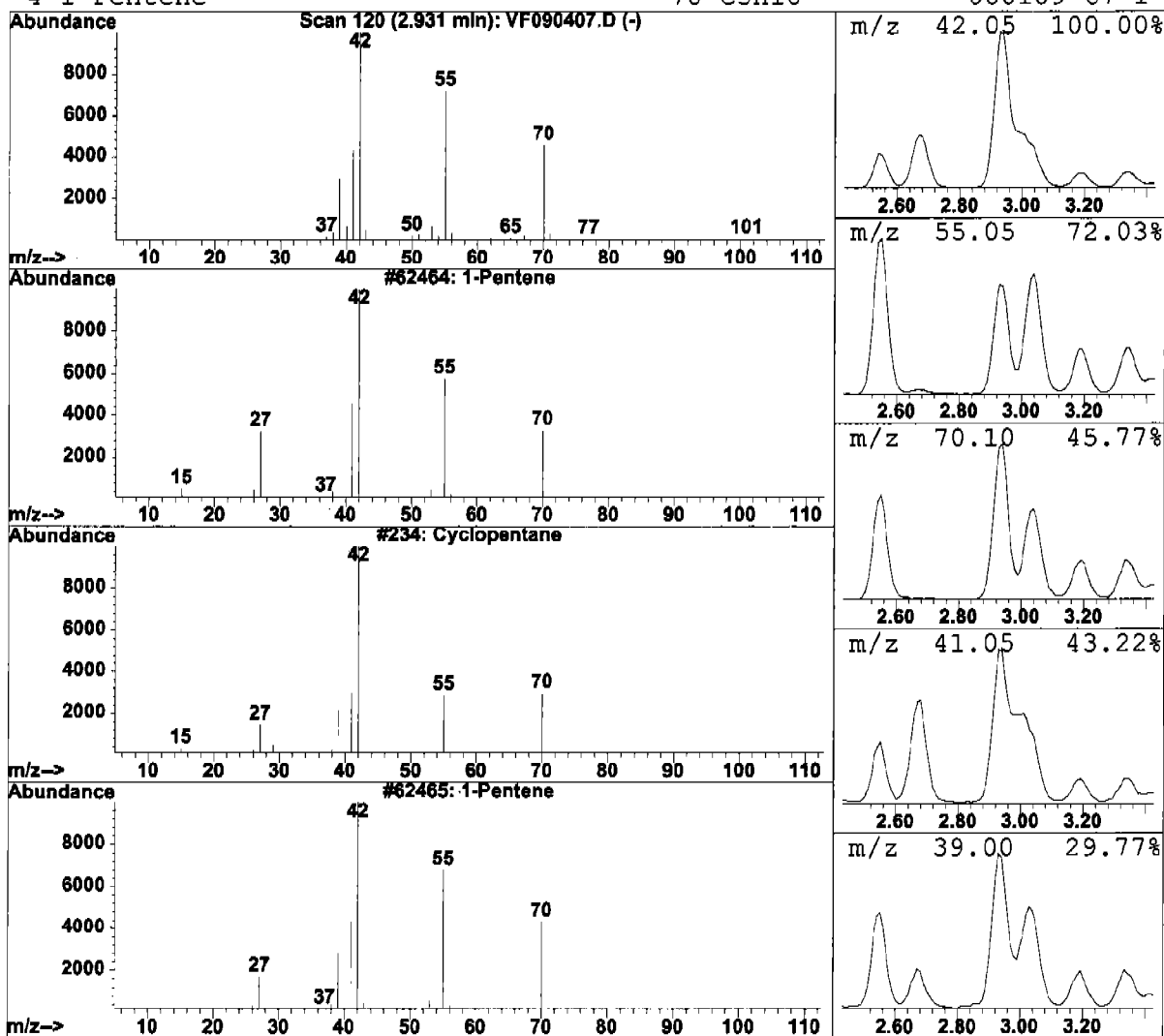
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090407.D Vial: 8  
 Acq On : 4 Sep 2004 1:40 am Operator: SAM  
 Sample : S4414-12 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 7 1-Pentene Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.93	2.46 ug/l	1155010	Fluorobenzene	8.85

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			1-Pentene	70	C5H10	000109-67-1	91
2			Cyclopentane	70	C5H10	000287-92-3	86
3			1-Pentene	70	C5H10	000109-67-1	86
4			1-Pentene	70	C5H10	000109-67-1	86



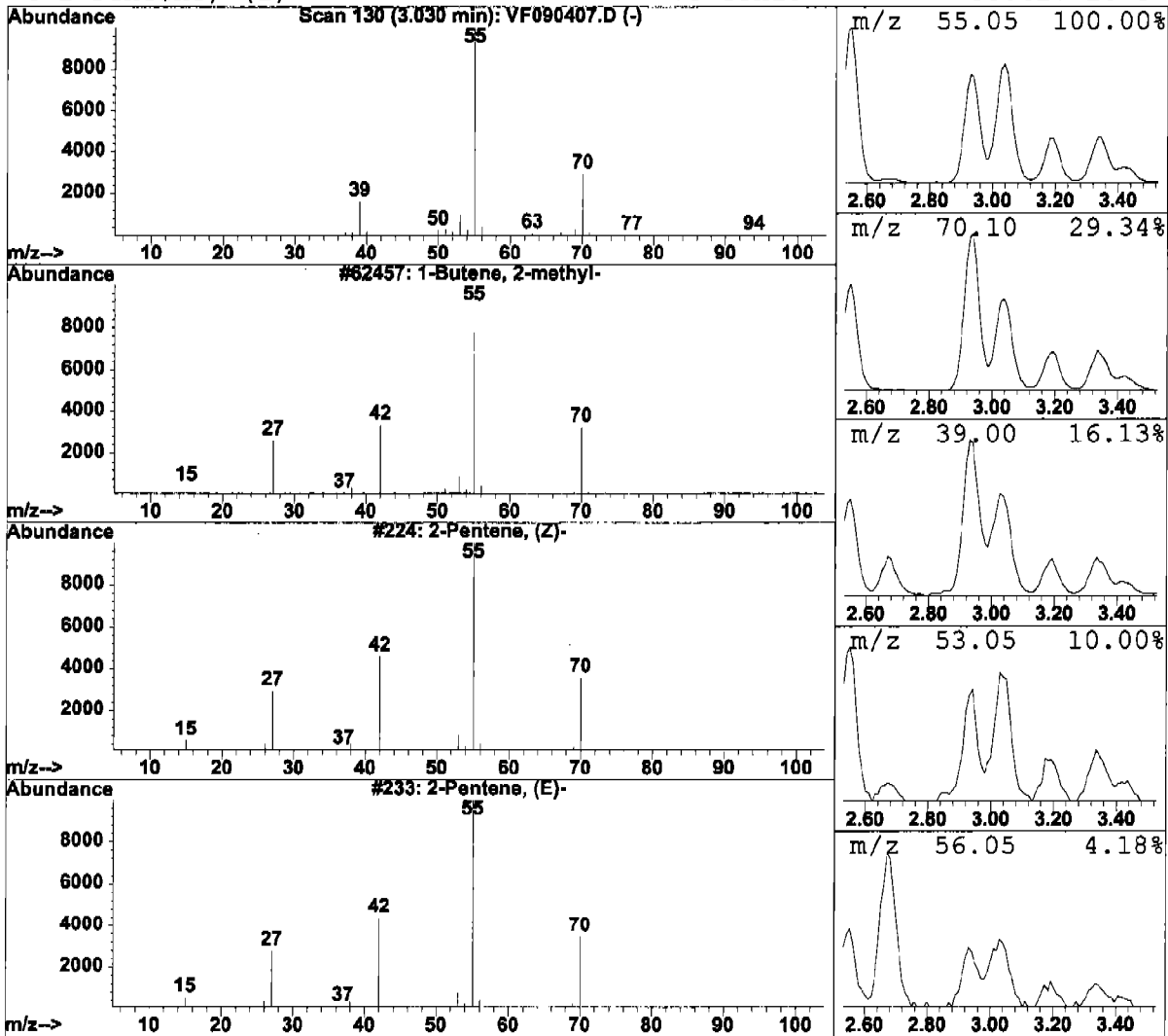
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090407.D Vial: 8  
 Acq On : 4 Sep 2004 1:40 am Operator: SAM  
 Sample : S4414-12 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 8 1-Butene, 2-methyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.03	1.94 ug/l	909859	Fluorobenzene	8.85

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	1-Butene, 2-methyl-	70	C5H10	000563-46-2	86
2		2-Pentene, (Z)-	70	C5H10	000627-20-3	86
3		2-Pentene, (E)-	70	C5H10	000646-04-8	86
4		2-Pentene, (Z)-	70	C5H10	000627-20-3	86



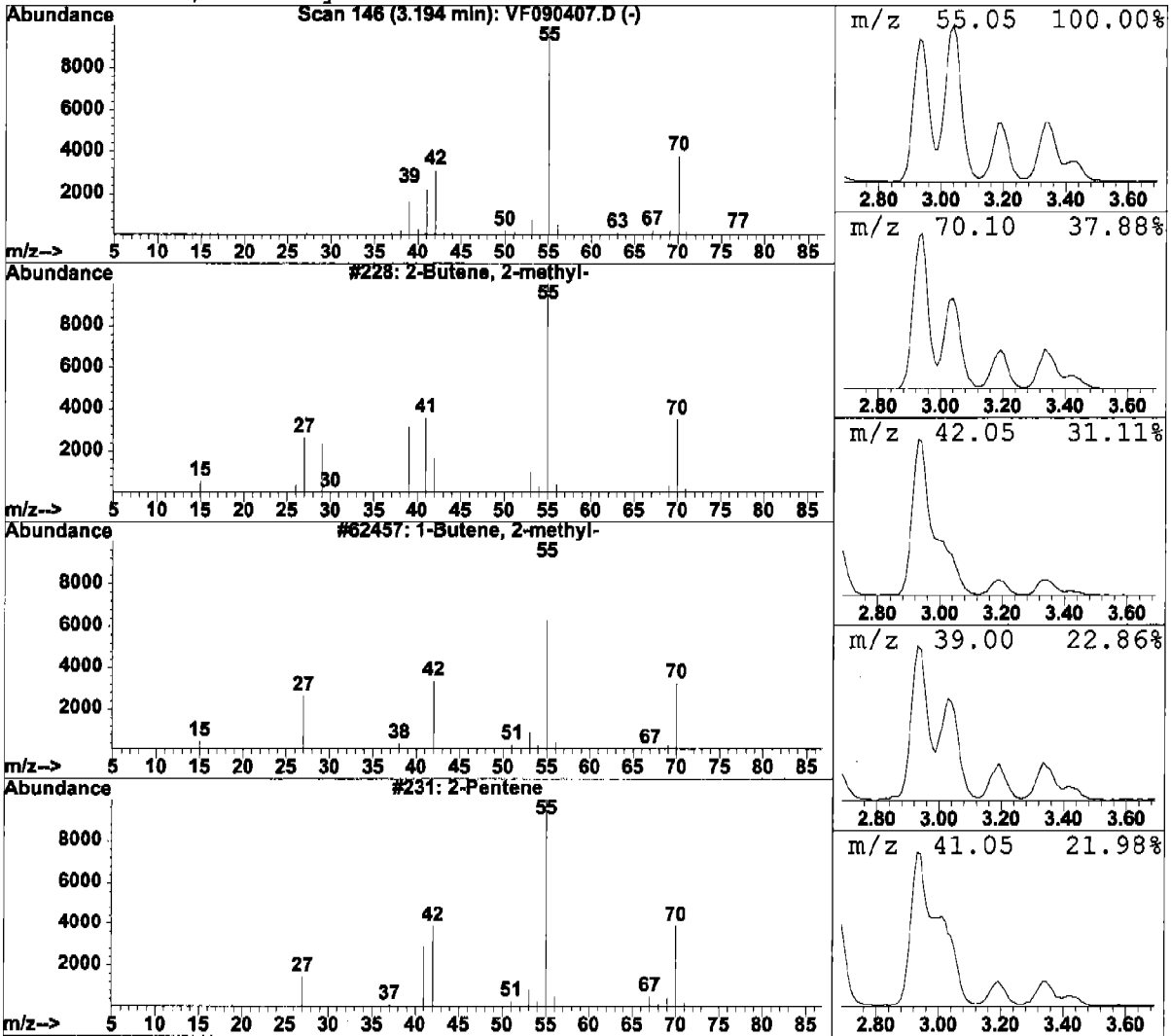
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090407.D Vial: 8  
 Acq On : 4 Sep 2004 1:40 am Operator: SAM  
 Sample : S4414-12 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 9 2-Butene, 2-methyl- Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.19	0.51 ug/l	238355	Fluorobenzene	8.85

Hit#	of 5	Tentative ID	MW	MolForm	CAS#	Qual
1		2-Butene, 2-methyl-	70	C5H10	000513-35-9	86
2		1-Butene, 2-methyl-	70	C5H10	000563-46-2	86
3		2-Pentene	70	C5H10	000109-68-2	86
4		1-Butene, 3-methyl-	70	C5H10	000563-45-1	86





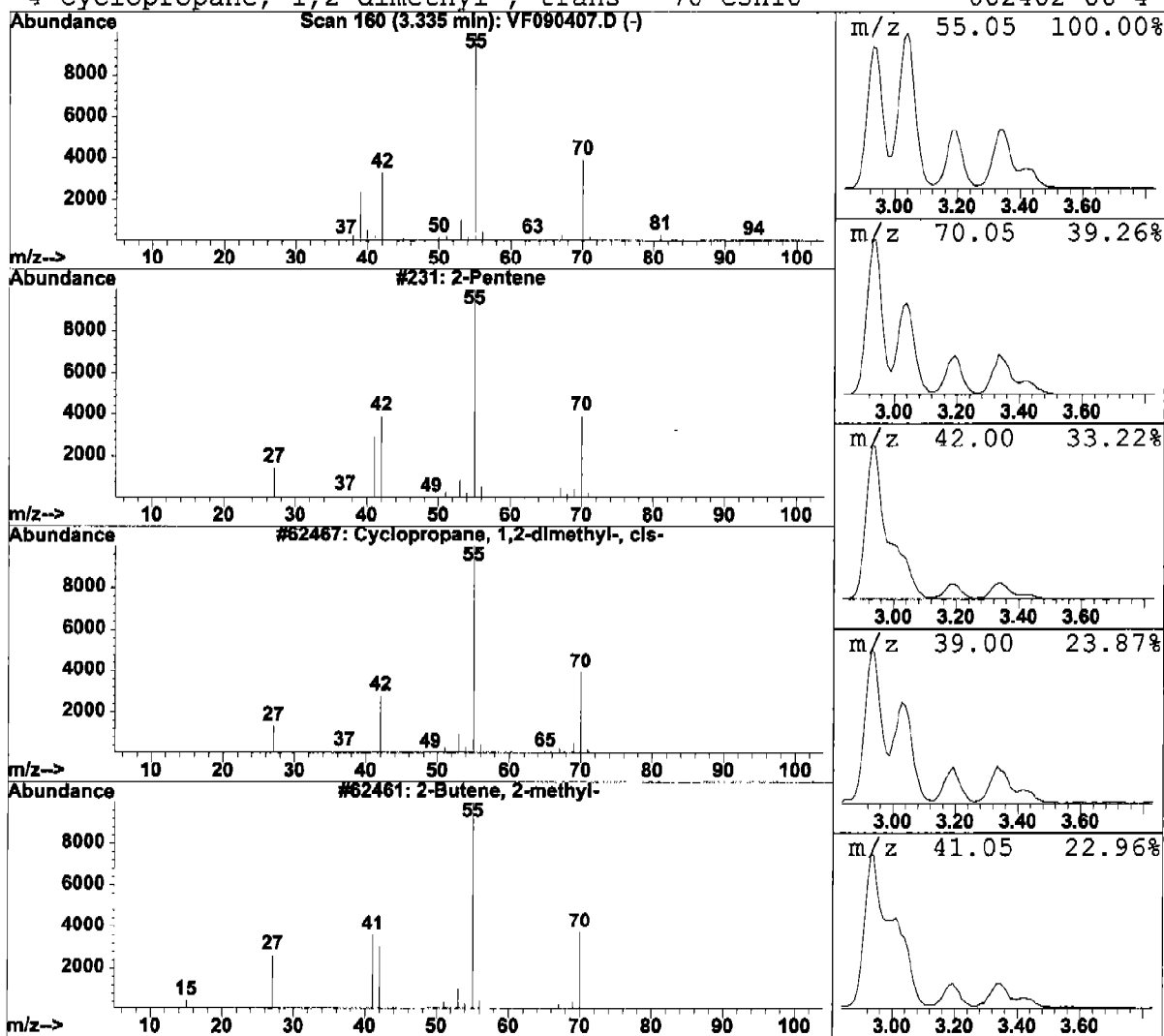
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090407.D Vial: 8  
 Acq On : 4 Sep 2004 1:40 am Operator: SAM  
 Sample : S4414-12 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 10 2-Pentene Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.34	0.63 ug/l	296539	Fluorobenzene	8.85

Hit#	of 5	Tentative ID	MW	MolForm	CAS#	Qual
1		2-Pentene	70	C5H10	000109-68-2	90
2		Cyclopropane, 1,2-dimethyl-, cis-	70	C5H10	000930-18-7	87
3		2-Butene, 2-methyl-	70	C5H10	000513-35-9	86
4		Cyclopropane, 1,2-dimethyl-, trans-	70	C5H10	002402-06-4	86



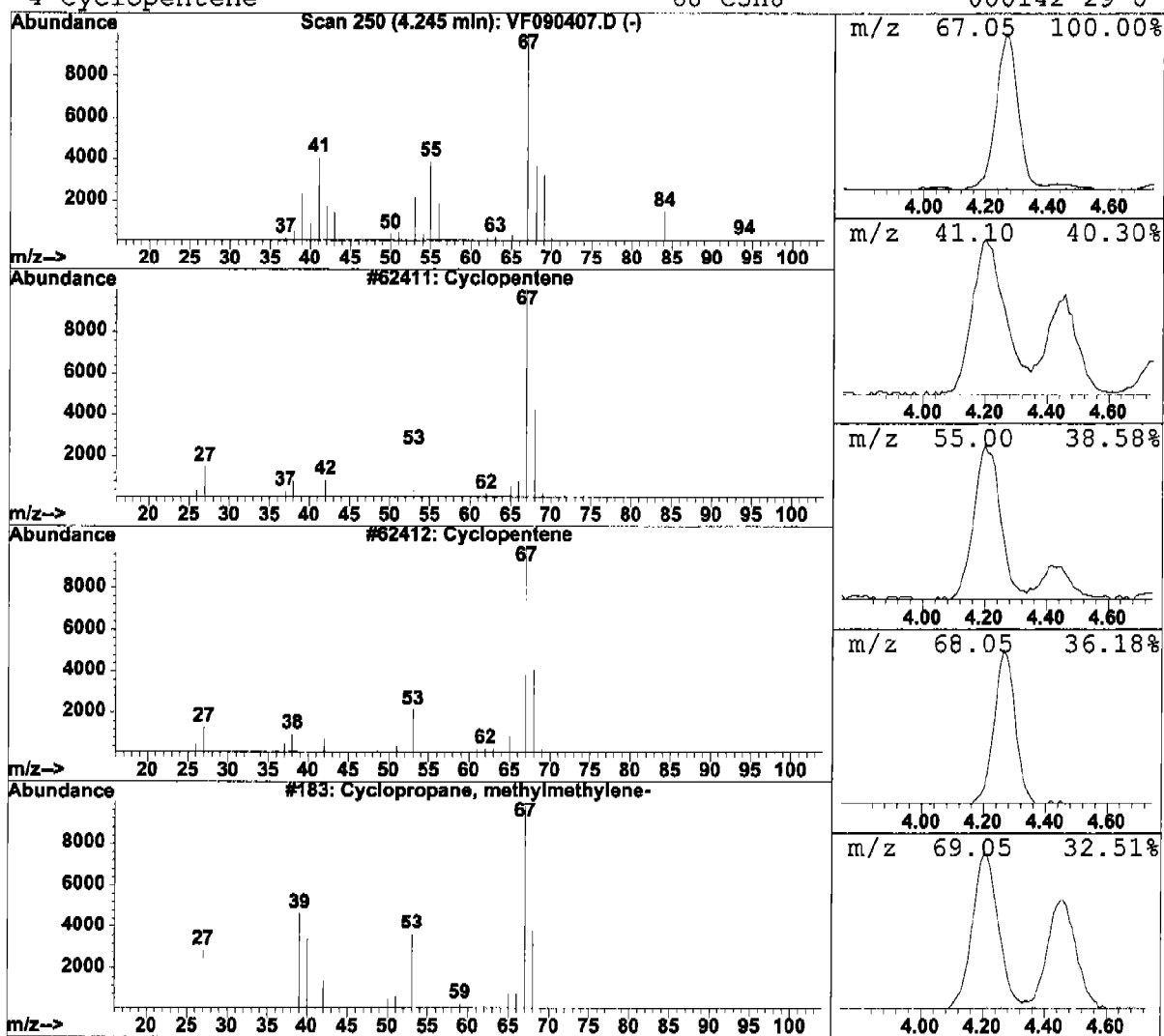
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090407.D Vial: 8  
 Acq On : 4 Sep 2004 1:40 am Operator: SAM  
 Sample : S4414-12 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 11 Cyclopentene Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.24	1.77 ug/l	828682	Fluorobenzene	8.85

Hit#	of 5	Tentative ID	MW	MolForm	CAS#	Qual
1		Cyclopentene	68	C5H8	000142-29-0	64
2		Cyclopentene	68	C5H8	000142-29-0	59
3		Cyclopropane, methylmethylene-	68	C5H8	018631-84-0	50
4		Cyclopentene	68	C5H8	000142-29-0	43



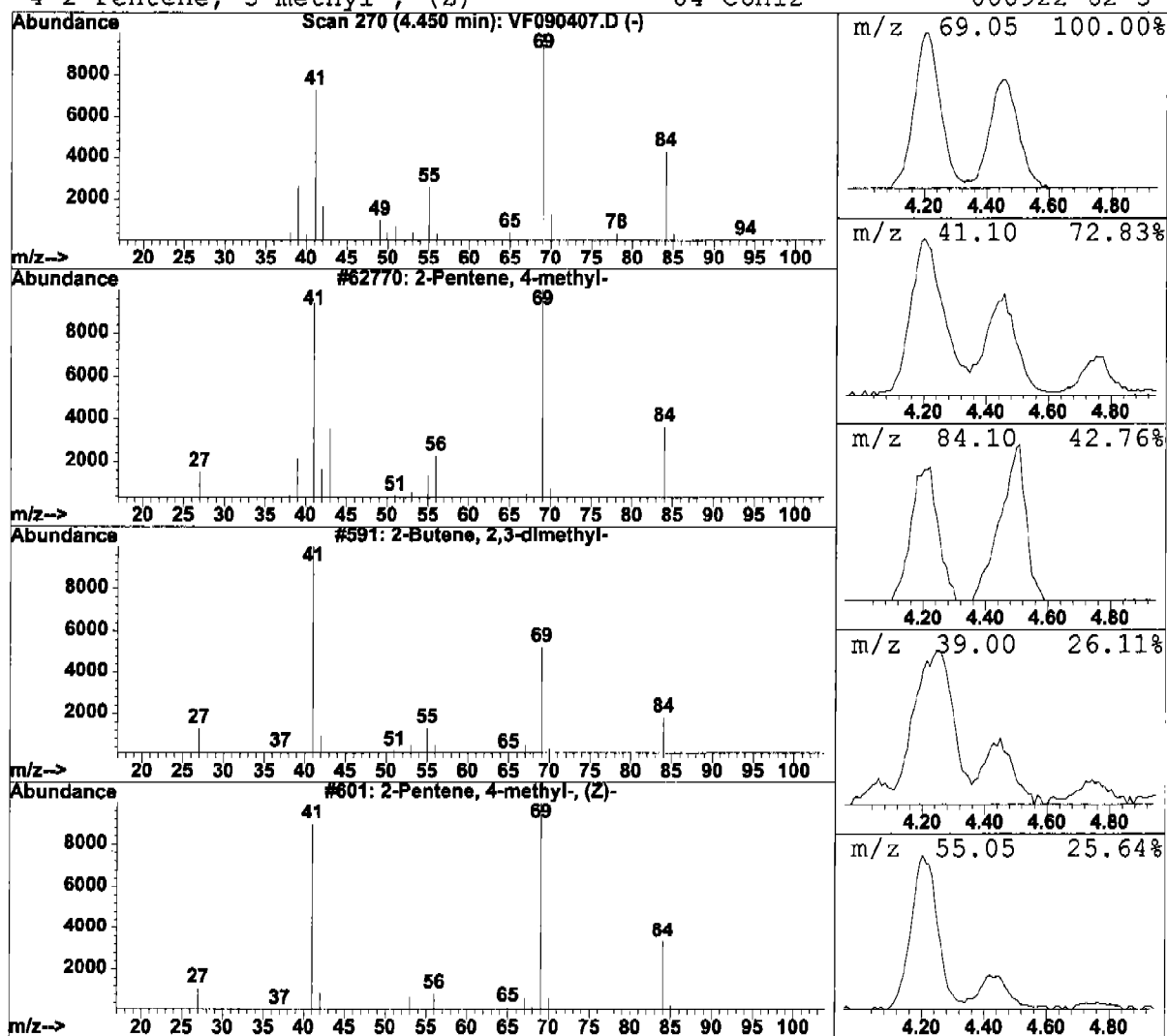
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090407.D Vial: 8  
 Acq On : 4 Sep 2004 1:40 am Operator: SAM  
 Sample : S4414-12 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 12 2-Pentene, 4-methyl- Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.45	0.69 ug/l	325896	Fluorobenzene	8.85

Hit#	of 5	Tentative ID	MW	MolForm	CAS#	Qual
1		2-Pentene, 4-methyl-	84	C6H12	004461-48-7	72
2		2-Butene, 2,3-dimethyl-	84	C6H12	000563-79-1	72
3		2-Pentene, 4-methyl-, (Z)-	84	C6H12	000691-38-3	64
4		2-Pentene, 3-methyl-, (Z)-	84	C6H12	000922-62-3	64



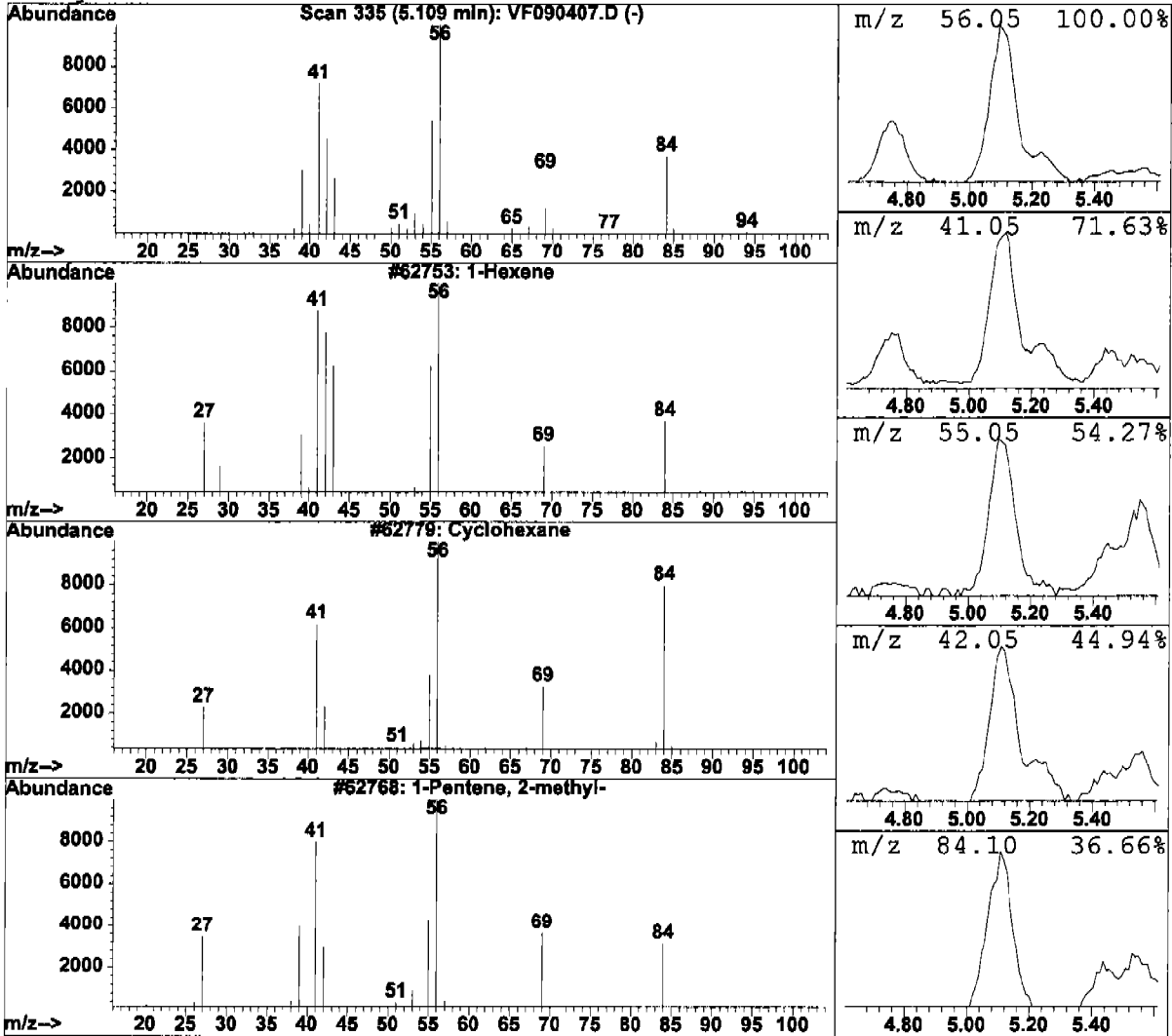
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090407.D Vial: 8  
 Acq On : 4 Sep 2004 1:40 am Operator: SAM  
 Sample : S4414-12 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 13 1-Hexene Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.11	0.74 ug/l	347828	Fluorobenzene	8.85

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	1-Hexene	84	C6H12	000592-41-6	86
2		Cyclohexane	84	C6H12	000110-82-7	72
3		1-Pentene, 2-methyl-	84	C6H12	000763-29-1	72
4		Cyclohexane	84	C6H12	000110-82-7	64



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090407.D Vial: 8  
 Acq On : 4 Sep 2004 1:40 am Operator: SAM  
 Sample : S4414-12 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

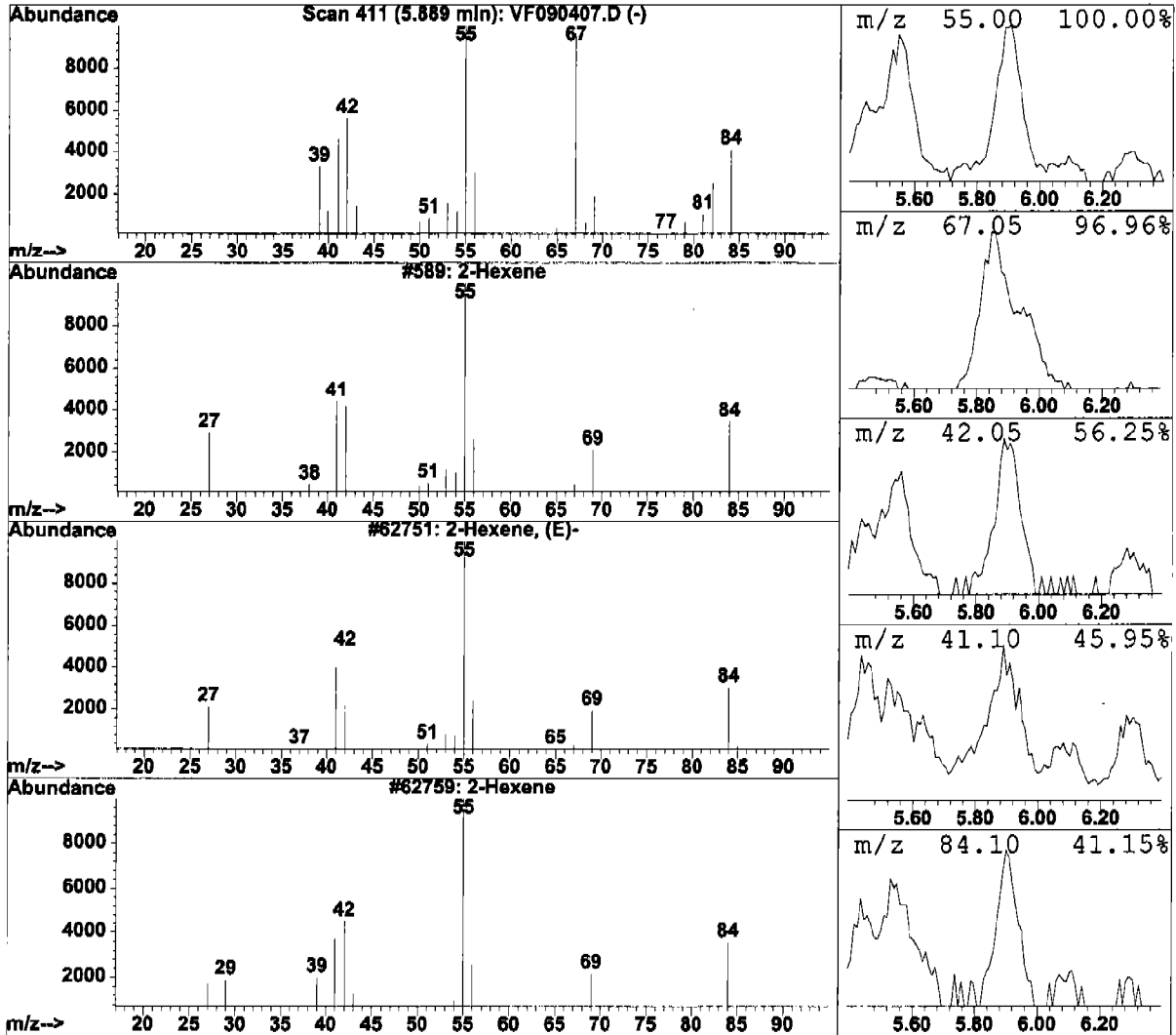
Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 14 2-Hexene Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.89	0.40 ug/l	188972	Fluorobenzene	8.85

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	2-Hexene	84	C6H12	000592-43-8	60
2		2-Hexene, (E)-	84	C6H12	004050-45-7	46
3		2-Hexene	84	C6H12	000592-43-8	46
4		2-Hexene	84	C6H12	000592-43-8	46



Tentatively Identified Compound (LSC) summary

Operator ID: SAM Date Acquired: 4 Sep 2004 1:40 am  
 Data File: C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090407.D  
 Name: S4414-12  
 Misc: 25mL  
 Method: C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title: METHOD 524.2 VOLATILES DRINKING WATER  
 Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Isobutane	1.94	0.7	ug/l	346007	ISTD01	8.85	469483	1.0
1-Butene	2.08	8.4	ug/l	3937050	ISTD01	8.85	469483	1.0
1-Butene	2.19	0.8	ug/l	377785	ISTD01	8.85	469483	1.0
1-Butene	2.29	0.9	ug/l	425496	ISTD01	8.85	469483	1.0
1-Butene, 2-methyl-	2.55	1.5	ug/l	684257	ISTD01	8.85	469483	1.0
Butane, 2-methyl-	2.67	1.1	ug/l	517131	ISTD01	8.85	469483	1.0
1-Pentene	2.93	2.5	ug/l	1155010	ISTD01	8.85	469483	1.0
1-Butene, 2-methyl-	3.03	1.9	ug/l	909859	ISTD01	8.85	469483	1.0
2-Butene, 2-methyl-	3.19	0.5	ug/l	238355	ISTD01	8.85	469483	1.0
2-Pentene	3.34	0.6	ug/l	296539	ISTD01	8.85	469483	1.0
Cyclopentene	4.24	1.8	ug/l	828682	ISTD01	8.85	469483	1.0
2-Pentene, 4-methyl-	4.45	0.7	ug/l	325896	ISTD01	8.85	469483	1.0
1-Hexene	5.11	0.7	ug/l	347828	ISTD01	8.85	469483	1.0
2-Hexene	5.89	0.4	ug/l	188972	ISTD01	8.85	469483	1.0

VF090407.D VF0816DW.M Thu Sep 09 12:53:35 2004 RPT1

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/27/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2157</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-13</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090315.D</b>	<b>1</b>		<b>9/3/2004</b>	<b>VF081604</b>

<b>CAS Number</b>	<b>Parameter</b>	<b>Conc.</b>	<b>Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	0.09	U	1.0	0.09	ug/L
74-87-3	Chloromethane	0.11	U	1.0	0.11	ug/L
75-01-4	Vinyl Chloride	0.3	J	1.0	0.14	ug/L
74-83-9	Bromomethane	0.22	U	1.0	0.22	ug/L
75-00-3	Chloroethane	0.19	U	1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	0.09	U	1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	2.2	U	10	2.2	ug/L
60-29-7	Diethyl Ether	0.21	U	1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	0.16	U	1.0	0.16	ug/L
74-88-4	Iodomethane	0.14	U	1.0	0.14	ug/L
107-5-1	Allyl Chloride	0.18	U	1.0	0.18	ug/L
107-13-1	Acrylonitrile	0.94	U	2.0	0.94	ug/L
67-64-1	Acetone	1.5	U	5.8	1.5	ug/L
75-15-0	Carbon disulfide	0.18	U	1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	0.37	U	1.0	0.37	ug/L
79-20-9	Methyl acrylate	0.17	U	1.0	0.17	ug/L
75-09-2	Methylene Chloride	0.5	J	1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	1.2		1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	0.2	J	1.0	0.21	ug/L
78-93-3	2-Butanone	0.94	U	5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	0.22	U	1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	0.20	U	1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	34		1.0	0.24	ug/L
67-66-3	Chloroform	0.22	U	1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	1.4	U	2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L
108-20-3	Isopropyl Ether	0.21	U	1.0	0.21	ug/L
107-12-0	Propionitrile	3.3	U	10	3.3	ug/L
71-43-2	Benzene	0.3	J	1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	5.5		1.0	0.24	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/27/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/28/2004
Client Sample ID:	TR2157	SDG No.:	S4414
Lab Sample ID:	S4414-13	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090315.D	1		9/3/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	0.21	U	1.0	0.21	ug/L
126-98-7	Methacrylonitrile	0.33	U	1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	0.78	U	2.4	0.78	ug/L
109-69-3	1-Chlorobutane	0.22	U	1.0	0.22	ug/L
74-95-3	Dibromomethane	0.24	U	1.0	0.24	ug/L
75-27-4	Bromodichloromethane	0.20	U	1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	1.0	U	5.0	1.0	ug/L
80-62-6	Methyl methacrylate	0.53	U	2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	0.25	U	1.0	0.25	ug/L
108-88-3	Toluene	0.22	U	1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L
591-78-6	2-Hexanone	1.1	U	5.0	1.1	ug/L
124-48-1	Dibromochloromethane	0.17	U	1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L
127-18-4	Tetrachloroethene	0.34	U	1.0	0.34	ug/L
108-90-7	Chlorobenzene	0.21	U	1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L
67-72-1	Hexachloroethane	0.20	U	1.0	0.20	ug/L
100-41-4	Ethyl Benzene	0.21	U	1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	0.43	U	1.0	0.43	ug/L
95-47-6	o-Xylene	0.21	U	1.0	0.21	ug/L
100-42-5	Styrene	0.19	U	1.0	0.19	ug/L
75-25-2	Bromoform	0.22	U	1.0	0.22	ug/L
108-86-1	Bromobenzene	0.21	U	1.0	0.21	ug/L
98-82-8	Isopropylbenzene	0.20	U	1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	0.28	U	1.0	0.28	ug/L
103-61-5	N-propylbenzene	0.24	U	1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	0.50	U	1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.22	U	1.0	0.22	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/27/2004
Project:	Seneca Ash Landfill Quarterly Monit	Date Received:	8/28/2004
Client Sample ID:	TR2157	SDG No.:	S4414
Lab Sample ID:	S4414-13	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090315.D	1		9/3/2004	VF081604

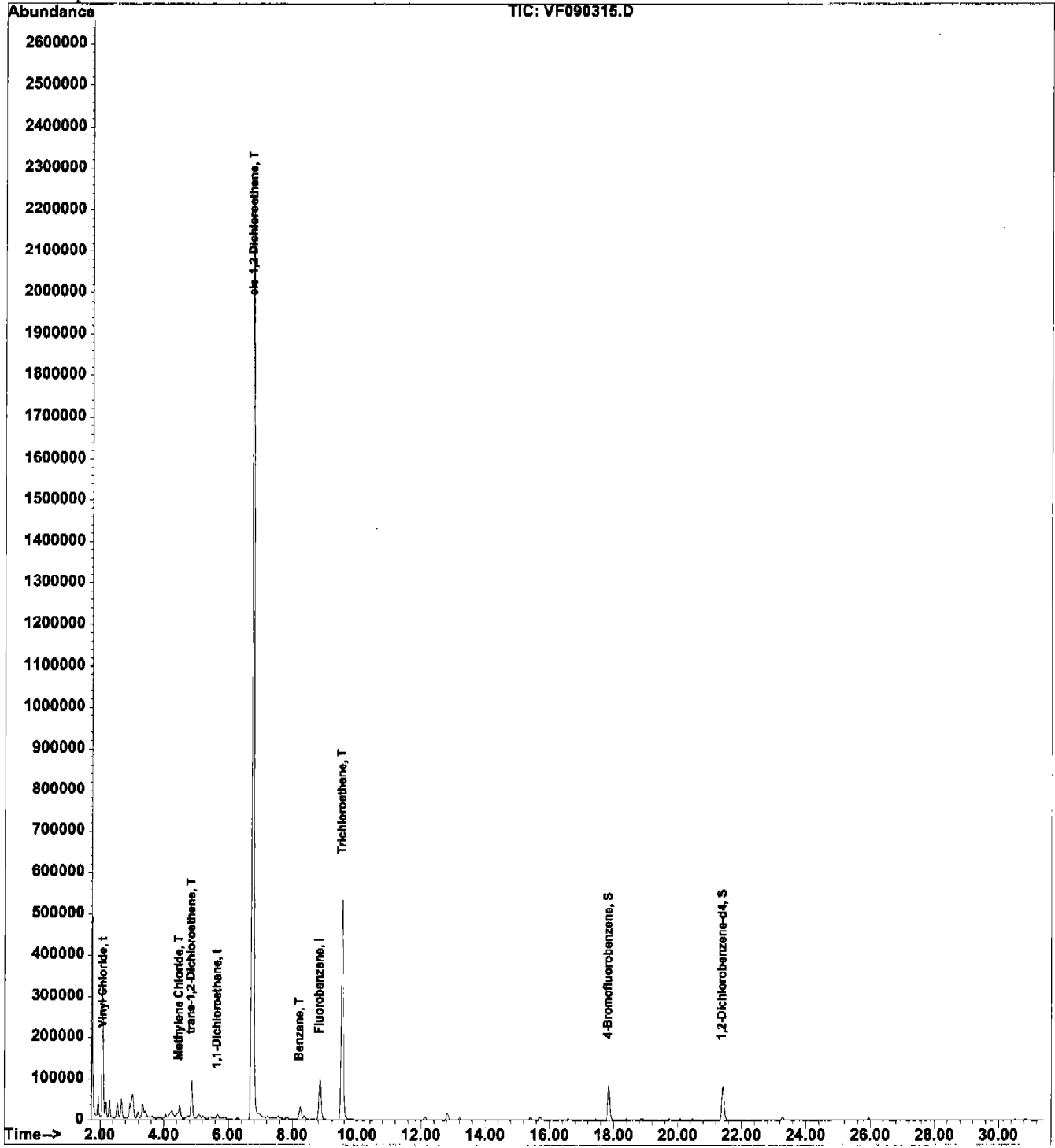
CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	0.22	U	1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	0.18	U	1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	0.20	U	1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	0.22	U	1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
104-51-8	n-Butylbenzene	0.20	U	1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.20	U	1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L
91-20-3	Naphthalene	0.17	U	1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.18	U	1.0	0.18	ug/L
<b>SURROGATES</b>						
2199-69-1	1,2-Dichlorobenzene-d4	1	100 %	80 - 120		SPK: 1
460-00-4	4-Bromofluorobenzene	0.98	98 %	80 - 120		SPK: 1
<b>INTERNAL STANDARDS</b>						
462-06-6	Fluorobenzene	236505	8.85			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090315.D Vial: 16  
Acq On : 3 Sep 2004 6:39 am Operator: SAM  
Sample : S4414-13 Inst : VOA F  
Misc : 25mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Sep 7 12:22 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090315.D Vial: 16  
 Acq On : 3 Sep 2004 6:39 am Operator: SAM  
 Sample : S4414-13 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00

MS Integration Params: rteint.p  
 Quant Time: Sep 7 12:22 2004

Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

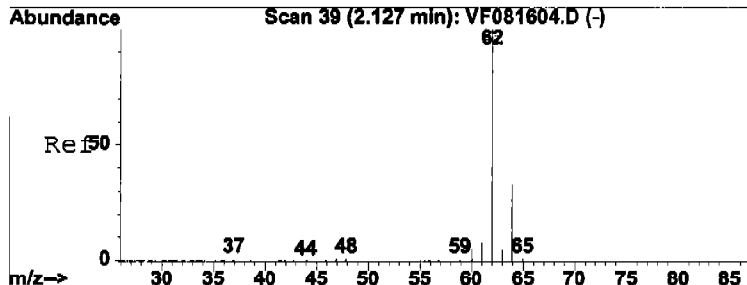
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.85	96	236505	1.00	ug/l	0.00
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.85	95	109005	0.98	ug/l	0.00
Spiked Amount	1.000		Recovery	=	98.00%	
63) 1,2-Dichlorobenzene-	21.42	152	61753	1.00	ug/l	0.00
Spiked Amount	1.000		Recovery	=	100.00%	
Target Compounds						
						Qvalue
4) Vinyl Chloride	2.12	62	21139	0.31	ug/l	99
14) Methylene Chloride	4.50	84	30371	0.54	ug/l	86
15) trans-1,2-Dichloroet	4.87	96	85160	1.16	ug/l	99
16) 1,1-Dichloroethane	5.68	63	27998	0.21	ug/l	100
19) cis-1,2-Dichloroethe	6.75	96	2478905	34.43	ug/l	85
30) Benzene	8.24	78	73192	0.29	ug/l #	88
32) Trichloroethene	9.54	130	453129	5.50	ug/l	99

Analyst Signature: Sy Analyst Name: Sy Date: 09/09/04

REASONS FOR MANUAL INTEGRATIONS

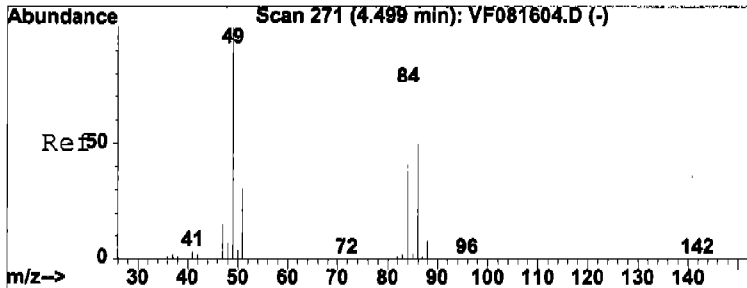
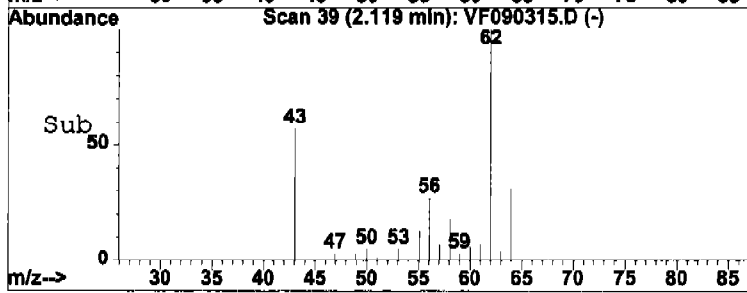
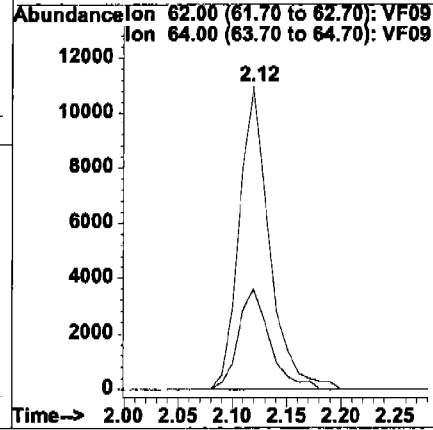
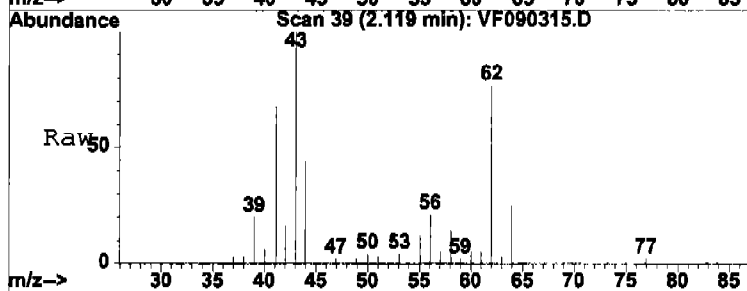
\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration



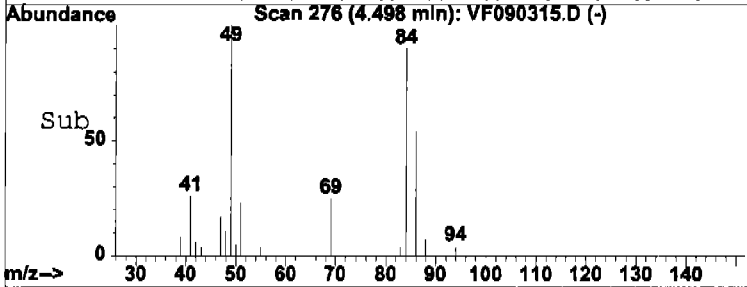
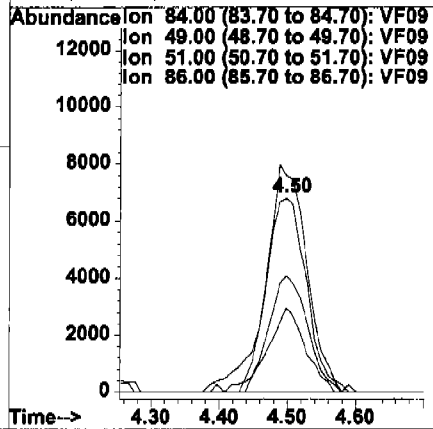
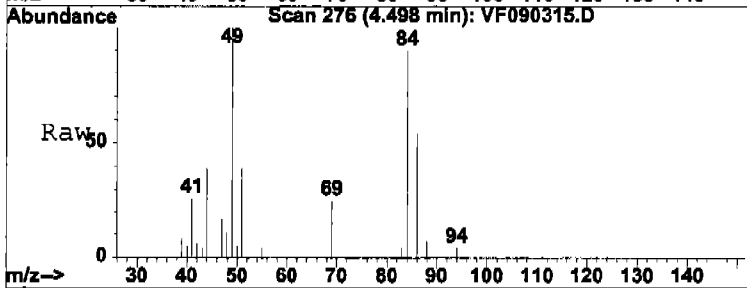
#4  
 Vinyl Chloride  
 Concen: 0.31 ug/l  
 RT: 2.12 min Scan# 39  
 Delta R.T. 0.00 min  
 Lab File: VF090315.D  
 Acq: 3 Sep 2004 6:39 am

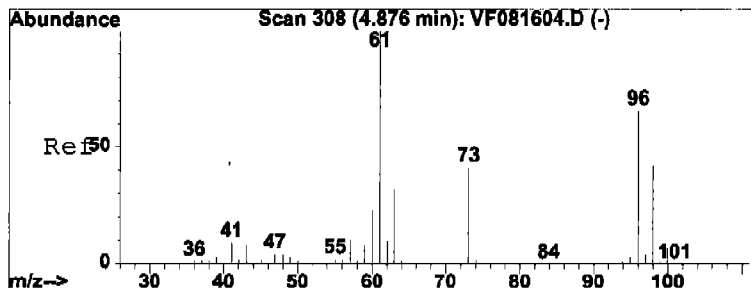
Tgt Ion	Resp	Lower	Upper
62	100		
64	33.1	26.2	39.2



#14  
 Methylene Chloride  
 Concen: 0.54 ug/l  
 RT: 4.50 min Scan# 276  
 Delta R.T. 0.00 min  
 Lab File: VF090315.D  
 Acq: 3 Sep 2004 6:39 am

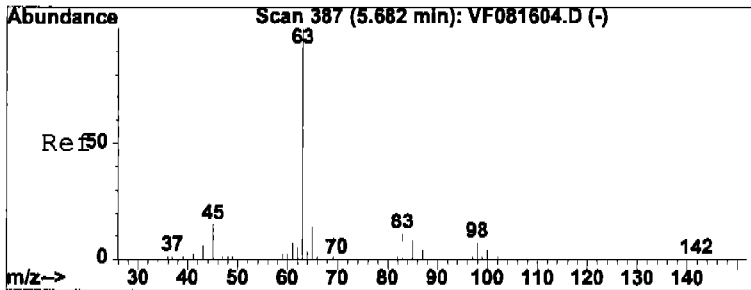
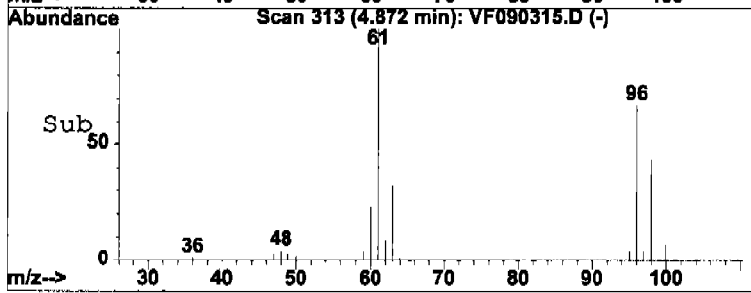
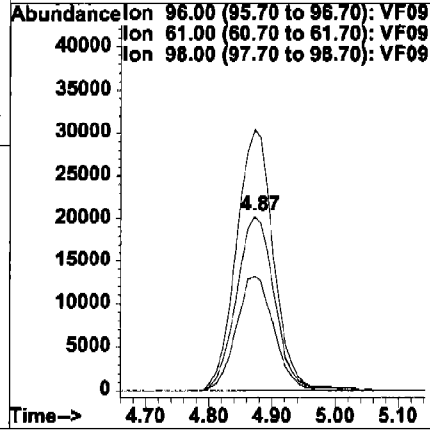
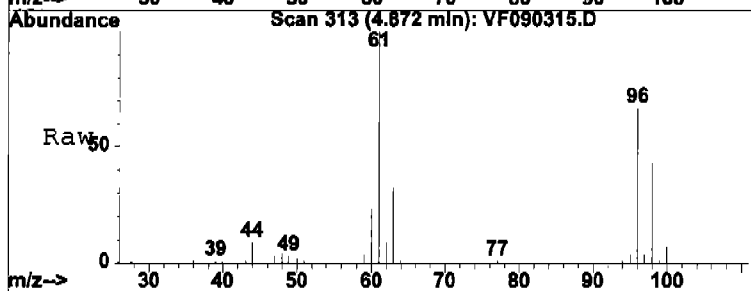
Tgt Ion	Resp	Lower	Upper
84	100		
49	111.4	108.6	163.0
51	43.7	0.0	84.4
86	60.2	54.2	81.2





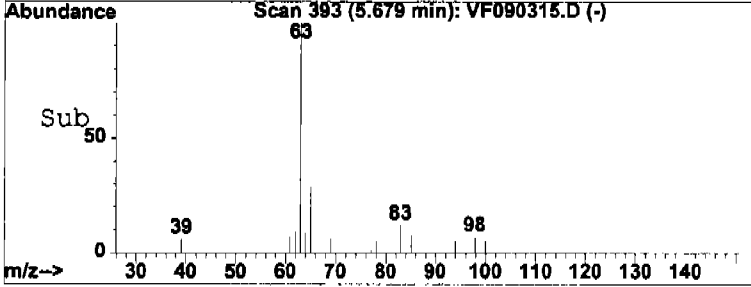
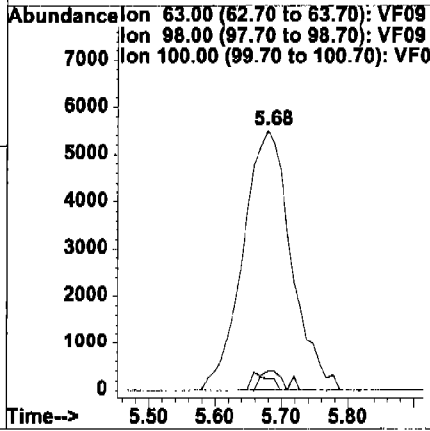
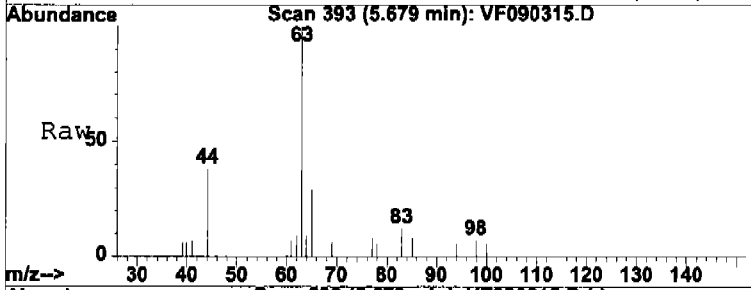
#15  
 trans-1,2-Dichloroethene  
 Concen: 1.16 ug/l  
 RT: 4.87 min Scan# 313  
 Delta R.T. 0.00 min  
 Lab File: VF090315.D  
 Acq: 3 Sep 2004 6:39 am

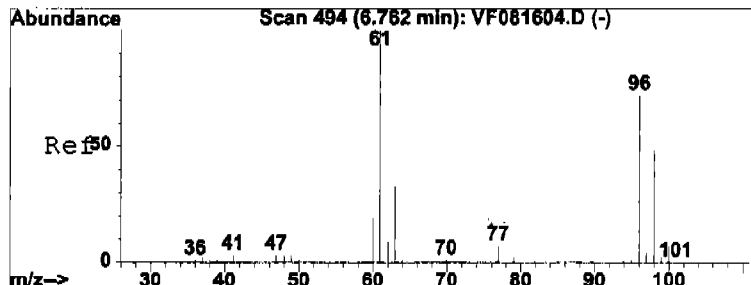
Tgt Ion	Resp	Lower	Upper
96	100		
61	149.7	121.8	182.6
98	64.9	51.7	77.5



#16  
 1,1-Dichloroethane  
 Concen: 0.21 ug/l  
 RT: 5.68 min Scan# 393  
 Delta R.T. -0.00 min  
 Lab File: VF090315.D  
 Acq: 3 Sep 2004 6:39 am

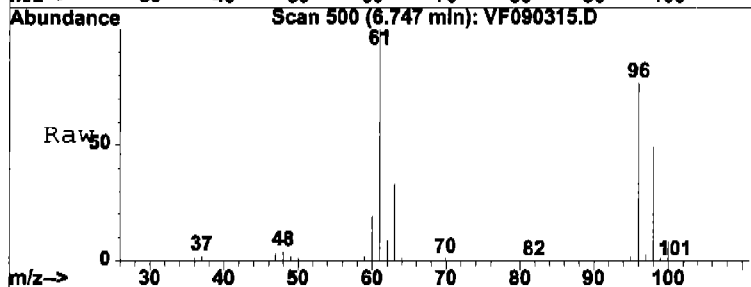
Tgt Ion	Resp	Lower	Upper
63	100		
98	7.1	3.6	10.8
100	4.6	2.2	6.6



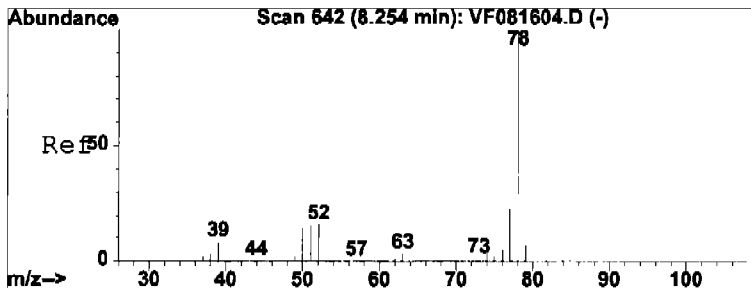
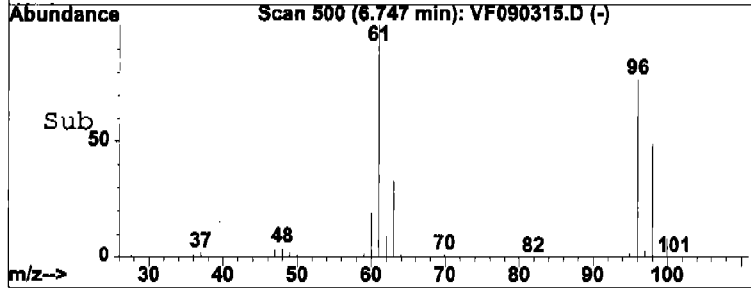
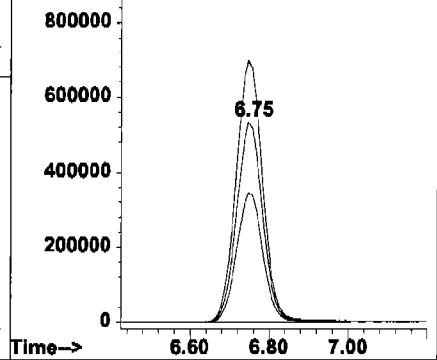


#19  
 cis-1,2-Dichloroethene  
 Concen: 34.43 ug/l  
 RT: 6.75 min Scan# 500  
 Delta R.T. -0.00 min  
 Lab File: VF090315.D  
 Acq: 3 Sep 2004 6:39 am

Tgt Ion	Resp	Lower	Upper
96	100		
61	133.8	0.0	403.7
98	65.1	32.9	98.6

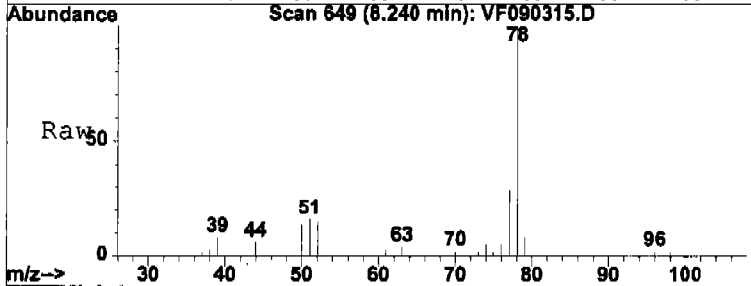


Abundance  
 Ion 96.00 (95.70 to 96.70): VF09  
 Ion 61.00 (60.70 to 61.70): VF09  
 Ion 98.00 (97.70 to 98.70): VF09

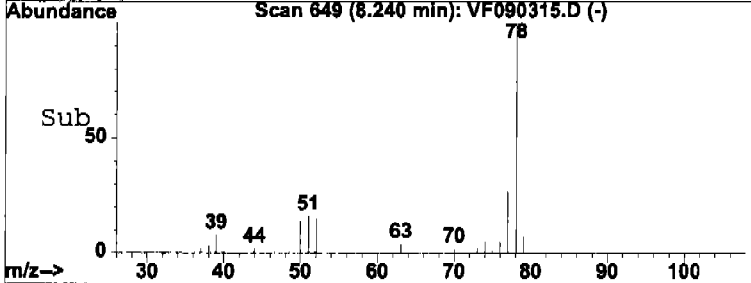
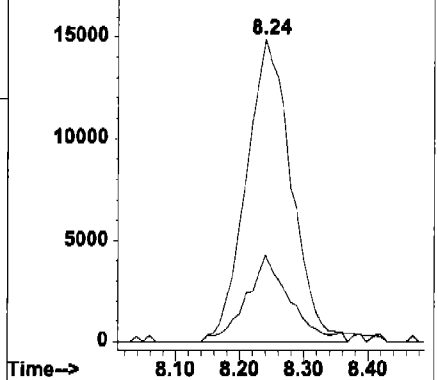


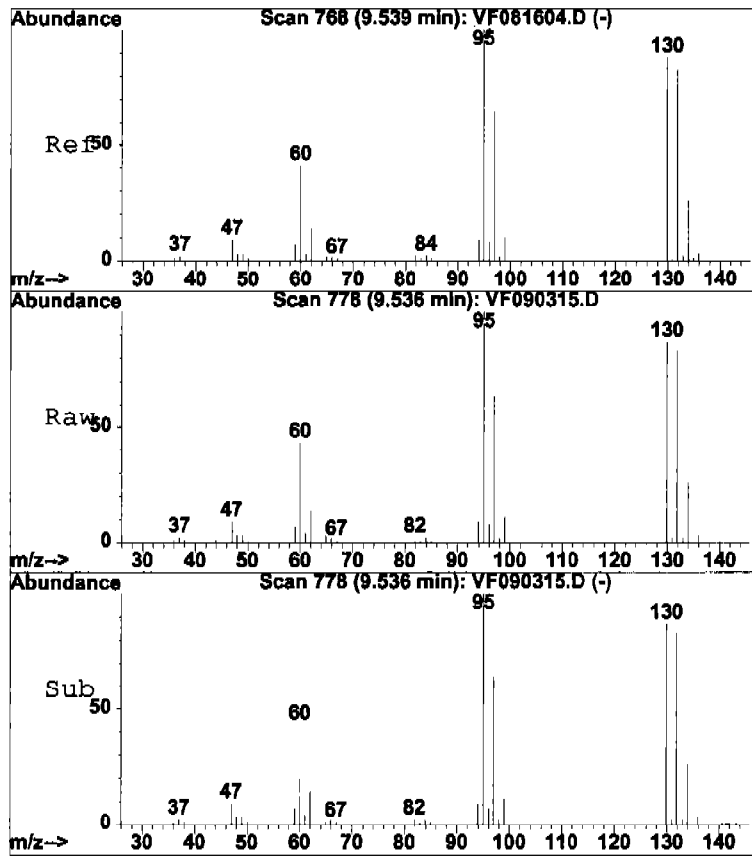
#30  
 Benzene  
 Concen: 0.29 ug/l  
 RT: 8.24 min Scan# 649  
 Delta R.T. -0.00 min  
 Lab File: VF090315.D  
 Acq: 3 Sep 2004 6:39 am

Tgt Ion	Resp	Lower	Upper
78	100		
77	28.8	18.6	27.8#



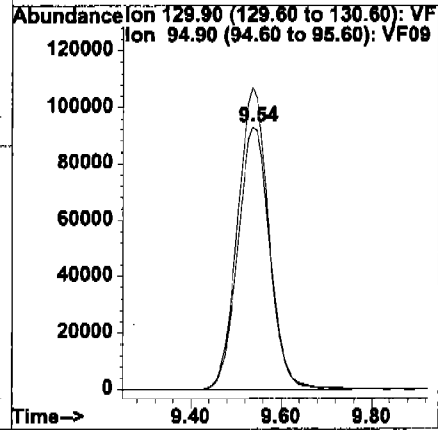
Abundance  
 Ion 78.10 (77.80 to 78.80): VF09  
 Ion 77.00 (76.70 to 77.70): VF09





#32  
 Trichloroethene  
 Concen: 5.50 ug/l  
 RT: 9.54 min Scan# 778  
 Delta R.T. -0.00 min  
 Lab File: VF090315.D  
 Acq: 3 Sep 2004 6:39 am

Tgt Ion	Ratio	Lower	Upper
130	100		
95	115.1	90.9	136.3



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090315.D Vial: 16  
 Acq On : 3 Sep 2004 6:39 am Operator: SAM  
 Sample : S4414-13 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	2.080	30	35	42	rVV2	330647	844367	8.01%	5.382%
2	4.872	305	313	325	rVB	93249	384335	3.64%	2.450%
3	6.747	482	500	542	rBV	2213960	10546232	100.00%	67.225%
4	8.852	696	710	721	rBV	98578	488013	4.63%	3.111%
5	9.536	761	778	795	rBV	533521	2577769	24.44%	16.431%
6	17.855	1593	1603	1623	rBV2	86503	422587	4.01%	2.694%
7	21.417	1941	1955	1973	rVB	83529	424671	4.03%	2.707%

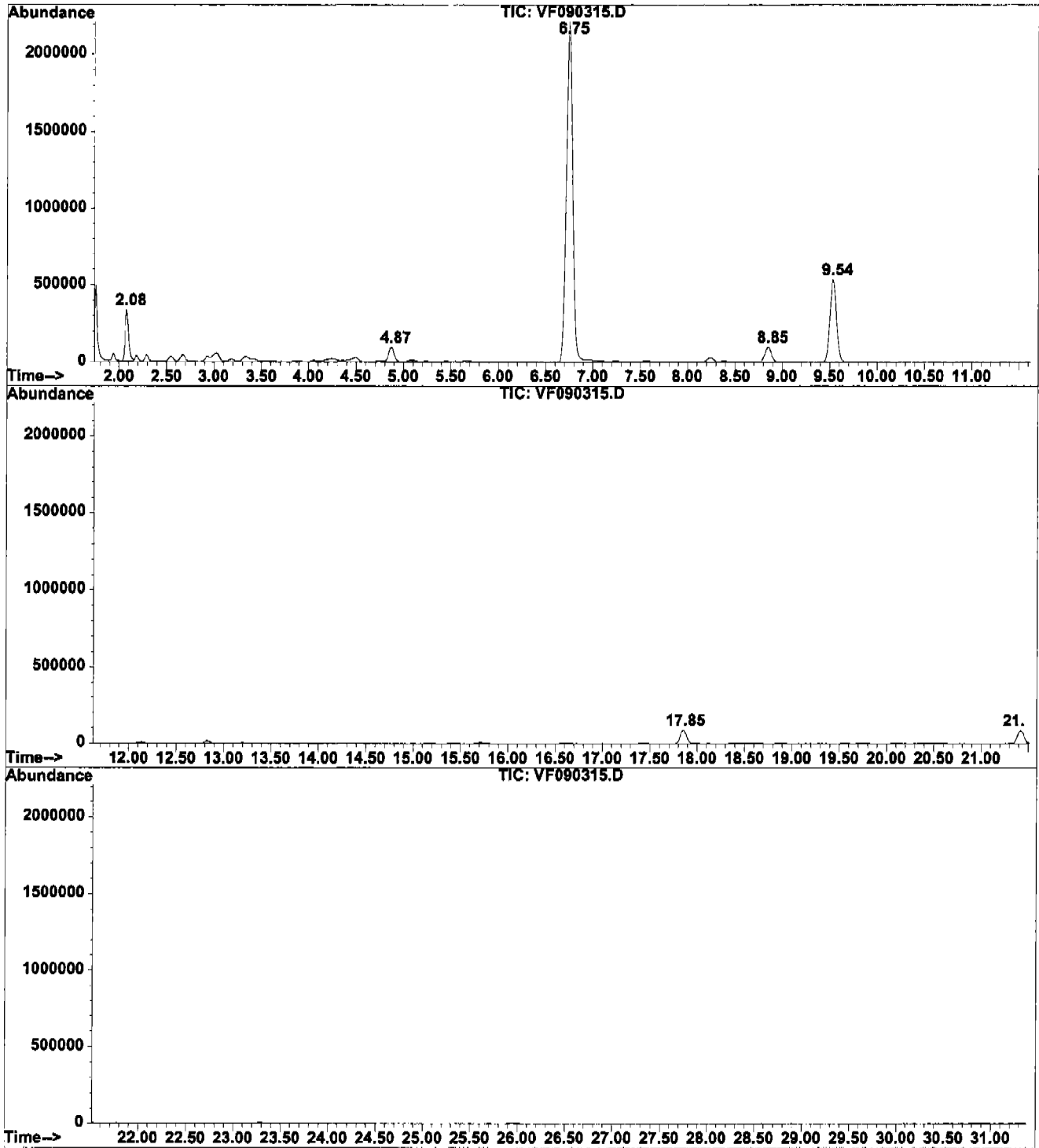
Sum of corrected areas: 15687974

VF090315.D VF0816DW.M Thu Sep 09 12:41:20 2004 RPT1



LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090315.D  
Operator : SAM  
Acquired : 3 Sep 2004 6:39 am using AcqMethod VF\_VOA  
Instrument : VOA F  
Sample Name: S4414-13  
Misc Info : 25mL  
Vial Number: 16  
Quant File :VF0816DW.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: SAM      Date Acquired: 3 Sep 2004 6:39 am  
Data File: C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090315.D  
Name: S4414-13  
Misc: 25mL  
Method: C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title: METHOD 524.2 VOLATILES DRINKING WATER  
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
VF090315.D VF0816DW.M			Thu Sep 09 12:41:20 2004			RPT1		



Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/27/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/28/2004
Client Sample ID:	TR0055	SDG No.:	S4414
Lab Sample ID:	S4414-14	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090317.D	1		9/3/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	0.21	U	1.0	0.21	ug/L
126-98-7	Methacrylonitrile	0.33	U	1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	0.78	U	2.4	0.78	ug/L
109-69-3	1-Chlorobutane	0.22	U	1.0	0.22	ug/L
74-95-3	Dibromomethane	0.24	U	1.0	0.24	ug/L
75-27-4	Bromodichloromethane	0.20	U	1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	1.0	U	5.0	1.0	ug/L
80-62-6	Methyl methacrylate	0.53	U	2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	0.25	U	1.0	0.25	ug/L
108-88-3	Toluene	0.22	U	1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L
591-78-6	2-Hexanone	1.1	U	5.0	1.1	ug/L
124-48-1	Dibromochloromethane	0.17	U	1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L
127-18-4	Tetrachloroethene	0.34	U	1.0	0.34	ug/L
108-90-7	Chlorobenzene	0.21	U	1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L
67-72-1	Hexachloroethane	0.20	U	1.0	0.20	ug/L
100-41-4	Ethyl Benzene	0.21	U	1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	0.43	U	1.0	0.43	ug/L
95-47-6	o-Xylene	0.21	U	1.0	0.21	ug/L
100-42-5	Styrene	0.19	U	1.0	0.19	ug/L
75-25-2	Bromoform	0.22	U	1.0	0.22	ug/L
108-86-1	Bromobenzene	0.21	U	1.0	0.21	ug/L
98-82-8	Isopropylbenzene	0.20	U	1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	0.28	U	1.0	0.28	ug/L
103-61-5	N-propylbenzene	0.24	U	1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	0.50	U	1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.22	U	1.0	0.22	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/27/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/28/2004
Client Sample ID:	TR0055	SDG No.:	S4414
Lab Sample ID:	S4414-14	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090317.D	1		9/3/2004	VF081604

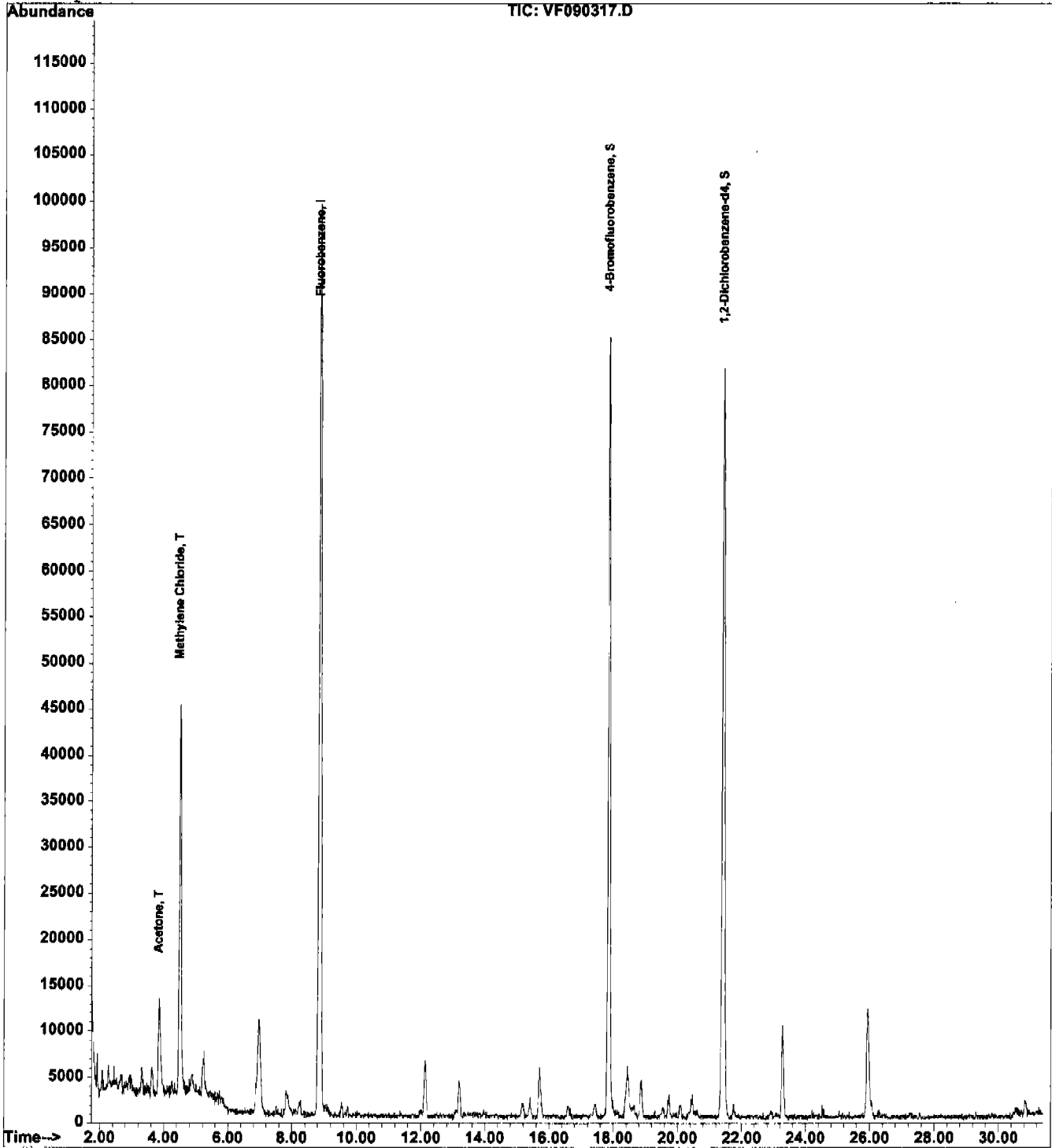
CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	0.22	U	1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	0.18	U	1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	0.20	U	1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	0.22	U	1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
104-51-8	n-Butylbenzene	0.20	U	1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.20	U	1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L
91-20-3	Naphthalene	0.17	U	1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.18	U	1.0	0.18	ug/L
<b>SURROGATES</b>						
2199-69-1	1,2-Dichlorobenzene-d4	1.03	103 %	80 - 120		SPK: 1
460-00-4	4-Bromofluorobenzene	0.96	96 %	80 - 120		SPK: 1
<b>INTERNAL STANDARDS</b>						
462-06-6	Fluorobenzene	229717	8.85			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090317.D Vial: 3  
Acq On : 3 Sep 2004 7:57 am Operator: SAM  
Sample : S4414-14 Inst : VOA F  
Misc : 25mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Sep 7 12:25 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



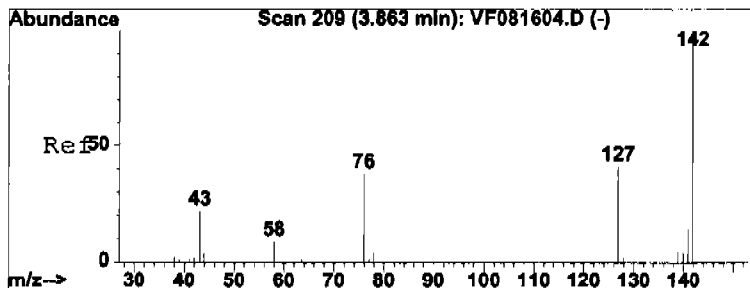
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090317.D Vial: 3  
 Acq On : 3 Sep 2004 7:57 am Operator: SAM  
 Sample : S4414-14 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 7 12:25 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	8.85	96	229717	1.00	ug/l	0.00
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.86	95	103608	0.96	ug/l	0.00
Spiked Amount	1.000		Recovery	=	96.00%	
63) 1,2-Dichlorobenzene-	21.42	152	61891	1.03	ug/l	0.00
Spiked Amount	1.000		Recovery	=	103.00%	
Target Compounds						
12) Acetone	3.87	43	27679	9.70	ug/l	99
14) Methylene Chloride	4.50	84	40516	0.74	ug/l	96

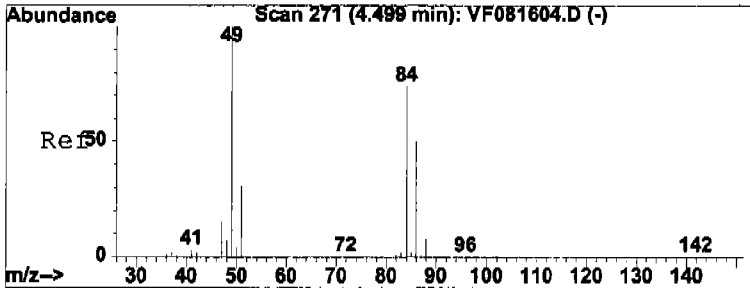
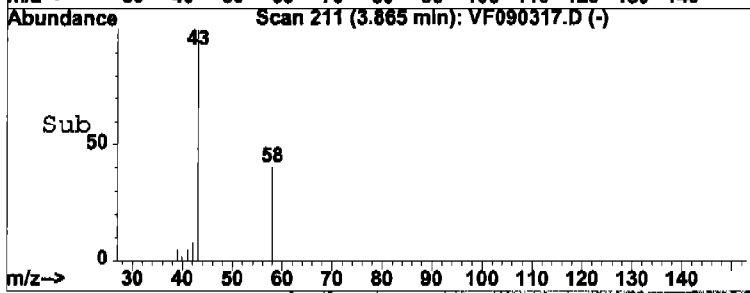
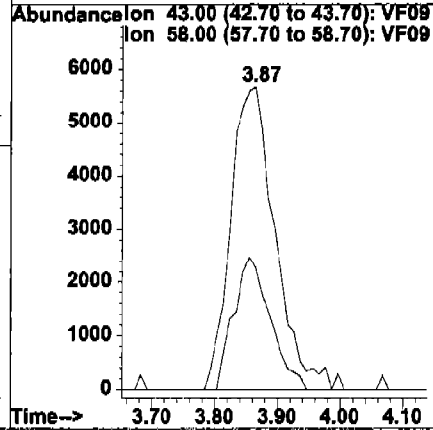
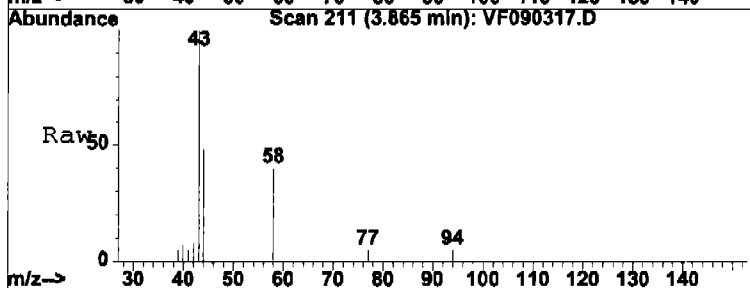
-----  
 Analyst Signature: Sy Analyst Name: Sy Date: 09/09/04  
 -----

-----REASONS FOR MANUAL INTEGRATIONS-----  
 \_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_



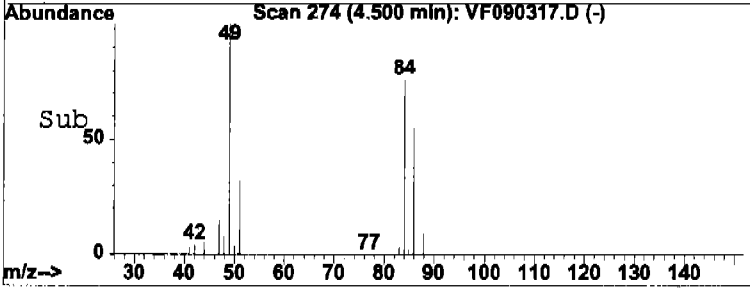
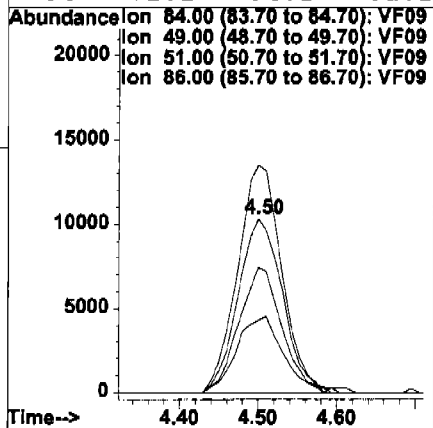
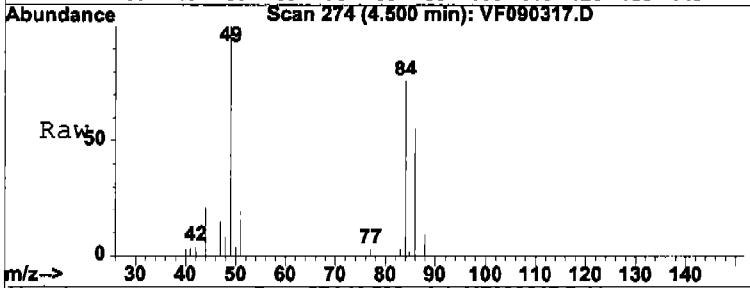
#12  
 Acetone  
 Concen: 9.70 ug/l  
 RT: 3.87 min Scan# 211  
 Delta R.T. 0.02 min  
 Lab File: VF090317.D  
 Acq: 3 Sep 2004 7:57 am

Tgt Ion: 43 Resp: 27679  
 Ion Ratio Lower Upper  
 43 100  
 58 40.2 31.4 47.2



#14  
 Methylene Chloride  
 Concen: 0.74 ug/l  
 RT: 4.50 min Scan# 274  
 Delta R.T. 0.00 min  
 Lab File: VF090317.D  
 Acq: 3 Sep 2004 7:57 am

Tgt Ion: 84 Resp: 40516  
 Ion Ratio Lower Upper  
 84 100  
 49 131.2 108.6 163.0  
 51 42.0 0.0 84.4  
 86 72.2 54.2 81.2





Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090317.D Vial: 3  
 Acq On : 3 Sep 2004 7:57 am Operator: SAM  
 Sample : S4414-14 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

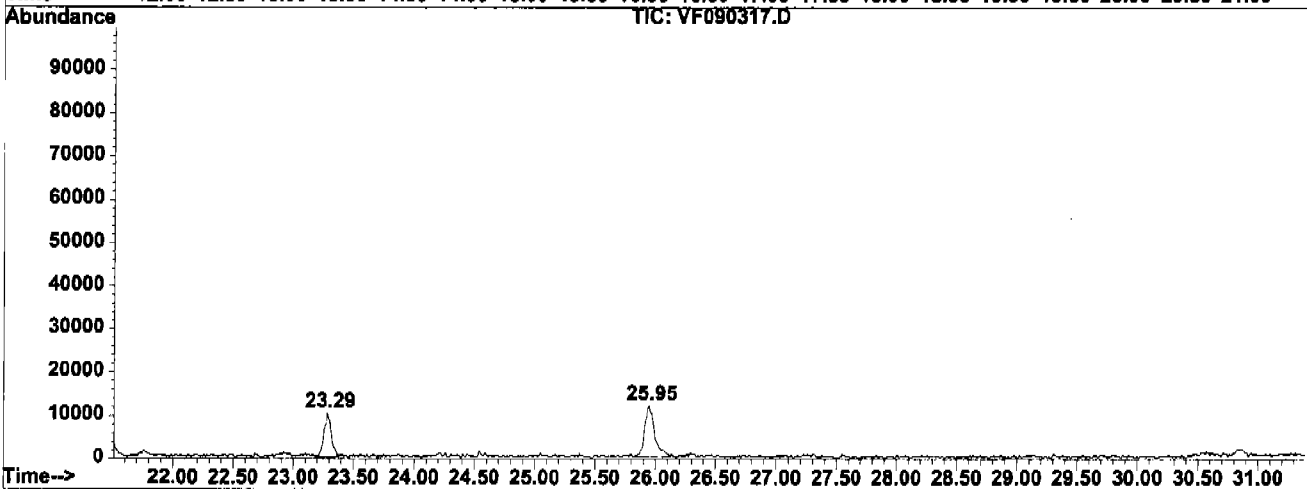
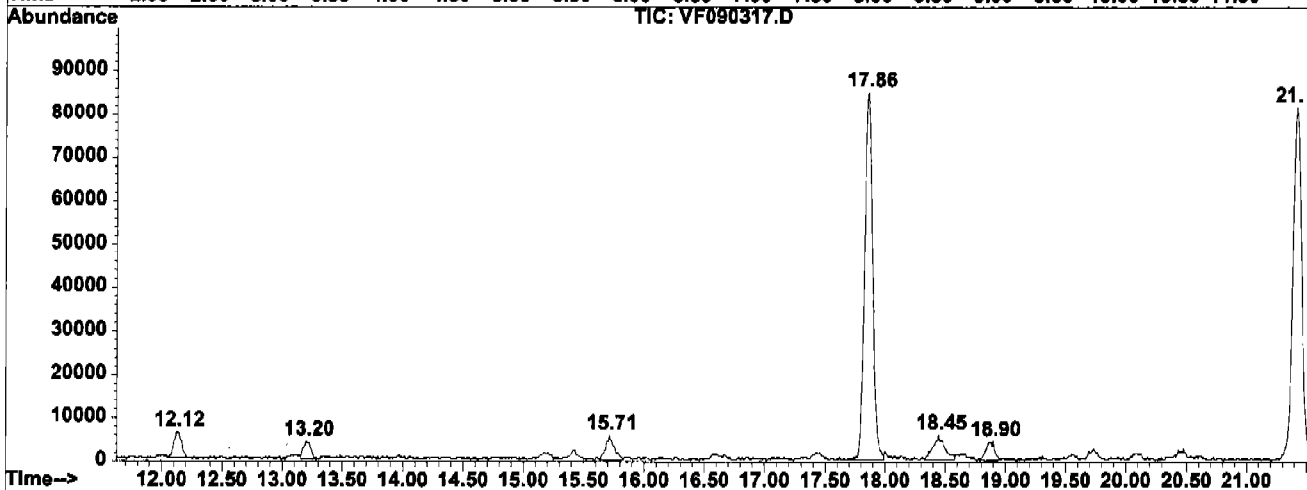
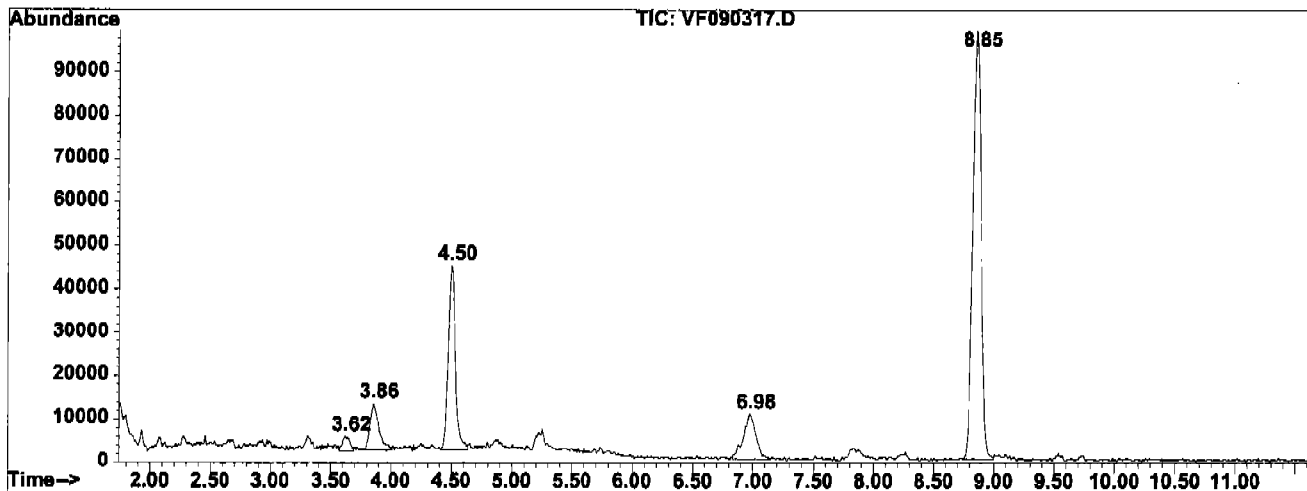
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	3.624	182	187	194	rBV3	3406	14405	3.08%	0.780%
2	3.855	200	210	225	rBV2	10693	54813	11.72%	2.968%
3	4.500	265	274	287	rBV2	42328	172565	36.88%	9.345%
4	6.981	501	519	535	rVB2	10272	76271	16.30%	4.130%
5	8.855	693	704	718	rBV	98644	467848	100.00%	25.336%
6	12.125	1020	1027	1037	rVB3	6113	27612	5.90%	1.495%
7	13.202	1129	1134	1144	rVB4	4153	17814	3.81%	0.965%
8	15.714	1374	1382	1394	rBV5	5562	27645	5.91%	1.497%
9	17.861	1575	1594	1607	rBV	84797	400968	85.70%	21.714%
10	18.445	1641	1652	1665	rBV6	5723	37966	8.12%	2.056%
11	18.899	1683	1697	1704	rBV5	4276	22577	4.83%	1.223%
12	21.420	1931	1945	1965	rVB2	81360	411982	88.06%	22.310%
13	23.285	2119	2129	2139	rBV3	10088	43226	9.24%	2.341%
14	25.951	2380	2392	2409	rBV5	11934	70911	15.16%	3.840%

Sum of corrected areas: 1846603

VF090317.D VF0816DW.M Thu Sep 09 12:41:48 2004 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090317.D  
Operator : SAM  
Acquired : 3 Sep 2004 7:57 am using AcqMethod VF\_VOA  
Instrument : VOA F  
Sample Name: S4414-14  
Misc Info : 25mL  
Vial Number: 3  
Quant File : VF0816DW.RES (RTE Integrator)



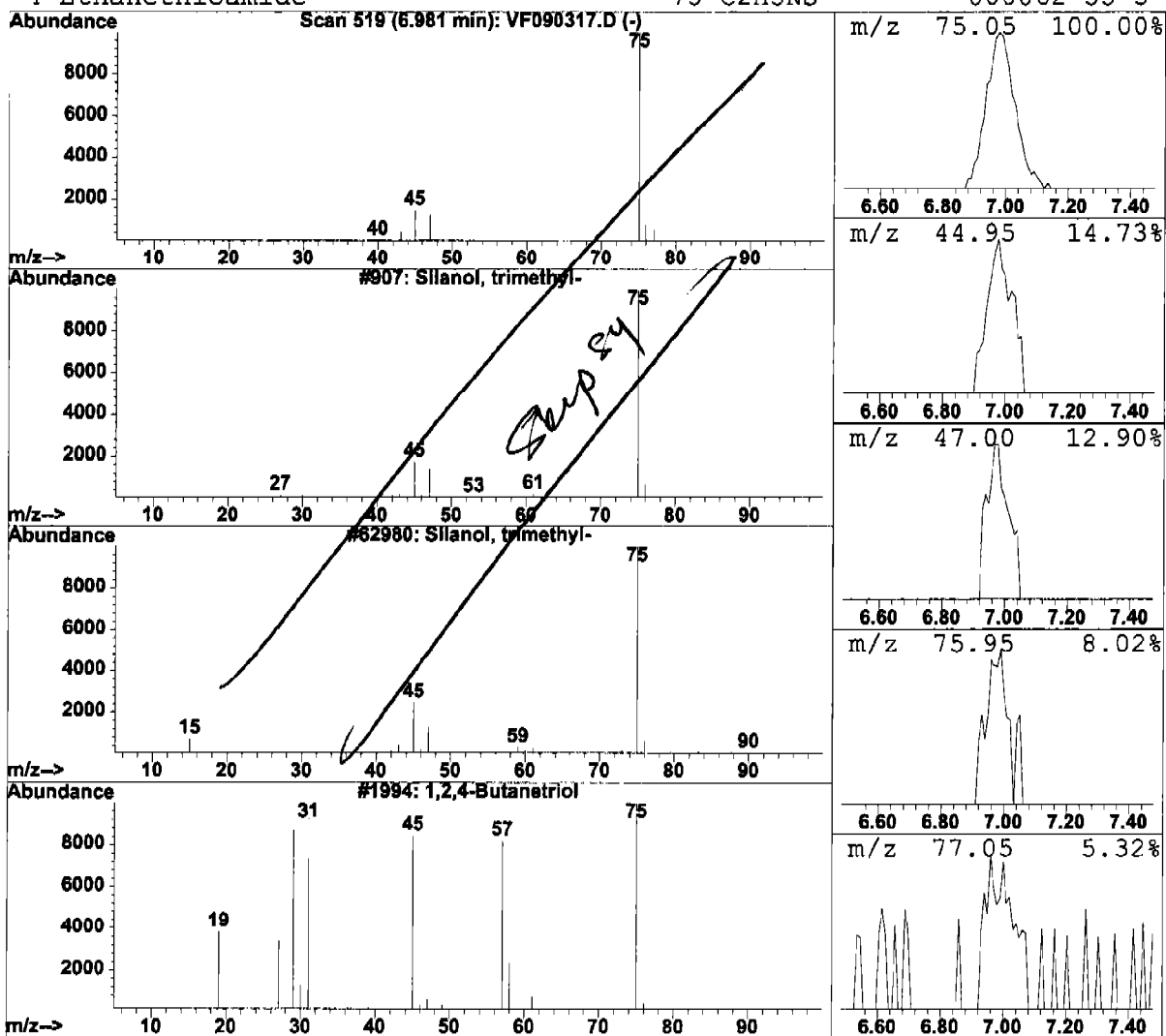
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090317.D Vial: 3  
 Acq On : 3 Sep 2004 7:57 am Operator: SAM  
 Sample : S4414-14 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 1 Silanol, trimethyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.98	0.16 ug/l	76271	Fluorobenzene	8.85

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	9
2		Silanol, trimethyl-	90	C3H10OSi	001066-40-6	4
3		1,2,4-Butanetriol	106	C4H10O3	003068-00-6	2
4		Ethanethioamide	75	C2H5NS	000062-55-5	2



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090317.D Vial: 3  
 Acq On : 3 Sep 2004 7:57 am Operator: SAM  
 Sample : S4414-14 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

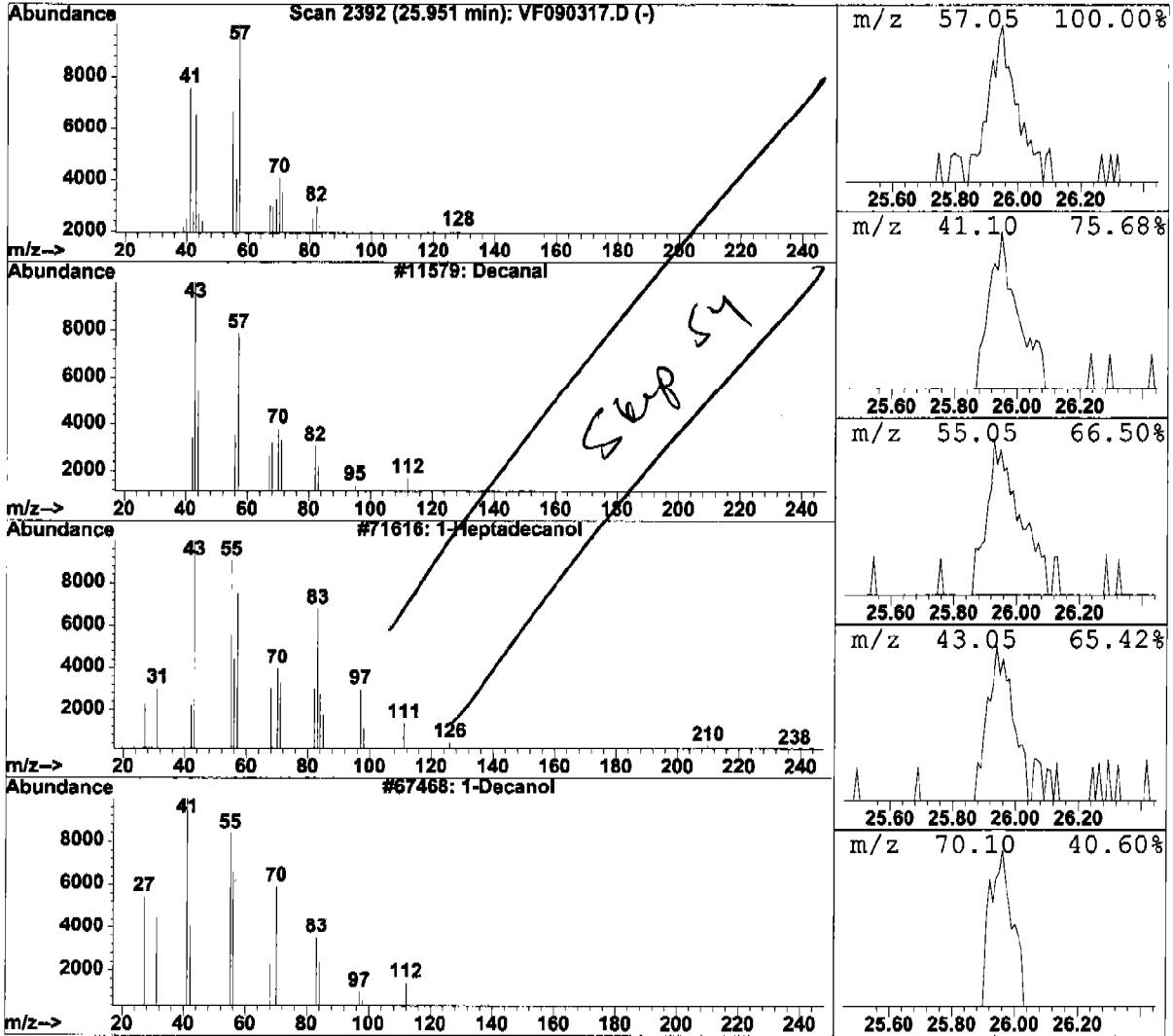
Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 2 Decanal Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
25.95	0.15 ug/l	70911	Fluorobenzene	8.85

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Decanal	156	C10H20O	000112-31-2	58
2	1-Heptadecanol	256	C17H36O	001454-85-9	50
3	1-Decanol	158	C10H22O	000112-30-1	43
4	1-Dodecene	168	C12H24	000112-41-4	43



Tentatively Identified Compound (LSC) summary

Operator ID: SAM      Date Acquired: 3 Sep 2004 7:57 am  
 Data File: C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090317.D  
 Name: S4414-14  
 Misc: 25mL  
 Method: C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title: METHOD 524.2 VOLATILES DRINKING WATER  
 Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Silanol, trimethyl-	6.98	0.2	ug/l	76271	ISTD01	8.85	467848	1.0
Decanal	25.95	0.2	ug/l	70911	ISTD01	8.85	467848	1.0

VF090317.D VF0816DW.M Thu Sep 09 12:41:49 2004 RPT1

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/27/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monit</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR0057</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-15</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090408.D</b>	<b>1</b>		<b>9/4/2004</b>	<b>VF081604</b>

<b>CAS Number</b>	<b>Parameter</b>	<b>Conc.</b>	<b>Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	0.09	U	1.0	0.09	ug/L
74-87-3	Chloromethane	0.11	U	1.0	0.11	ug/L
75-01-4	Vinyl Chloride	0.14	U	1.0	0.14	ug/L
74-83-9	Bromomethane	0.22	U	1.0	0.22	ug/L
75-00-3	Chloroethane	0.19	U	1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	0.09	U	1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	2.2	U	10	2.2	ug/L
60-29-7	Diethyl Ether	0.21	U	1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	0.16	U	1.0	0.16	ug/L
74-88-4	Iodomethane	0.14	U	1.0	0.14	ug/L
107-5-1	Allyl Chloride	0.18	U	1.0	0.18	ug/L
107-13-1	Acrylonitrile	0.94	U	2.0	0.94	ug/L
67-64-1	Acetone	12		5.8	1.5	ug/L
75-15-0	Carbon disulfide	0.18	U	1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	0.37	U	1.0	0.37	ug/L
79-20-9	Methyl acrylate	0.17	U	1.0	0.17	ug/L
75-09-2	Methylene Chloride	0.5	J	1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.94	U	5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	0.22	U	1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	0.20	U	1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L
67-66-3	Chloroform	0.22	U	1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	1.4	U	2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L
108-20-3	Isopropyl Ether	0.21	U	1.0	0.21	ug/L
107-12-0	Propionitrile	3.3	U	10	3.3	ug/L
71-43-2	Benzene	0.24	U	1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	0.24	U	1.0	0.24	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/27/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monitc</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR0057</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-15</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090408.D</b>	<b>1</b>		<b>9/4/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	0.21	U	1.0	0.21	ug/L
126-98-7	Methacrylonitrile	0.33	U	1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	0.78	U	2.4	0.78	ug/L
109-69-3	1-Chlorobutane	0.22	U	1.0	0.22	ug/L
74-95-3	Dibromomethane	0.24	U	1.0	0.24	ug/L
75-27-4	Bromodichloromethane	0.20	U	1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	1.0	U	5.0	1.0	ug/L
80-62-6	Methyl methacrylate	0.53	U	2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	0.25	U	1.0	0.25	ug/L
108-88-3	Toluene	0.22	U	1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L
591-78-6	2-Hexanone	1.1	U	5.0	1.1	ug/L
124-48-1	Dibromochloromethane	0.17	U	1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L
127-18-4	Tetrachloroethene	0.34	U	1.0	0.34	ug/L
108-90-7	Chlorobenzene	0.21	U	1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L
67-72-1	Hexachloroethane	0.20	U	1.0	0.20	ug/L
100-41-4	Ethyl Benzene	0.21	U	1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	0.43	U	1.0	0.43	ug/L
95-47-6	o-Xylene	0.21	U	1.0	0.21	ug/L
100-42-5	Styrene	0.19	U	1.0	0.19	ug/L
75-25-2	Bromoform	0.22	U	1.0	0.22	ug/L
108-86-1	Bromobenzene	0.21	U	1.0	0.21	ug/L
98-82-8	Isopropylbenzene	0.20	U	1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	0.28	U	1.0	0.28	ug/L
103-61-5	N-propylbenzene	0.24	U	1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	0.50	U	1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.22	U	1.0	0.22	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/27/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR0057</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-15</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090408.D</b>	<b>1</b>		<b>9/4/2004</b>	<b>VF081604</b>

<b>CAS Number</b>	<b>Parameter</b>	<b>Conc.</b>	<b>Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
106-43-4	4-Chlorotoluene	0.22	U	1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	0.18	U	1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	0.20	U	1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	0.22	U	1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
104-51-8	n-Butylbenzene	0.20	U	1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.20	U	1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L
91-20-3	Naphthalene	0.17	U	1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.18	U	1.0	0.18	ug/L
<b>SURROGATES</b>						
2199-69-1	1,2-Dichlorobenzene-d4	1.01	101 %	80 - 120		SPK: 1
460-00-4	4-Bromofluorobenzene	0.96	96 %	80 - 120		SPK: 1
<b>INTERNAL STANDARDS</b>						
462-06-6	Fluorobenzene	222510	8.86			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

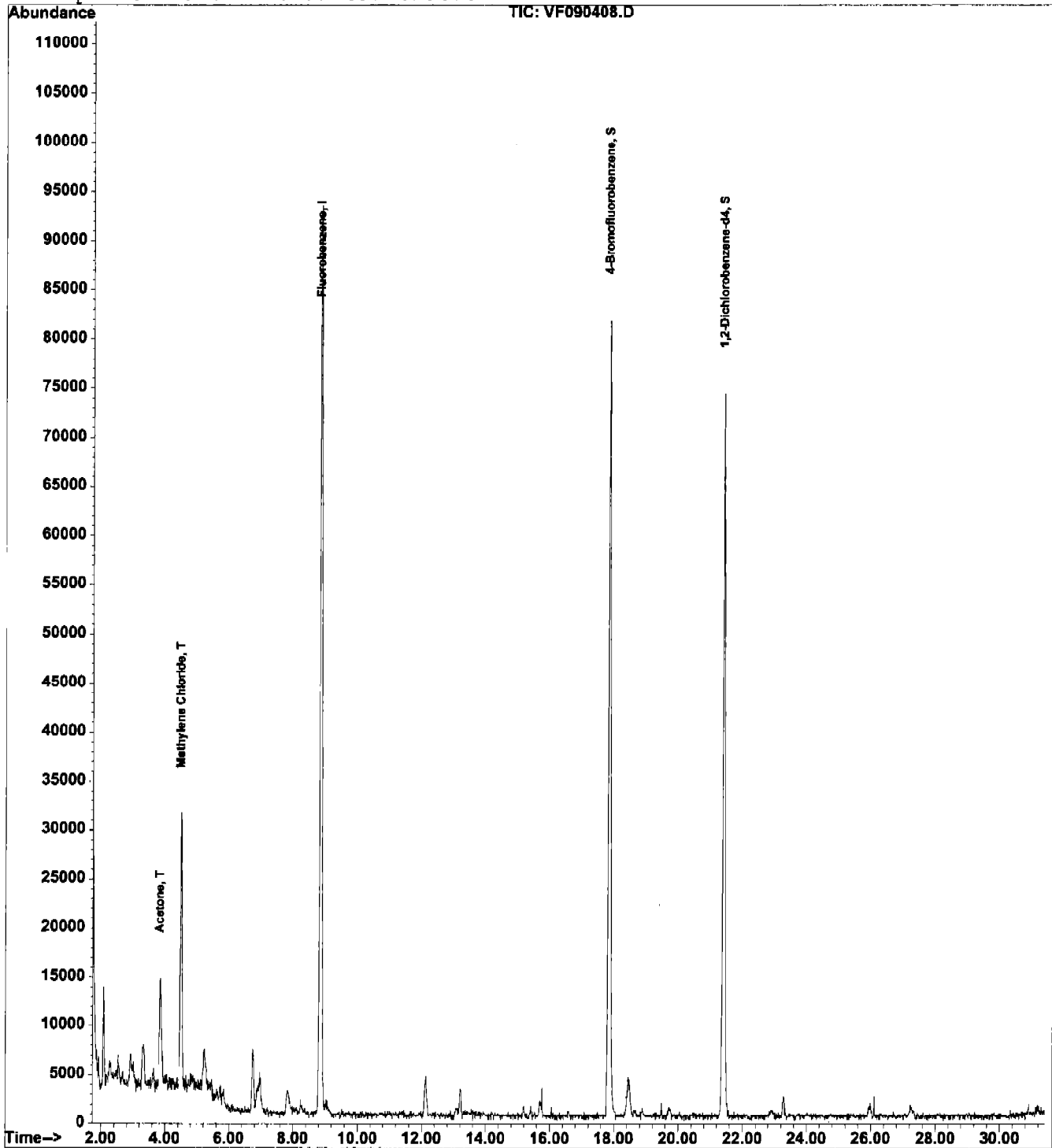


Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090408.D Vial: 9  
Acq On : 4 Sep 2004 2:19 am Operator: SAM  
Sample : S4414-15 Inst : VOA F  
Misc : 25mL Multiplr: 1.00

MS Integration Params: rteint.p  
Quant Time: Sep 7 11:38 2004

Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



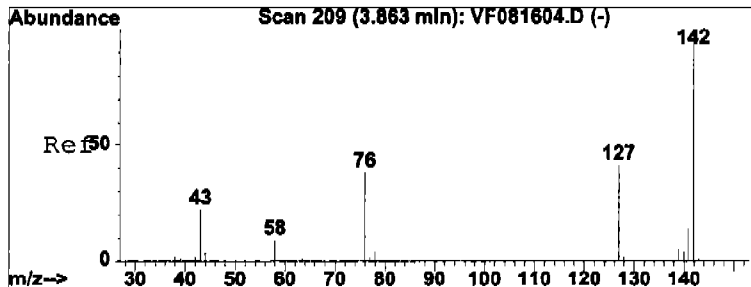
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090408.D Vial: 9  
 Acq On : 4 Sep 2004 2:19 am Operator: SAM  
 Sample : S4414-15 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 7 11:38 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.86	96	222510	1.00	ug/l	0.00
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.85	95	100017	0.96	ug/l	0.00
Spiked Amount	1.000		Recovery	=	96.00%	
63) 1,2-Dichlorobenzene-	21.42	152	58457	1.01	ug/l	0.00
Spiked Amount	1.000		Recovery	=	101.00%	
Target Compounds						Qvalue
12) Acetone	3.86	43	33289	12.04	ug/l	99
14) Methylene Chloride	4.51	84	26010	0.49	ug/l	97

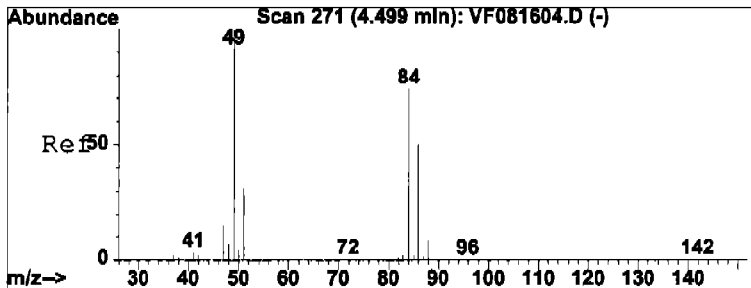
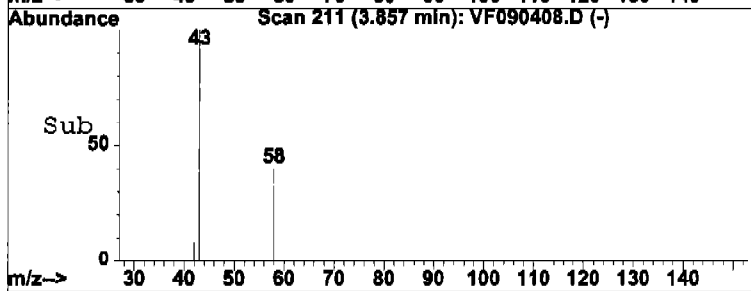
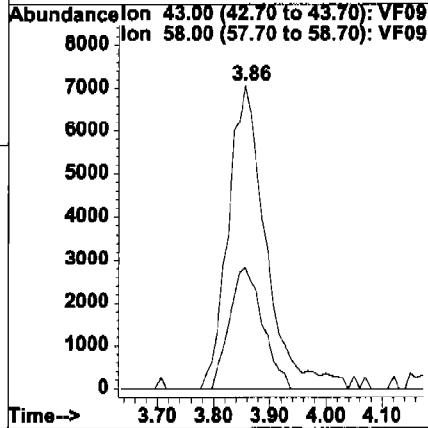
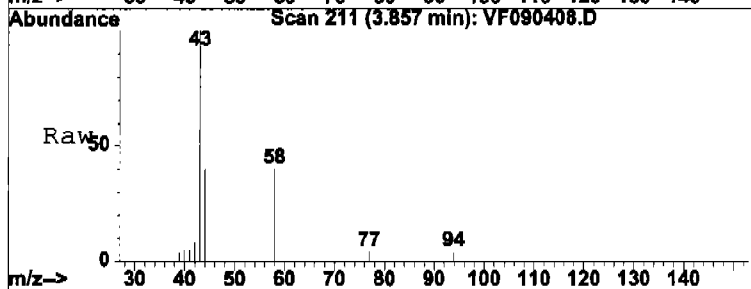
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 Analyst Signature: Sy Analyst Name: Sy Date: 09/09/04  
 -----REASONS FOR MANUAL INTEGRATIONS-----  
 \_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly.Compound #: \_\_\_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration



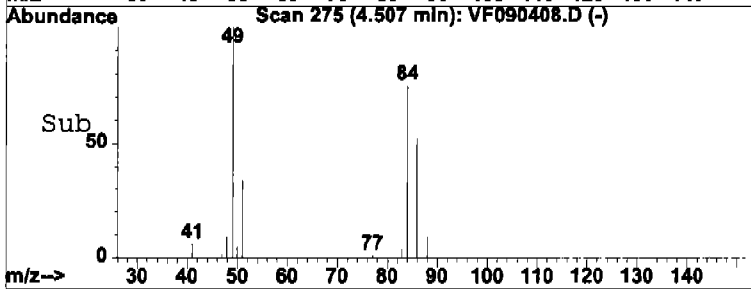
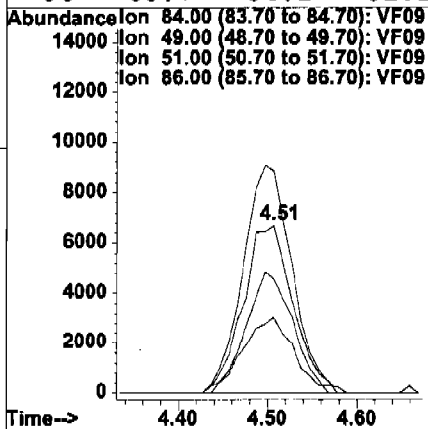
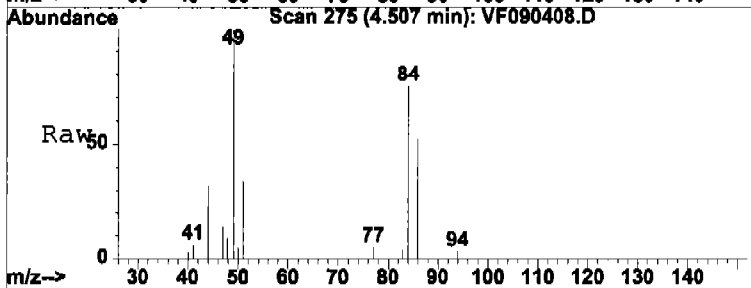
#12  
 Acetone  
 Concen: 12.04 ug/l  
 RT: 3.86 min Scan# 211  
 Delta R.T. 0.01 min  
 Lab File: VF090408.D  
 Acq: 4 Sep 2004 2:19 am

Tgt Ion: 43 Resp: 33289  
 Ion Ratio Lower Upper  
 43 100  
 58 39.9 31.4 47.2



#14  
 Methylene Chloride  
 Concen: 0.49 ug/l  
 RT: 4.51 min Scan# 275  
 Delta R.T. 0.01 min  
 Lab File: VF090408.D  
 Acq: 4 Sep 2004 2:19 am

Tgt Ion: 84 Resp: 26010  
 Ion Ratio Lower Upper  
 84 100  
 49 132.6 108.6 163.0  
 51 45.4 0.0 84.4  
 86 68.7 54.2 81.2



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090408.D Vial: 9  
 Acq On : 4 Sep 2004 2:19 am Operator: SAM  
 Sample : S4414-15 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

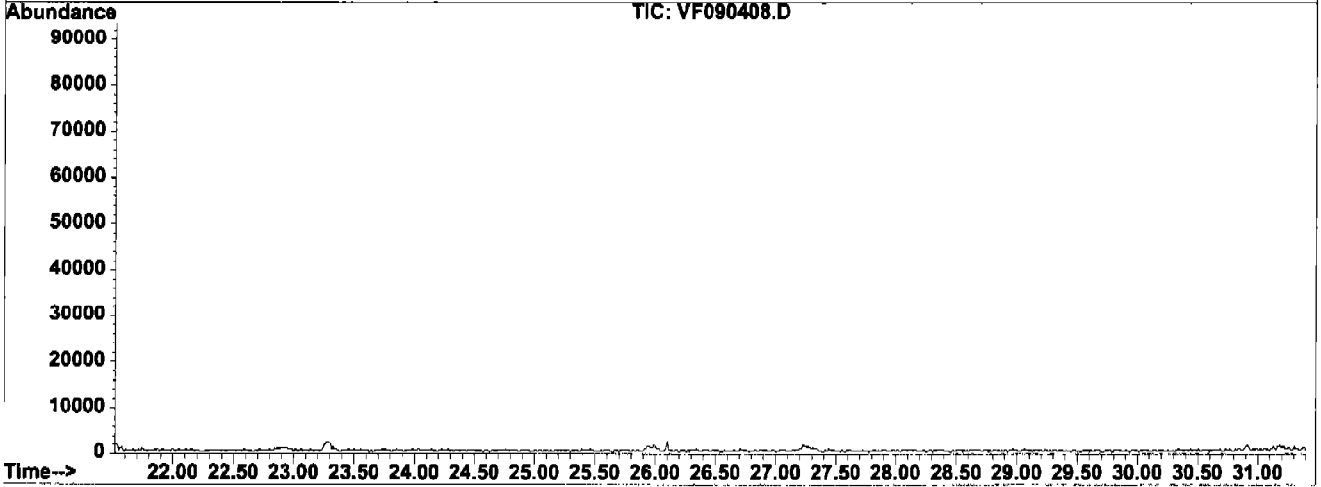
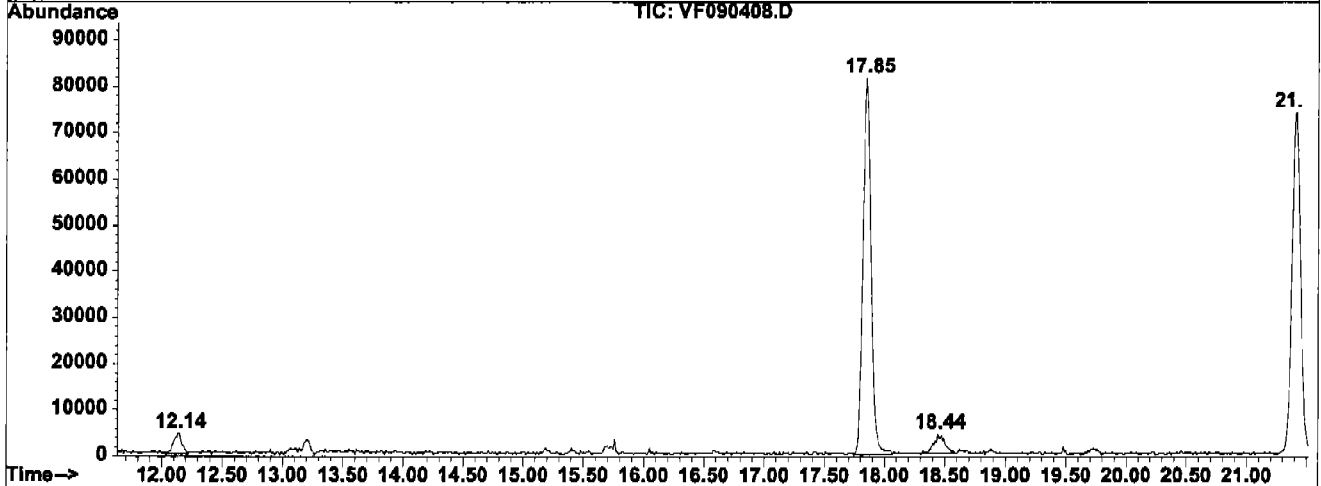
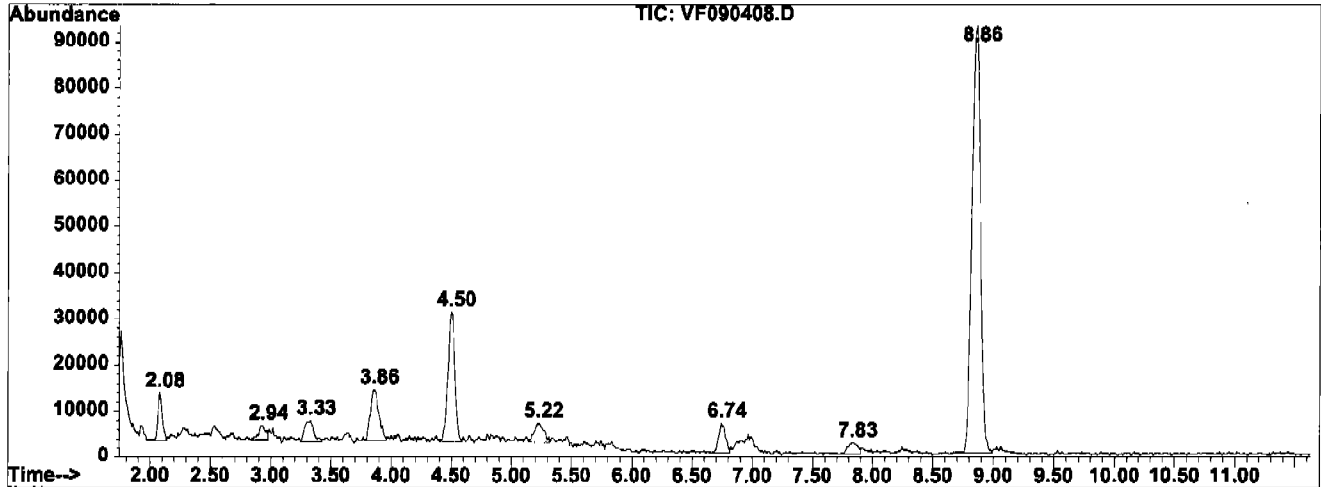
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	2.081	29	35	41	rBV3	10258	25147	5.52%	1.633%
2	2.938	110	120	124	rBV6	3214	13841	3.04%	0.899%
3	3.331	151	159	168	rBV4	4647	23885	5.24%	1.551%
4	3.857	203	211	221	rBV2	10988	53153	11.67%	3.452%
5	4.497	264	274	283	rBV	28097	109683	24.09%	7.123%
6	5.225	338	346	356	rVB4	4175	23382	5.13%	1.518%
7	6.741	489	497	504	rBV3	6495	26875	5.90%	1.745%
8	7.829	595	605	612	rBV3	2615	16421	3.61%	1.066%
9	8.856	695	707	720	rBV	92508	455390	100.00%	29.574%
10	12.135	1022	1033	1042	rBV3	4334	21484	4.72%	1.395%
11	17.853	1589	1600	1621	rVB2	81455	380933	83.65%	24.739%
12	18.442	1649	1658	1673	rVB7	4107	25365	5.57%	1.647%
13	21.417	1936	1952	1965	rBV2	73879	364269	79.99%	23.656%

Sum of corrected areas: 1539828

VF090408.D VF0816DW.M Thu Sep 09 12:54:02 2004 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090408.D  
Operator : SAM  
Acquired : 4 Sep 2004 2:19 am using AcqMethod VF\_VOA  
Instrument : VOA F  
Sample Name: S4414-15  
Misc Info : 25mL  
Vial Number: 9  
Quant File : VF0816DW.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: SAM      Date Acquired: 4 Sep 2004 2:19 am  
Data File: C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090408.D  
Name: S4414-15  
Misc: 25mL  
Method: C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title: METHOD 524.2 VOLATILES DRINKING WATER  
Library Searched: C:\DATABASE\NBS75K.L

TIC	Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
VF090408.D	VF0816DW.M						Thu Sep 09 12:54:02 2004		RPT1

CHEMTECH

VOLATILES  
CALIBRATION  
DATA

## VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4414 SAS No.: S4414 SDG No.: S4414  
 Instrument ID: MSVOAF Calibration Date(s): 8/16/2004 8/16/2004  
 Heated Purge: (Y/N) N Calibration Time(s): 09:49 12:24  
 GC Column: RTX624 ID: 0.53 (mm)

LAB FILE ID:							
	RRF001 = VF081602.D	RRF002 = VF081603.D					
	RRF010 = VF081604.D	RRF020 = VF081605.D	RRF040 = VF081606.D				
COMPOUND	RRF001	RRF002	RRF010	RRF020	RRF040	RRF	% RSD
Dichlorodifluoromethane	0.325	0.344	0.280	0.341	0.299	0.318	8.7
Chloromethane *	0.226	0.236	0.200	0.218	0.188	0.214	9.1 *
Vinyl Chloride *	0.303	0.331	0.267	0.298	0.262	0.292	9.7 *
Bromomethane	0.093	0.152	0.114	0.139	0.122	0.124	18.4
Chloroethane	0.177	0.191	0.150	0.157	0.064	0.148	33.5
Trichlorofluoromethane	0.479	0.504	0.396	0.485	0.431	0.459	9.7
tert-Butyl Alcohol	0.007	0.007	0.006	0.006	0.006	0.006	11.8
Diethyl Ether	0.112	0.101	0.105	0.106	0.099	0.105	4.8
1,1-Dichloroethene *	0.321	0.297	0.274	0.292	0.266	0.290	7.4 *
Iodomethane	0.069	0.158	0.288	0.379	0.394	0.258	54.7
Allyl Chloride	0.324	0.316	0.297	0.302	0.270	0.302	6.9
Acrylonitrile	0.019	0.016	0.018	0.018	0.016	0.017	8.3
Acetone	0.017	0.014	0.011	0.011	0.009	0.012	26.4
Carbon Disulfide	0.818	0.809	0.759	0.799	0.720	0.781	5.2
Methyl tert-Butyl Ether	0.337	0.302	0.302	0.306	0.285	0.306	6.2
Methyl acrylate	0.094	0.090	0.097	0.100	0.093	0.095	4.0
Methylene Chloride	0.281	0.239	0.224	0.228	0.212	0.237	11.2
trans-1,2-Dichloroethene	0.340	0.324	0.291	0.308	0.287	0.310	7.2
1,1-Dichloroethane *	0.598	0.564	0.539	0.555	0.503	0.552	6.3 *
2-Butanone	0.032	0.028	0.028	0.028	0.027	0.029	6.9
Carbon Tetrachloride *	0.467	0.466	0.429	0.458	0.423	0.449	4.7 *
2,2-Dichloropropane	0.546	0.508	0.459	0.457	0.427	0.479	9.9
cis-1,2-Dichloroethene	0.326	0.307	0.293	0.308	0.288	0.304	4.9
Chloroform *	0.556	0.540	0.510	0.514	0.483	0.521	5.4 *
1,1,1-Trichloroethane *	0.545	0.534	0.495	0.519	0.480	0.515	5.2 *
t-1,4-Dichloro-2-butene	0.033	0.032	0.035	0.034	0.032	0.033	4.0
1,1-Dichloropropene	0.575	0.540	0.485	0.523	0.460	0.517	8.8
Isopropyl Ether	0.658	0.623	0.597	0.612	0.566	0.611	5.5
Propionitrile	0.007	0.006	0.007	0.007	0.007	0.007	7.1
Benzene *	1.149	1.110	1.011	1.068	0.989	1.065	6.3 *
1,2-Dichloroethane *	0.189	0.177	0.179	0.185	0.168	0.180	4.5 *
Trichloroethene *	0.372	0.361	0.322	0.360	0.328	0.349	6.3 *
1,2-Dichloropropane *	0.359	0.338	0.331	0.337	0.316	0.336	4.6 *
Methacrylonitrile	0.070	0.056	0.057	0.058	0.054	0.059	10.7
Tetrahydrofuran	0.021	0.019	0.020	0.020	0.018	0.020	6.1
1-Chlorobutane	0.798	0.767	0.689	0.698	0.594	0.709	11.2
Dibromomethane	0.134	0.121	0.128	0.133	0.124	0.128	4.4

\* Compounds with required minimum RRF and maximum %RSD values.  
 All other compounds must meet a minimum RRF of 0.010.



## VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4414 SAS No.: S4414 SDG No.: S4414  
 Instrument ID: MSVOAF Calibration Date(s): 8/16/2004 8/16/2004  
 Heated Purge: (Y/N) N Calibration Time(s): 09:49 12:24  
 GC Column: RTX624 ID: 0.53 (mm)

LAB FILE ID:							
RRF010 = VF081604.D		RRF001 = VF081602.D		RRF002 = VF081603.D		RRF040 = VF081606.D	
		RRF020 = VF081605.D					
COMPOUND	RRF001	RRF002	RRF010	RRF020	RRF040	RRF	% RSD
Bromodichloromethane *	0.393	0.363	0.376	0.397	0.364	0.379	4.2
4-Methyl-2-Pentanone	0.126	0.113	0.124	0.122	0.115	0.120	4.8
Methyl methacrylate	0.084	0.078	0.083	0.084	0.079	0.082	3.6
Ethyl methacrylate	0.194	0.182	0.192	0.202	0.189	0.192	3.8
Toluene *	0.738	0.726	0.661	0.695	0.640	0.692	6.0
t-1,3-Dichloropropene *	0.274	0.252	0.262	0.276	0.256	0.264	4.0
cis-1,3-Dichloropropene *	0.478	0.448	0.458	0.483	0.446	0.463	3.7
1,1,2-Trichloroethane *	0.164	0.150	0.151	0.156	0.139	0.152	6.0
1,3-Dichloropropane	0.298	0.268	0.269	0.280	0.260	0.275	5.3
2-Hexanone	0.053	0.049	0.052	0.054	0.049	0.051	4.6
Dibromochloromethane *	0.200	0.190	0.209	0.221	0.208	0.206	5.6
1,2-Dibromoethane	0.157	0.148	0.154	0.162	0.153	0.155	3.3
Tetrachloroethene *	0.345	0.335	0.300	0.333	0.307	0.324	6.0
Chlorobenzene *	0.699	0.679	0.641	0.672	0.631	0.664	4.2
1,1,1,2-Tetrachloroethane	0.254	0.251	0.244	0.252	0.233	0.247	3.5
Hexachloroethane	0.424	0.434	0.411	0.442	0.394	0.421	4.5
Ethyl Benzene *	1.625	1.568	1.407	1.438	1.264	1.460	9.7
m/p-Xylenes *	1.211	1.158	1.042	1.094	0.935	1.088	9.8
o-Xylene *	1.124	1.084	0.997	1.044	0.936	1.037	7.1
Styrene *	0.733	0.715	0.689	0.721	0.656	0.703	4.4
Bromoform *	0.091	0.087	0.102	0.109	0.108	0.099	10.1
Bromobenzene	0.284	0.265	0.263	0.281	0.263	0.271	3.8
Isopropylbenzene	1.562	1.525	1.400	1.478	1.333	1.460	6.4
1,1,2,2-Tetrachloroethane *	0.200	0.183	0.184	0.187	0.167	0.184	6.4
1,2,3-Trichloropropane *	0.133	0.128	0.133	0.138	0.125	0.131	3.9
n-propylbenzene	0.429	0.426	0.371	0.398	0.359	0.397	8.0
2-Chlorotoluene	0.330	0.321	0.301	0.320	0.292	0.313	5.0
1,3,5-Trimethylbenzene	1.204	1.178	1.051	1.096	0.979	1.102	8.4
4-Chlorotoluene	0.319	0.311	0.284	0.295	0.264	0.295	7.4
tert-Butylbenzene	1.503	1.470	1.348	1.438	1.291	1.410	6.2
1,2,4-Trimethylbenzene	1.096	1.031	0.951	1.016	0.917	1.002	7.0
sec-Butylbenzene	1.952	1.964	1.718	1.858	1.633	1.825	8.0
p-Isopropyltoluene	1.532	1.482	1.309	1.425	1.275	1.405	7.8
1,3-Dichlorobenzene *	0.597	0.583	0.541	0.584	0.535	0.568	4.9
1,4-Dichlorobenzene *	0.592	0.548	0.514	0.554	0.502	0.542	6.6
n-Butylbenzene	1.741	1.712	1.454	1.552	1.327	1.557	11.2
1,2-Dichlorobenzene *	0.473	0.442	0.409	0.432	0.388	0.429	7.5

\* Compounds with required minimum RRF and maximum %RSD values.  
 All other compounds must meet a minimum RRF of 0.010.

VOLATILE ORGANICS CALIBRATION DATA

Lab Name: Chentech Contact: PARL  
 Lab Code: CTECH Case No.: S4414 SAS No.: S4414 SDG No.: S4414  
 Instrument ID: MSVOAF Calibration Date(s): 8/16/2004 8/16/2004  
 Heated Purge: (Y/N) N Calibration Time(s): 09:49 12:24  
 GC Column: RTX624 ID: 0.53 (mm)

LAB FILE ID:							
RRF001 = VF081602.D		RRF002 = VF081603.D		RRF010 = VF081604.D		RRF020 = VF081605.D	
RRF001 = VF081604.D		RRF020 = VF081605.D		RRF040 = VF081606.D			
COMPOUND	RRF001	RRF002	RRF010	RRF020	RRF040	RRF	% RSD
1,2-Dibromo-3-Chloropro	0.024	0.026	0.028	0.030	0.028	0.027	8.5
1,2,4-Trichlorobenzene *	0.336	0.343	0.328	0.375	0.347	0.346	5.2 *
Hexachlorobutadiene	0.292	0.309	0.272	0.315	0.298	0.297	5.6
Naphthalene	0.235	0.261	0.266	0.289	0.273	0.265	7.4
1,2,3-Trichlorobenzene	0.246	0.254	0.249	0.279	0.260	0.258	5.1
1,2-Dichlorobenzene-d4	0.250	0.258	0.270	0.274	0.255	0.261	3.9
4-Bromofluorobenzene *	0.435	0.443	0.464	0.482	0.524	0.470	7.6 *

\* Compounds with required minimum RRF and maximum %RSD values.  
 All other compounds must meet a minimum RRF of 0.010.

Response Factor Report VOA F

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration

Calibration Files

1 =VF081602.D 2 =VF081603.D 10 =VF081604.D  
 20 =VF081605.D 40 =VF081606.D

Compound	1	2	10	20	40	Avg	%RSD
-----ISTD-----							
1) i Fluorobenzene							
2) T Dichlorodifluorometha	0.325	0.344	0.280	0.341	0.299	0.318	8.68
3) t Chloromethane	0.226	0.236	0.200	0.218	0.188	0.214	9.11
4) t Vinyl Chloride	0.303	0.331	0.267	0.298	0.262	0.292	9.67
5) T Bromomethane	0.093	0.152	0.114	0.139	0.122	0.124	18.39
6) T Chloroethane	0.177	0.191	0.149	0.157	0.064	0.148	33.60
7) T Trichlorofluoromethan	0.479	0.504	0.396	0.485	0.431	0.459	9.66
8) t 1,1-Dichloroethene	0.321	0.297	0.274	0.292	0.266	0.290	7.35
9) t Iodomethane	0.069	0.158	0.288	0.379	0.394	0.257	54.81
10) t Allyl Chloride	0.324	0.316	0.297	0.303	0.270	0.302	6.90
11) t Acrylonitrile	0.019	0.016	0.018	0.018	0.016	0.017	6.92
12) T Acetone	0.017	0.014	0.011	0.011	0.009	0.012	24.59
13) T Carbon Disulfide	0.818	0.809	0.759	0.799	0.720	0.781	5.25
14) T Methylene Chloride	0.281	0.239	0.224	0.228	0.212	0.237	11.15
15) T trans-1,2-Dichloroeth	0.339	0.324	0.291	0.308	0.287	0.310	7.12
16) t 1,1-Dichloroethane	0.598	0.564	0.539	0.555	0.503	0.552	6.29
17) T 2-Butanone	0.032	0.028	0.028	0.028	0.027	0.029	6.42
18) T 2,2-Dichloropropane	0.546	0.508	0.459	0.457	0.427	0.479	9.82
19) T cis-1,2-Dichloroethen	0.326	0.307	0.293	0.308	0.288	0.304	4.93
20) t Diethyl Ether	0.112	0.101	0.105	0.106	0.099	0.105	4.78
21) t tert-Butyl Alcohol	0.007	0.007	0.006	0.006	0.006	0.007	5.50
22) t Methyl tert-Butyl Eth	0.337	0.302	0.302	0.306	0.285	0.306	6.12
23) t Bromochloromethane	0.101	0.095	0.096	0.100	0.095	0.097	2.80
24) t Chloroform	0.556	0.540	0.510	0.514	0.483	0.521	5.42
25) T 1,1,1-Trichloroethane	0.545	0.534	0.495	0.519	0.480	0.514	5.22
26) T 1,1-Dichloropropene	0.575	0.540	0.485	0.523	0.460	0.516	8.73
27) T Carbon Tetrachloride	0.467	0.466	0.429	0.458	0.423	0.449	4.73
28) t Isopropyl Ether	0.658	0.623	0.597	0.612	0.566	0.611	5.56
29) t Propionitrile	0.007	0.006	0.007	0.007	0.007	0.007	5.29
30) T Benzene	1.149	1.110	1.011	1.069	0.989	1.065	6.26
31) T 1,2-Dichloroethane	0.189	0.177	0.179	0.185	0.167	0.180	4.62
32) T Trichloroethene	0.372	0.361	0.322	0.360	0.328	0.348	6.42
33) t 1,2-Dichloropropane	0.359	0.338	0.331	0.337	0.316	0.336	4.67
34) t Methacrylonitrile	0.070	0.056	0.057	0.058	0.054	0.059	10.21
35) t Methyl acrylate	0.093	0.090	0.097	0.100	0.093	0.095	4.15
36) t Tetrahydrofuran	0.021	0.019	0.020	0.020	0.018	0.019	5.76
37) t 1-Chlorobutane	0.798	0.767	0.689	0.698	0.594	0.709	11.19
38) T Dibromomethane	0.134	0.121	0.128	0.133	0.124	0.128	4.33
39) T Bromodichloromethane	0.393	0.363	0.376	0.397	0.364	0.379	4.15
40) T 4-Methyl-2-Pentanone	0.126	0.113	0.124	0.122	0.115	0.120	4.88
41) t t-1,4-Dichloro-2-bute	0.033	0.032	0.035	0.034	0.032	0.033	4.03
42) t Methyl methacrylate	0.084	0.078	0.083	0.084	0.079	0.082	3.38
43) t Ethyl methacrylate	0.194	0.182	0.192	0.202	0.189	0.192	3.74
44) t Toluene	0.738	0.726	0.661	0.695	0.640	0.692	6.00

(#) = Out of Range

VF0816DW.M

Tue Aug 17 13:01:28 2004

RPT1

Page 1

Response Factor Report VOA F

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration

Calibration Files

1 =VF081602.D 2 =VF081603.D 10 =VF081604.D  
 20 =VF081605.D 40 =VF081606.D

Compound	1	2	10	20	40	Avg	%RSD
45) T t-1,3-Dichloropropene	0.273	0.252	0.261	0.276	0.257	0.264	3.97
46) T cis-1,3-Dichloropropene	0.478	0.448	0.458	0.483	0.446	0.463	3.67
47) T 1,1,2-Trichloroethane	0.164	0.150	0.151	0.156	0.139	0.152	6.10
48) t 1,3-Dichloropropane	0.298	0.268	0.269	0.280	0.260	0.275	5.45
49) t 2-Hexanone	0.053	0.049	0.052	0.054	0.049	0.051	4.37
50) t Dibromochloromethane	0.199	0.190	0.209	0.221	0.208	0.205	5.72
51) T 1,2-Dibromoethane	0.157	0.148	0.154	0.162	0.153	0.155	3.35
52) S 4-Bromofluorobenzene	0.435	0.443	0.464	0.482	0.524	0.470	7.55
53) T Tetrachloroethene	0.345	0.335	0.300	0.333	0.307	0.324	5.89
54) t Chlorobenzene	0.699	0.679	0.641	0.672	0.631	0.664	4.25
55) T 1,1,1,2-Tetrachloroet	0.254	0.251	0.244	0.253	0.233	0.247	3.57
56) t Pentachloroethane	0.294	0.287	0.283	0.296	0.266	0.285	4.23
57) t Hexachloroethane	0.424	0.434	0.411	0.443	0.394	0.421	4.58
58) t Ethyl Benzene	1.625	1.589	1.407	1.437	1.264	1.461	9.72
59) T m/p-Xylenes	1.211	1.159	1.042	1.094	0.935	1.088	9.81
60) T o-Xylene	1.124	1.084	0.997	1.044	0.936	1.037	7.09
61) T Styrene	0.733	0.715	0.689	0.721	0.656	0.703	4.40
62) t Bromoform	0.091	0.087	0.102	0.109	0.108	0.100	10.11
63) S 1,2-Dichlorobenzene-d	0.250	0.257	0.270	0.273	0.255	0.261	3.91
64) T Isopropylbenzene	1.562	1.525	1.400	1.478	1.333	1.460	6.38
65) T 1,1,2,2-Tetrachloroet	0.200	0.183	0.184	0.187	0.167	0.184	6.35
66) T 1,2,3-Trichloropropan	0.133	0.128	0.133	0.138	0.125	0.132	3.68
67) t Bromobenzene	0.284	0.265	0.263	0.281	0.263	0.271	3.77
68) t n-propylbenzene	0.429	0.426	0.371	0.398	0.359	0.397	7.98
69) t 2-Chlorotoluene	0.330	0.321	0.301	0.319	0.292	0.313	5.01
70) t 1,3,5-Trimethylbenzen	1.204	1.178	1.051	1.096	0.979	1.102	8.36
71) t 4-Chlorotoluene	0.319	0.311	0.284	0.295	0.264	0.295	7.36
72) t tert-Butylbenzene	1.503	1.470	1.348	1.438	1.291	1.410	6.26
73) t 1,2,4-Trimethylbenzen	1.096	1.031	0.951	1.016	0.917	1.002	7.01
74) t sec-Butylbenzene	1.952	1.963	1.718	1.857	1.633	1.825	7.97
75) t p-Isopropyltoluene	1.532	1.482	1.309	1.425	1.275	1.405	7.83
76) t 1,3-Dichlorobenzene	0.597	0.583	0.541	0.584	0.535	0.568	4.93
77) t 1,4-Dichlorobenzene	0.592	0.549	0.514	0.554	0.501	0.542	6.60
78) t n-Butylbenzene	1.741	1.712	1.454	1.552	1.327	1.557	11.19
79) t 1,2-Dichlorobenzene	0.473	0.442	0.409	0.432	0.388	0.429	7.59
80) t 1,2-Dibromo-3-Chlorop	0.024	0.026	0.027	0.030	0.028	0.027	8.79
81) t 1,2,4-Trichlorobenzen	0.336	0.343	0.328	0.375	0.347	0.346	5.23
82) t Hexachlorobutadiene	0.292	0.309	0.272	0.315	0.298	0.297	5.61
83) t Naphthalene	0.235	0.261	0.266	0.289	0.273	0.265	7.53
84) t 1,2,3-Trichlorobenzen	0.246	0.254	0.249	0.279	0.260	0.258	5.07

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081602.D Vial: 2  
 Acq On : 16 Aug 2004 9:49 am Operator: SAM  
 Sample : 1 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:49 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:48:47 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.86	96	225758	1.00	ug/l	0.00
<b>System Monitoring Compounds</b>						
52) 4-Bromofluorobenzene	17.86	95	98275	0.94	ug/l	0.00
Spiked Amount	1.000		Recovery	=	94.00%	
63) 1,2-Dichlorobenzene-	21.42	152	56401	0.92	ug/l	0.00
Spiked Amount	1.000		Recovery	=	92.00%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluorometh	1.80	85	73404	1.16	ug/l	97
3) Chloromethane	2.01	50	51109	1.13	ug/l	96
4) Vinyl Chloride	2.12	62	68370	1.13	ug/l	99
5) Bromomethane	2.52	94	21010	0.81	ug/l	96
6) Chloroethane	2.64	64	40045	1.19	ug/l	100
7) Trichlorofluorometha	2.92	101	108048	1.21	ug/l	96
8) 1,1-Dichloroethene	3.64	96	72480	1.17	ug/l	95
9) Iodomethane	3.90	142	15616	0.24	ug/l	95
10) Allyl Chloride	4.25	41	73141	1.09	ug/l	96
11) Acrylonitrile	5.06	53	8652	2.19	ug/l #	93
12) Acetone	3.87	43	19372	7.64	ug/l	93
13) Carbon Disulfide	3.91	76	184666	1.08	ug/l	99
14) Methylene Chloride	4.50	84	63422	1.25	ug/l	96
15) trans-1,2-Dichloroet	4.88	96	76638	1.17	ug/l	92
16) 1,1-Dichloroethane	5.69	63	135003	1.11	ug/l	97
17) 2-Butanone	6.89	43	35743	5.60	ug/l	93
18) 2,2-Dichloropropane	6.68	77	123238	1.19	ug/l	97
19) cis-1,2-Dichloroethe	6.76	96	73607	1.11	ug/l	99
20) Diethyl Ether	3.34	59	25283	1.06	ug/l	95
21) tert-Butyl Alcohol	4.87	59	15865	11.03	ug/l	100
22) Methyl tert-Butyl Et	4.89	73	76012	1.12	ug/l	95
23) Bromochloromethane	7.19	128	22689	1.04	ug/l	100
24) Chloroform	7.37	83	125460	1.09	ug/l	95
25) 1,1,1-Trichloroethan	7.55	97	122941	1.10	ug/l	99
26) 1,1-Dichloropropene	7.88	75	129753	1.18	ug/l	97
27) Carbon Tetrachloride	7.79	117	105486	1.09	ug/l	97
28) Isopropyl Ether	5.76	45	148533	1.10	ug/l	98
29) Propionitrile	7.12	54	15833	10.08	ug/l	100

Analyst Signature:          Analyst Name:          Date: 08/17/04  
 -----REASONS FOR MANUAL INTEGRATIONS-----  
 Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081602.D Vial: 2  
 Acq On : 16 Aug 2004 9:49 am Operator: SAM  
 Sample : 1 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:49 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:48:47 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Benzene	8.25	78	259344	1.14	ug/l	99
31) 1,2-Dichloroethane	8.46	62	42729	1.06	ug/l	97
32) Trichloroethene	9.54	130	83993	1.16	ug/l	97
33) 1,2-Dichloropropane	10.06	63	81125	1.09	ug/l	94
34) Methacrylonitrile	7.29	41	15696	1.21	ug/l	91
35) Methyl acrylate	7.00	55	21105	0.96	ug/l	96
36) Tetrahydrofuran	7.25	42	9286	2.10	ug/l	98
37) 1-Chlorobutane	7.82	56	180261	1.16	ug/l	100
38) Dibromomethane	10.30	93	30170	1.05	ug/l	98
39) Bromodichloromethane	10.65	83	88641	1.04	ug/l	98
40) 4-Methyl-2-Pentanone	11.98	43	142093	5.06	ug/l	98
41) t-1,4-Dichloro-2-but	18.53	53	15075	1.91	ug/l	94
42) Methyl methacrylate	10.38	69	37792	2.03	ug/l	91
43) Ethyl methacrylate	13.00	69	43754	1.01	ug/l	98
44) Toluene	12.13	92	166673	1.12	ug/l	100
45) t-1,3-Dichloropropen	12.83	75	61737	1.05	ug/l	94
46) cis-1,3-Dichloroprop	11.58	75	107811	1.04	ug/l	100
47) 1,1,2-Trichloroethan	13.18	97	37037	1.09	ug/l	98
48) 1,3-Dichloropropane	13.54	76	67373	1.11	ug/l	100
49) 2-Hexanone	13.77	43	60167	5.16	ug/l	99
50) Dibromochloromethane	13.93	129	45035	0.95	ug/l	100
51) 1,2-Dibromoethane	14.13	107	35538	1.02	ug/l	99
53) Tetrachloroethene	13.21	164	77850	1.15	ug/l	99
54) Chlorobenzene	15.18	112	157898	1.09	ug/l	99
55) 1,1,1,2-Tetrachloroe	15.43	131	57412	1.04	ug/l	99
56) Pentachloroethane	19.64	117	66306	1.04	ug/l	97
57) Hexachloroethane	21.92	117	95805	1.03	ug/l	96
58) Ethyl Benzene	15.42	91	366949	1.15	ug/l	99
59) m/p-Xylenes	15.71	91	546772	2.32	ug/l	100
60) o-Xylene	16.58	91	253837	1.13	ug/l	99
61) Styrene	16.66	104	165577	1.07	ug/l	99
62) Bromoform	17.07	173	20578	0.89	ug/l #	96
64) Isopropylbenzene	17.43	105	352648	1.12	ug/l	100
65) 1,1,2,2-Tetrachloroe	18.36	83	45135	1.09	ug/l #	100
66) 1,2,3-Trichloropropa	18.53	75	30104	1.00	ug/l	96
67) Bromobenzene	18.12	156	64085	1.08	ug/l	97
68) n-propylbenzene	18.40	120	96800	1.16	ug/l	97

Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

REASONS FOR MANUAL INTEGRATIONS

Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081602.D Vial: 2  
 Acq On : 16 Aug 2004 9:49 am Operator: SAM  
 Sample : 1 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:49 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:48:47 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
69) 2-Chlorotoluene	18.59	126	74480	1.10	ug/l	91
70) 1,3,5-Trimethylbenze	18.87	105	271784	1.15	ug/l	100
71) 4-Chlorotoluene	18.88	126	71998	1.12	ug/l	97
72) tert-Butylbenzene	19.56	119	339364	1.12	ug/l	98
73) 1,2,4-Trimethylbenze	19.73	105	247490	1.15	ug/l	98
74) sec-Butylbenzene	20.08	105	440724	1.14	ug/l	100
75) p-Isopropyltoluene	20.48	119	345899	1.17	ug/l	99
76) 1,3-Dichlorobenzene	20.35	146	134767	1.10	ug/l	98
77) 1,4-Dichlorobenzene	20.60	146	133579	1.15	ug/l	99
78) n-Butylbenzene	21.46	146	393070	1.20	ug/l	98
79) 1,2-Dichlorobenzene	21.46	146	106780	1.16	ug/l	98
80) 1,2-Dibromo-3-Chloro	23.42	75	5354	0.86	ug/l	98
81) 1,2,4-Trichlorobenze	25.35	180	75805	1.02	ug/l	99
82) Hexachlorobutadiene	25.73	225	65854	1.07	ug/l	96
83) Naphthalene	25.92	128	52974	0.88	ug/l	100
84) 1,2,3-Trichlorobenze	26.53	180	55500	0.99	ug/l	99

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 Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

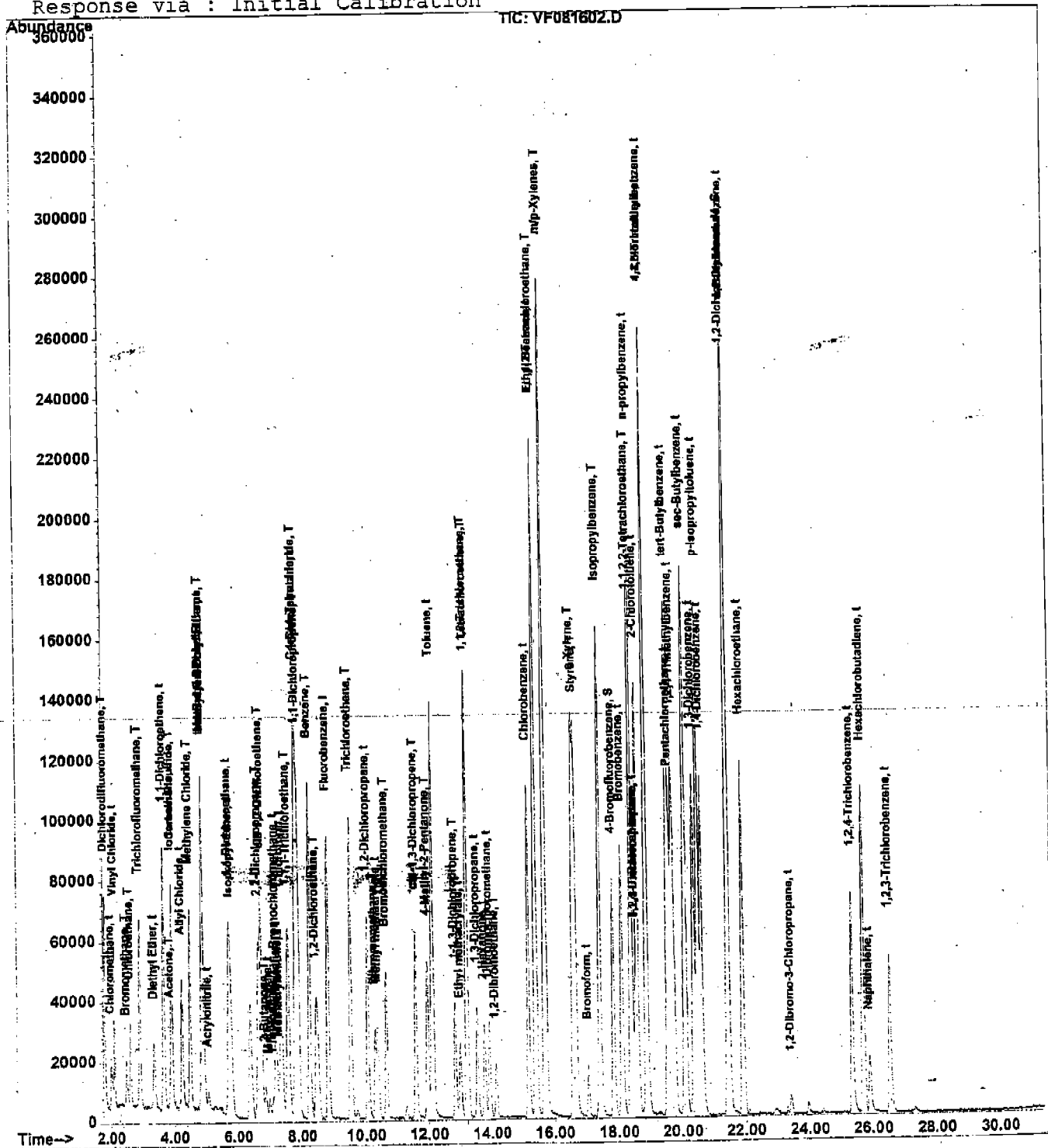
\_\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081602.D Vial: 2  
 Acq On : 16 Aug 2004 9:49 am Operator: SAM  
 Sample : 1 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:49 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration







Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081603.D Vial: 4  
 Acq On : 16 Aug 2004 10:27 am Operator: SAM  
 Sample : 2 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:49 2004

Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:48:47 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Benzene	8.24	78	486486	2.20	ug/l	99
31) 1,2-Dichloroethane	8.46	62	77528	1.97	ug/l	97
32) Trichloroethene	9.54	130	158074	2.24	ug/l	99
33) 1,2-Dichloropropane	10.06	63	148040	2.04	ug/l	99
34) Methacrylonitrile	7.30	41	24631	1.96	ug/l	95
35) Methyl acrylate	7.01	55	39308	1.84	ug/l	98
36) Tetrahydrofuran	7.23	42	16386	3.81	ug/l	98
37) 1-Chlorobutane	7.81	56	335914	2.23	ug/l	100
38) Dibromomethane	10.29	93	53037	1.90	ug/l	97
39) Bromodichloromethane	10.64	83	159078	1.93	ug/l	100
40) 4-Methyl-2-Pentanone	11.96	43	246844	9.06	ug/l	97
41) t-1,4-Dichloro-2-but	18.51	53	28408	3.71	ug/l	98
42) Methyl methacrylate	10.38	69	68173	3.77	ug/l	97
43) Ethyl methacrylate	12.98	69	79913	1.90	ug/l	99
44) Toluene	12.13	92	317960	2.19	ug/l	98
45) t-1,3-Dichloropropen	12.83	75	110444	1.93	ug/l	99
46) cis-1,3-Dichloroprop	11.58	75	196128	1.96	ug/l	100
47) 1,1,2-Trichloroethan	13.18	97	65935	1.99	ug/l	96
48) 1,3-Dichloropropane	13.52	76	117384	1.99	ug/l	98
49) 2-Hexanone	13.75	43	107156	9.47	ug/l	99
50) Dibromochloromethane	13.92	129	83118	1.82	ug/l	100
51) 1,2-Dibromoethane	14.13	107	64975	1.93	ug/l	100
53) Tetrachloroethene	13.20	164	146681	2.23	ug/l	97
54) Chlorobenzene	15.18	112	297543	2.12	ug/l	99
55) 1,1,1,2-Tetrachloroe	15.42	131	109883	2.06	ug/l	99
56) Pentachloroethane	19.64	117	125677	2.03	ug/l	98
57) Hexachloroethane	21.92	117	190168	2.11	ug/l	96
58) Ethyl Benzene	15.41	91	687251	2.23	ug/l	98
59) m/p-Xylenes	15.71	91	1015202	4.45	ug/l	99
60) o-Xylene	16.59	91	474956	2.17	ug/l	99
61) Styrene	16.65	104	313428	2.08	ug/l	99
62) Bromoform	17.06	173	38157	1.70	ug/l #	97
64) Isopropylbenzene	17.42	105	668150	2.18	ug/l	100
65) 1,1,2,2-Tetrachloroe	18.36	83	80226	1.99	ug/l	98
66) 1,2,3-Trichloropropa	18.52	75	56089	1.93	ug/l	95
67) Bromobenzene	18.11	156	116119	2.01	ug/l	97
68) n-propylbenzene	18.39	120	186710	2.30	ug/l	99

Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081603.D Vial: 4  
 Acq On : 16 Aug 2004 10:27 am Operator: SAM  
 Sample : 2 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:49 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:48:47 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
69) 2-Chlorotoluene	18.58	126	140563	2.13	ug/l	97
70) 1,3,5-Trimethylbenze	18.86	105	516295	2.24	ug/l	100
71) 4-Chlorotoluene	18.87	126	136227	2.19	ug/l	97
72) tert-Butylbenzene	19.56	119	644293	2.18	ug/l	99
73) 1,2,4-Trimethylbenze	19.73	105	451790	2.17	ug/l	98
74) sec-Butylbenzene	20.09	105	860293	2.29	ug/l	99
75) p-Isopropyltoluene	20.47	119	649197	2.26	ug/l	100
76) 1,3-Dichlorobenzene	20.35	146	255372	2.16	ug/l	99
77) 1,4-Dichlorobenzene	20.60	146	240329	2.14	ug/l	98
78) n-Butylbenzene	21.45	91	749900	2.35	ug/l	100
79) 1,2-Dichlorobenzene	21.46	146	193672	2.16	ug/l	99
80) 1,2-Dibromo-3-Chloro	23.41	75	11205	1.86	ug/l	95
81) 1,2,4-Trichlorobenze	25.35	180	150216	2.09	ug/l	99
82) Hexachlorobutadiene	25.70	225	135431	2.27	ug/l	99
83) Naphthalene	25.91	128	114461	1.96	ug/l	100
84) 1,2,3-Trichlorobenze	26.53	180	111400	2.04	ug/l	100

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 Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_  
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-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

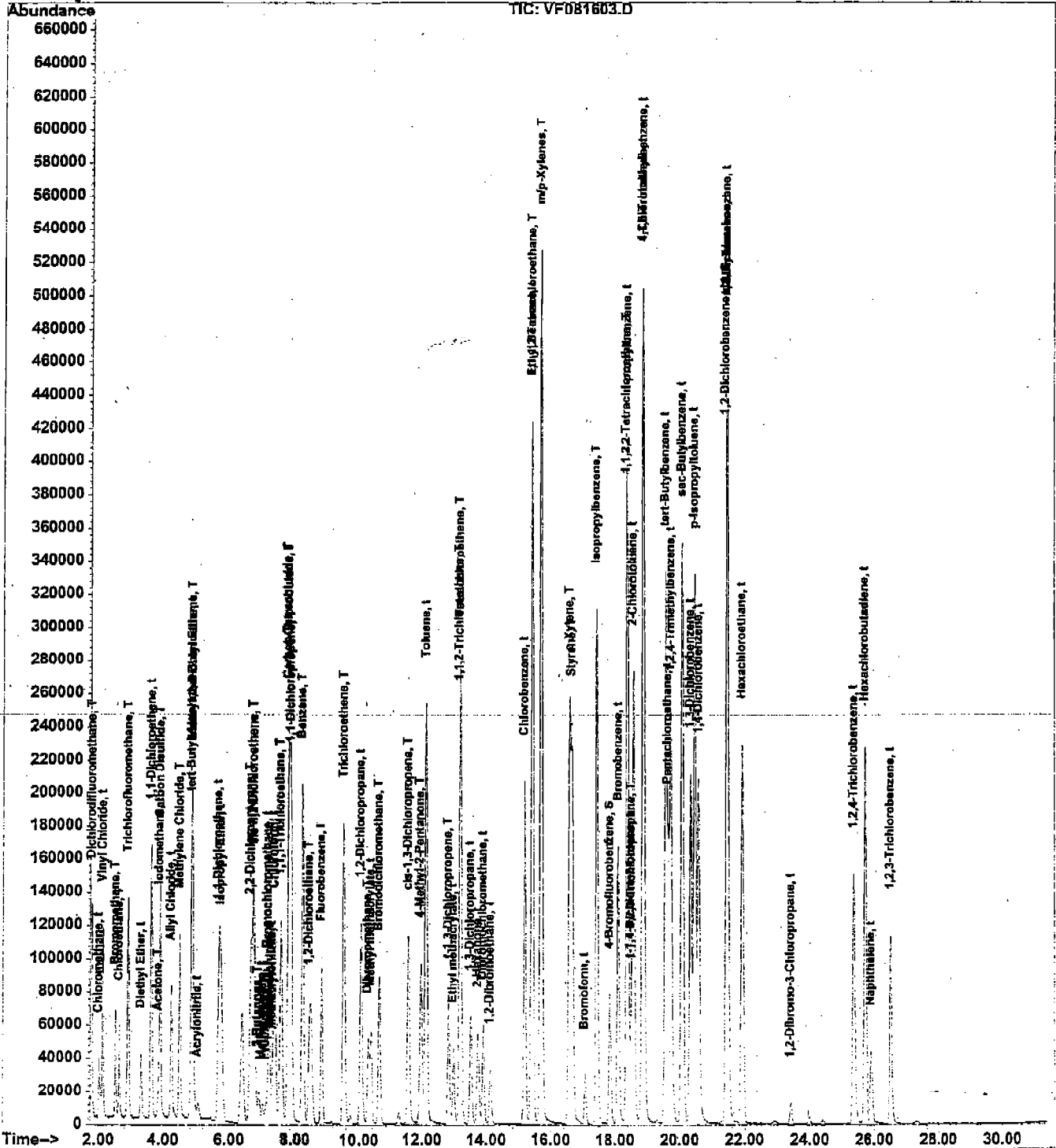
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081603.D Vial: 4  
 Acq On : 16 Aug 2004 10:27 am Operator: SAM  
 Sample : 2 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:49 2004

Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081604.D Vial: 5  
 Acq On : 16 Aug 2004 11:06 am Operator: SAM  
 Sample : 10 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:43 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:43:14 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.85	96	228488	1.00	ug/l	-0.02
<b>System Monitoring Compounds</b>						
52) 4-Bromofluorobenzene	17.85	95	106111	1.00	ug/l	0.03
Spiked Amount	1.000		Recovery	=	100.00%	
63) 1,2-Dichlorobenzene	21.41	152	61743	1.00	ug/l	0.05
Spiked Amount	1.000		Recovery	=	100.00%	
						<b>Qvalue</b>
2) Dichlorodifluorometh	1.80	85	639548	10.00	ug/l	99
3) Chloromethane	2.01	50	458064	10.00	ug/l	97
4) Vinyl Chloride	2.13	62	609955	10.00	ug/l	100
5) Bromomethane	2.51	94	260979	10.00	ug/l	100
6) Chloroethane	2.64	64	341482	10.00	ug/l	98
7) Trichlorofluorometha	2.91	101	904395	10.00	ug/l	99
8) 1,1-Dichloroethene	3.64	96	626736	10.00	ug/l	92
9) Iodomethane	3.87	142	656975	10.00	ug/l	97
10) Allyl Chloride	4.25	41	678099	10.00	ug/l	96
11) Acrylonitrile	5.06	53	80113	20.00	ug/l	97
12) Acetone	3.86	43	128339	50.00	ug/l	95
13) Carbon Disulfide	3.91	76	1733442	10.00	ug/l	100
14) Methylene Chloride	4.50	84	511588	10.00	ug/l	92
15) trans-1,2-Dichloroet	4.88	96	664827	10.00	ug/l	95
16) 1,1-Dichloroethane	5.68	63	1231182	10.00	ug/l	99
17) 2-Butanone	6.88	43	322954	50.00	ug/l	98
18) 2,2-Dichloropropane	6.67	77	1048507	10.00	ug/l	99
19) cis-1,2-Dichloroethe	6.76	96	668800	10.00	ug/l	95
20) Diethyl Ether	3.33	59	240808	10.00	ug/l	95
21) tert-Butyl Alcohol	4.87	59	145582	100.00	ug/l	100
22) Methyl tert-Butyl Et	4.89	73	689941	10.00	ug/l	97
23) Bromochloromethane	7.20	128	219789	10.00	ug/l	89
24) Chloroform	7.37	83	1165051	10.00	ug/l	96
25) 1,1,1-Trichloroethan	7.57	97	1131113	10.00	ug/l	98
26) 1,1-Dichloropropene	7.88	75	1108771	10.00	ug/l	98
27) Carbon Tetrachloride	7.79	117	980317	10.00	ug/l	99
28) Isopropyl Ether	5.76	45	1363137	10.00	ug/l	99
29) Propionitrile	7.11	54	158974	100.00	ug/l	100

Analyst Signature: Cy Analyst Name: Sy Date: 08/17/04

REASONS FOR MANUAL INTEGRATIONS

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_  
 \_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081604.D Vial: 5  
 Acq On : 16 Aug 2004 11:06 am Operator: SAM  
 Sample : 10 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:43 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:43:14 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Benzene	8.25	78	2309628	10.00	ug/l	99
31) 1,2-Dichloroethane	8.47	62	409904	10.00	ug/l	99
32) Trichloroethene	9.54	130	735191	10.00	ug/l	99
33) 1,2-Dichloropropane	10.07	63	755438	10.00	ug/l	98
34) Methacrylonitrile	7.30	41	130789	10.00	ug/l	89
35) Methyl acrylate	7.01	55	222388	10.00	ug/l	96
36) Tetrahydrofuran	7.24	42	89628	20.00	ug/l	91
37) 1-Chlorobutane	7.81	56	1574020	10.00	ug/l	94
38) Dibromomethane	10.30	93	291424	10.00	ug/l	97
39) Bromodichloromethane	10.64	83	859438	10.00	ug/l	99
40) 4-Methyl-2-Pentanone	11.97	43	1421507	50.00	ug/l	97
41) t-1,4-Dichloro-2-but	18.50	53	159821	20.00	ug/l	99
42) Methyl methacrylate	10.38	69	377435	20.00	ug/l	85
43) Ethyl methacrylate	12.99	69	439420	10.00	ug/l	90
44) Toluene	12.14	92	1510825	10.00	ug/l	99
45) t-1,3-Dichloropropen	12.83	75	597386	10.00	ug/l	99
46) cis-1,3-Dichloroprop	11.59	75	1046314	10.00	ug/l	100
47) 1,1,2-Trichloroethan	13.19	97	345283	10.00	ug/l	99
48) 1,3-Dichloropropane	13.53	76	615245	10.00	ug/l	98
49) 2-Hexanone	13.75	43	590122	50.00	ug/l	95
50) Dibromochloromethane	13.92	129	477536	10.00	ug/l	99
51) 1,2-Dibromoethane	14.14	107	351957	10.00	ug/l	100
53) Tetrachloroethene	13.21	164	686582	10.00	ug/l	96
54) Chlorobenzene	15.19	112	1463718	10.00	ug/l	99
55) 1,1,1,2-Tetrachloroe	15.43	131	556810	10.00	ug/l	98
56) Pentachloroethane	19.65	117	645688	10.00	ug/l	98
57) Hexachloroethane	21.92	117	938356	10.00	ug/l	99
58) Ethyl Benzene	15.41	91	3215583	10.00	ug/l	100
59) m/p-Xylenes	15.70	91	4763403	20.00	ug/l	98
60) o-Xylene	16.58	91	2278112	10.00	ug/l	99
61) Styrene	16.66	104	1573408	10.00	ug/l	98
62) Bromoform	17.06	173	233875	10.00	ug/l	99
64) Isopropylbenzene	17.43	105	3199192	10.00	ug/l	98
65) 1,1,2,2-Tetrachloroe	18.37	83	419666	10.00	ug/l	98
66) 1,2,3-Trichloropropa	18.51	75	303795	10.00	ug/l	94
67) Bromobenzene	18.11	156	601909	10.00	ug/l	96
68) n-propylbenzene	18.40	120	846766	10.00	ug/l	94

Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

VF081604.D VF0816DW.M Tue Aug 17 12:59:58 2004

RPT1

Page 2

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081604.D Vial: 5  
 Acq On : 16 Aug 2004 11:06 am Operator: SAM  
 Sample : 10 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:43 2004

Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:43:14 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
69) 2-Chlorotoluene	18.58	126	687430	10.00	ug/l	94
70) 1,3,5-Trimethylbenze	18.86	105	2401082	10.00	ug/l	97
71) 4-Chlorotoluene	18.87	126	649962	10.00	ug/l	96
72) tert-Butylbenzene	19.56	119	3080128	10.00	ug/l	99
73) 1,2,4-Trimethylbenze	19.73	105	2173188	10.00	ug/l	98
74) sec-Butylbenzene	20.09	105	3926411	10.00	ug/l	99
75) p-Isopropyltoluene	20.47	119	2991578	10.00	ug/l	99
76) 1,3-Dichlorobenzene	20.35	146	1235568	10.00	ug/l	100
77) 1,4-Dichlorobenzene	20.59	146	1173390	10.00	ug/l	99
78) n-Butylbenzene	21.45	91	3321961	10.00	ug/l	99
79) 1,2-Dichlorobenzene	21.45	146	933738	10.00	ug/l	100
80) 1,2-Dibromo-3-Chloro	23.42	75	62724	10.00	ug/l	99
81) 1,2,4-Trichlorobenze	25.35	180	749264	10.00	ug/l	99
82) Hexachlorobutadiene	25.71	225	622187	10.00	ug/l	99
83) Naphthalene	25.92	128	608578	10.00	ug/l	100
84) 1,2,3-Trichlorobenze	26.53	180	568579	10.00	ug/l	98

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 Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

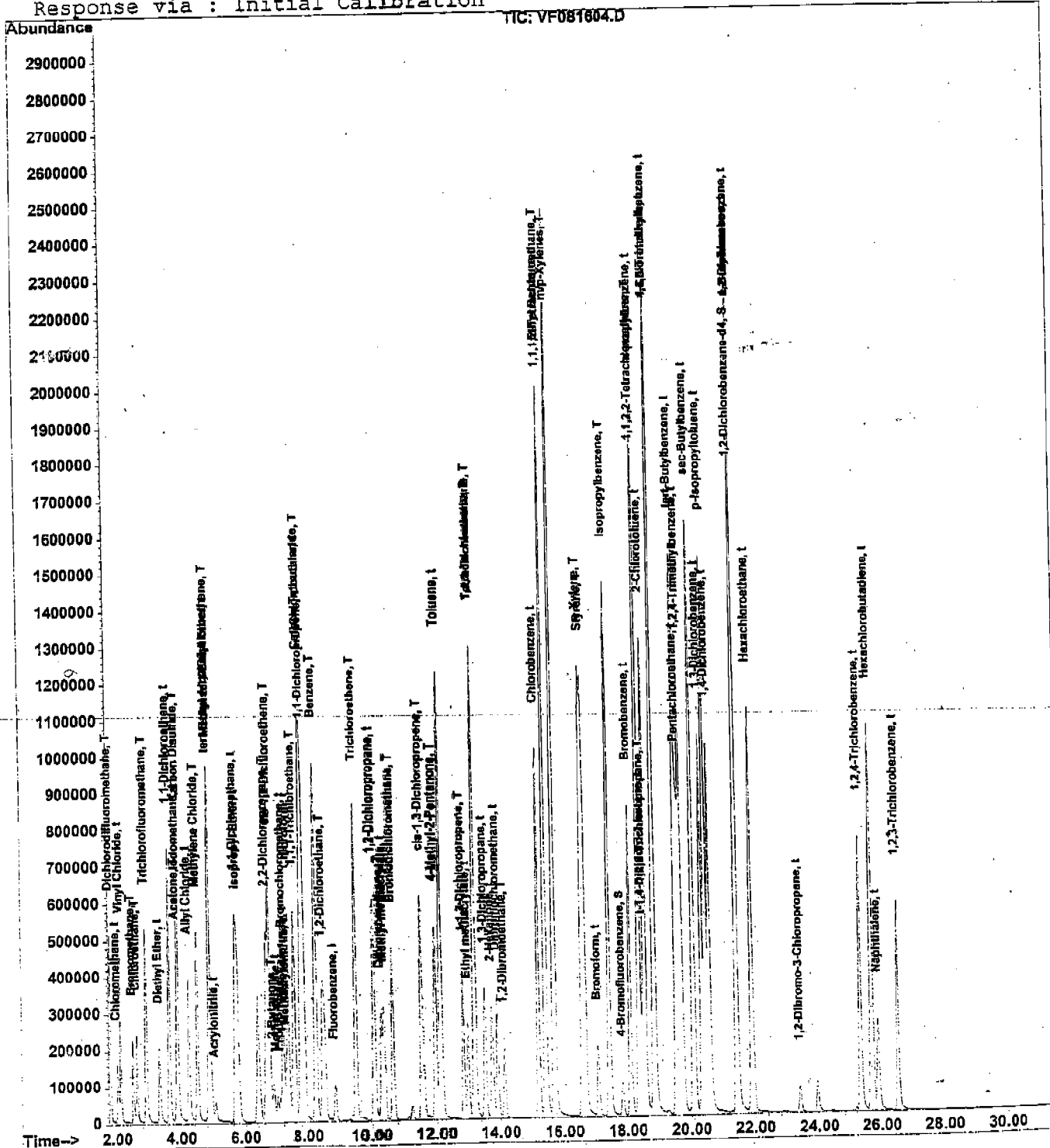
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081604.D Vial: 5  
Acq On : 16 Aug 2004 11:06 am Operator: SAM  
Sample : 10 PPB ICC Inst : VOA F  
Misc : 25mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Aug 17 9:43 2004

Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration







Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081605.D Vial: 6  
 Acq On : 16 Aug 2004 11:45 am Operator: SAM  
 Sample : 20 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00

MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:49 2004

Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:48:47 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Benzene	8.24	78	4629954	21.14	ug/l	100
31) 1,2-Dichloroethane	8.45	62	800908	20.61	ug/l	99
32) Trichloroethene	9.54	130	1561341	22.40	ug/l	97
33) 1,2-Dichloropropane	10.06	63	1459578	20.38	ug/l	100
34) Methacrylonitrile	7.30	41	250388	20.19	ug/l	100
35) Methyl acrylate	7.01	55	432181	20.50	ug/l	100
36) Tetrahydrofuran	7.23	42	176441	41.52	ug/l	99
37) 1-Chlorobutane	7.81	56	3025683	20.27	ug/l	98
38) Dibromomethane	10.29	93	576431	20.86	ug/l	98
39) Bromodichloromethane	10.64	83	1721137	21.12	ug/l	100
40) 4-Methyl-2-Pentanone	11.97	43	2650674	98.33	ug/l	98
41) t-1,4-Dichloro-2-but	18.52	53	297957	39.32	ug/l	94
42) Methyl methacrylate	10.37	69	728124	40.69	ug/l	100
43) Ethyl methacrylate	12.98	69	874990	21.00	ug/l	97
44) Toluene	12.13	92	3011585	21.02	ug/l	99
45) t-1,3-Dichloropropen	12.82	75	1196260	21.12	ug/l	100
46) cis-1,3-Dichloroprop	11.57	75	2093372	21.10	ug/l	100
47) 1,1,2-Trichloroethan	13.18	97	677800	20.70	ug/l	99
48) 1,3-Dichloropropane	13.53	76	1213425	20.80	ug/l	100
49) 2-Hexanone	13.75	43	1162111	103.84	ug/l	100
50) Dibromochloromethane	13.92	129	958651	21.17	ug/l	99
51) 1,2-Dibromoethane	14.13	107	703334	21.08	ug/l	99
53) Tetrachloroethene	13.20	164	1442199	22.15	ug/l	98
54) Chlorobenzene	15.18	112	2912382	20.98	ug/l	98
55) 1,1,1,2-Tetrachloroe	15.44	131	1094108	20.72	ug/l	100
56) Pentachloroethane	19.65	117	1284707	20.98	ug/l	99
57) Hexachloroethane	21.92	117	1917448	21.55	ug/l	97
58) Ethyl Benzene	15.42	91	6228638	20.43	ug/l	99
59) m/p-Xylenes	15.71	91	9478893	41.97	ug/l	100
60) o-Xylene	16.59	91	4524564	20.95	ug/l	99
61) Styrene	16.66	104	3124558	20.94	ug/l	100
62) Bromoform	17.07	173	474077	21.38	ug/l	99
64) Isopropylbenzene	17.43	105	6403422	21.11	ug/l	100
65) 1,1,2,2-Tetrachloroe	18.37	83	808358	20.31	ug/l	100
66) 1,2,3-Trichloropropa	18.52	75	596983	20.72	ug/l	94
67) Bromobenzene	18.12	156	1218164	21.34	ug/l	97
68) n-propylbenzene	18.40	120	1725541	21.49	ug/l	98

Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081605.D Vial: 6  
 Acq On : 16 Aug 2004 11:45 am Operator: SAM  
 Sample : 20 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:49 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:48:47 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
69) 2-Chlorotoluene	18.59	126	1384203	21.24	ug/l	100
70) 1,3,5-Trimethylbenze	18.87	105	4748805	20.86	ug/l	100
71) 4-Chlorotoluene	18.88	126	1277716	20.73	ug/l	96
72) tert-Butylbenzene	19.57	119	6229127	21.33	ug/l	98
73) 1,2,4-Trimethylbenze	19.73	105	4403688	21.37	ug/l	100
74) sec-Butylbenzene	20.09	105	8048560	21.62	ug/l	100
75) p-Isopropyltoluene	20.48	119	6176120	21.77	ug/l	100
76) 1,3-Dichlorobenzene	20.36	146	2532504	21.62	ug/l	99
77) 1,4-Dichlorobenzene	20.60	146	2402322	21.59	ug/l	99
78) n-Butylbenzene	21.45	91	6726397	21.35	ug/l	100
79) 1,2-Dichlorobenzene	21.46	146	1873733	21.16	ug/l	99
80) 1,2-Dibromo-3-Chloro	23.41	75	130065	21.87	ug/l	98
81) 1,2,4-Trichlorobenze	25.34	180	1626846	22.90	ug/l	100
82) Hexachlorobutadiene	25.72	225	1365104	23.14	ug/l	100
83) Naphthalene	25.91	128	1253674	21.73	ug/l	100
84) 1,2,3-Trichlorobenze	26.53	180	1208028	22.41	ug/l	99

Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

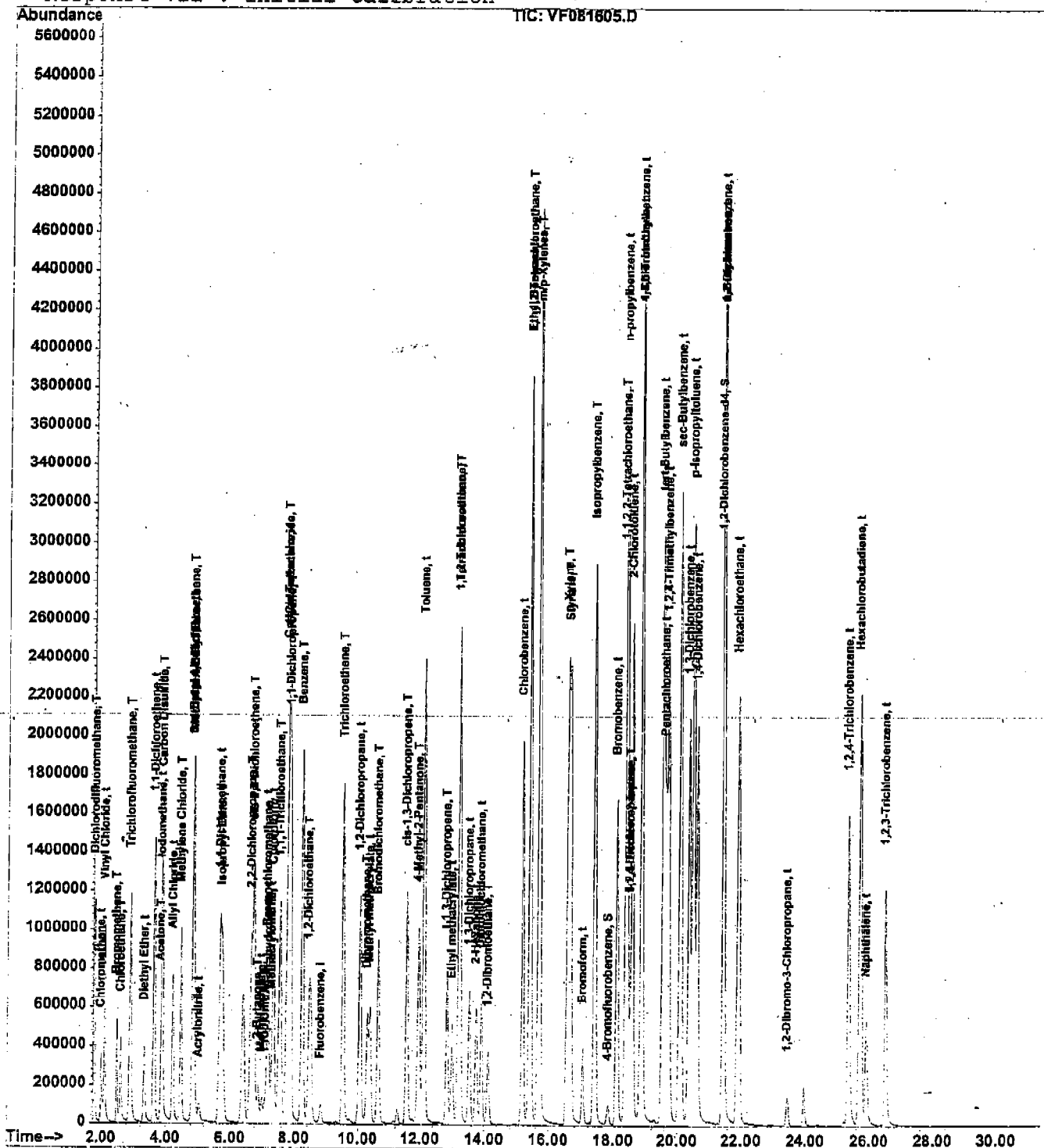
\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVCAF\VF081604\VF081605.D Vial: 6  
Acq On : 16 Aug 2004 11:45 am Operator: SAM  
Sample : 20 PPB ICC Inst : VOA F  
Misc : 25mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Aug 17 9:49 2004

Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081606.D Vial: 7  
 Acq On : 16 Aug 2004 12:24 pm Operator: SAM  
 Sample : 40 PPB ICC Inst : VOA F.  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:49 2004

Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:48:47 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	8.86	96	233018	1.00	ug/l	0.00
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.86	95	122127	1.13	ug/l	0.00
Spiked Amount	1.000		Recovery	=	113.00%	
63) 1,2-Dichlorobenzene-	21.42	152	59346	0.94	ug/l	0.00
Spiked Amount	1.000		Recovery	=	94.00%	
Target Compounds						
						Qvalue
2) Dichlorodifluorometh	1.80	85	2783687	42.68	ug/l	99
3) Chloromethane	2.01	50	1753541	37.54	ug/l	99
4) Vinyl Chloride	2.12	62	2441702	39.25	ug/l	100
5) Bromomethane	2.50	94	1135275	42.65	ug/l	100
6) Chloroethane	2.61	64	596281	17.12	ug/l	100
7) Trichlorofluorometha	2.90	101	4019666	43.58	ug/l	100
8) 1,1-Dichloroethene	3.63	96	2482939	38.85	ug/l	96
9) Iodomethane	3.87	142	3671177	54.79	ug/l	99
10) Allyl Chloride	4.25	41	2514848	36.37	ug/l	100
11) Acrylonitrile	5.07	53	303904	74.39	ug/l	99
12) Acetone	3.86	43	437428	167.11	ug/l	100
13) Carbon Disulfide	3.91	76	6708573	37.95	ug/l	99
14) Methylene Chloride	4.50	84	1980230	37.96	ug/l	95
15) trans-1,2-Dichloroet	4.87	96	2675206	39.46	ug/l	95
16) 1,1-Dichloroethane	5.68	63	4690769	37.36	ug/l	99
17) 2-Butanone	6.88	43	1248941	189.60	ug/l	100
18) 2,2-Dichloropropane	6.67	77	3983687	37.26	ug/l	99
19) cis-1,2-Dichloroethe	6.75	96	2683447	39.34	ug/l	96
20) Diethyl Ether	3.34	59	923235	37.59	ug/l	97
21) tert-Butyl Alcohol	4.88	59	565784	381.08	ug/l	100
22) Methyl tert-Butyl Et	4.90	73	2658055	37.78	ug/l	98
23) Bromochloromethane	7.20	128	888456	39.64	ug/l	93
24) Chloroform	7.36	83	4503294	37.90	ug/l	98
25) 1,1,1-Trichloroethan	7.56	97	4471106	38.76	ug/l	98
26) 1,1-Dichloropropene	7.89	75	4287030	37.91	ug/l	99
27) Carbon Tetrachloride	7.79	117	3940500	39.41	ug/l	99
28) Isopropyl Ether	5.76	45	5272439	37.93	ug/l	99
29) Propionitrile	7.11	54	630350	388.80	ug/l	100

Analyst Signature: Sy Analyst Name: Sy Date: 08/17/04

REASONS FOR MANUAL INTEGRATIONS

Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration  
 VF081606.D VF0816DW.M Tue Aug 17 13:04:08 2004

RPT1

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081606.D Vial: 7  
 Acq On : 16 Aug 2004 12:24 pm Operator: SAM  
 Sample : 40 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:49 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:48:47 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Benzene	8.25	78	9218513	39.14	ug/l	100
31) 1,2-Dichloroethane	8.46	62	1560934	37.34	ug/l	98
32) Trichloroethene	9.54	130	3052668	40.71	ug/l	97
33) 1,2-Dichloropropane	10.06	63	2943558	38.21	ug/l	100
34) Methacrylonitrile	7.29	41	506112	37.94	ug/l	100
35) Methyl acrylate	7.01	55	866439	38.20	ug/l	100
36) Tetrahydrofuran	7.23	42	334051	73.09	ug/l	97
37) 1-Chlorobutane	7.82	56	5532199	34.46	ug/l	97
38) Dibromomethane	10.30	93	1154277	38.84	ug/l	97
39) Bromodichloromethane	10.65	83	3397362	38.76	ug/l	100
40) 4-Methyl-2-Pentanone	11.96	43	5364778	185.03	ug/l	99
41) t-1,4-Dichloro-2-but	18.52	53	591144	72.54	ug/l	93
42) Methyl methacrylate	10.38	69	1480933	76.95	ug/l	98
43) Ethyl methacrylate	12.99	69	1757710	39.22	ug/l	98
44) Toluene	12.13	92	5968479	38.74	ug/l	100
45) t-1,3-Dichloropropen	12.83	75	2391097	39.25	ug/l	99
46) cis-1,3-Dichloroprop	11.59	75	4161410	39.00	ug/l	100
47) 1,1,2-Trichloroethan	13.18	97	1293013	36.72	ug/l	98
48) 1,3-Dichloropropane	13.53	76	2418846	38.55	ug/l	99
49) 2-Hexanone	13.76	43	2288580	190.14	ug/l	99
50) Dibromochloromethane	13.92	129	1938071	39.80	ug/l	99
51) 1,2-Dibromoethane	14.13	107	1429254	39.82	ug/l	100
53) Tetrachloroethene	13.20	164	2864892	40.92	ug/l	96
54) Chlorobenzene	15.19	112	5880036	39.39	ug/l	98
55) 1,1,1,2-Tetrachloroe	15.43	131	2170069	38.22	ug/l	99
56) Pentachloroethane	19.65	117	2478266	37.64	ug/l	95
57) Hexachloroethane	21.93	117	3670981	38.36	ug/l	94
58) Ethyl Benzene	15.42	91	11785892	35.94	ug/l	97
59) m/p-Xylenes	15.71	91	17434166	71.78	ug/l	98
60) o-Xylene	16.59	91	8727363	37.56	ug/l	99
61) Styrene	16.66	104	6114765	38.11	ug/l	100
62) Bromoform	17.06	173	1008834	42.30	ug/l	99
64) Isopropylbenzene	17.43	105	12422264	38.07	ug/l	100
65) 1,1,2,2-Tetrachloroe	18.36	83	1557618	36.39	ug/l	99
66) 1,2,3-Trichloropropa	18.52	75	1169131	37.74	ug/l	95
67) Bromobenzene	18.11	156	2455014	39.99	ug/l	94
68) n-propylbenzene	18.40	120	3346082	38.75	ug/l	94

Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081606.D Vial: 7  
 Acq On : 16 Aug 2004 12:24 pm Operator: SAM  
 Sample : 40 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:49 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:48:47 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
69) 2-Chlorotoluene	18.59	126	2720707	38.81	ug/l	95
70) 1,3,5-Trimethylbenze	18.87	105	9126296	37.27	ug/l	100
71) 4-Chlorotoluene	18.87	126	2463357	37.16	ug/l	91
72) tert-Butylbenzene	19.57	119	12031666	38.30	ug/l	98
73) 1,2,4-Trimethylbenze	19.73	105	8546200	38.56	ug/l	100
74) sec-Butylbenzene	20.09	105	15221981	38.01	ug/l	100
75) p-Isopropyltoluene	20.48	119	11886575	38.96	ug/l	99
76) 1,3-Dichlorobenzene	20.36	146	4990586	39.61	ug/l	99
77) 1,4-Dichlorobenzene	20.60	146	4674282	39.06	ug/l	100
78) n-Butylbenzene	21.46	91	12365683	36.50	ug/l	99
79) 1,2-Dichlorobenzene	21.46	146	3613170	37.94	ug/l	98
80) 1,2-Dibromo-3-Chloro	23.42	75	256564	40.11	ug/l	94
81) 1,2,4-Trichlorobenze	25.35	180	3231719	42.29	ug/l	99
82) Hexachlorobutadiene	25.72	225	2773234	43.71	ug/l	100
83) Naphthalene	25.92	128	2545107	41.01	ug/l	100
84) 1,2,3-Trichlorobenze	26.53	180	2424152	41.81	ug/l	99

-----  
 Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

VF081606.D VF0816DW.M Tue Aug 17 13:04:09 2004

RPT1

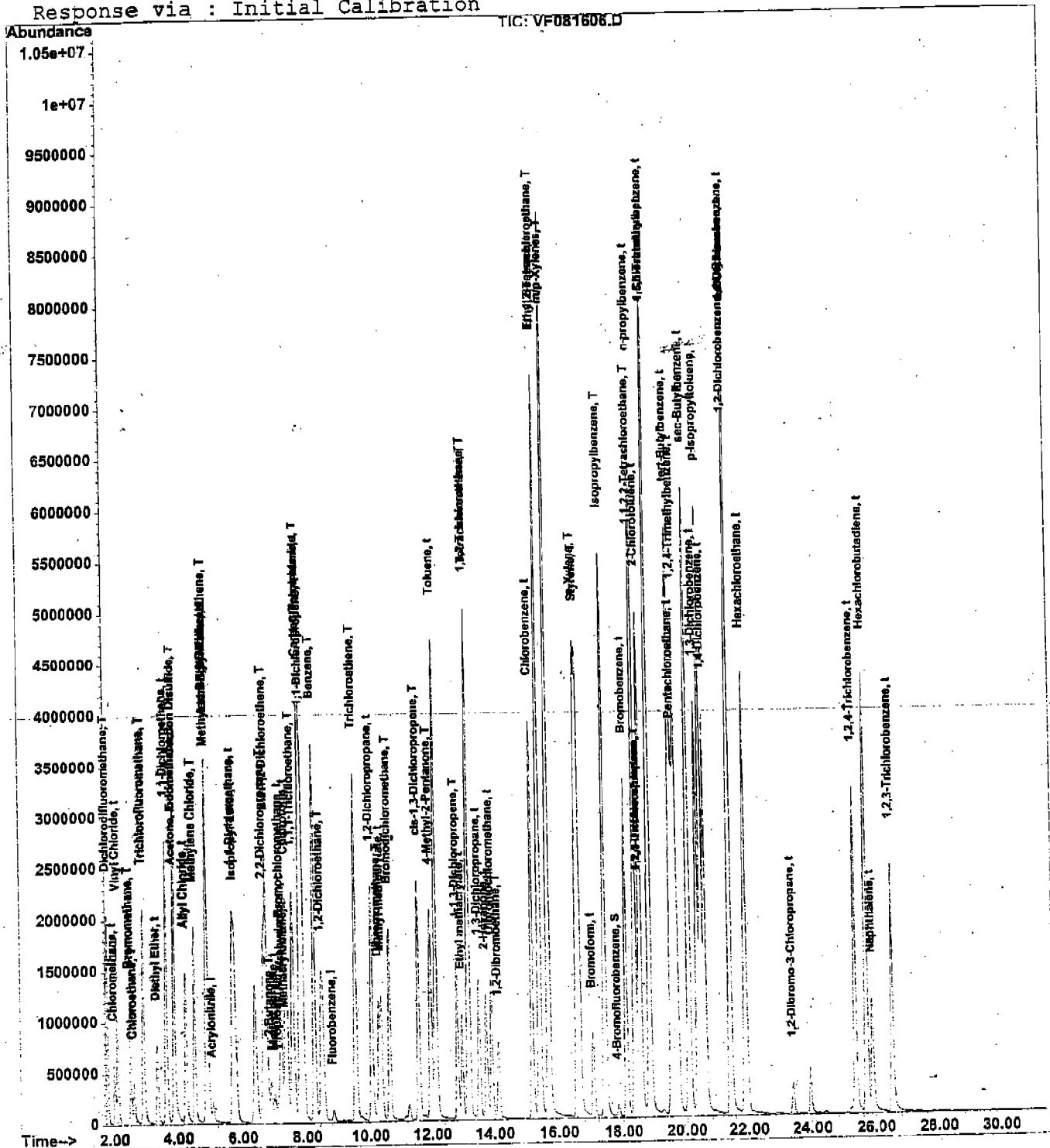
Page 3

Quantitation Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081606.D Vial: 7  
 Acq On : 16 Aug 2004 12:24 pm Operator: SAM  
 Sample : 40 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:49 2004

Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration





## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Chemtech Contract: PARS04

Lab Code: CTECH Case No.: S4414 SAS No.: S4414 SDG No.: S4414

Instrument ID: MSVOAF Calibration Date/Time: 9/2/2004 09:43

Lab File ID: VF090202.D Init. Calib. Date(s): 8/16/2004 8/16/2004

Heated Purge: (Y/N) N Init. Calib. Time(s): 09:49 12:24

GC Column: RTX624 ID: 0.53 (mm)

COMPOUND	RRF	RRF010	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.318	0.265		16.7	30.0
Chloromethane	0.214	0.179		16.4	30.0
Vinyl Chloride	0.292	0.259		11.3	30.0
Bromomethane	0.124	0.124		0.0	30.0
Chloroethane	0.148	0.159		7.4	30.0
Trichlorofluoromethane	0.459	0.441		3.9	
tert-Butyl Alcohol	0.006	0.007		16.7	
Diethyl Ether	0.105	0.105		0.0	
1,1-Dichloroethene	0.290	0.300		3.4	30.0
Iodomethane	0.258	0.371		43.8	
Allyl Chloride	0.302	0.299		1.0	
Acrylonitrile	0.017	0.019		11.8	
Acetone	0.012	0.014		16.7	
Carbon Disulfide	0.781	0.793		1.5	30.0
Methyl tert-Butyl Ether	0.306	0.307		0.3	
Methyl acrylate	0.095	0.100		5.3	
Methylene Chloride	0.237	0.241		1.7	30.0
trans-1,2-Dichloroethene	0.310	0.316		1.9	30.0
1,1-Dichloroethane	0.552	0.558		1.1	30.0
2-Butanone	0.029	0.031		6.9	
Carbon Tetrachloride	0.449	0.474		5.6	30.0
2,2-Dichloropropane	0.479	0.516		7.7	30.0
cis-1,2-Dichloroethene	0.304	0.331		8.9	30.0
Chloroform	0.521	0.541		3.8	30.0
1,1,1-Trichloroethane	0.515	0.526		2.1	30.0
t-1,4-Dichloro-2-butene	0.033	0.038		15.2	
1,1-Dichloropropene	0.517	0.539		4.3	30.0
Isopropyl Ether	0.611	0.599		2.0	
Propionitrile	0.007	0.007		0.0	
Benzene	1.065	1.104		3.7	30.0
1,2-Dichloroethane	0.180	0.183		1.7	30.0
Trichloroethene	0.349	0.367		5.2	30.0
1,2-Dichloropropane	0.336	0.340		1.2	30.0
Methacrylonitrile	0.059	0.061		3.4	
Tetrahydrofuran	0.020	0.020		0.0	
1-Chlorobutane	0.709	0.745		5.1	
Dibromomethane	0.128	0.136		6.2	30.0
Bromodichloromethane	0.379	0.389		2.6	30.0
4-Methyl-2-Pentanone	0.120	0.121		0.8	
Methyl methacrylate	0.082	0.087		6.1	
Ethyl methacrylate	0.192	0.198		3.1	

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Chentech Contract: PARS04

Lab Code: CTECH Case No.: S4414 SAS No.: S4414 SDG No.: S4414

Instrument ID: MSVOAF Calibration Date/Time: 9/2/2004 09:43

Lab File ID: VF090202.D Init. Calib. Date(s): 8/16/2004 8/16/2004

Heated Purge: (Y/N) N Init. Calib. Time(s): 09:49 12:24

GC Column: RTX624 ID: 0.53 (mm)

COMPOUND	RRF	RRF010	MIN RRF	%D	MAX%D
Toluene	0.692	0.710		2.6	30.0
t-1,3-Dichloropropene	0.264	0.275		4.2	30.0
cis-1,3-Dichloropropene	0.463	0.494		6.7	30.0
1,1,2-Trichloroethane	0.152	0.162		6.6	30.0
1,3-Dichloropropane	0.275	0.281		2.2	30.0
2-Hexanone	0.051	0.054		5.9	
Dibromochloromethane	0.206	0.219		6.3	30.0
1,2-Dibromoethane	0.155	0.163		5.2	30.0
Tetrachloroethene	0.324	0.362		11.7	30.0
Chlorobenzene	0.664	0.690		3.9	30.0
1,1,1,2-Tetrachloroethane	0.247	0.260		5.3	30.0
Hexachloroethane	0.421	0.456		8.3	
Ethyl Benzene	1.460	1.521		4.2	30.0
m/p-Xylenes	1.088	1.110		2.0	30.0
o-Xylene	1.037	1.057		1.9	30.0
Styrene	0.703	0.737		4.8	30.0
Bromoform	0.099	0.107		6.1	30.0
Bromobenzene	0.271	0.275		1.5	30.0
Isopropylbenzene	1.460	1.515		3.8	30.0
1,1,2,2-Tetrachloroethane	0.184	0.193		4.9	30.0
1,2,3-Trichloropropane	0.131	0.148		13.0	30.0
n-propylbenzene	0.397	0.413		4.0	30.0
2-Chlorotoluene	0.313	0.330		5.4	30.0
1,3,5-Trimethylbenzene	1.102	1.142		3.6	30.0
4-Chlorotoluene	0.295	0.313		6.1	30.0
tert-Butylbenzene	1.410	1.457		3.3	30.0
1,2,4-Trimethylbenzene	1.002	1.030		2.8	30.0
sec-Butylbenzene	1.825	1.926		5.5	30.0
p-Isopropyltoluene	1.405	1.467		4.4	30.0
1,3-Dichlorobenzene	0.568	0.592		4.2	30.0
1,4-Dichlorobenzene	0.542	0.563		3.9	30.0
n-Butylbenzene	1.557	1.615		3.7	30.0
1,2-Dichlorobenzene	0.429	0.440		2.6	30.0
1,2-Dibromo-3-Chloropropane	0.027	0.029		7.4	
1,2,4-Trichlorobenzene	0.346	0.338		2.3	30.0
Hexachlorobutadiene	0.297	0.320		7.7	30.0
Naphthalene	0.265	0.247		6.8	30.0
1,2,3-Trichlorobenzene	0.258	0.248		3.9	30.0
1,2-Dichlorobenzene-d4	0.261	0.250		4.2	
4-Bromofluorobenzene	0.470	0.483		2.8	

VOLATILE CONTINUING CALIBRATION C

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All other compounds must meet a minimum RRF of 0.011

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090202.D Vial: 2  
 Acq On : 2 Sep 2004 9:43 am Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 20% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev (min)
1 i	Fluorobenzene	1.000	1.000	0.0	111	0.00
2 T	Dichlorodifluoromethane	0.318	0.265	16.7	106	0.01
3 t	Chloromethane	0.214	0.179	16.4	99	0.00
4 t	Vinyl Chloride	0.292	0.259	11.3	108	0.00
5 T	Bromomethane	0.124	0.124	0.0	120	0.01
6 T	Chloroethane	0.148	0.159	-7.4	118	0.00
7 T	Trichlorofluoromethane	0.459	0.441	3.9	124	0.00
8 t	1,1-Dichloroethene	0.290	0.300	-3.4	122	0.01
9 t	Iodomethane	0.257	0.371	-44.4#	144	0.00
10 t	Allyl Chloride	0.302	0.299	1.0	112	0.00
11 t	Acrylonitrile	0.017	0.019	-11.8	120	0.00
12 T	Acetone	0.012	0.014	-16.7	134	0.00
13 T	Carbon Disulfide	0.781	0.793	-1.5	116	0.00
14 T	Methylene Chloride	0.237	0.241	-1.7	120	0.01
15 T	trans-1,2-Dichloroethene	0.310	0.316	-1.9	121	0.00
16 t	1,1-Dichloroethane	0.552	0.558	-1.1	115	0.00
17 T	2-Butanone	0.029	0.031	-6.9	122	0.00
18 T	2,2-Dichloropropane	0.479	0.516	-7.7	125	0.01
19 T	cis-1,2-Dichloroethene	0.304	0.331	-8.9	126	0.00
20 t	Diethyl Ether	0.105	0.105	0.0	111	0.00
21 t	tert-Butyl Alcohol	0.007	0.007	0.0	115	0.00
22 t	Methyl tert-Butyl Ether	0.306	0.307	-0.3	113	0.00
23 t	Bromochloromethane	0.097	0.104	-7.2	120	0.00
24 t	Chloroform	0.521	0.541	-3.8	118	0.01
25 T	1,1,1-Trichloroethane	0.514	0.526	-2.3	118	0.00
26 T	1,1-Dichloropropene	0.516	0.539	-4.5	124	0.00
27 T	Carbon Tetrachloride	0.449	0.474	-5.6	123	0.00
28 t	Isopropyl Ether	0.611	0.599	2.0	112	0.00
29 t	Propionitrile	0.007	0.007	0.0	118	0.00
30 T	Benzene	1.065	1.104	-3.7	122	0.00
31 T	1,2-Dichloroethane	0.180	0.183	-1.7	113	0.00
32 T	Trichloroethene	0.348	0.367	-5.5	127	0.00
33 t	1,2-Dichloropropane	0.336	0.340	-1.2	115	0.00
34 t	Methacrylonitrile	0.059	0.061	-3.4	118	-0.01
35 t	Methyl acrylate	0.095	0.100	-5.3	114	0.00
36 t	Tetrahydrofuran	0.019	0.020	-5.3	115	0.00
37 t	1-Chlorobutane	0.709	0.745	-5.1	120	0.00
38 T	Dibromomethane	0.128	0.136	-6.3	118	0.00
39 T	Bromodichloromethane	0.379	0.389	-2.6	115	0.00
40 T	4-Methyl-2-Pentanone	0.120	0.121	-0.8	108	0.00
41 t	t-1,4-Dichloro-2-butene	0.033	0.038	-15.2	121	0.00
42 t	Methyl methacrylate	0.082	0.087	-6.1	117	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090202.D Vial: 2  
 Acq On : 2 Sep 2004 9:43 am Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 20% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev (min)
43 t	Ethyl methacrylate	0.192	0.198	-3.1	115	0.00
44 t	Toluene	0.692	0.710	-2.6	120	0.00
45 T	t-1,3-Dichloropropene	0.264	0.275	-4.2	117	0.00
46 T	cis-1,3-Dichloropropene	0.463	0.494	-6.7	120	0.00
47 T	1,1,2-Trichloroethane	0.152	0.162	-6.6	119	0.00
48 t	1,3-Dichloropropane	0.275	0.281	-2.2	116	0.00
49 t	2-Hexanone	0.051	0.054	-5.9	116	0.00
50 t	Dibromochloromethane	0.205	0.219	-6.8	117	0.00
51 T	1,2-Dibromoethane	0.155	0.163	-5.2	118	0.00
52 S	4-Bromofluorobenzene	0.470	0.483	-2.8	116	0.00
53 T	Tetrachloroethene	0.324	0.362	-11.7	134	0.00
54 t	Chlorobenzene	0.664	0.690	-3.9	120	0.00
55 T	1,1,1,2-Tetrachloroethane	0.247	0.260	-5.3	119	0.00
56 t	Pentachloroethane	0.285	0.282	1.1	111	0.00
57 t	Hexachloroethane	0.421	0.456	-8.3	124	0.00
58 t	Ethyl Benzene	1.461	1.521	-4.1	120	0.00
59 T	m/p-Xylenes	1.088	1.110	-2.0	119	0.00
60 T	o-Xylene	1.037	1.057	-1.9	118	0.00
61 T	Styrene	0.703	0.737	-4.8	119	0.00
62 t	Bromoform	0.100	0.107	-7.0	117	0.00
63 S	1,2-Dichlorobenzene-d4	0.261	0.250	4.2	103	0.00
64 T	Isopropylbenzene	1.460	1.515	-3.8	120	0.00
65 T	1,1,2,2-Tetrachloroethane	0.184	0.193	-4.9	117	0.00
66 T	1,2,3-Trichloropropane	0.132	0.148	-12.1	124	0.00
67 t	Bromobenzene	0.271	0.275	-1.5	116	0.00
68 t	n-propylbenzene	0.397	0.413	-4.0	124	0.00
69 t	2-Chlorotoluene	0.313	0.330	-5.4	122	0.00
70 t	1,3,5-Trimethylbenzene	1.102	1.142	-3.6	121	0.00
71 t	4-Chlorotoluene	0.295	0.313	-6.1	122	0.00
72 t	tert-Butylbenzene	1.410	1.457	-3.3	120	0.00
73 t	1,2,4-Trimethylbenzene	1.002	1.030	-2.8	121	0.00
74 t	sec-Butylbenzene	1.825	1.926	-5.5	125	0.00
75 t	p-Isopropyltoluene	1.405	1.467	-4.4	125	0.00
76 t	1,3-Dichlorobenzene	0.568	0.592	-4.2	122	0.00
77 t	1,4-Dichlorobenzene	0.542	0.563	-3.9	122	0.00
78 t	n-Butylbenzene	1.557	1.615	-3.7	124	0.00
79 t	1,2-Dichlorobenzene	0.429	0.440	-2.6	120	0.00
80 t	1,2-Dibromo-3-Chloropropane	0.027	0.029	-7.4	119	0.00
81 t	1,2,4-Trichlorobenzene	0.346	0.338	2.3	115	0.00
82 t	Hexachlorobutadiene	0.297	0.320	-7.7	131	0.00
83 t	Naphthalene	0.265	0.247	6.8	103	0.00
84 t	1,2,3-Trichlorobenzene	0.258	0.248	3.9	111	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

VF090202.D VF0816DW.M

Fri Sep 03 11:18:58 2004

RPT1

Page 2

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090202.D Vial: 2  
 Acq On : 2 Sep 2004 9:43 am Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 3 8:23 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	8.86	96	254426	1.00	ug/l	0.00

## System Monitoring Compounds

52) 4-Bromofluorobenzene	17.86	95	122799	1.03	ug/l	0.00
Spiked Amount	1.000		Recovery	=	103.00%	
63) 1,2-Dichlorobenzene-	21.42	152	63653	0.96	ug/l	0.00
Spiked Amount	1.000		Recovery	=	96.00%	

## Target Compounds

Qvalue

2) Dichlorodifluorometh	1.80	85	674727m	8.35	ug/l	
3) Chloromethane	2.01	50	454284	8.35	ug/l	98
4) Vinyl Chloride	2.12	62	658974	8.86	ug/l	100
5) Bromomethane	2.51	94	314292	9.95	ug/l	97
6) Chloroethane	2.63	64	404472	10.75	ug/l	99
7) Trichlorofluorometha	2.91	101	1121716	9.61	ug/l	98
8) 1,1-Dichloroethene	3.64	96	763261	10.34	ug/l	95
9) Iodomethane	3.88	142	944857	14.42	ug/l	99
10) Allyl Chloride	4.25	41	760269	9.90	ug/l	100
11) Acrylonitrile	5.06	53	96135	21.74	ug/l	97
12) Acetone	3.86	43	171786	54.34	ug/l	97
13) Carbon Disulfide	3.91	76	2017398	10.15	ug/l	100
14) Methylene Chloride	4.51	84	612739	10.17	ug/l	95
15) trans-1,2-Dichloroet	4.87	96	803247	10.19	ug/l	97
16) 1,1-Dichloroethane	5.68	63	1419789	10.11	ug/l	99
17) 2-Butanone	6.87	43	393653	54.16	ug/l	99
18) 2,2-Dichloropropane	6.67	77	1311870	10.76	ug/l	100
19) cis-1,2-Dichloroethe	6.75	96	841134	10.86	ug/l	98
20) Diethyl Ether	3.34	59	268229	10.07	ug/l	97
21) tert-Butyl Alcohol	4.86	59	167888	101.01	ug/l	100
22) Methyl tert-Butyl Et	4.90	73	782342	10.04	ug/l	98
23) Bromochloromethane	7.20	128	263348	10.63	ug/l	96
24) Chloroform	7.37	83	1376003	10.39	ug/l	100
25) 1,1,1-Trichloroethan	7.57	97	1338798	10.23	ug/l	99
26) 1,1-Dichloropropene	7.88	75	1370933	10.43	ug/l	99
27) Carbon Tetrachloride	7.79	117	1206507	10.57	ug/l	100
28) Isopropyl Ether	5.75	45	1523031	9.80	ug/l	99
29) Propionitrile	7.10	54	187934	108.57	ug/l	100

Analyst Signature: ky Analyst Name: ky Date: 09/09/04

## REASONS FOR MANUAL INTEGRATIONS

Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

## CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090202.D Vial: 2  
 Acq On : 2 Sep 2004 9:43 am Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 3 8:23 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Benzene	8.25	78	2810122	10.37	ug/l	99
31) 1,2-Dichloroethane	8.45	62	464580	10.17	ug/l	99
32) Trichloroethene	9.54	130	933592	10.53	ug/l	100
33) 1,2-Dichloropropane	10.06	63	866154	10.13	ug/l	99
34) Methacrylonitrile	7.29	41	154776	10.31	ug/l	100
35) Methyl acrylate	7.01	55	253951	10.55	ug/l	99
36) Tetrahydrofuran	7.24	42	103026	20.84	ug/l	97
37) 1-Chlorobutane	7.81	56	1895056	10.50	ug/l	98
38) Dibromomethane	10.30	93	344942	10.61	ug/l	99
39) Bromodichloromethane	10.65	83	989876	10.27	ug/l	100
40) 4-Methyl-2-Pentanone	11.97	43	1539362	50.38	ug/l	96
41) t-1,4-Dichloro-2-but	18.51	53	192806	22.71	ug/l	99
42) Methyl methacrylate	10.38	69	441042	21.27	ug/l	99
43) Ethyl methacrylate	12.99	69	504719	10.34	ug/l	98
44) Toluene	12.13	92	1807555	10.26	ug/l	99
45) t-1,3-Dichloropropen	12.83	75	700482	10.43	ug/l	99
46) cis-1,3-Dichloroprop	11.58	75	1256808	10.68	ug/l	100
47) 1,1,2-Trichloroethan	13.19	97	411697	10.63	ug/l	99
48) 1,3-Dichloropropane	13.53	76	715011	10.22	ug/l	99
49) 2-Hexanone	13.75	43	686148	52.55	ug/l	99
50) Dibromochloromethane	13.92	129	558332	10.68	ug/l	99
51) 1,2-Dibromoethane	14.14	107	414618	10.51	ug/l	100
53) Tetrachloroethene	13.21	164	920809	11.17	ug/l	99
54) Chlorobenzene	15.18	112	1755407	10.38	ug/l	100
55) 1,1,1,2-Tetrachloroe	15.43	131	662135	10.54	ug/l	99
56) Pentachloroethane	19.65	117	717154	9.89	ug/l	98
57) Hexachloroethane	21.93	117	1159082	10.82	ug/l	99
58) Ethyl Benzene	15.42	91	3869022	10.41	ug/l	99
59) m/p-Xylenes	15.71	91	5649204	20.40	ug/l	99
60) o-Xylene	16.59	91	2689117	10.19	ug/l	99
61) Styrene	16.66	104	1876008	10.49	ug/l	99
62) Bromoform	17.07	173	273165	10.77	ug/l	99
64) Isopropylbenzene	17.44	105	3854506	10.38	ug/l	100
65) 1,1,2,2-Tetrachloroe	18.36	83	491583	10.50	ug/l	100
66) 1,2,3-Trichloropropa	18.51	75	377112	11.27	ug/l	100
67) Bromobenzene	18.12	156	699629	10.13	ug/l	98
68) n-propylbenzene	18.40	120	1050173	10.41	ug/l	100

Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

## -----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090202.D Vial: 2  
 Acq On : 2 Sep 2004 9:43 am Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 3 8:23 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
69) 2-Chlorotoluene	18.59	126	840418	10.57	ug/l	98
70) 1,3,5-Trimethylbenze	18.87	105	2905410	10.37	ug/l	100
71) 4-Chlorotoluene	18.88	126	796141	10.62	ug/l	95
72) tert-Butylbenzene	19.57	119	3708078	10.34	ug/l	99
73) 1,2,4-Trimethylbenze	19.73	105	2620954	10.28	ug/l	100
74) sec-Butylbenzene	20.10	105	4901300	10.56	ug/l	100
75) p-Isopropyltoluene	20.48	119	3731345	10.44	ug/l	99
76) 1,3-Dichlorobenzene	20.35	146	1504981	10.41	ug/l	100
77) 1,4-Dichlorobenzene	20.60	146	1431903	10.39	ug/l	98
78) n-Butylbenzene	21.46	91	4108434	10.37	ug/l	100
79) 1,2-Dichlorobenzene	21.46	146	1119155	10.26	ug/l	100
80) 1,2-Dibromo-3-Chloro	23.40	75	74344	10.88	ug/l	98
81) 1,2,4-Trichlorobenze	25.35	180	859810	9.77	ug/l	100
82) Hexachlorobutadiene	25.71	225	813297	10.76	ug/l	99
83) Naphthalene	25.92	128	629061	9.33	ug/l	100
84) 1,2,3-Trichlorobenze	26.53	180	630783	9.63	ug/l	99

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 Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

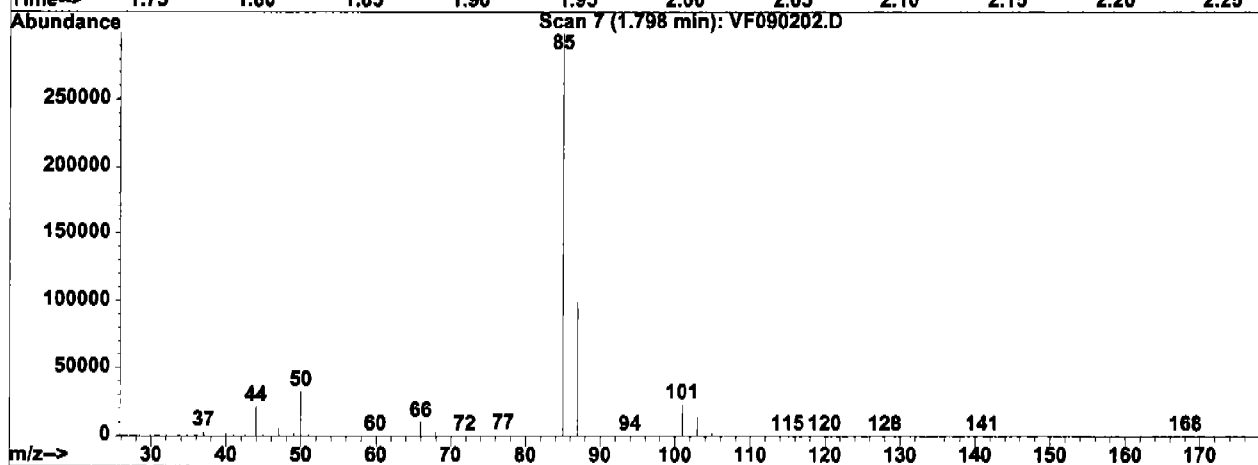
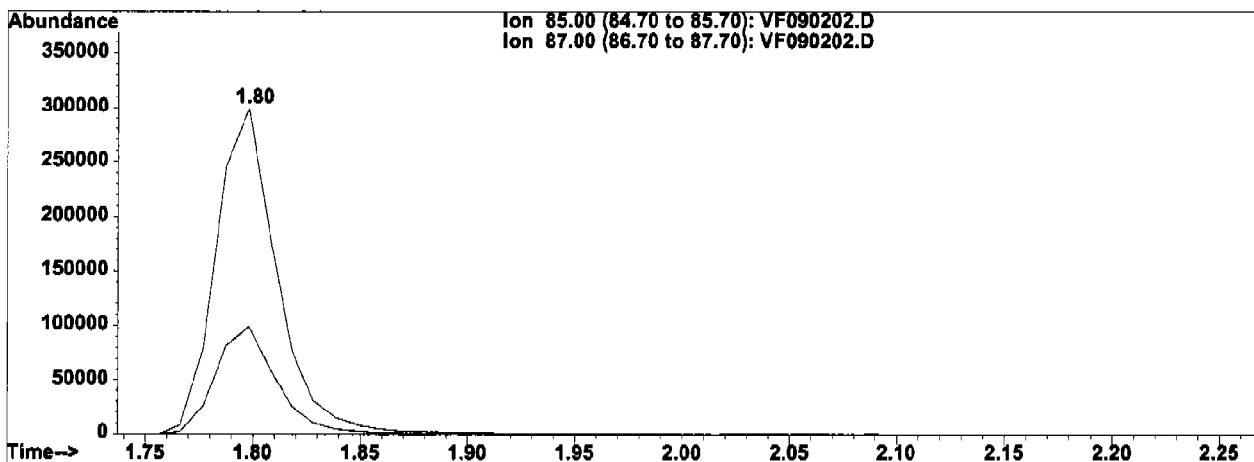




Quantitation Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090202.D Vial: 2  
 Acq On : 2 Sep 2004 9:43 am Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 Quant Time: Sep 3 8:23 2004 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Multiple Level Calibration



TIC: VF090202.D

(2) Dichlorodifluoromethane (T)

1.80min 8.35ug/l m

response 674727

Ion	Exp%	Act%
85.00	100	100
87.00	32.70	33.28
0.00	0.00	0.00
0.00	0.00	0.00

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4414 SAS No.: S4414 SDG No.: S4414  
 Instrument ID: MSVOAF Calibration Date/Time: 9/2/2004 21:56  
 Lab File ID: VF090302.D Init. Calib. Date(s): 8/16/2004 8/16/2004  
 Heated Purge: (Y/N) N Init. Calib. Time(s): 09:49 12:24  
 GC Column: RTX624 ID: 0.53 (mm)

COMPOUND	RRF	RRF010	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.318	0.396		24.5	30.0
Chloromethane	0.214	0.215		0.5	30.0
Vinyl Chloride	0.292	0.306		4.8	30.0
Bromomethane	0.124	0.136		9.7	30.0
Chloroethane	0.148	0.169		14.2	30.0
Trichlorofluoromethane	0.459	0.484		5.4	
tert-Butyl Alcohol	0.006	0.006		0.0	
Diethyl Ether	0.105	0.100		4.8	
1,1-Dichloroethene	0.290	0.291		0.3	30.0
Iodomethane	0.258	0.350		35.7	
Allyl Chloride	0.302	0.283		6.3	
Acrylonitrile	0.017	0.017		0.0	
Acetone	0.012	0.012		0.0	
Carbon Disulfide	0.781	0.753		3.6	30.0
Methyl tert-Butyl Ether	0.306	0.294		3.9	
Methyl acrylate	0.095	0.095		0.0	
Methylene Chloride	0.237	0.232		2.1	30.0
trans-1,2-Dichloroethene	0.310	0.305		1.6	30.0
1,1-Dichloroethane	0.552	0.532		3.6	30.0
2-Butanone	0.029	0.028		3.4	
Carbon Tetrachloride	0.449	0.434		3.3	30.0
2,2-Dichloropropane	0.479	0.490		2.3	30.0
cis-1,2-Dichloroethene	0.304	0.303		0.3	30.0
Chloroform	0.521	0.513		1.5	30.0
1,1,1-Trichloroethane	0.515	0.499		3.1	30.0
t-1,4-Dichloro-2-butene	0.033	0.034		3.0	
1,1-Dichloropropene	0.517	0.508		1.7	30.0
Isopropyl Ether	0.611	0.555		9.2	
Propionitrile	0.007	0.007		0.0	
Benzene	1.065	1.031		3.2	30.0
1,2-Dichloroethane	0.180	0.178		1.1	30.0
Trichloroethene	0.349	0.344		1.4	30.0
1,2-Dichloropropane	0.336	0.321		4.5	30.0
Methacrylonitrile	0.059	0.057		3.4	
Tetrahydrofuran	0.020	0.020		0.0	
1-Chlorobutane	0.709	0.679		4.2	
Dibromomethane	0.128	0.128		0.0	30.0
Bromodichloromethane	0.379	0.378		0.3	30.0
4-Methyl-2-Pentanone	0.120	0.113		5.8	
Methyl methacrylate	0.082	0.079		3.7	
Ethyl methacrylate	0.192	0.186		3.1	

## SEATTLE CONTINUING CALIBRATION CHECK

Lab Name: CH Contract: PARS04  
 Lab Code: CTECH Case No.: S4414 SAS No.: S4414 SDG No.: S4414  
 Instrument ID: MSVOAF Calibration Date/Time: 9/2/2004 21:56  
 Lab File ID: VF090302.D Init. Calib. Date(s): 8/16/2004 8/16/2004  
 Heated Purge: (Y/N) N Init. Calib. Time(s): 09:49 12:24  
 GC Column: RTX624 ID: 0.53 (mm)

COMPOUND	RRF	RRF010	MIN RRF	%D	MAX%D
Toluene	0.692	0.669		3.3	30.0
t-1,3-Dichloropropene	0.264	0.262		0.8	30.0
cis-1,3-Dichloropropene	0.463	0.464		0.2	30.0
1,1,2-Trichloroethane	0.152	0.152		0.0	30.0
1,3-Dichloropropane	0.275	0.264		4.0	30.0
2-Hexanone	0.051	0.051		0.0	
Dibromochloromethane	0.206	0.209		1.5	30.0
1,2-Dibromoethane	0.155	0.154		0.6	30.0
Tetrachloroethene	0.324	0.350		8.0	30.0
Chlorobenzene	0.664	0.653		1.7	30.0
1,1,1,2-Tetrachloroethane	0.247	0.242		2.0	30.0
Hexachloroethane	0.421	0.373		11.4	
Ethyl Benzene	1.460	1.397		4.3	30.0
m/p-Xylenes	1.088	1.057		2.8	30.0
o-Xylene	1.037	0.992		4.3	30.0
Styrene	0.703	0.694		1.3	30.0
Bromoform	0.099	0.103		4.0	30.0
Bromobenzene	0.271	0.261		3.7	30.0
Isopropylbenzene	1.460	1.415		3.1	30.0
1,1,2,2-Tetrachloroethane	0.184	0.179		2.7	30.0
1,2,3-Trichloropropane	0.131	0.130		0.8	30.0
n-propylbenzene	0.397	0.385		3.0	30.0
2-Chlorotoluene	0.313	0.308		1.6	30.0
1,3,5-Trimethylbenzene	1.102	1.049		4.8	30.0
4-Chlorotoluene	0.295	0.287		2.7	30.0
tert-Butylbenzene	1.410	1.348		4.4	30.0
1,2,4-Trimethylbenzene	1.002	0.914		8.8	30.0
sec-Butylbenzene	1.825	1.819		0.3	30.0
p-Isopropyltoluene	1.405	1.342		4.5	30.0
1,3-Dichlorobenzene	0.568	0.541		4.8	30.0
1,4-Dichlorobenzene	0.542	0.489		9.8	30.0
n-Butylbenzene	1.557	1.276		18.0	30.0
1,2-Dichlorobenzene	0.429	0.344		19.8	30.0
1,2-Dibromo-3-Chloropropane	0.027	0.026		3.7	
1,2,4-Trichlorobenzene	0.346	0.257		25.7	30.0
Hexachlorobutadiene	0.297	0.291		2.0	30.0
Naphthalene	0.265	0.170		35.8	30.0
1,2,3-Trichlorobenzene	0.258	0.189		26.7	30.0
1,2-Dichlorobenzene-d4	0.261	0.204		21.8	
4-Bromofluorobenzene	0.470	0.456		3.0	

VOLATILE CONTINUING CALIBRATION CHECK

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All other compounds must meet a minimum RRF of 0.010.

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090302.D Vial: 2  
 Acq On : 2 Sep 2004 9:56 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 20% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 i	Fluorobenzene	1.000	1.000	0.0	122	-0.01
2 T	Dichlorodifluoromethane	0.318	0.396	-24.5	173	0.00
3 t	Chloromethane	0.214	0.215	-0.5	131	0.00
4 t	Vinyl Chloride	0.292	0.306	-4.8	140	0.00
5 T	Bromomethane	0.124	0.136	-9.7	145	0.00
6 T	Chloroethane	0.148	0.169	-14.2	138	0.00
7 T	Trichlorofluoromethane	0.459	0.484	-5.4	149	0.00
8 t	1,1-Dichloroethene	0.290	0.291	-0.3	129	0.00
9 t	Iodomethane	0.257	0.350	-36.2#	149	0.00
10 t	Allyl Chloride	0.302	0.283	6.3	116	0.00
11 t	Acrylonitrile	0.017	0.017	0.0	118	-0.02
12 T	Acetone	0.012	0.012	0.0	133	0.00
13 T	Carbon Disulfide	0.781	0.753	3.6	121	0.00
14 T	Methylene Chloride	0.237	0.232	2.1	126	-0.01
15 T	trans-1,2-Dichloroethene	0.310	0.305	1.6	128	0.00
16 t	1,1-Dichloroethane	0.552	0.532	3.6	120	-0.02
17 T	2-Butanone	0.029	0.028	3.4	122	-0.02
18 T	2,2-Dichloropropane	0.479	0.490	-2.3	130	0.00
19 T	cis-1,2-Dichloroethene	0.304	0.303	0.3	126	-0.02
20 t	Diethyl Ether	0.105	0.100	4.8	116	0.00
21 t	tert-Butyl Alcohol	0.007	0.006	14.3	116	0.00
22 t	Methyl tert-Butyl Ether	0.306	0.294	3.9	119	-0.02
23 t	Bromochloromethane	0.097	0.098	-1.0	125	-0.02
24 t	Chloroform	0.521	0.513	1.5	123	-0.02
25 T	1,1,1-Trichloroethane	0.514	0.499	2.9	123	-0.02
26 T	1,1-Dichloropropene	0.516	0.508	1.6	128	-0.02
27 T	Carbon Tetrachloride	0.449	0.434	3.3	123	-0.02
28 t	Isopropyl Ether	0.611	0.555	9.2	114	-0.02
29 t	Propionitrile	0.007	0.007	0.0	121	-0.01
30 T	Benzene	1.065	1.031	3.2	124	-0.02
31 T	1,2-Dichloroethane	0.180	0.178	1.1	121	-0.02
32 T	Trichloroethene	0.348	0.344	1.1	130	-0.01
33 t	1,2-Dichloropropane	0.336	0.321	4.5	119	-0.02
34 t	Methacrylonitrile	0.059	0.057	3.4	121	-0.02
35 t	Methyl acrylate	0.095	0.095	0.0	119	-0.03
36 t	Tetrahydrofuran	0.019	0.020	-5.3	122	-0.02
37 t	1-Chlorobutane	0.709	0.679	4.2	120	0.00
38 T	Dibromomethane	0.128	0.128	0.0	122	0.00
39 T	Bromodichloromethane	0.379	0.378	0.3	123	-0.02
40 T	4-Methyl-2-Pentanone	0.120	0.113	5.8	110	-0.02
41 t	t-1,4-Dichloro-2-butene	0.033	0.034	-3.0	119	-0.02
42 t	Methyl methacrylate	0.082	0.079	3.7	117	-0.01

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090302.D Vial: 2  
 Acq On : 2 Sep 2004 9:56 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 20% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev (min)
43 t	Ethyl methacrylate	0.192	0.186	3.1	118	-0.01
44 t	Toluene	0.692	0.669	3.3	124	-0.01
45 T	t-1,3-Dichloropropene	0.264	0.262	0.8	122	-0.01
46 T	cis-1,3-Dichloropropene	0.463	0.464	-0.2	124	-0.01
47 T	1,1,2-Trichloroethane	0.152	0.152	0.0	123	-0.02
48 t	1,3-Dichloropropane	0.275	0.264	4.0	120	-0.02
49 t	2-Hexanone	0.051	0.051	0.0	119	0.00
50 t	Dibromochloromethane	0.205	0.209	-2.0	122	-0.02
51 T	1,2-Dibromoethane	0.155	0.154	0.6	122	-0.02
52 S	4-Bromofluorobenzene	0.470	0.456	3.0	120	-0.02
53 T	Tetrachloroethene	0.324	0.350	-8.0	142	-0.01
54 t	Chlorobenzene	0.664	0.653	1.7	124	-0.02
55 T	1,1,1,2-Tetrachloroethane	0.247	0.242	2.0	121	-0.02
56 t	Pentachloroethane	0.285	0.254	10.9	110	-0.02
57 t	Hexachloroethane	0.421	0.373	11.4	111	0.14
58 t	Ethyl Benzene	1.461	1.397	4.4	121	-0.01
59 T	m/p-Xylenes	1.088	1.057	2.8	124	0.00
60 T	o-Xylene	1.037	0.992	4.3	121	-0.02
61 T	Styrene	0.703	0.694	1.3	123	0.00
62 t	Bromoform	0.100	0.103	-3.0	123	-0.02
63 S	1,2-Dichlorobenzene-d4	0.261	0.204	21.8	92	0.08
64 T	Isopropylbenzene	1.460	1.415	3.1	123	-0.02
65 T	1,1,2,2-Tetrachloroethane	0.184	0.179	2.7	119	-0.03
66 T	1,2,3-Trichloropropane	0.132	0.130	1.5	119	-0.02
67 t	Bromobenzene	0.271	0.261	3.7	121	-0.03
68 t	n-propylbenzene	0.397	0.385	3.0	127	-0.02
69 t	2-Chlorotoluene	0.313	0.308	1.6	125	-0.02
70 t	1,3,5-Trimethylbenzene	1.102	1.049	4.8	122	-0.01
71 t	4-Chlorotoluene	0.295	0.287	2.7	123	-0.01
72 t	tert-Butylbenzene	1.410	1.348	4.4	122	-0.02
73 t	1,2,4-Trimethylbenzene	1.002	0.914	8.8	117	-0.01
74 t	sec-Butylbenzene	1.825	1.819	0.3	129	-0.02
75 t	p-Isopropyltoluene	1.405	1.342	4.5	125	-0.02
76 t	1,3-Dichlorobenzene	0.568	0.541	4.8	122	-0.03
77 t	1,4-Dichlorobenzene	0.542	0.489	9.8	116	0.00
78 t	n-Butylbenzene	1.557	1.276	18.0	107	0.09
79 t	1,2-Dichlorobenzene	0.429	0.344	19.8	103	0.08
80 t	1,2-Dibromo-3-Chloropropane	0.027	0.026	3.7	114	0.17
81 t	1,2,4-Trichlorobenzene	0.346	0.257	25.7	96	0.14
82 t	Hexachlorobutadiene	0.297	0.291	2.0	131	0.13
83 t	Naphthalene	0.265	0.170	35.8#	78	0.13
84 t	1,2,3-Trichlorobenzene	0.258	0.189	26.7	93	0.11

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

VF090302.D VF0816DW.M

Thu Sep 09 12:37:45 2004

RPT1

Page 2

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090302.D Vial: 2  
 Acq On : 2 Sep 2004 9:56 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 3 12:29 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.83	96	278903	1.00	ug/l	-0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
52) 4-Bromofluorobenzene	17.84	95	127303	0.97	ug/l	-0.02
Spiked Amount	1.000		Recovery	=	97.00%	
63) 1,2-Dichlorobenzene-	21.50	152	56868	0.78	ug/l	0.08
Spiked Amount	1.000		Recovery	=	78.00%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluorometh	1.79	85	1105536	12.48	ug/l	99
3) Chloromethane	2.01	50	600946	10.07	ug/l	98
4) Vinyl Chloride	2.12	62	852860	10.46	ug/l	99
5) Bromomethane	2.50	94	378737	10.94	ug/l	97
6) Chloroethane	2.62	64	471880	11.44	ug/l	100
7) Trichlorofluorometha	2.91	101	1349051	10.54	ug/l	99
8) 1,1-Dichloroethene	3.62	96	811604	10.03	ug/l	95
9) Iodomethane	3.87	142	976413	13.60	ug/l	98
10) Allyl Chloride	4.24	41	788231	9.37	ug/l	99
11) Acrylonitrile	5.04	53	94761	19.55	ug/l	98
12) Acetone	3.85	43	170429	49.18	ug/l	100
13) Carbon Disulfide	3.90	76	2099340	9.64	ug/l	99
14) Methylene Chloride	4.48	84	646298	9.78	ug/l	92
15) trans-1,2-Dichloroet	4.87	96	849628	9.83	ug/l	94
16) 1,1-Dichloroethane	5.66	63	1482741	9.63	ug/l	98
17) 2-Butanone	6.87	43	394227	49.48	ug/l	99
18) 2,2-Dichloropropane	6.65	77	1367912	10.23	ug/l	100
19) cis-1,2-Dichloroethe	6.74	96	845517	9.96	ug/l	98
20) Diethyl Ether	3.33	59	278239	9.53	ug/l	97
21) tert-Butyl Alcohol	4.86	59	169383	92.96	ug/l	100
22) Methyl tert-Butyl Et	4.88	73	818776	9.58	ug/l	98
23) Bromochloromethane	7.17	128	273726	10.07	ug/l	94
24) Chloroform	7.34	83	1431528	9.86	ug/l	100
25) 1,1,1-Trichloroethan	7.54	97	1392738	9.71	ug/l	100
26) 1,1-Dichloropropene	7.86	75	1416217	9.83	ug/l	99
27) Carbon Tetrachloride	7.77	117	1209349	9.66	ug/l	100
28) Isopropyl Ether	5.73	45	1547461	9.08	ug/l	99
29) Propionitrile	7.09	54	192653	101.52	ug/l	100

Analyst Signature: Sy Analyst Name: Sy Date: 09/03/04

-----REASONS FOR MANUAL INTEGRATIONS-----  
 \_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound # : \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly.Compound # : \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound # : \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration  
 VF090302.D VF0816DW.M Thu Sep 09 12:37:23 2004

RPT1

Page 1



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090302.D Vial: 2  
 Acq On : 2 Sep 2004 9:56 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 5mL Multiplr: 1.00

MS Integration Params: rteint.p  
 Quant Time: Sep 3 12:29 2004

Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Benzene	8.23	78	2874259	9.67	ug/l	100
31) 1,2-Dichloroethane	8.43	62	496490	9.91	ug/l	99
32) Trichloroethene	9.53	130	958344	9.86	ug/l	99
33) 1,2-Dichloropropane	10.04	63	896274	9.56	ug/l	99
34) Methacrylonitrile	7.28	41	157961	9.60	ug/l	99
35) Methyl acrylate	6.98	55	265303	10.05	ug/l	99
36) Tetrahydrofuran	7.21	42	108955	20.10	ug/l	99
37) 1-Chlorobutane	7.80	56	1894965	9.58	ug/l	98
38) Dibromomethane	10.28	93	356358	10.00	ug/l	99
39) Bromodichloromethane	10.63	83	1055359	9.99	ug/l	99
40) 4-Methyl-2-Pentanone	11.95	43	1570080	46.88	ug/l	97
41) t-1,4-Dichloro-2-but	18.50	53	190762	20.49	ug/l	97
42) Methyl methacrylate	10.36	69	439718	19.34	ug/l	99
43) Ethyl methacrylate	12.97	69	519328	9.71	ug/l	98
44) Toluene	12.11	92	1866131	9.67	ug/l	99
45) t-1,3-Dichloropropen	12.81	75	731089	9.93	ug/l	100
46) cis-1,3-Dichloroprop	11.56	75	1294045	10.03	ug/l	100
47) 1,1,2-Trichloroethan	13.16	97	424436	10.00	ug/l	98
48) 1,3-Dichloropropane	13.51	76	737265	9.61	ug/l	100
49) 2-Hexanone	13.74	43	704236	49.20	ug/l	100
50) Dibromochloromethane	13.90	129	583964	10.19	ug/l	100
51) 1,2-Dibromoethane	14.11	107	430293	9.95	ug/l	100
53) Tetrachloroethene	13.19	164	976158	10.80	ug/l	99
54) Chlorobenzene	15.17	112	1820652	9.82	ug/l	98
55) 1,1,1,2-Tetrachloroe	15.41	131	675710	9.82	ug/l	100
56) Pentachloroethane	19.62	117	708958	8.92	ug/l	97
57) Hexachloroethane	22.06	117	1040294	8.86	ug/l	97
58) Ethyl Benzene	15.40	91	3895613	9.56	ug/l	98
59) m/p-Xylenes	15.70	91	5894311	19.42	ug/l	100
60) o-Xylene	16.57	91	2767710	9.57	ug/l	99
61) Styrene	16.65	104	1935099	9.87	ug/l	99
62) Bromoform	17.05	173	288102	10.37	ug/l	100
64) Isopropylbenzene	17.41	105	3946363	9.69	ug/l	100
65) 1,1,2,2-Tetrachloroe	18.34	83	499907	9.74	ug/l	99
66) 1,2,3-Trichloropropa	18.50	75	363009	9.90	ug/l	94
67) Bromobenzene	18.09	156	727693	9.61	ug/l	99
68) n-propylbenzene	18.38	120	1075092	9.72	ug/l	99

Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly.Compound #: \_\_\_\_\_

\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090302.D Vial: 2  
 Acq On : 2 Sep 2004 9:56 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 5mL Multiplr: 1.00

MS Integration Params: rteint.p  
 Quant Time: Sep 3 12:29 2004

Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
69) 2-Chlorotoluene	18.57	126	860034	9.86	ug/l	97
70) 1,3,5-Trimethylbenze	18.85	105	2924961	9.52	ug/l	100
71) 4-Chlorotoluene	18.86	126	799389	9.73	ug/l	96
72) tert-Butylbenzene	19.54	119	3759343	9.56	ug/l	100
73) 1,2,4-Trimethylbenze	19.71	105	2549814	9.12	ug/l	99
74) sec-Butylbenzene	20.07	105	5074234	9.97	ug/l	100
75) p-Isopropyltoluene	20.46	119	3744211	9.56	ug/l	99
76) 1,3-Dichlorobenzene	20.33	146	1509726	9.53	ug/l	100
77) 1,4-Dichlorobenzene	20.59	146	1365152	9.03	ug/l	100
78) n-Butylbenzene	21.54	91	3558783	8.19	ug/l	100
79) 1,2-Dichlorobenzene	21.54	146	959138	8.02	ug/l	100
80) 1,2-Dibromo-3-Chloro	23.58	75	71220	9.51	ug/l	99
81) 1,2,4-Trichlorobenze	25.49	180	718001	7.45	ug/l	100
82) Hexachlorobutadiene	25.85	225	812978	9.81	ug/l	100
83) Naphthalene	26.04	128	474197	6.42	ug/l	100
84) 1,2,3-Trichlorobenze	26.65	180	526863	7.33	ug/l	99

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 Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

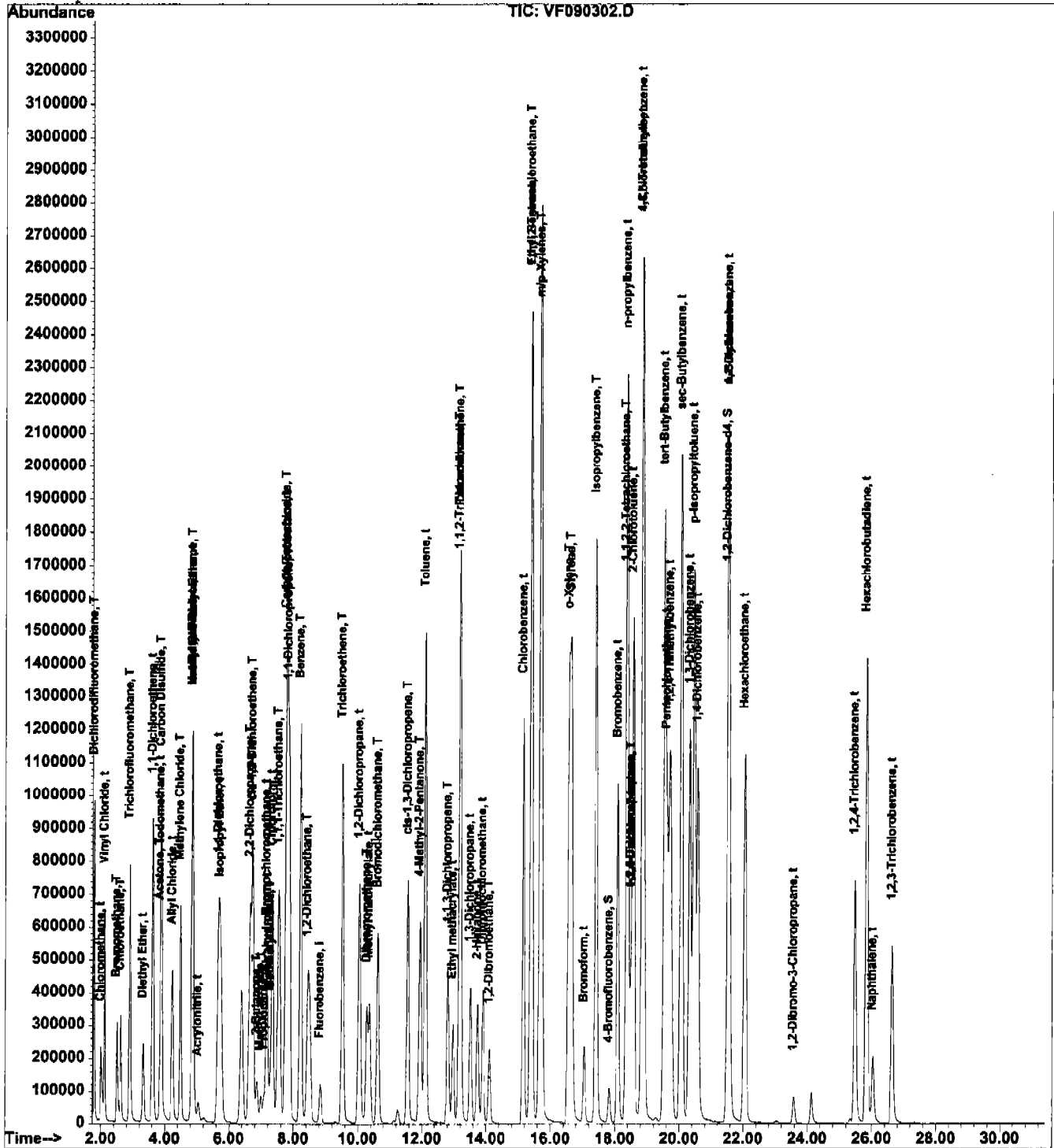
\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090302.D Vial: 2  
 Acq On : 2 Sep 2004 9:56 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 3 12:29 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration



## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4414 SAS No.: S4414 SDG No.: S4414  
 Instrument ID: MSVOAF Calibration Date/Time: 9/3/2004 22:24  
 Lab File ID: VF090402.D Init. Calib. Date(s): 8/16/2004 8/16/2004  
 Heated Purge: (Y/N) N Init. Calib. Time(s): 09:49 12:24  
 GC Column: RTX624 ID: 0.53 (mm)

COMPOUND	RRF	RRF010	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.318	0.393		23.6	30.0
Chloromethane	0.214	0.232		8.4	30.0
Vinyl Chloride	0.292	0.302		3.4	30.0
Bromomethane	0.124	0.131		5.6	30.0
Chloroethane	0.148	0.167		12.8	30.0
Trichlorofluoromethane	0.459	0.481		4.8	
tert-Butyl Alcohol	0.006	0.007		16.7	
Diethyl Ether	0.105	0.110		4.8	
1,1-Dichloroethene	0.290	0.292		0.7	30.0
Iodomethane	0.258	0.329		27.5	
Allyl Chloride	0.302	0.294		2.6	
Acrylonitrile	0.017	0.019		11.8	
Acetone	0.012	0.013		8.3	
Carbon Disulfide	0.781	0.781		0.0	30.0
Methyl tert-Butyl Ether	0.306	0.326		6.5	
Methyl acrylate	0.095	0.108		13.7	
Methylene Chloride	0.237	0.238		0.4	30.0
trans-1,2-Dichloroethene	0.310	0.314		1.3	30.0
1,1-Dichloroethane	0.552	0.553		0.2	30.0
2-Butanone	0.029	0.032		10.3	
Carbon Tetrachloride	0.449	0.447		0.4	30.0
2,2-Dichloropropane	0.479	0.511		6.7	30.0
cis-1,2-Dichloroethene	0.304	0.319		4.9	30.0
Chloroform	0.521	0.541		3.8	30.0
1,1,1-Trichloroethane	0.515	0.515		0.0	30.0
t-1,4-Dichloro-2-butene	0.033	0.040		21.2	
1,1-Dichloropropene	0.517	0.521		0.8	30.0
Isopropyl Ether	0.611	0.616		0.8	
Propionitrile	0.007	0.008		14.3	
Benzene	1.065	1.086		2.0	30.0
1,2-Dichloroethane	0.180	0.194		7.8	30.0
Trichloroethene	0.349	0.358		2.6	30.0
1,2-Dichloropropane	0.336	0.341		1.5	30.0
Methacrylonitrile	0.059	0.067		13.6	
Tetrahydrofuran	0.020	0.022		10.0	
1-Chlorobutane	0.709	0.717		1.1	
Dibromomethane	0.128	0.140		9.4	30.0
Bromodichloromethane	0.379	0.408		7.7	30.0
4-Methyl-2-Pentanone	0.120	0.133		10.8	
Methyl methacrylate	0.082	0.092		12.2	
Ethyl methacrylate	0.192	0.213		10.9	

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4414 SAS No.: S4414 SDG No.: S4414  
 Instrument ID: MSVOAF Calibration Date/Time: 9/3/2004 22:24  
 Lab File ID: VF090402.D Init. Calib. Date(s): 8/16/2004 8/16/2004  
 Heated Purge: (Y/N) N Init. Calib. Time(s): 09:49 12:24  
 GC Column: RTX624 ID: 0.53 (mm)

COMPOUND	RRF	RRF010	MIN RRF	%D	MAX%D
Toluene	0.692	0.693		0.1	30.0
t-1,3-Dichloropropene	0.264	0.288		9.1	30.0
cis-1,3-Dichloropropene	0.463	0.508		9.7	30.0
1,1,2-Trichloroethane	0.152	0.166		9.2	30.0
1,3-Dichloropropane	0.275	0.290		5.5	30.0
2-Hexanone	0.051	0.057		11.8	
Dibromochloromethane	0.206	0.228		10.7	30.0
1,2-Dibromoethane	0.155	0.172		11.0	30.0
Tetrachloroethene	0.324	0.321		0.9	30.0
Chlorobenzene	0.664	0.688		3.6	30.0
1,1,1,2-Tetrachloroethane	0.247	0.259		4.9	30.0
Hexachloroethane	0.421	0.443		5.2	
Ethyl Benzene	1.460	1.468		0.5	30.0
m/p-Xylenes	1.088	1.097		0.8	30.0
o-Xylene	1.037	1.054		1.6	30.0
Styrene	0.703	0.742		5.5	30.0
Bromoform	0.099	0.113		14.1	30.0
Bromobenzene	0.271	0.278		2.6	30.0
Isopropylbenzene	1.460	1.489		2.0	30.0
1,1,2,2-Tetrachloroethane	0.184	0.206		12.0	30.0
1,2,3-Trichloropropane	0.131	0.148		13.0	30.0
n-propylbenzene	0.397	0.401		1.0	30.0
2-Chlorotoluene	0.313	0.321		2.6	30.0
1,3,5-Trimethylbenzene	1.102	1.113		1.0	30.0
4-Chlorotoluene	0.295	0.301		2.0	30.0
tert-Butylbenzene	1.410	1.435		1.8	30.0
1,2,4-Trimethylbenzene	1.002	0.999		0.3	30.0
sec-Butylbenzene	1.825	1.864		2.1	30.0
p-Isopropyltoluene	1.405	1.439		2.4	30.0
1,3-Dichlorobenzene	0.568	0.593		4.4	30.0
1,4-Dichlorobenzene	0.542	0.556		2.6	30.0
n-Butylbenzene	1.557	1.592		2.2	30.0
1,2-Dichlorobenzene	0.429	0.449		4.7	30.0
1,2-Dibromo-3-Chloropropane	0.027	0.031		14.8	
1,2,4-Trichlorobenzene	0.346	0.348		0.6	30.0
Hexachlorobutadiene	0.297	0.302		1.7	30.0
Naphthalene	0.265	0.284		7.2	30.0
1,2,3-Trichlorobenzene	0.258	0.264		2.3	30.0
1,2-Dichlorobenzene-d4	0.261	0.267		2.3	
4-Bromofluorobenzene	0.470	0.466		0.9	

VOLATILE CONTINUING CALIBRATION CHECK

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All other compounds must meet a minimum RRF of 0.010.

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090402.D Vial: 2  
 Acq On : 3 Sep 2004 10:24 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 20% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev (min)
1 i	Fluorobenzene	1.000	1.000	0.0	116	0.00
2 T	Dichlorodifluoromethane	0.318	0.393	-23.6	162	0.00
3 t	Chloromethane	0.214	0.232	-8.4	134	0.00
4 t	Vinyl Chloride	0.292	0.302	-3.4	131	0.00
5 T	Bromomethane	0.124	0.131	-5.6	133	0.00
6 T	Chloroethane	0.148	0.167	-12.8	129	0.00
7 T	Trichlorofluoromethane	0.459	0.481	-4.8	140	0.00
8 t	1,1-Dichloroethene	0.290	0.292	-0.7	123	0.00
9 t	Iodomethane	0.257	0.329	-28.0	132	0.00
10 t	Allyl Chloride	0.302	0.294	2.6	115	0.00
11 t	Acrylonitrile	0.017	0.019	-11.8	128	-0.01
12 T	Acetone	0.012	0.013	-8.3	135	0.00
13 T	Carbon Disulfide	0.781	0.781	0.0	119	0.00
14 T	Methylene Chloride	0.237	0.238	-0.4	123	0.00
15 T	trans-1,2-Dichloroethene	0.310	0.314	-1.3	125	0.00
16 t	1,1-Dichloroethane	0.552	0.553	-0.2	119	-0.01
17 T	2-Butanone	0.029	0.032	-10.3	129	-0.02
18 T	2,2-Dichloropropane	0.479	0.511	-6.7	129	0.00
19 T	cis-1,2-Dichloroethene	0.304	0.319	-4.9	126	0.00
20 t	Diethyl Ether	0.105	0.110	-4.8	121	0.00
21 t	tert-Butyl Alcohol	0.007	0.007	0.0	129	0.00
22 t	Methyl tert-Butyl Ether	0.306	0.326	-6.5	125	-0.02
23 t	Bromochloromethane	0.097	0.106	-9.3	128	0.00
24 t	Chloroform	0.521	0.541	-3.8	123	-0.01
25 T	1,1,1-Trichloroethane	0.514	0.515	-0.2	120	-0.02
26 T	1,1-Dichloropropene	0.516	0.521	-1.0	124	0.00
27 T	Carbon Tetrachloride	0.449	0.447	0.4	120	0.00
28 t	Isopropyl Ether	0.611	0.616	-0.8	119	0.00
29 t	Propionitrile	0.007	0.008	-14.3	129	0.00
30 T	Benzene	1.065	1.086	-2.0	124	0.00
31 T	1,2-Dichloroethane	0.180	0.194	-7.8	125	0.00
32 T	Trichloroethene	0.348	0.358	-2.9	128	0.00
33 t	1,2-Dichloropropane	0.336	0.341	-1.5	119	-0.01
34 t	Methacrylonitrile	0.059	0.067	-13.6	134	-0.01
35 t	Methyl acrylate	0.095	0.108	-13.7	128	-0.01
36 t	Tetrahydrofuran	0.019	0.022	-15.8	131	0.00
37 t	1-Chlorobutane	0.709	0.717	-1.1	120	0.00
38 T	Dibromomethane	0.128	0.140	-9.4	127	-0.02
39 T	Bromodichloromethane	0.379	0.408	-7.7	125	-0.01
40 T	4-Methyl-2-Pentanone	0.120	0.133	-10.8	124	-0.01
41 t	t-1,4-Dichloro-2-butene	0.033	0.040	-21.2	131	-0.01
42 t	Methyl methacrylate	0.082	0.092	-12.2	128	0.00

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090402.D Vial: 2  
 Acq On : 3 Sep 2004 10:24 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 20% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43 t	Ethyl methacrylate	0.192	0.213	-10.9	128	0.00
44 t	Toluene	0.692	0.693	-0.1	121	0.00
45 T	t-1,3-Dichloropropene	0.264	0.288	-9.1	127	0.00
46 T	cis-1,3-Dichloropropene	0.463	0.508	-9.7	128	0.00
47 T	1,1,2-Trichloroethane	0.152	0.166	-9.2	127	-0.02
48 t	1,3-Dichloropropane	0.275	0.290	-5.5	125	0.00
49 t	2-Hexanone	0.051	0.057	-11.8	127	0.00
50 t	Dibromochloromethane	0.205	0.228	-11.2	126	0.00
51 T	1,2-Dibromoethane	0.155	0.172	-11.0	129	0.00
52 S	4-Bromofluorobenzene	0.470	0.466	0.9	116	-0.01
53 T	Tetrachloroethene	0.324	0.321	0.9	124	0.00
54 t	Chlorobenzene	0.664	0.688	-3.6	124	-0.01
55 T	1,1,1,2-Tetrachloroethane	0.247	0.259	-4.9	123	-0.02
56 t	Pentachloroethane	0.285	0.302	-6.0	123	-0.02
57 t	Hexachloroethane	0.421	0.443	-5.2	125	-0.01
58 t	Ethyl Benzene	1.461	1.468	-0.5	121	0.00
59 T	m/p-Xylenes	1.088	1.097	-0.8	122	0.00
60 T	o-Xylene	1.037	1.054	-1.6	122	-0.02
61 T	Styrene	0.703	0.742	-5.5	124	-0.02
62 t	Bromoform	0.100	0.113	-13.0	127	-0.02
63 S	1,2-Dichlorobenzene-d4	0.261	0.267	-2.3	114	-0.02
64 T	Isopropylbenzene	1.460	1.489	-2.0	123	-0.01
65 T	1,1,2,2-Tetrachloroethane	0.184	0.206	-12.0	129	-0.02
66 T	1,2,3-Trichloropropane	0.132	0.148	-12.1	129	-0.01
67 t	Bromobenzene	0.271	0.278	-2.6	122	-0.01
68 t	n-propylbenzene	0.397	0.401	-1.0	125	-0.02
69 t	2-Chlorotoluene	0.313	0.321	-2.6	123	-0.01
70 t	1,3,5-Trimethylbenzene	1.102	1.113	-1.0	122	-0.02
71 t	4-Chlorotoluene	0.295	0.301	-2.0	122	-0.02
72 t	tert-Butylbenzene	1.410	1.435	-1.8	123	-0.02
73 t	1,2,4-Trimethylbenzene	1.002	0.999	0.3	121	-0.01
74 t	sec-Butylbenzene	1.825	1.864	-2.1	125	-0.02
75 t	p-Isopropyltoluene	1.405	1.439	-2.4	127	-0.02
76 t	1,3-Dichlorobenzene	0.568	0.593	-4.4	127	-0.03
77 t	1,4-Dichlorobenzene	0.542	0.556	-2.6	125	-0.02
78 t	n-Butylbenzene	1.557	1.592	-2.2	127	-0.02
79 t	1,2-Dichlorobenzene	0.429	0.449	-4.7	127	-0.02
80 t	1,2-Dibromo-3-Chloropropane	0.027	0.031	-14.8	132	-0.02
81 t	1,2,4-Trichlorobenzene	0.346	0.348	-0.6	123	-0.02
82 t	Hexachlorobutadiene	0.297	0.302	-1.7	128	-0.02
83 t	Naphthalene	0.265	0.284	-7.2	123	-0.02
84 t	1,2,3-Trichlorobenzene	0.258	0.264	-2.3	123	-0.03

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

VF090402.D VF0816DW.M

Thu Sep 09 12:52:23 2004

RPT1

Page 2



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090402.D Vial: 2  
 Acq On : 3 Sep 2004 10:24 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 7 11:31 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.84	96	264017	1.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
52) 4-Bromofluorobenzene	17.84	95	123088	0.99	ug/l	-0.01
Spiked Amount	1.000		Recovery	=	99.00%	
63) 1,2-Dichlorobenzene-	21.40	152	70468	1.02	ug/l	-0.02
Spiked Amount	1.000		Recovery	=	102.00%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluorometh	1.79	85	1037554	12.37	ug/l	100
3) Chloromethane	2.01	50	612670	10.85	ug/l	98
4) Vinyl Chloride	2.12	62	796597	10.33	ug/l	100
5) Bromomethane	2.50	94	346322	10.57	ug/l	99
6) Chloroethane	2.63	64	442004	11.32	ug/l	98
7) Trichlorofluorometha	2.90	101	1270589	10.49	ug/l	100
8) 1,1-Dichloroethene	3.63	96	771399	10.07	ug/l	95
9) Iodomethane	3.86	142	869190	12.79	ug/l	99
10) Allyl Chloride	4.24	41	777269	9.76	ug/l	99
11) Acrylonitrile	5.05	53	102722	22.39	ug/l	97
12) Acetone	3.85	43	173888	53.00	ug/l	99
13) Carbon Disulfide	3.90	76	2063224	10.01	ug/l	100
14) Methylene Chloride	4.49	84	629131	10.06	ug/l	97
15) trans-1,2-Dichloroet	4.87	96	829335	10.14	ug/l	95
16) 1,1-Dichloroethane	5.67	63	1461000	10.03	ug/l	99
17) 2-Butanone	6.86	43	417593	55.36	ug/l	97
18) 2,2-Dichloropropane	6.65	77	1349774	10.67	ug/l	100
19) cis-1,2-Dichloroethe	6.74	96	843524	10.49	ug/l	98
20) Diethyl Ether	3.33	59	290517	10.51	ug/l	98
21) tert-Butyl Alcohol	4.86	59	188433	109.25	ug/l	100
22) Methyl tert-Butyl Et	4.88	73	861251	10.65	ug/l	99
23) Bromochloromethane	7.18	128	280397	10.90	ug/l	98
24) Chloroform	7.35	83	1428825	10.39	ug/l	99
25) 1,1,1-Trichloroethan	7.54	97	1360254	10.02	ug/l	100
26) 1,1-Dichloropropene	7.87	75	1375027	10.08	ug/l	99
27) Carbon Tetrachloride	7.78	117	1178976	9.95	ug/l	99
28) Isopropyl Ether	5.75	45	1625397	10.07	ug/l	98
29) Propionitrile	7.09	54	204688	113.95	ug/l	100

Analyst Signature: [Signature] Analyst Name: [Signature] Date: 09/09/04

-----REASONS FOR MANUAL INTEGRATIONS-----  
 \_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090402.D Vial: 2  
 Acq On : 3 Sep 2004 10:24 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 7 11:31 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Benzene	8.24	78	2867289	10.19	ug/l	99
31) 1,2-Dichloroethane	8.45	62	513358	10.83	ug/l	100
32) Trichloroethene	9.53	130	944444	10.26	ug/l	95
33) 1,2-Dichloropropane	10.05	63	899241	10.13	ug/l	99
34) Methacrylonitrile	7.29	41	175763	11.28	ug/l	97
35) Methyl acrylate	7.00	55	284170	11.37	ug/l	100
36) Tetrahydrofuran	7.22	42	117373	22.88	ug/l	99
37) 1-Chlorobutane	7.80	56	1891988	10.11	ug/l	98
38) Dibromomethane	10.28	93	369008	10.93	ug/l	99
39) Bromodichloromethane	10.63	83	1078401	10.79	ug/l	99
40) 4-Methyl-2-Pentanone	11.95	43	1759198	55.49	ug/l	98
41) t-1,4-Dichloro-2-but	18.50	53	209322	23.76	ug/l	99
42) Methyl methacrylate	10.37	69	483489	22.47	ug/l	99
43) Ethyl methacrylate	12.98	69	563225	11.12	ug/l	99
44) Toluene	12.12	92	1828702	10.01	ug/l	98
45) t-1,3-Dichloropropen	12.82	75	760830	10.92	ug/l	98
46) cis-1,3-Dichloroprop	11.57	75	1340926	10.98	ug/l	100
47) 1,1,2-Trichloroethan	13.17	97	437124	10.88	ug/l	99
48) 1,3-Dichloropropane	13.52	76	766371	10.55	ug/l	99
49) 2-Hexanone	13.74	43	746634	55.10	ug/l	100
50) Dibromochloromethane	13.91	129	602969	11.12	ug/l	100
51) 1,2-Dibromoethane	14.12	107	453003	11.06	ug/l	99
53) Tetrachloroethene	13.20	164	848623	9.92	ug/l	99
54) Chlorobenzene	15.17	112	1816304	10.35	ug/l	99
55) 1,1,1,2-Tetrachloroe	15.42	131	683933	10.50	ug/l	100
56) Pentachloroethane	19.62	117	796403	10.58	ug/l	99
57) Hexachloroethane	21.91	117	1170701	10.53	ug/l	97
58) Ethyl Benzene	15.41	91	3875496	10.05	ug/l	99
59) m/p-Xylenes	15.70	91	5793401	20.17	ug/l	100
60) o-Xylene	16.58	91	2782213	10.16	ug/l	100
61) Styrene	16.64	104	1958346	10.55	ug/l	99
62) Bromoform	17.05	173	297111	11.29	ug/l	99
64) Isopropylbenzene	17.42	105	3931215	10.20	ug/l	99
65) 1,1,2,2-Tetrachloroe	18.34	83	542771	11.17	ug/l	99
66) 1,2,3-Trichloropropa	18.50	75	391161m	11.27	ug/l	
67) Bromobenzene	18.10	156	735195	10.26	ug/l	100
68) n-propylbenzene	18.38	120	1058286	10.11	ug/l	100

Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090402.D Vial: 2  
 Acq On : 3 Sep 2004 10:24 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00

MS Integration Params: rteint.p  
 Quant Time: Sep 7 11:31 2004

Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
69) 2-Chlorotoluene	18.57	126	848149	10.28	ug/l	98
70) 1,3,5-Trimethylbenze	18.85	105	2939652	10.11	ug/l	100
71) 4-Chlorotoluene	18.86	126	795358	10.22	ug/l	99
72) tert-Butylbenzene	19.54	119	3787595	10.17	ug/l	99
73) 1,2,4-Trimethylbenze	19.71	105	2636670	9.96	ug/l	98
74) sec-Butylbenzene	20.07	105	4922009	10.22	ug/l	100
75) p-Isopropyltoluene	20.46	119	3799259	10.24	ug/l	99
76) 1,3-Dichlorobenzene	20.33	146	1564846	10.43	ug/l	100
77) 1,4-Dichlorobenzene	20.58	146	1467735	10.26	ug/l	99
78) n-Butylbenzene	21.43	91	4202660	10.22	ug/l	100
79) 1,2-Dichlorobenzene	21.44	146	1186394	10.48	ug/l	100
80) 1,2-Dibromo-3-Chloro	23.39	75	82589	11.65	ug/l	99
81) 1,2,4-Trichlorobenze	25.33	180	918464	10.06	ug/l	100
82) Hexachlorobutadiene	25.70	225	796331	10.15	ug/l	99
83) Naphthalene	25.89	128	750376	10.73	ug/l	100
84) 1,2,3-Trichlorobenze	26.50	180	696642	10.24	ug/l	100

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 Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

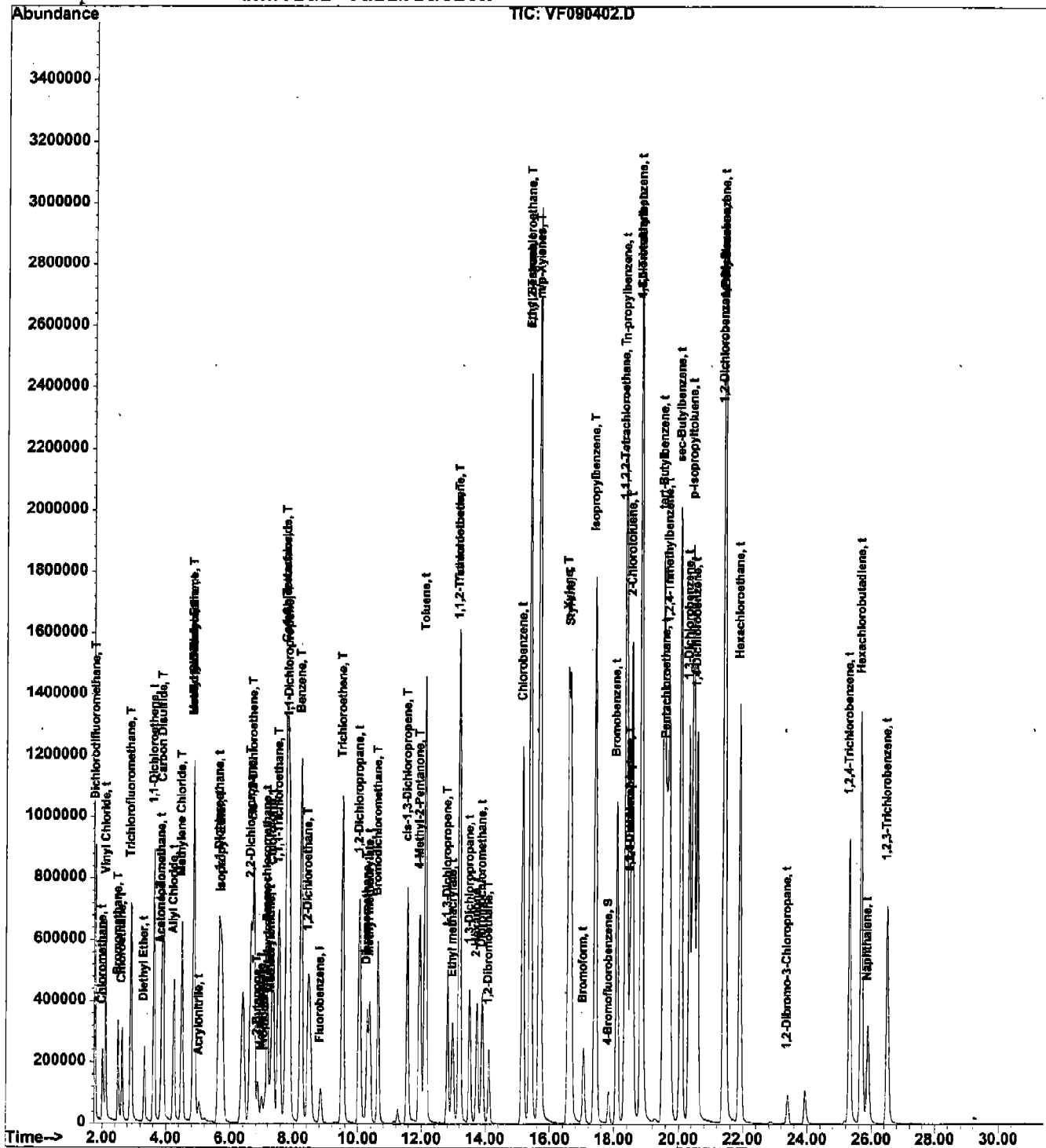
\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090402.D Vial: 2  
 Acq On : 3 Sep 2004 10:24 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 7 11:31 2004

Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration



## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4414 SAS No.: S4414 SDG No.: S4414  
 Instrument ID: MSVOAF Calibration Date/Time: 9/7/2004 19:00  
 Lab File ID: VF090712.D Init. Calib. Date(s): 8/16/2004 8/16/2004  
 Heated Purge: (Y/N) N Init. Calib. Time(s): 09:49 12:24  
 GC Column: RTX624 ID: 0.53 (mm)

COMPOUND	RRF	RRF010	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.318	0.362		13.8	30.0
Chloromethane	0.214	0.206		3.7	30.0
Vinyl Chloride	0.292	0.286		2.1	30.0
Bromomethane	0.124	0.159		28.2	30.0
Chloroethane	0.148	0.165		11.5	30.0
Trichlorofluoromethane	0.459	0.470		2.4	
tert-Butyl Alcohol	0.006	0.007		16.7	
Diethyl Ether	0.105	0.112		6.7	
1,1-Dichloroethane	0.290	0.308		6.2	30.0
Iodomethane	0.258	0.384		48.8	
Allyl Chloride	0.302	0.298		1.3	
Acrylonitrile	0.017	0.020		17.6	
Acetone	0.012	0.013		8.3	
Carbon Disulfide	0.781	0.811		3.8	30.0
Methyl tert-Butyl Ether	0.306	0.336		9.8	
Methyl acrylate	0.095	0.109		14.7	
Methylene Chloride	0.237	0.274		15.6	30.0
trans-1,2-Dichloroethane	0.310	0.338		9.0	30.0
1,1-Dichloroethane	0.552	0.575		4.2	30.0
2-Butanone	0.029	0.031		6.9	
Carbon Tetrachloride	0.449	0.479		6.7	30.0
2,2-Dichloropropane	0.479	0.530		10.6	30.0
cis-1,2-Dichloroethane	0.304	0.322		5.9	30.0
Chloroform	0.521	0.555		6.5	30.0
1,1,1-Trichloroethane	0.515	0.545		5.8	30.0
t-1,4-Dichloro-2-butene	0.033	0.039		18.2	
1,1-Dichloropropene	0.517	0.556		7.5	30.0
Isopropyl Ether	0.611	0.622		1.8	
Propionitrile	0.007	0.008		14.3	
Benzene	1.065	1.124		5.5	30.0
1,2-Dichloroethane	0.180	0.201		11.7	30.0
Trichloroethane	0.349	0.379		8.6	30.0
1,2-Dichloropropane	0.336	0.357		6.3	30.0
Methacrylonitrile	0.059	0.065		10.2	
Tetrahydrofuran	0.020	0.022		10.0	
1-Chlorobutane	0.709	0.750		5.8	
Dibromomethane	0.128	0.142		10.9	30.0
Bromodichloromethane	0.379	0.418		10.3	30.0
4-Methyl-2-Pentanone	0.120	0.132		10.0	
Methyl methacrylate	0.082	0.093		13.4	
Ethyl methacrylate	0.192	0.219		14.1	

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4414 SAS No.: S4414 SDG No.: S4414  
 Instrument ID: MSVOAF Calibration Date/Time: 9/7/2004 19:00  
 Lab File ID: VF090712.D Init. Calib. Date(s): 8/16/2004 8/16/2004  
 Heated Purge: (Y/N) N Init. Calib. Time(s): 09:49 12:24  
 GC Column: RTX624 ID: 0.53 (mm)

COMPOUND	RRF	RRF010	MIN RRF	%D	MAX%D
Toluene	0.692	0.733		5.9	30.0
t-1,3-Dichloropropene	0.264	0.301		14.0	30.0
cis-1,3-Dichloropropene	0.463	0.521		12.5	30.0
1,1,2-Trichloroethane	0.152	0.175		15.1	30.0
1,3-Dichloropropane	0.275	0.301		9.5	30.0
2-Hexanone	0.051	0.057		11.8	
Dibromochloromethane	0.206	0.240		16.5	30.0
1,2-Dibromoethane	0.155	0.178		14.8	30.0
Tetrachloroethene	0.324	0.352		8.6	30.0
Chlorobenzene	0.664	0.722		8.7	30.0
1,1,1,2-Tetrachloroethane	0.247	0.271		9.7	30.0
Hexachloroethane	0.421	0.464		10.2	
Ethyl Benzene	1.460	1.549		6.1	30.0
m/p-Xylenes	1.088	1.168		7.4	30.0
o-Xylene	1.037	1.108		6.8	30.0
Styrene	0.703	0.763		8.5	30.0
Bromoform	0.099	0.117		18.2	30.0
Bromobenzene	0.271	0.289		6.6	30.0
Isopropylbenzene	1.460	1.584		8.5	30.0
1,1,2,2-Tetrachloroethane	0.184	0.209		13.6	30.0
1,2,3-Trichloropropane	0.131	0.151		15.3	30.0
n-propylbenzene	0.397	0.426		7.3	30.0
2-Chlorotoluene	0.313	0.343		9.6	30.0
1,3,5-Trimethylbenzene	1.102	1.169		6.1	30.0
4-Chlorotoluene	0.295	0.319		8.1	30.0
tert-Butylbenzene	1.410	1.523		8.0	30.0
1,2,4-Trimethylbenzene	1.002	1.041		3.9	30.0
sec-Butylbenzene	1.825	1.987		8.9	30.0
p-Isopropyltoluene	1.405	1.516		7.9	30.0
1,3-Dichlorobenzene	0.568	0.618		8.8	30.0
1,4-Dichlorobenzene	0.542	0.599		10.5	30.0
n-Butylbenzene	1.557	1.618		3.9	30.0
1,2-Dichlorobenzene	0.429	0.462		7.7	30.0
1,2-Dibromo-3-Chloropropane	0.027	0.031		14.8	
1,2,4-Trichlorobenzene	0.346	0.332		4.0	30.0
Hexachlorobutadiene	0.297	0.321		8.1	30.0
Naphthalene	0.265	0.242		8.7	30.0
1,2,3-Trichlorobenzene	0.258	0.247		4.3	30.0
1,2-Dichlorobenzene-d4	0.261	0.264		1.1	
4-Bromofluorobenzene	0.470	0.484		3.0	

VOLATILE CONTINUING CALIBRATION CHECK

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All other compounds must meet a minimum RRF of 0.010.

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090712.D Vial: 2  
 Acq On : 7 Sep 2004 7:00 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 20% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area	% Dev(min)
1 i Fluorobenzene	1.000	1.000	0.0	116	0.00
2 T Dichlorodifluoromethane	0.318	0.362	-13.8	150	0.01
3 t Chloromethane	0.214	0.206	3.7	119	0.01
4 t Vinyl Chloride	0.292	0.286	2.1	124	0.00
5 T Bromomethane	0.124	0.159	-28.2	162	0.02
6 T Chloroethane	0.148	0.165	-11.5	128	0.00
7 T Trichlorofluoromethane	0.459	0.470	-2.4	138	0.00
8 t 1,1-Dichloroethene	0.290	0.308	-6.2	130	0.00
9 t Iodomethane	0.257	0.384	-49.4#	155	0.01
10 t Allyl Chloride	0.302	0.298	1.3	116	0.00
11 t Acrylonitrile	0.017	0.020	-17.6	130	0.00
12 T Acetone	0.012	0.013	-8.3	133	0.01
13 T Carbon Disulfide	0.781	0.811	-3.8	124	0.01
14 T Methylene Chloride	0.237	0.274	-15.6	142	0.00
15 T trans-1,2-Dichloroethene	0.310	0.338	-9.0	135	0.00
16 t 1,1-Dichloroethane	0.552	0.575	-4.2	124	0.00
17 T 2-Butanone	0.029	0.031	-6.9	128	0.00
18 T 2,2-Dichloropropane	0.479	0.530	-10.6	134	0.02
19 T cis-1,2-Dichloroethene	0.304	0.322	-5.9	127	0.00
20 t Diethyl Ether	0.105	0.112	-6.7	123	0.00
21 t tert-Butyl Alcohol	0.007	0.007	0.0	129	0.00
22 t Methyl tert-Butyl Ether	0.306	0.336	-9.8	129	0.00
23 t Bromochloromethane	0.097	0.113	-16.5	136	0.00
24 t Chloroform	0.521	0.555	-6.5	126	0.00
25 T 1,1,1-Trichloroethane	0.514	0.545	-6.0	128	0.00
26 T 1,1-Dichloropropene	0.516	0.556	-7.8	133	0.00
27 T Carbon Tetrachloride	0.449	0.479	-6.7	129	0.00
28 t Isopropyl Ether	0.611	0.622	-1.8	121	0.01
29 t Propionitrile	0.007	0.008	-14.3	130	0.00
30 T Benzene	1.065	1.124	-5.5	129	0.00
31 T 1,2-Dichloroethane	0.180	0.201	-11.7	130	0.00
32 T Trichloroethene	0.348	0.379	-8.9	137	0.00
33 t 1,2-Dichloropropane	0.336	0.357	-6.2	125	0.00
34 t Methacrylonitrile	0.059	0.065	-10.2	132	-0.01
35 t Methyl acrylate	0.095	0.109	-14.7	130	0.00
36 t Tetrahydrofuran	0.019	0.022	-15.8	129	0.00
37 t 1-Chlorobutane	0.709	0.750	-5.8	126	0.00
38 T Dibromomethane	0.128	0.142	-10.9	130	0.00
39 T Bromodichloromethane	0.379	0.418	-10.3	129	0.00
40 T 4-Methyl-2-Pentanone	0.120	0.132	-10.0	123	0.00
41 t t-1,4-Dichloro-2-butene	0.033	0.039	-18.2	130	0.00
42 t Methyl methacrylate	0.082	0.093	-13.4	131	0.01

(#) = Out of Range



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090712.D Vial: 2  
 Acq On : 7 Sep 2004 7:00 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 20% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43 t Ethyl methacrylate	0.192	0.219	-14.1	132	0.00
44 t Toluene	0.692	0.733	-5.9	129	0.00
45 T t-1,3-Dichloropropene	0.264	0.301	-14.0	134	0.00
46 T cis-1,3-Dichloropropene	0.463	0.521	-12.5	132	0.00
47 T 1,1,2-Trichloroethane	0.152	0.175	-15.1	134	0.00
48 t 1,3-Dichloropropane	0.275	0.301	-9.5	129	0.00
49 t 2-Hexanone	0.051	0.057	-11.8	128	0.00
50 t Dibromochloromethane	0.205	0.240	-17.1	133	0.00
51 T 1,2-Dibromoethane	0.155	0.178	-14.8	134	0.00
52 S 4-Bromofluorobenzene	0.470	0.484	-3.0	121	0.00
53 T Tetrachloroethene	0.324	0.352	-8.6	136	0.00
54 t Chlorobenzene	0.664	0.722	-8.7	131	0.00
55 T 1,1,1,2-Tetrachloroethane	0.247	0.271	-9.7	129	0.00
56 t Pentachloroethane	0.285	0.313	-9.8	128	0.00
57 t Hexachloroethane	0.421	0.464	-10.2	131	0.00
58 t Ethyl Benzene	1.461	1.549	-6.0	128	0.00
59 T m/p-Xylenes	1.088	1.168	-7.4	130	0.00
60 T o-Xylene	1.037	1.108	-6.8	129	0.00
61 T Styrene	0.703	0.763	-8.5	128	0.00
62 t Bromoform	0.100	0.117	-17.0	132	0.00
63 S 1,2-Dichlorobenzene-d4	0.261	0.264	-1.1	114	0.00
64 T Isopropylbenzene	1.460	1.584	-8.5	131	0.00
65 T 1,1,2,2-Tetrachloroethane	0.184	0.209	-13.6	132	0.00
66 T 1,2,3-Trichloropropane	0.132	0.151	-14.4	132	0.00
67 t Bromobenzene	0.271	0.289	-6.6	127	0.00
68 t n-propylbenzene	0.397	0.426	-7.3	133	0.00
69 t 2-Chlorotoluene	0.313	0.343	-9.6	132	0.00
70 t 1,3,5-Trimethylbenzene	1.102	1.169	-6.1	129	0.00
71 t 4-Chlorotoluene	0.295	0.319	-8.1	130	0.00
72 t tert-Butylbenzene	1.410	1.523	-8.0	131	0.00
73 t 1,2,4-Trimethylbenzene	1.002	1.041	-3.9	127	0.00
74 t sec-Butylbenzene	1.825	1.987	-8.9	134	0.00
75 t p-Isopropyltoluene	1.405	1.516	-7.9	134	0.00
76 t 1,3-Dichlorobenzene	0.568	0.618	-8.8	133	0.00
77 t 1,4-Dichlorobenzene	0.542	0.599	-10.5	135	0.00
78 t n-Butylbenzene	1.557	1.618	-3.9	129	0.00
79 t 1,2-Dichlorobenzene	0.429	0.462	-7.7	131	0.00
80 t 1,2-Dibromo-3-Chloropropane	0.027	0.031	-14.8	133	0.00
81 t 1,2,4-Trichlorobenzene	0.346	0.332	4.0	118	0.00
82 t Hexachlorobutadiene	0.297	0.321	-8.1	137	0.00
83 t Naphthalene	0.265	0.242	8.7	106	0.00
84 t 1,2,3-Trichlorobenzene	0.258	0.247	4.3	115	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

VF090712.D VF0816DW.M

Thu Sep 09 15:01:29 2004

RPT1

Page 2

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090712.D Vial: 2  
 Acq On : 7 Sep 2004 7:00 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00

MS Integration Params: rteint.p  
 Quant Time: Sep 8 9:33 2004

Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.86	96	265073	1.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
52) 4-Bromofluorobenzene	17.86	95	128228	1.03	ug/l	0.00
Spiked Amount	1.000		Recovery	=	103.00%	
63) 1,2-Dichlorobenzene-	21.42	152	70083	1.01	ug/l	0.00
Spiked Amount	1.000		Recovery	=	101.00%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluorometh	1.80	85	959411	11.40	ug/l	99
3) Chloromethane	2.02	50	545580	9.62	ug/l	98
4) Vinyl Chloride	2.12	62	757503	9.78	ug/l	99
5) Bromomethane	2.51	94	422374	12.84	ug/l	98
6) Chloroethane	2.64	64	437315	11.16	ug/l	100
7) Trichlorofluorometha	2.91	101	1245445	10.24	ug/l	100
8) 1,1-Dichloroethene	3.64	96	815897	10.61	ug/l	96
9) Iodomethane	3.88	142	1019072	14.93	ug/l	97
10) Allyl Chloride	4.25	41	789710	9.87	ug/l	99
11) Acrylonitrile	5.06	53	104002	22.57	ug/l	99
12) Acetone	3.86	43	170080	51.64	ug/l	99
13) Carbon Disulfide	3.91	76	2148703	10.38	ug/l	99
14) Methylene Chloride	4.50	84	726319	11.57	ug/l	95
15) trans-1,2-Dichloroet	4.88	96	896823	10.92	ug/l	94
16) 1,1-Dichloroethane	5.68	63	1525476	10.43	ug/l	99
17) 2-Butanone	6.88	43	413958	54.66	ug/l	100
18) 2,2-Dichloropropane	6.68	77	1405351	11.06	ug/l	100
19) cis-1,2-Dichloroethe	6.76	96	852541	10.56	ug/l	98
20) Diethyl Ether	3.34	59	295593	10.65	ug/l	98
21) tert-Butyl Alcohol	4.87	59	187669	108.37	ug/l	100
22) Methyl tert-Butyl Et	4.89	73	891136	10.97	ug/l	99
23) Bromochloromethane	7.19	128	299673	11.61	ug/l	94
24) Chloroform	7.37	83	1471501	10.66	ug/l	99
25) 1,1,1-Trichloroethan	7.56	97	1445714	10.60	ug/l	100
26) 1,1-Dichloropropene	7.88	75	1474947	10.77	ug/l	99
27) Carbon Tetrachloride	7.79	117	1268755	10.67	ug/l	99
28) Isopropyl Ether	5.76	45	1649267	10.18	ug/l	98
29) Propionitrile	7.10	54	207212	114.89	ug/l	100

Analyst Signature: Sy Analyst Name: Sy Date: 09/09/04

REASONS FOR MANUAL INTEGRATIONS

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090712.D Vial: 2  
 Acq On : 7 Sep 2004 7:00 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00

MS Integration Params: rteint.p  
 Quant Time: Sep 8 9:33 2004

Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Benzene	8.25	78	2980235	10.55	ug/l	99
31) 1,2-Dichloroethane	8.46	62	534059	11.22	ug/l	100
32) Trichloroethene	9.54	130	1004211	10.87	ug/l	97
33) 1,2-Dichloropropane	10.07	63	945900	10.62	ug/l	98
34) Methacrylonitrile	7.29	41	172542	11.03	ug/l	99
35) Methyl acrylate	7.01	55	289942	11.56	ug/l	99
36) Tetrahydrofuran	7.23	42	115263	22.38	ug/l	99
37) 1-Chlorobutane	7.81	56	1989264	10.58	ug/l	98
38) Dibromomethane	10.29	93	377601	11.14	ug/l	99
39) Bromodichloromethane	10.65	83	1106840	11.03	ug/l	99
40) 4-Methyl-2-Pentanone	11.96	43	1746282	54.86	ug/l	97
41) t-1,4-Dichloro-2-but	18.51	53	207554	23.46	ug/l	95
42) Methyl methacrylate	10.38	69	492819	22.81	ug/l	100
43) Ethyl methacrylate	12.99	69	579859	11.41	ug/l	96
44) Toluene	12.13	92	1942229	10.59	ug/l	99
45) t-1,3-Dichloropropen	12.82	75	797571	11.40	ug/l	99
46) cis-1,3-Dichloroprop	11.58	75	1380949	11.26	ug/l	100
47) 1,1,2-Trichloroethan	13.19	97	463732	11.50	ug/l	98
48) 1,3-Dichloropropane	13.52	76	796588	10.93	ug/l	99
49) 2-Hexanone	13.75	43	754958	55.49	ug/l	100
50) Dibromochloromethane	13.92	129	636188	11.68	ug/l	100
51) 1,2-Dibromoethane	14.13	107	472005	11.48	ug/l	99
53) Tetrachloroethene	13.21	164	933696	10.87	ug/l	98
54) Chlorobenzene	15.18	112	1912949	10.86	ug/l	99
55) 1,1,1,2-Tetrachloroe	15.43	131	718136	10.98	ug/l	100
56) Pentachloroethane	19.65	117	829563	10.98	ug/l	100
57) Hexachloroethane	21.93	117	1228992	11.01	ug/l	98
58) Ethyl Benzene	15.41	91	4105899	10.60	ug/l	99
59) m/p-Xylenes	15.71	91	6190215	21.46	ug/l	100
60) o-Xylene	16.59	91	2938209	10.69	ug/l	99
61) Styrene	16.66	104	2021776	10.85	ug/l	99
62) Bromoform	17.07	173	309047	11.70	ug/l	99
64) Isopropylbenzene	17.43	105	4199213	10.85	ug/l	100
65) 1,1,2,2-Tetrachloroe	18.37	83	552842	11.33	ug/l	100
66) 1,2,3-Trichloropropa	18.52	75	399977	11.47	ug/l	94
67) Bromobenzene	18.12	156	767040	10.66	ug/l	98
68) n-propylbenzene	18.40	120	1128038	10.73	ug/l	97

Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090712.D Vial: 2  
 Acq On : 7 Sep 2004 7:00 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00

MS Integration Params: rteint.p  
 Quant Time: Sep 8 9:33 2004

Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
69) 2-Chlorotoluene	18.59	126	908330	10.96	ug/l	97
70) 1,3,5-Trimethylbenze	18.87	105	3097691	10.61	ug/l	99
71) 4-Chlorotoluene	18.88	126	845915	10.83	ug/l	98
72) tert-Butylbenzene	19.56	119	4036031	10.80	ug/l	99
73) 1,2,4-Trimethylbenze	19.73	105	2760148	10.39	ug/l	99
74) sec-Butylbenzene	20.09	105	5267342	10.89	ug/l	100
75) p-Isopropyltoluene	20.48	119	4018128	10.79	ug/l	99
76) 1,3-Dichlorobenzene	20.35	146	1638837	10.88	ug/l	99
77) 1,4-Dichlorobenzene	20.60	146	1586590	11.04	ug/l	99
78) n-Butylbenzene	21.45	91	4287802	10.39	ug/l	99
79) 1,2-Dichlorobenzene	21.46	146	1225808	10.79	ug/l	100
80) 1,2-Dibromo-3-Chloro	23.41	75	83235	11.69	ug/l	99
81) 1,2,4-Trichlorobenze	25.34	180	880911	9.61	ug/l	99
82) Hexachlorobutadiene	25.71	225	851893	10.82	ug/l	100
83) Naphthalene	25.91	128	642676	9.15	ug/l	100
84) 1,2,3-Trichlorobenze	26.53	180	654554	9.59	ug/l	100

-----  
 Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

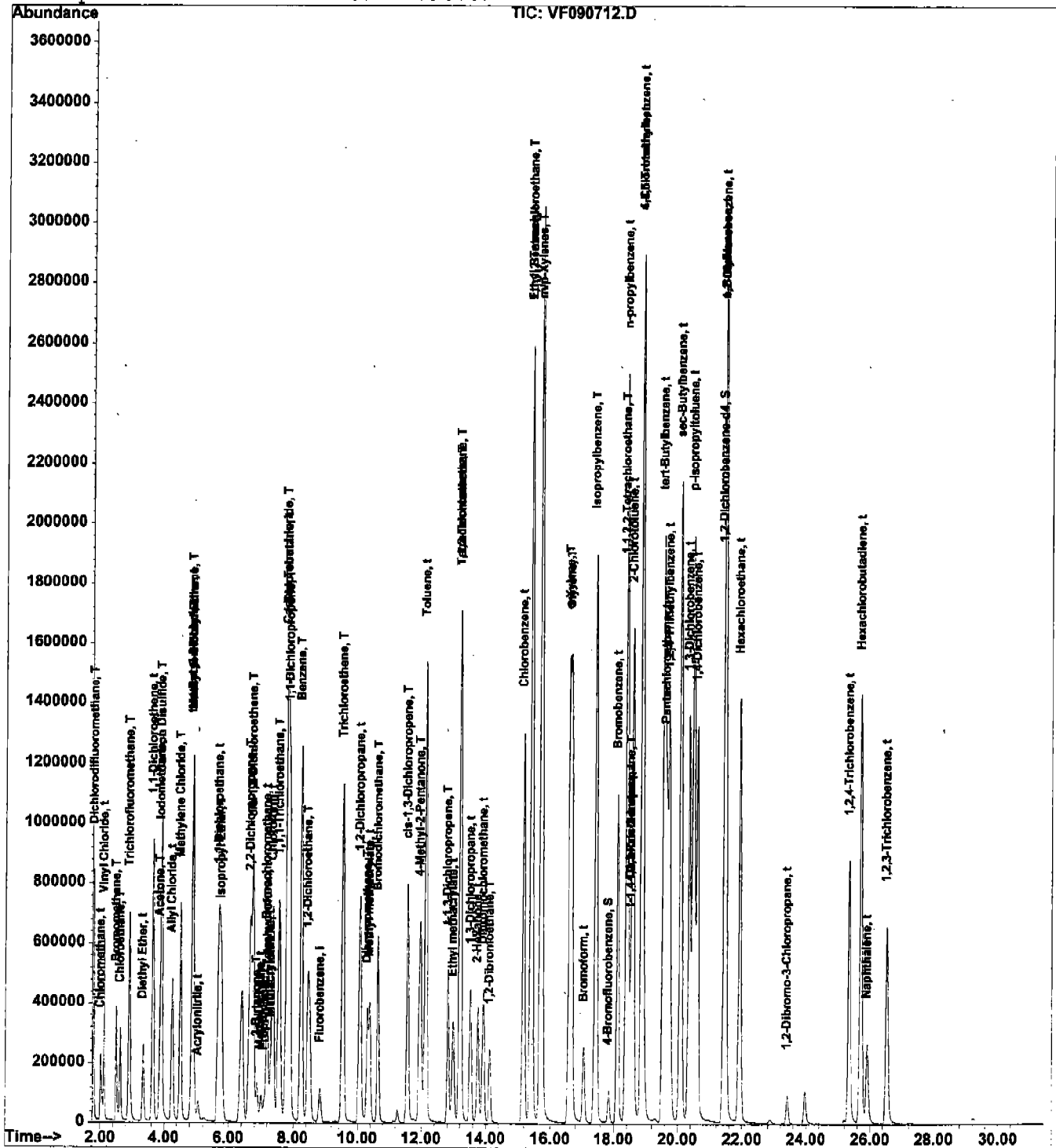
\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090712.D Vial: 2  
 Acq On : 7 Sep 2004 7:00 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 8 9:33 2004 Quant Results File: VF0816DW.RES

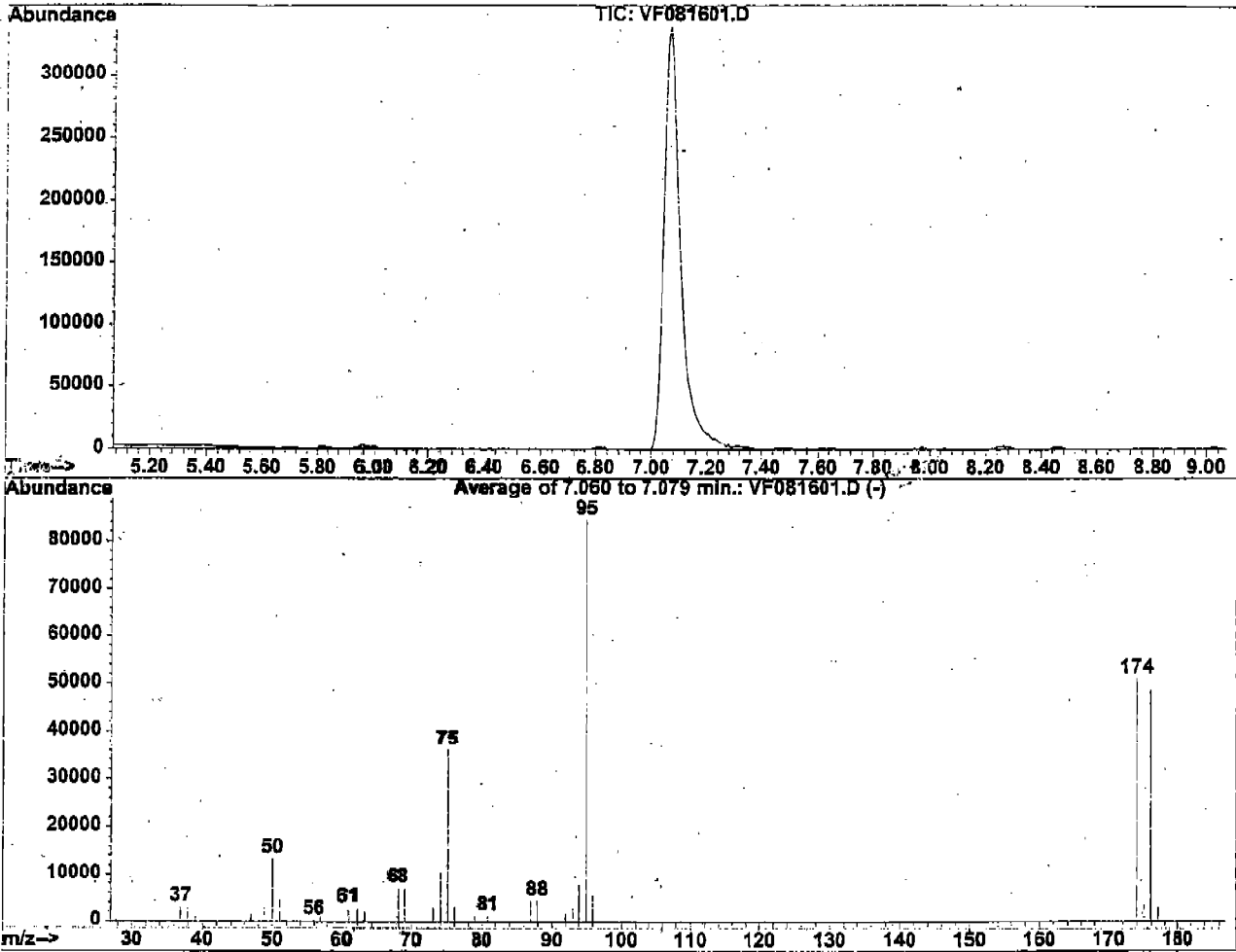
Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration



CHEMTECH

VOLATILES  
RAW QC  
DATA

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081601.D Vial: 1  
 Acq On : 16 Aug 2004 9:16 am Operator: SAM  
 Sample : BFB TUNE CHECK Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER

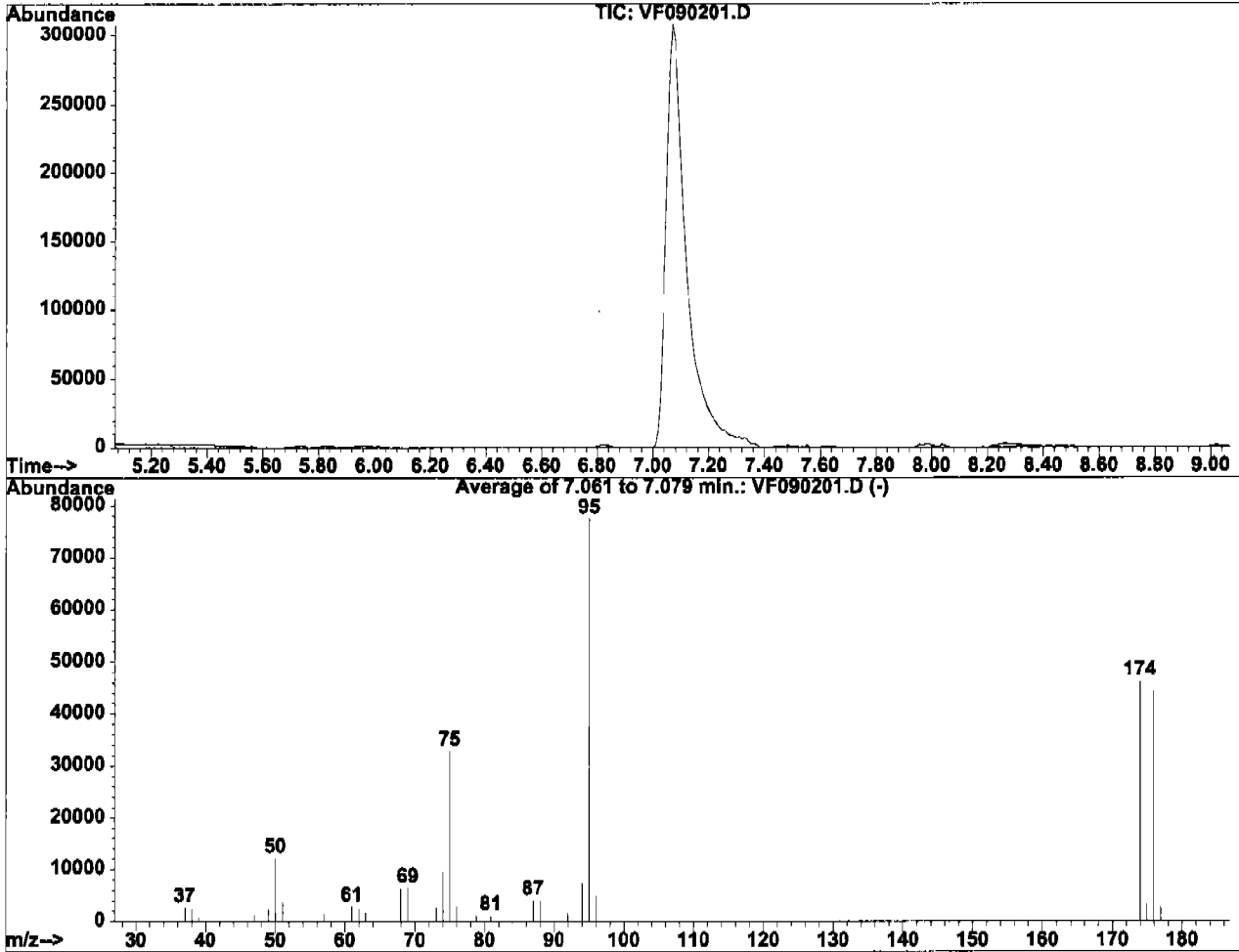


AutoFind: Scans 450, 451, 452; Background Corrected with Scan 441

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.8	13370	PASS
75	95	30	60	42.8	36125	PASS
95	95	100	100	100.0	84491	PASS
96	95	5	9	6.6	5588	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	60.4	51053	PASS
175	174	5	9	6.9	3531	PASS
176	174	95	101	95.2	48627	PASS
177	176	5	9	6.3	3041	PASS

BFB

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090201.D Vial: 1  
 Acq On : 2 Sep 2004 9:10 am Operator: SAM  
 Sample : BFB TUNE CHECK Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER



Spectrum Information: Average of 7.061 to 7.079 min.

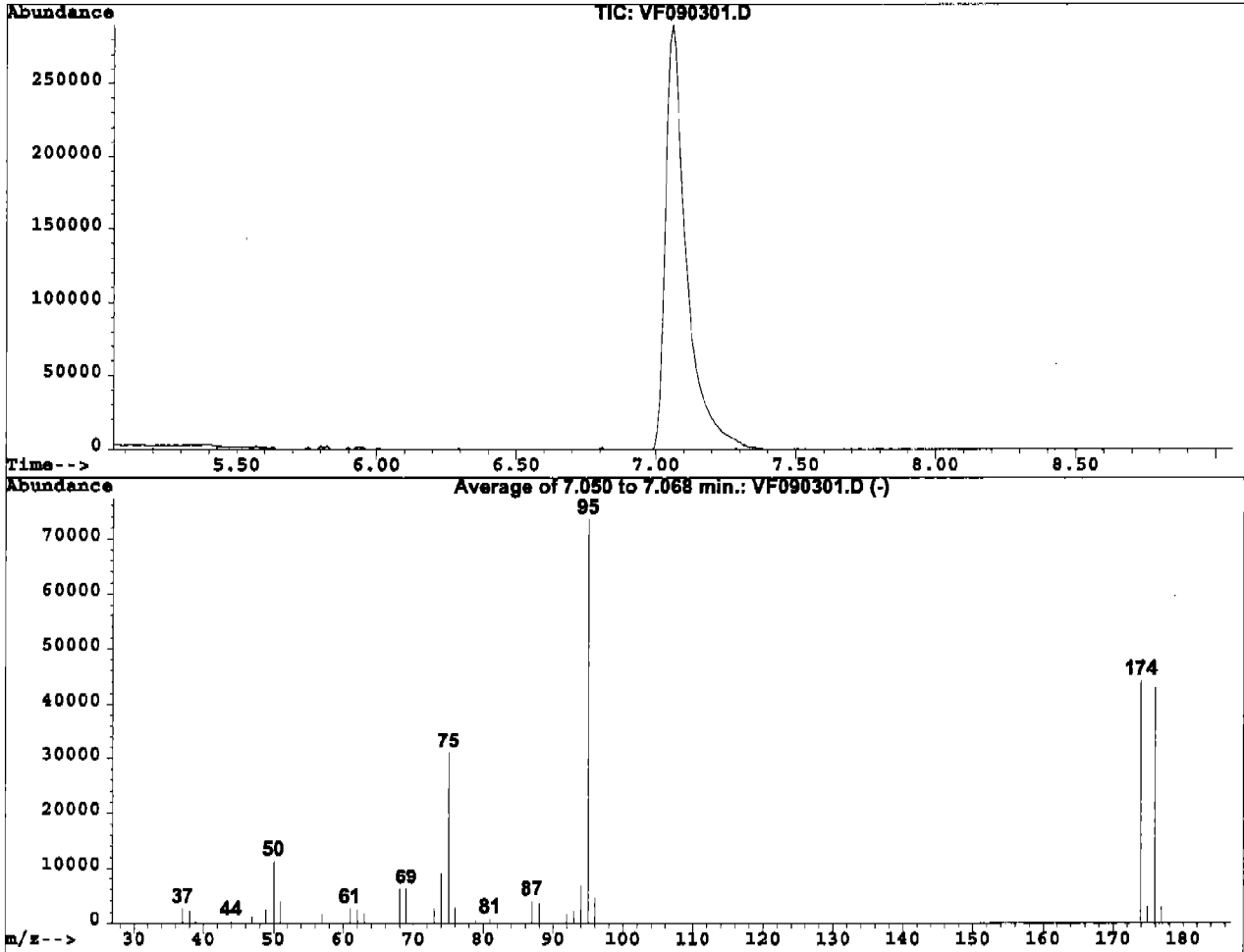
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.7	12164	PASS
75	95	30	60	42.4	32840	PASS
95	95	100	100	100.0	77461	PASS
96	95	5	9	6.3	4847	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	59.7	46216	PASS
175	174	5	9	6.9	3210	PASS
176	174	95	101	95.7	44227	PASS
177	176	5	9	6.2	2749	PASS

*09/03/04  
84*



BFB

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090301.D Vial: 1  
Acq On : 2 Sep 2004 9:24 pm Operator: SAM  
Sample : BFB TUNE CHECK Inst : VOA F  
Misc : 5mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER

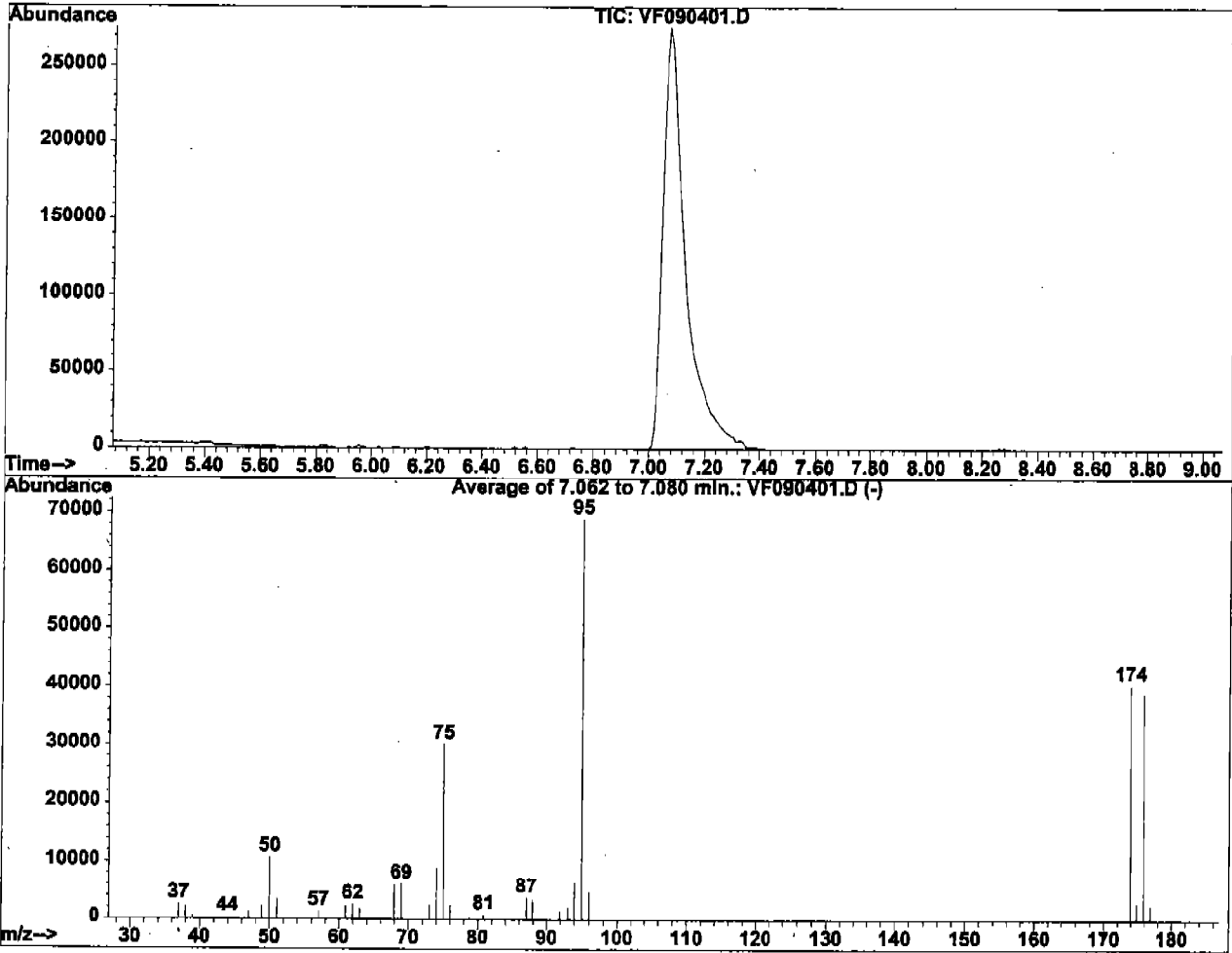


Spectrum Information: Average of 7.050 to 7.068 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.4	11328	PASS
75	95	30	60	42.2	31051	PASS
95	95	100	100	100.0	73592	PASS
96	95	5	9	6.3	4626	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	60.1	44240	PASS
175	174	5	9	6.7	2975	PASS
176	174	95	101	97.1	42936	PASS
177	176	5	9	6.6	2851	PASS

09/09/04  
84

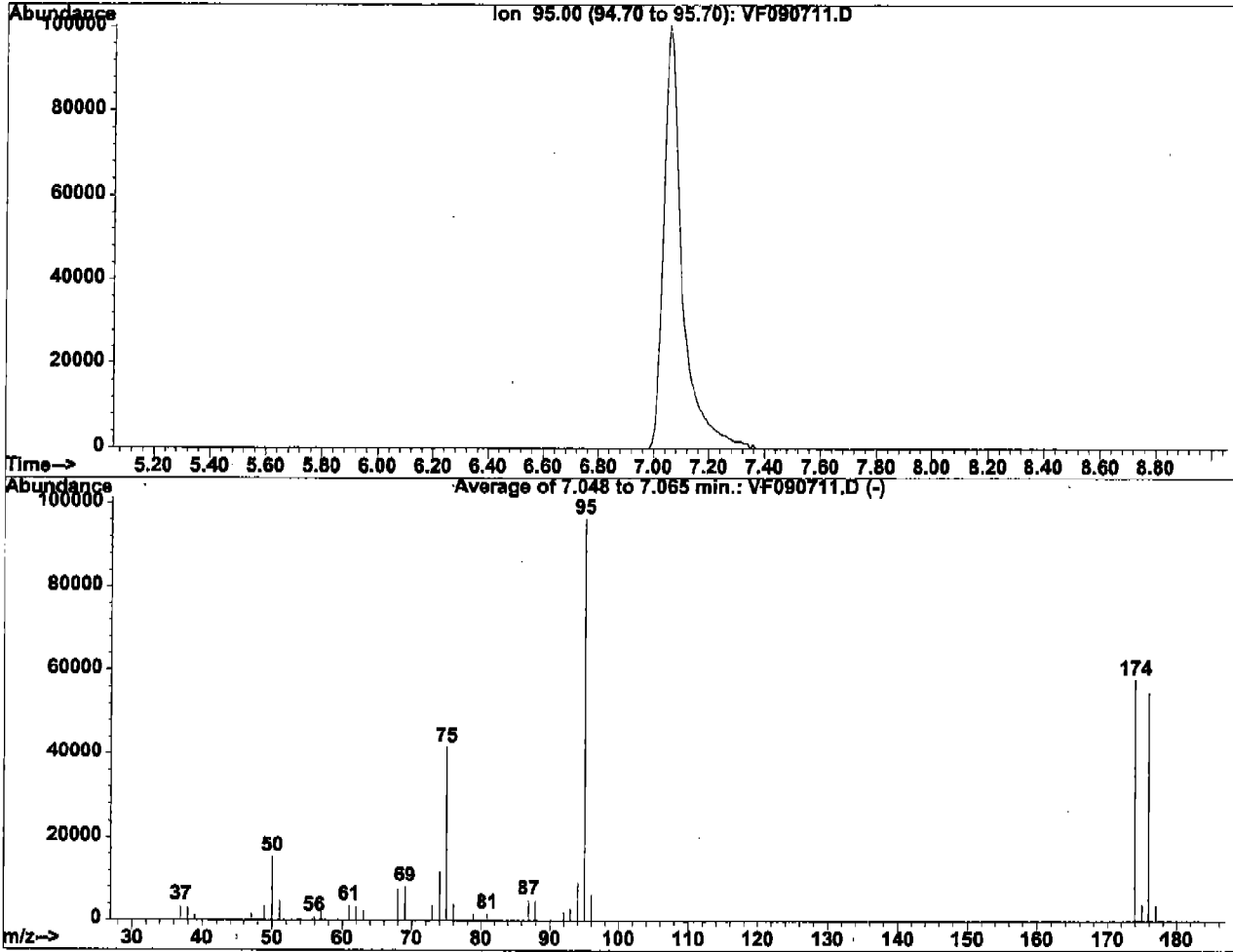
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090401.D Vial: 1  
 Acq On : 3 Sep 2004 9:52 pm Operator: SAM  
 Sample : BFB TUNE CHECK Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER



Spectrum Information: Average of 7.062 to 7.080 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
50	95	15	40	15.6	10783	PASS
75	95	30	60	43.8	30205	PASS
95	95	100	100	100.0	68957	PASS
96	95	5	9	6.8	4699	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	58.7	40456	PASS
175	174	5	9	7.0	2850	PASS
176	174	95	101	96.2	38933	PASS
177	176	5	9	6.0	2345	PASS

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090711.D Vial: 1  
 Acq On : 7 Sep 2004 6:27 pm Operator: SAM  
 Sample : BFB TUNE CHECK Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER



Spectrum Information: Average of 7.048 to 7.065 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
50	95	15	40	16.0	15439	PASS
75	95	30	60	43.2	41552	PASS
95	95	100	100	100.0	96280	PASS
96	95	5	9	6.5	6280	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	60.1	57827	PASS
175	174	5	9	7.2	4149	PASS
176	174	95	101	95.0	54947	PASS
177	176	5	9	6.8	3713	PASS

09/09/04  
59

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VBLK01</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>VBF0816W2</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF081611.D</b>	<b>1</b>		<b>8/16/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	0.09	U	1.0	0.09	ug/L
74-87-3	Chloromethane	0.11	U	1.0	0.11	ug/L
75-01-4	Vinyl Chloride	0.14	U	1.0	0.14	ug/L
74-83-9	Bromomethane	0.22	U	1.0	0.22	ug/L
75-00-3	Chloroethane	0.19	U	1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	0.09	U	1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	2.2	U	10	2.2	ug/L
60-29-7	Diethyl Ether	0.21	U	1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	0.16	U	1.0	0.16	ug/L
74-88-4	Iodomethane	0.14	U	1.0	0.14	ug/L
107-5-1	Allyl Chloride	0.18	U	1.0	0.18	ug/L
107-13-1	Acrylonitrile	0.94	U	2.0	0.94	ug/L
67-64-1	Acetone	10		5.8	1.5	ug/L
75-15-0	Carbon disulfide	0.18	U	1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	0.37	U	1.0	0.37	ug/L
79-20-9	Methyl acrylate	0.17	U	1.0	0.17	ug/L
75-09-2	Methylene Chloride	0.5	J	1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.94	U	5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	0.22	U	1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	0.20	U	1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L
67-66-3	Chloroform	0.22	U	1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	1.4	U	2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L
108-20-3	Isopropyl Ether	0.21	U	1.0	0.21	ug/L
107-12-0	Propionitrile	3.3	U	10	3.3	ug/L
71-43-2	Benzene	0.24	U	1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	0.24	U	1.0	0.24	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	Parsons Engineering	<b>Date Collected:</b>	
<b>Project:</b>	Seneca Ash Landfill Quarterly Monito	<b>Date Received:</b>	
<b>Client Sample ID:</b>	VBLK01	<b>SDG No.:</b>	S4414
<b>Lab Sample ID:</b>	VBF0816W2	<b>Matrix:</b>	WATER
<b>Analytical Method:</b>	524.2	<b>% Moisture:</b>	100
<b>Sample Wt/Wol:</b>	25.0 Units: mL	<b>Soil Extract Vol:</b>	uL
<b>Soil Aliquot Vol:</b>	mL		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
VF081611.D	1		8/16/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	0.21	U	1.0	0.21	ug/L
126-98-7	Methacrylonitrile	0.33	U	1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	0.78	U	2.4	0.78	ug/L
109-69-3	1-Chlorobutane	0.22	U	1.0	0.22	ug/L
74-95-3	Dibromomethane	0.24	U	1.0	0.24	ug/L
75-27-4	Bromodichloromethane	0.20	U	1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	1.0	U	5.0	1.0	ug/L
80-62-6	Methyl methacrylate	0.53	U	2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	0.25	U	1.0	0.25	ug/L
108-88-3	Toluene	0.22	U	1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L
591-78-6	2-Hexanone	1.1	U	5.0	1.1	ug/L
124-48-1	Dibromochloromethane	0.17	U	1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L
127-18-4	Tetrachloroethene	0.34	U	1.0	0.34	ug/L
108-90-7	Chlorobenzene	0.21	U	1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L
67-72-1	Hexachloroethane	0.20	U	1.0	0.20	ug/L
100-41-4	Ethyl Benzene	0.21	U	1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	0.43	U	1.0	0.43	ug/L
95-47-6	o-Xylene	0.21	U	1.0	0.21	ug/L
100-42-5	Styrene	0.19	U	1.0	0.19	ug/L
75-25-2	Bromoform	0.22	U	1.0	0.22	ug/L
108-86-1	Bromobenzene	0.21	U	1.0	0.21	ug/L
98-82-8	Isopropylbenzene	0.20	U	1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	0.28	U	1.0	0.28	ug/L
103-61-5	N-propylbenzene	0.24	U	1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	0.50	U	1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.22	U	1.0	0.22	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range  
 J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

Report of Analysis

Client:	Parsons Engineering	Date Collected:	
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	
Client Sample ID:	VBLK01	SDG No.:	S4414
Lab Sample ID:	VBF0816W2	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF081611.D	1		8/16/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	0.22	U	1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	0.18	U	1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	0.20	U	1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	0.22	U	1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
104-51-8	n-Butylbenzene	0.20	U	1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.20	U	1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L
91-20-3	Naphthalene	0.17	U	1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.18	U	1.0	0.18	ug/L

**SURROGATES**

2199-69-1	1,2-Dichlorobenzene-d4	1.04	104 %	80 - 120	SPK: 1
460-00-4	4-Bromofluorobenzene	0.98	98 %	80 - 120	SPK: 1

**INTERNAL STANDARDS**

462-06-6	Fluorobenzene	226075	8.85		
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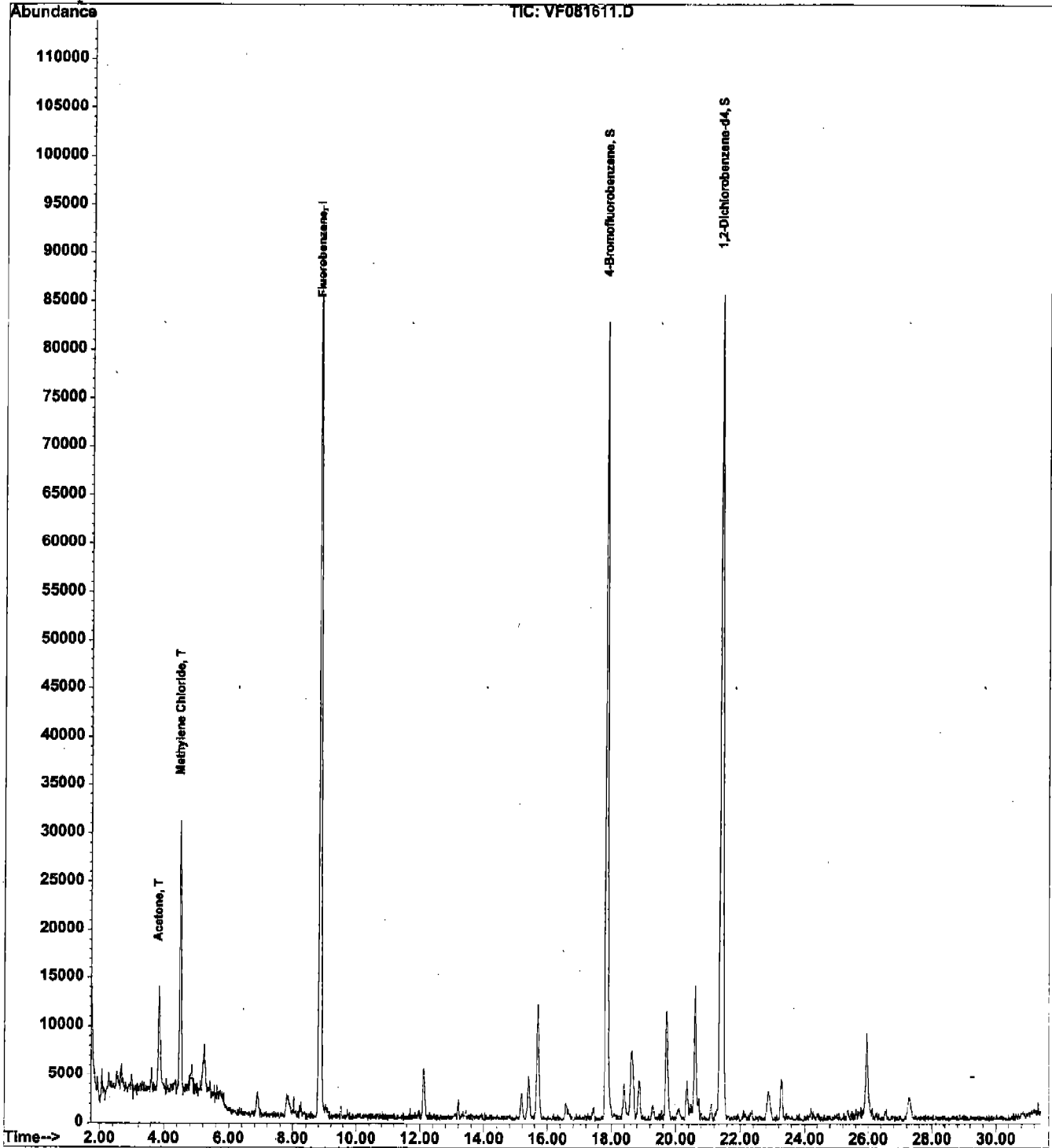
U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

Quantitation Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081611.D Vial: 12  
Acq On : 16 Aug 2004 3:40 pm Operator: SAM  
Sample : VBF0816W2 Inst : VOA F  
Misc : 25mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Sep 9 18:20 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081611.D Vial: 12  
 Acq On : 16 Aug 2004 3:40 pm Operator: SAM  
 Sample : VBF0816W2 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 9 18:20 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

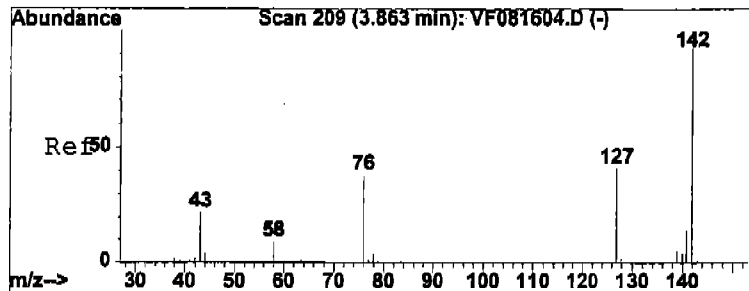
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.85	96	226075	1.00	ug/l	0.00
<b>System Monitoring Compounds</b>						
52) 4-Bromofluorobenzene	17.85	95	104458	0.98	ug/l	-0.01
Spiked Amount	1.000		Recovery	=	98.00%	
63) 1,2-Dichlorobenzene-	21.41	152	61172	1.04	ug/l	-0.01
Spiked Amount	1.000		Recovery	=	104.00%	
<b>Target Compounds</b>						
12) Acetone	3.85	43	28626	10.19	ug/l	93
14) Methylene Chloride	4.50	84	26485	0.49	ug/l	92

Analyst Signature: \_\_\_\_\_ Analyst Name: Sej Date: 09/09/04

-----REASONS FOR MANUAL INTEGRATIONS-----  
 \_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

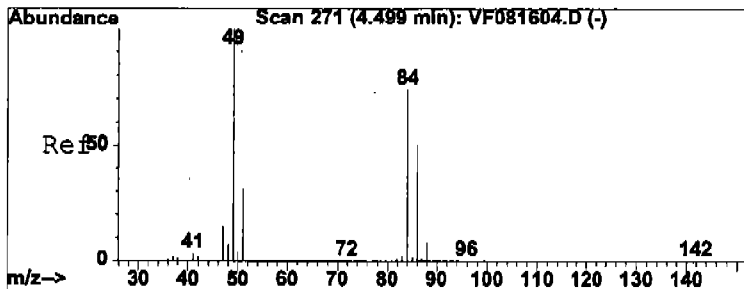
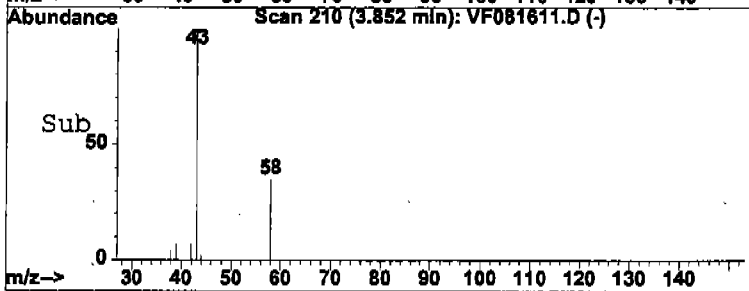
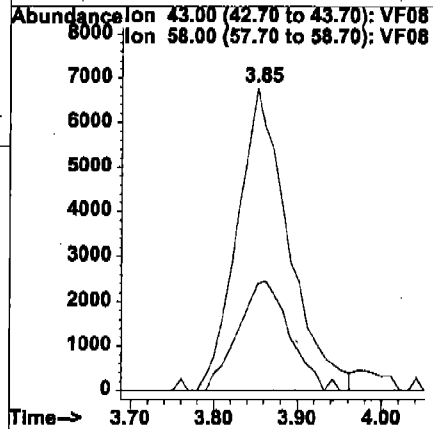
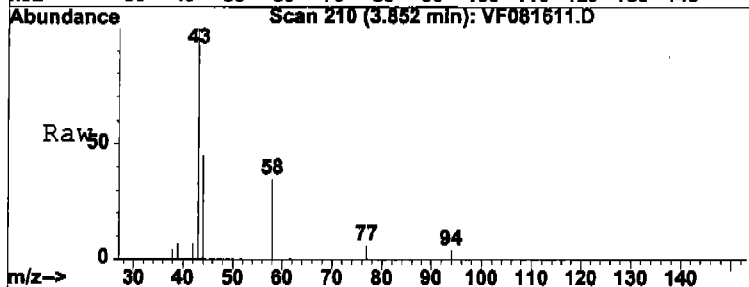
(#) = qualifier out of range (m) = manual integration





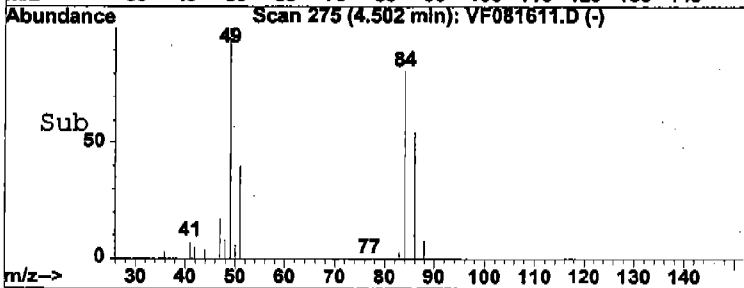
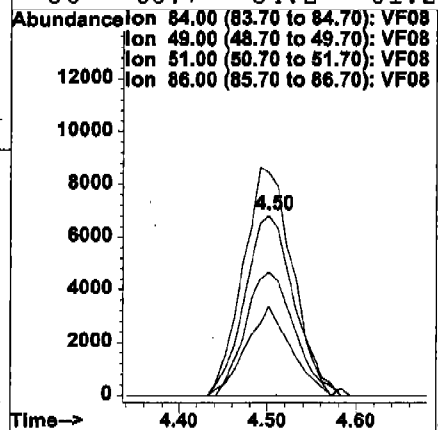
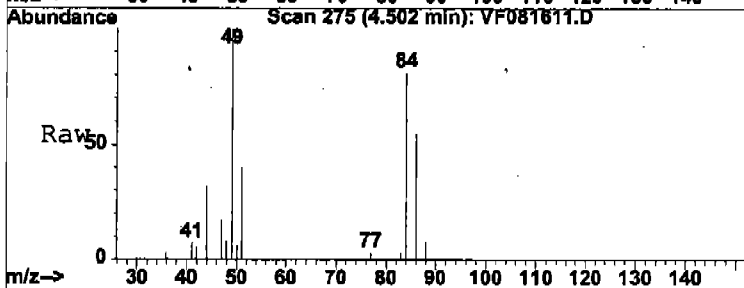
#12  
 Acetone  
 Concen: 10.19 ug/l  
 RT: 3.85 min Scan# 210  
 Delta R.T. 0.00 min  
 Lab File: VF081611.D  
 Acq: 16 Aug 2004 3:40 pm

Tgt Ion: 43 Resp: 28626  
 Ion Ratio Lower Upper  
 43 100  
 58 35.2 31.4 47.2



#14  
 Methylene Chloride  
 Concen: 0.49 ug/l  
 RT: 4.50 min Scan# 275  
 Delta R.T. 0.00 min  
 Lab File: VF081611.D  
 Acq: 16 Aug 2004 3:40 pm

Tgt Ion: 84 Resp: 26485  
 Ion Ratio Lower Upper  
 84 100  
 49 123.7 108.6 163.0  
 51 49.1 0.0 84.4  
 86 68.7 54.2 81.2



## LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081611.D Vial: 12  
 Acq On : 16 Aug 2004 3:40 pm Operator: SAM  
 Sample : VBF0816W2 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

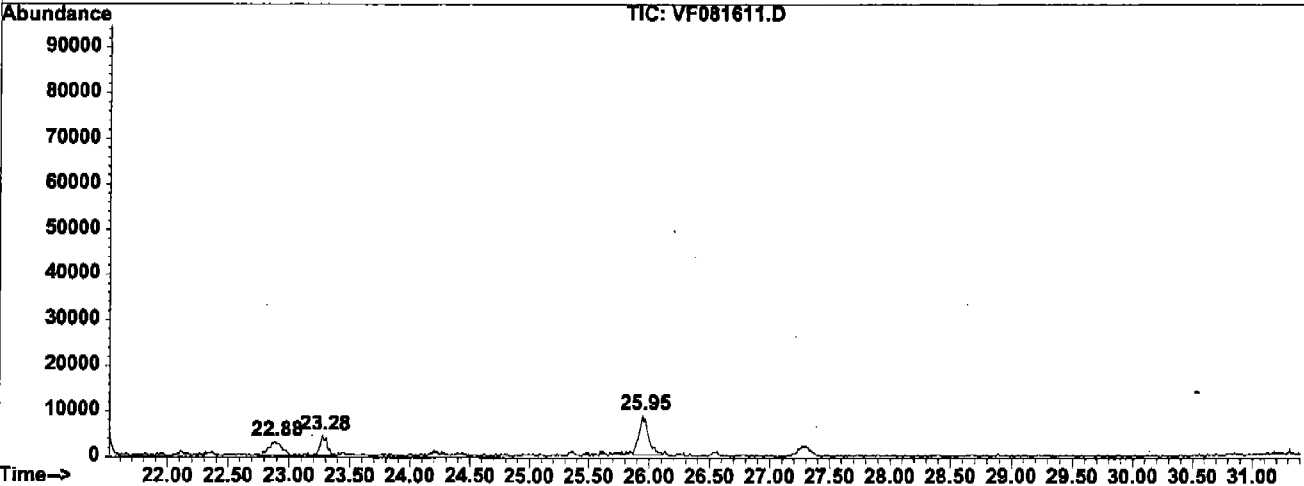
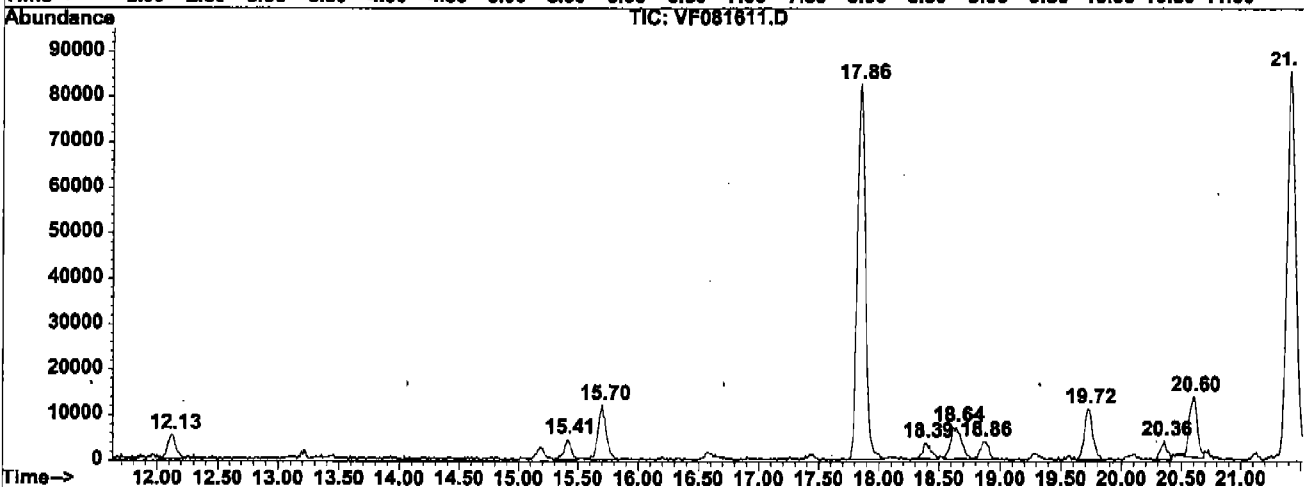
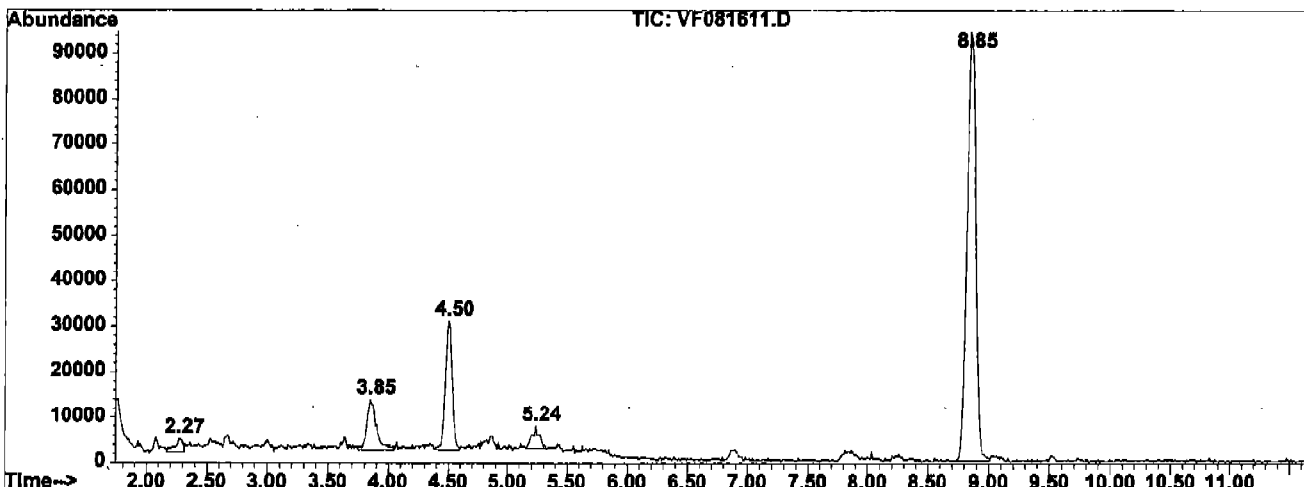
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	2.273	44	54	58	rBV3	2890	13974	3.03%	0.733%
2	3.852	200	210	230	rVB	11202	60678	13.16%	3.183%
3	4.502	264	275	284	rVB	28366	114249	24.77%	5.993%
4	5.238	340	348	358	rVB6	4841	21062	4.57%	1.105%
5	8.846	690	705	721	rBV	94277	461169	100.00%	24.193%
6	12.131	1022	1030	1041	rVB3	5246	25707	5.57%	1.349%
7	15.411	1344	1355	1364	rBV	4451	19361	4.20%	1.016%
8	15.702	1371	1384	1398	rBV2	11883	55069	11.94%	2.889%
9	17.855	1586	1597	1616	rBV2	82352	387001	83.92%	20.302%
10	18.389	1641	1650	1661	rBV2	3556	17655	3.83%	0.926%
11	18.642	1665	1675	1688	rVV3	6966	43461	9.42%	2.280%
12	18.864	1688	1697	1705	rVB4	3826	17974	3.90%	0.943%
13	19.723	1773	1782	1795	rVB3	11184	55606	12.06%	2.917%
14	20.357	1836	1845	1851	rBV3	4017	15848	3.44%	0.831%
15	20.599	1861	1869	1878	rBV3	13198	62631	13.58%	3.286%
16	21.421	1935	1950	1967	rVB3	85246	449545	97.48%	23.583%
17	22.881	2081	2094	2109	rBV2	2962	21767	4.72%	1.142%
18	23.276	2123	2133	2145	rVB3	4175	17713	3.84%	0.929%
19	25.946	2388	2396	2412	rVB5	8493	45769	9.92%	2.401%

Sum of corrected areas: 1906239

VF081611.D VF0816DW.M Thu Sep 09 18:18:33 2004 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081611.D  
Operator : SAM  
Acquired : 16 Aug 2004 3:40 pm using AcqMethod VF\_VOA  
Instrument : VOA F  
Sample Name: VBF0816W2  
Misc Info : 25mL  
Vial Number: 12  
Quant File :VF0816DW.RES (RTE Integrator)



Library Search Compound Report

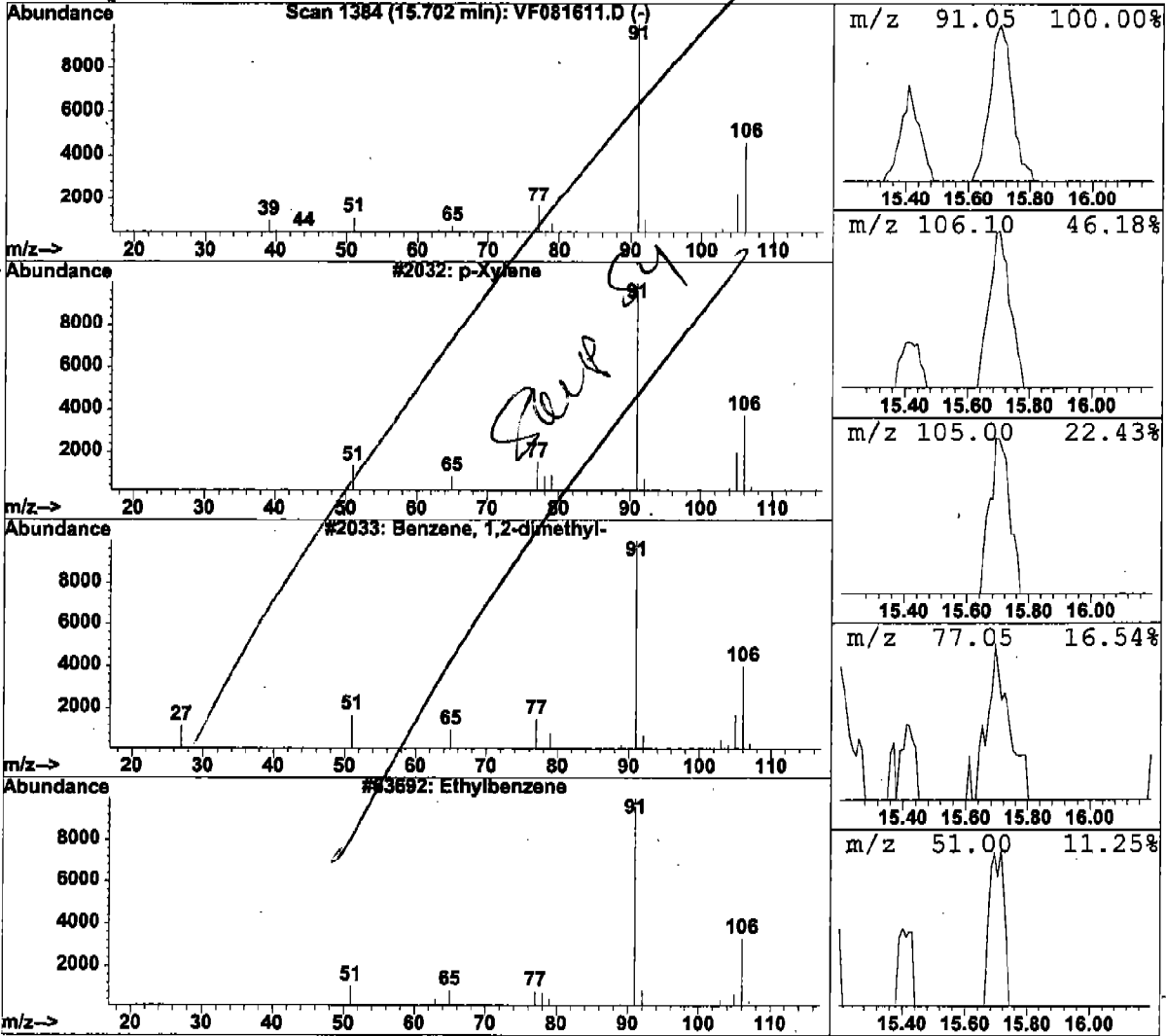
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081611.D Vial: 12  
 Acq On : 16 Aug 2004 3:40 pm Operator: SAM  
 Sample : VBF0816W2 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 1 p-Xylene Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.70	0.12 ug/l	55069	Fluorobenzene	8.85

Hit#	of 5	Tentative ID	MW	MolForm	CAS#	Qual
1		p-Xylene	106	C8H10	000106-42-3	86
2		Benzene, 1,2-dimethyl-	106	C8H10	000095-47-6	83
3		Ethylbenzene	106	C8H10	000100-41-4	72
4		Ethylbenzene	106	C8H10	000100-41-4	64



Library Search Compound Report

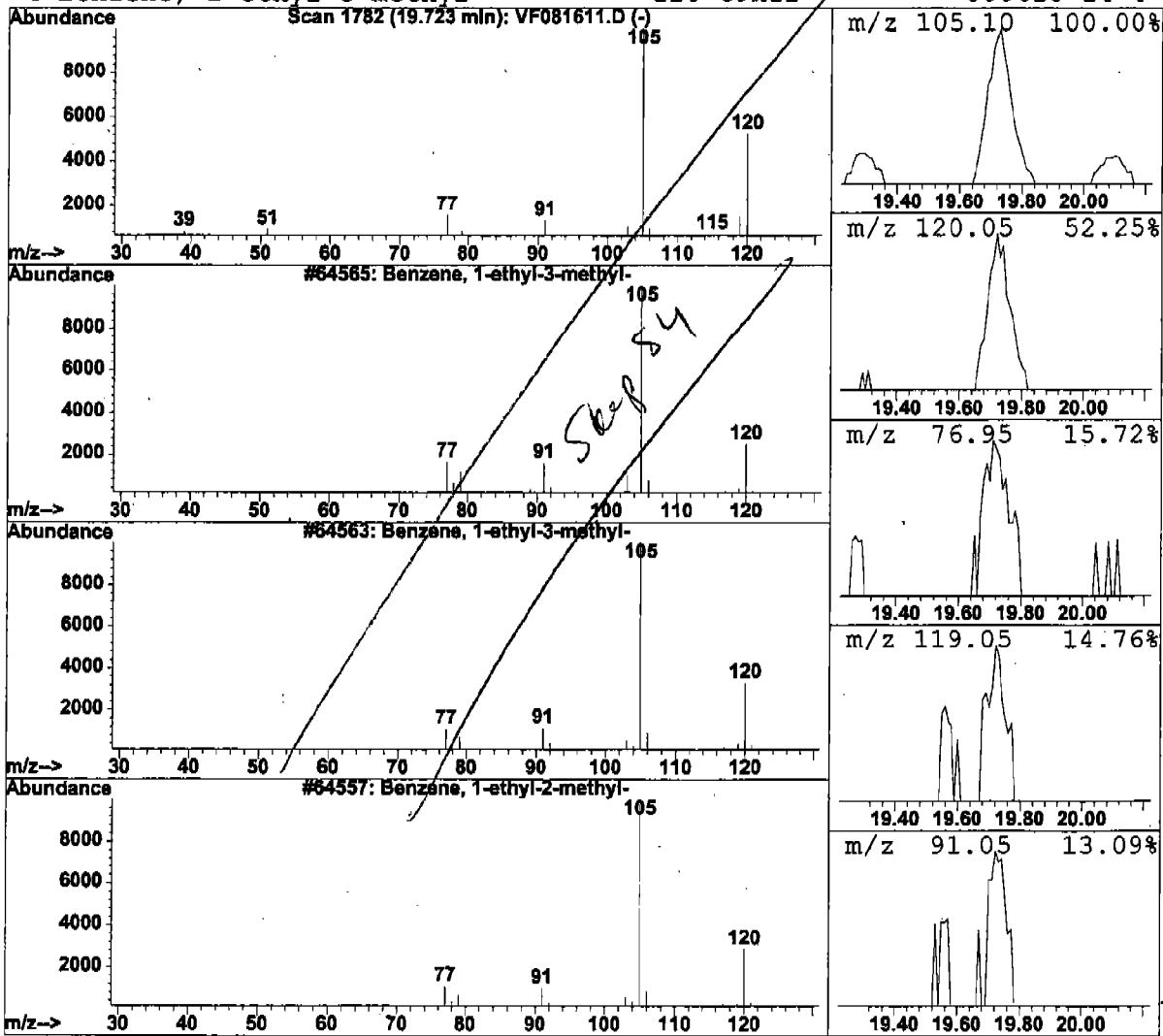
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081611.D Vial: 12  
 Acq On : 16 Aug 2004 3:40 pm Operator: SAM  
 Sample : VBF0816W2 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 2 Benzene, 1-ethyl-3-methyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.72	0.12 ug/l	55606	Fluorobenzene	8.85

Hit#	of 5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	80
2		Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	80
3		Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	72
4		Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	72



Library Search Compound Report

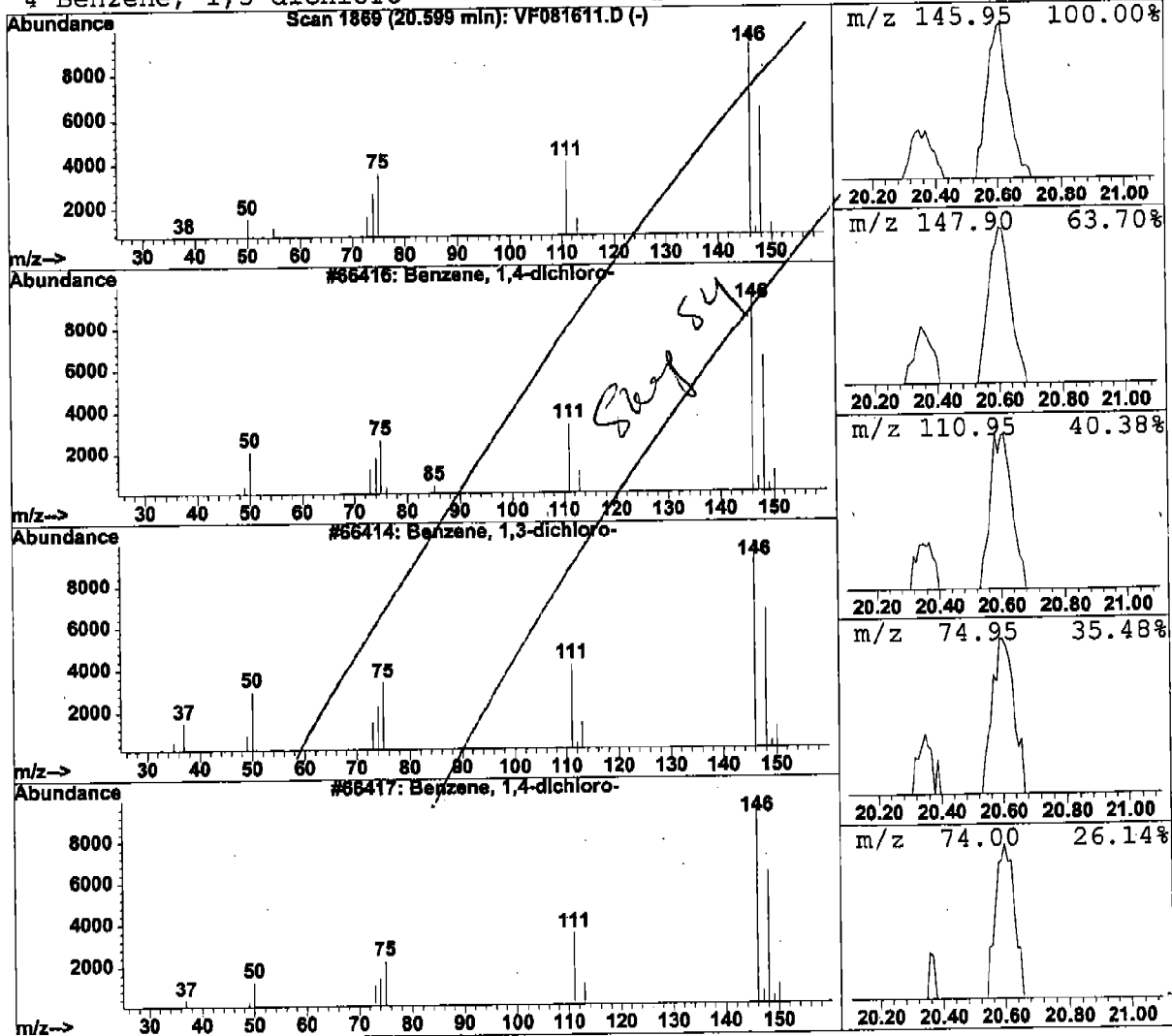
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081611.D Vial: 12  
 Acq On : 16 Aug 2004 3:40 pm Operator: SAM  
 Sample : VBF0816W2 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 3 Benzene, 1,4-dichloro- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.60	0.14 ug/l	62631	Fluorobenzene	8.85

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Benzene, 1,4-dichloro-	146	C6H4Cl2	000106-46-7	91
2			Benzene, 1,3-dichloro-	146	C6H4Cl2	000541-73-1	91
3			Benzene, 1,4-dichloro-	146	C6H4Cl2	000106-46-7	91
4			Benzene, 1,3-dichloro-	146	C6H4Cl2	000541-73-1	90



Tentatively Identified Compound (LSC) summary

Operator ID: SAM      Date Acquired: 16 Aug 2004    3:40 pm  
 Data File: C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081611.D  
 Name: VBF0816W2  
 Misc: 25mL  
 Method: C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title: METHOD 524.2 VOLATILES DRINKING WATER  
 Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc Units	Area	IntStd	ISRT	ISArea	ISConc
p-Xylene	15.70	0.1 ug/l	55069	ISTD01	8.85	461169	1.0
Benzene, 1-ethyl-3-m	19.72	0.1 ug/l	55606	ISTD01	8.85	461169	1.0
Benzene, 1,4-dichlor	20.60	0.1 ug/l	62631	ISTD01	8.85	461169	1.0

VF081611.D    VF0816DW.M      Thu Sep 09 18:18:35 2004      RPT1

Report of Analysis

Client:	Parsons Engineering	Date Collected:	
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	
Client Sample ID:	VBLK02	SDG No.:	S4414
Lab Sample ID:	VBF0902W2	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	5.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090204.D	1		9/2/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	0.44	U	5.0	0.44	ug/L
74-87-3	Chloromethane	0.55	U	5.0	0.55	ug/L
75-01-4	Vinyl Chloride	0.72	U	5.0	0.72	ug/L
74-83-9	Bromomethane	1.1	U	5.0	1.1	ug/L
75-00-3	Chloroethane	0.95	U	5.0	0.95	ug/L
75-69-4	Trichlorofluoromethane	0.46	U	5.0	0.46	ug/L
75-65-0	tert-Butyl Alcohol	11	U	50	11	ug/L
60-29-7	Diethyl Ether	1.1	U	5.0	1.1	ug/L
75-35-4	1,1-Dichloroethene	0.81	U	5.0	0.81	ug/L
74-88-4	Iodomethane	0.72	U	5.0	0.72	ug/L
107-5-1	Allyl Chloride	0.91	U	5.0	0.91	ug/L
107-13-1	Acrylonitrile	4.7	U	10	4.7	ug/L
67-64-1	Acetone	13	J	29	7.5	ug/L
75-15-0	Carbon disulfide	0.90	U	5.0	0.90	ug/L
1634-04-4	Methyl tert-butyl Ether	1.9	U	5.0	1.9	ug/L
79-20-9	Methyl acrylate	0.86	U	5.0	0.86	ug/L
75-09-2	Methylene Chloride	1.5	J	5.0	0.90	ug/L
156-60-5	trans-1,2-Dichloroethene	1.1	U	5.0	1.1	ug/L
75-34-3	1,1-Dichloroethane	1.0	U	5.0	1.0	ug/L
78-93-3	2-Butanone	4.7	U	25	4.7	ug/L
56-23-5	Carbon Tetrachloride	1.1	U	5.0	1.1	ug/L
594-20-7	2,2-Dichloropropane	1.0	U	5.0	1.0	ug/L
156-59-2	cis-1,2-Dichloroethene	1.2	U	5.0	1.2	ug/L
67-66-3	Chloroform	1.1	U	5.0	1.1	ug/L
71-55-6	1,1,1-Trichloroethane	1.2	U	5.0	1.2	ug/L
110-57-6	t-1,4-Dichloro-2-butene	6.9	U	10	6.9	ug/L
563-43-2	1,1-Dichloropropene	1.0	U	5.0	1.0	ug/L
108-20-3	Isopropyl Ether	1.0	U	5.0	1.0	ug/L
107-12-0	Propionitrile	16	U	50	16	ug/L
71-43-2	Benzene	1.2	U	5.0	1.2	ug/L
107-06-2	1,2-Dichloroethane	1.0	U	5.0	1.0	ug/L
79-01-6	Trichloroethene	1.2	U	5.0	1.2	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound



## Report of Analysis

Client:	Parsons Engineering	Date Collected:	
Project:	Seneca Ash Landfill Quarterly Monitc	Date Received:	
Client Sample ID:	VBLK02	SDG No.:	S4414
Lab Sample ID:	VBF0902W2	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	5.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090204.D	1		9/2/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	1.1	U	5.0	1.1	ug/L
126-98-7	Methacrylonitrile	1.6	U	5.0	1.6	ug/L
109-99-9	Tetrahydrofuran	3.9	U	12	3.9	ug/L
109-69-3	1-Chlorobutane	1.1	U	5.0	1.1	ug/L
74-95-3	Dibromomethane	1.2	U	5.0	1.2	ug/L
75-27-4	Bromodichloromethane	1.0	U	5.0	1.0	ug/L
108-10-1	4-Methyl-2-Pentanone	5.1	U	25	5.1	ug/L
80-62-6	Methyl methacrylate	2.7	U	10	2.7	ug/L
97-63-2	Ethyl methacrylate	1.2	U	5.0	1.2	ug/L
108-88-3	Toluene	1.1	U	5.0	1.1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.95	U	5.0	0.95	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.94	U	5.0	0.94	ug/L
79-00-5	1,1,2-Trichloroethane	1.2	U	5.0	1.2	ug/L
142-28-9	1,3-Dichloropropane	1.1	U	5.0	1.1	ug/L
591-78-6	2-Hexanone	5.4	U	25	5.4	ug/L
124-48-1	Dibromochloromethane	0.86	U	5.0	0.86	ug/L
106-93-4	1,2-Dibromoethane	1.0	U	5.0	1.0	ug/L
127-18-4	Tetrachloroethene	1.7	U	5.0	1.7	ug/L
108-90-7	Chlorobenzene	1.0	U	5.0	1.0	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	1.1	U	5.0	1.1	ug/L
67-72-1	Hexachloroethane	0.98	U	5.0	0.98	ug/L
100-41-4	Ethyl Benzene	1.1	U	5.0	1.1	ug/L
136777-61-2	m/p-Xylenes	2.2	U	5.0	2.2	ug/L
95-47-6	o-Xylene	1.1	U	5.0	1.1	ug/L
100-42-5	Styrene	0.94	U	5.0	0.94	ug/L
75-25-2	Bromoform	1.1	U	5.0	1.1	ug/L
108-86-1	Bromobenzene	1.1	U	5.0	1.1	ug/L
98-82-8	Isopropylbenzene	1.0	U	5.0	1.0	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	5.0	1.0	ug/L
96-18-4	1,2,3-Trichloropropane	1.4	U	5.0	1.4	ug/L
103-61-5	N-propylbenzene	1.2	U	5.0	1.2	ug/L
95-49-8	2-Chlorotoluene	2.5	U	5.0	2.5	ug/L
108-67-8	1,3,5-Trimethylbenzene	1.1	U	5.0	1.1	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VBLK02</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>VBF0902W2</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>5.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090204.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	1.1	U	5.0	1.1	ug/L
98-06-6	tert-Butylbenzene	0.92	U	5.0	0.92	ug/L
95-63-6	1,2,4-Trimethylbenzene	1.2	U	5.0	1.2	ug/L
135-98-8	Sec-butylbenzene	1.0	U	5.0	1.0	ug/L
99-87-6	p-Isopropyltoluene	1.1	U	5.0	1.1	ug/L
541-73-1	1,3-Dichlorobenzene	1.0	U	5.0	1.0	ug/L
106-46-7	1,4-Dichlorobenzene	1.0	U	5.0	1.0	ug/L
104-51-8	n-Butylbenzene	1.0	U	5.0	1.0	ug/L
95-50-1	1,2-Dichlorobenzene	0.87	U	5.0	0.87	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.0	U	5.0	1.0	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.99	U	5.0	0.99	ug/L
87-68-3	Hexachlorobutadiene	0.87	U	5.0	0.87	ug/L
91-20-3	Naphthalene	0.87	U	5.0	0.87	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.90	U	5.0	0.90	ug/L

**SURROGATES**

2199-69-1	1,2-Dichlorobenzene-d4	1.05	105 %	80 - 120	SPK: 1
460-00-4	4-Bromofluorobenzene	0.98	98 %	80 - 120	SPK: 1

**INTERNAL STANDARDS**

462-06-6	Fluorobenzene	238128	8.85		
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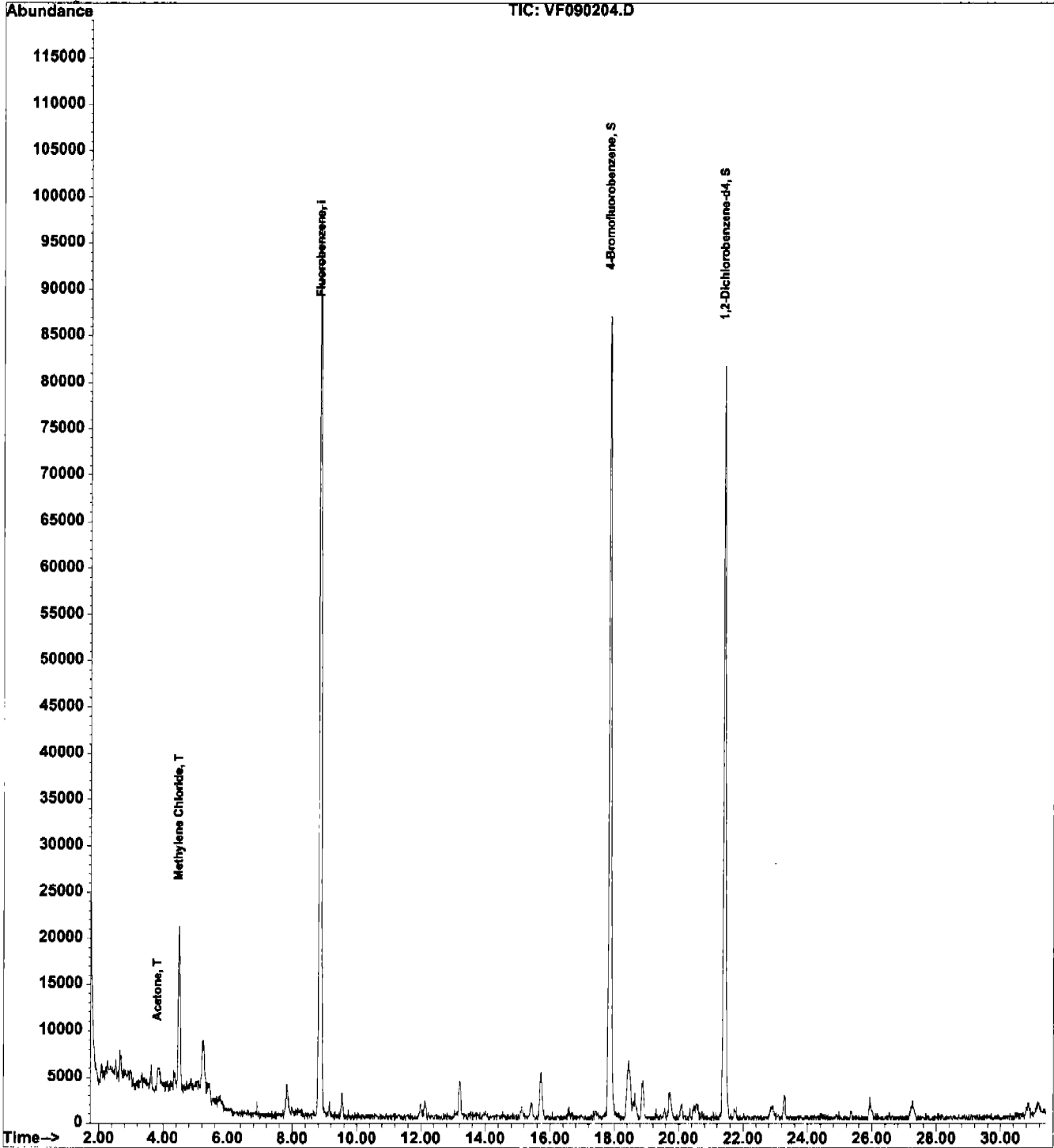
U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

Quantitation Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090204.D Vial: 4  
Acq On : 2 Sep 2004 11:01 am Operator: SAM  
Sample : VBF0902W2 Inst : VOA F  
Misc : 5mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Sep 3 10:05 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



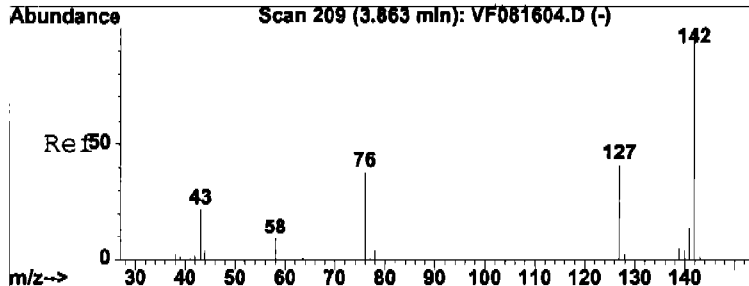
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090204.D Vial: 4  
 Acq On : 2 Sep 2004 11:01 am Operator: SAM  
 Sample : VBF0902W2 Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 3 10:05 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.85	96	238128	1.00	ug/l	0.00
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.85	95	109852	0.98	ug/l	0.00
Spiked Amount	1.000		Recovery	=	98.00%	
63) 1,2-Dichlorobenzene-	21.41	152	65028	1.05	ug/l	0.00
Spiked Amount	1.000		Recovery	=	105.00%	
Target Compounds						Qvalue
12) Acetone	3.84	43	7484	2.53	ug/l	90
14) Methylene Chloride	4.50	84	16715	0.30	ug/l	97

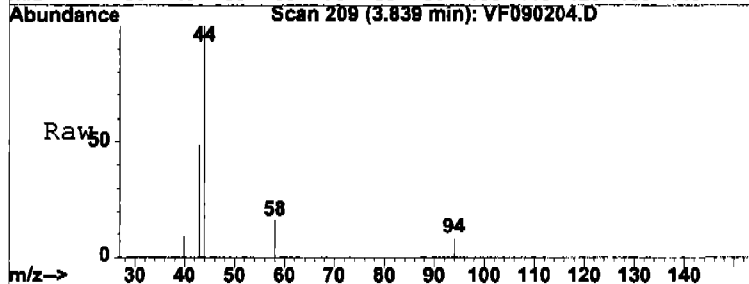
Analyst Signature: Sy Analyst Name: Sy Date: 09/03/04

-----REASONS FOR MANUAL INTEGRATIONS-----  
 \_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound # : \_\_\_  
 \_\_\_ Peak integrated by software incorrectly.Compound # : \_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound # : \_\_\_\_\_

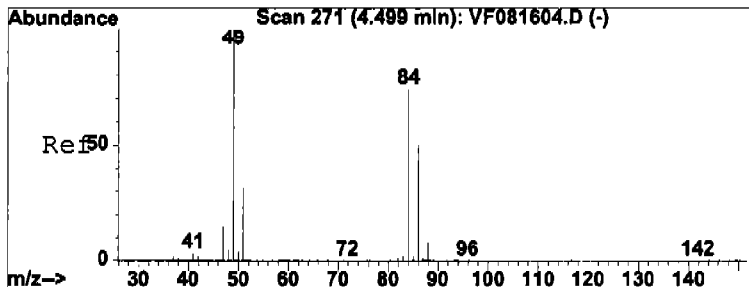
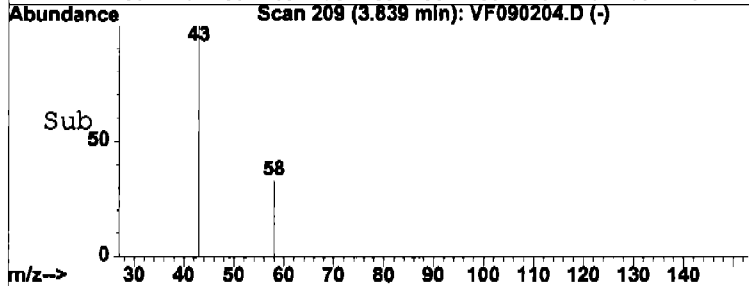
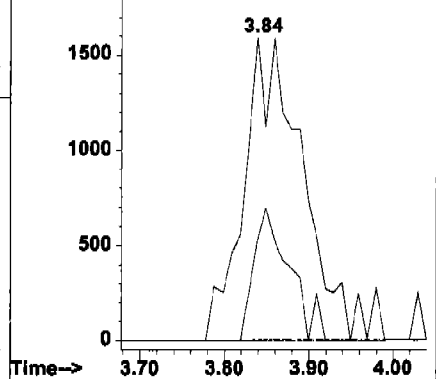


#12  
 Acetone  
 Concen: 2.53 ug/l  
 RT: 3.84 min Scan# 209  
 Delta R.T. -0.01 min  
 Lab File: VF090204.D  
 Acq: 2 Sep 2004 11:01 am

Tgt Ion: 43 Resp: 7484  
 Ion Ratio Lower Upper  
 43 100  
 58 33.4 31.4 47.2

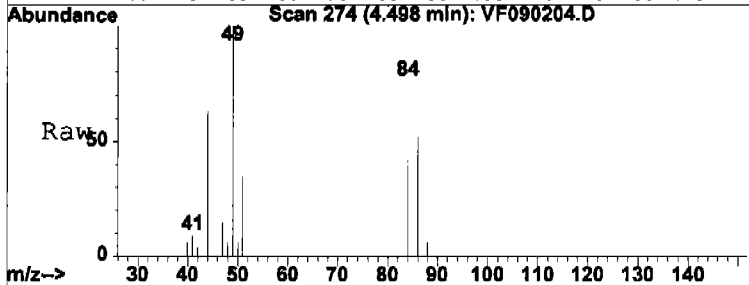


Abundance Ion 43.00 (42.70 to 43.70): VF09  
 Ion 58.00 (57.70 to 58.70): VF09

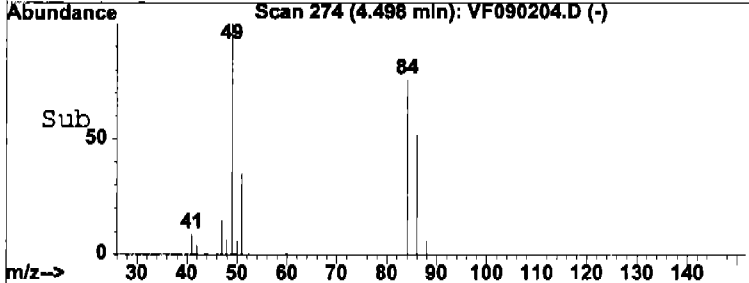
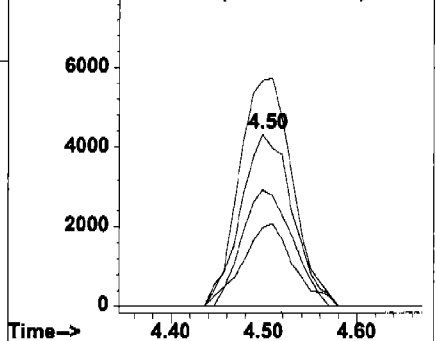


#14  
 Methylene Chloride  
 Concen: 0.30 ug/l  
 RT: 4.50 min Scan# 274  
 Delta R.T. 0.00 min  
 Lab File: VF090204.D  
 Acq: 2 Sep 2004 11:01 am

Tgt Ion: 84 Resp: 16715  
 Ion Ratio Lower Upper  
 84 100  
 49 131.1 108.6 163.0  
 51 45.3 0.0 84.4  
 86 67.9 54.2 81.2



Abundance Ion 84.00 (83.70 to 84.70): VF09  
 Ion 49.00 (48.70 to 49.70): VF09  
 Ion 51.00 (50.70 to 51.70): VF09  
 Ion 86.00 (85.70 to 86.70): VF09



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090204.D Vial: 4  
 Acq On : 2 Sep 2004 11:01 am Operator: SAM  
 Sample : VBF0902W2 Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

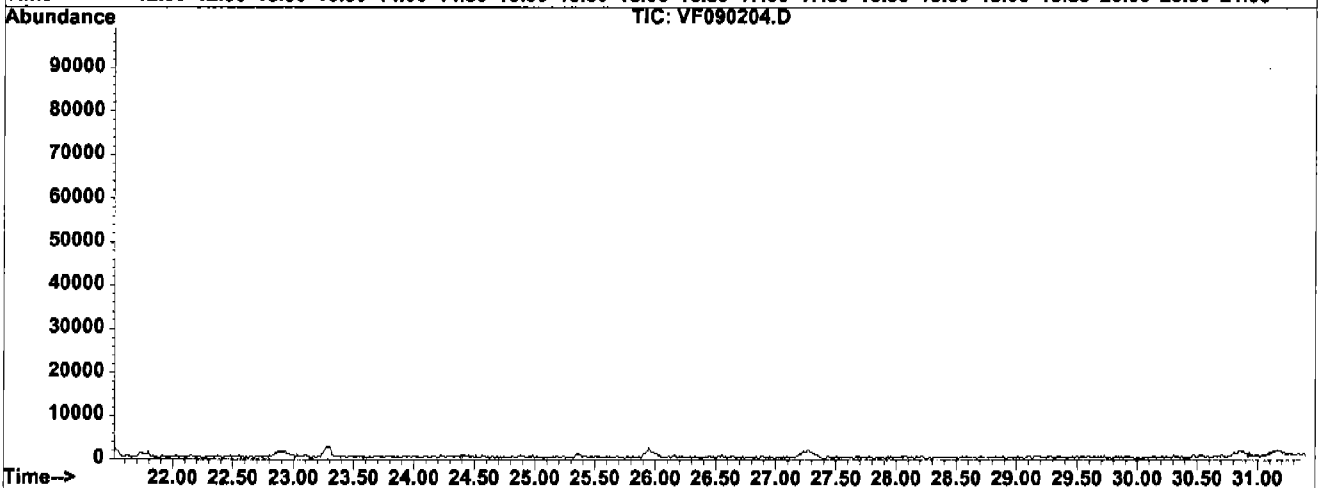
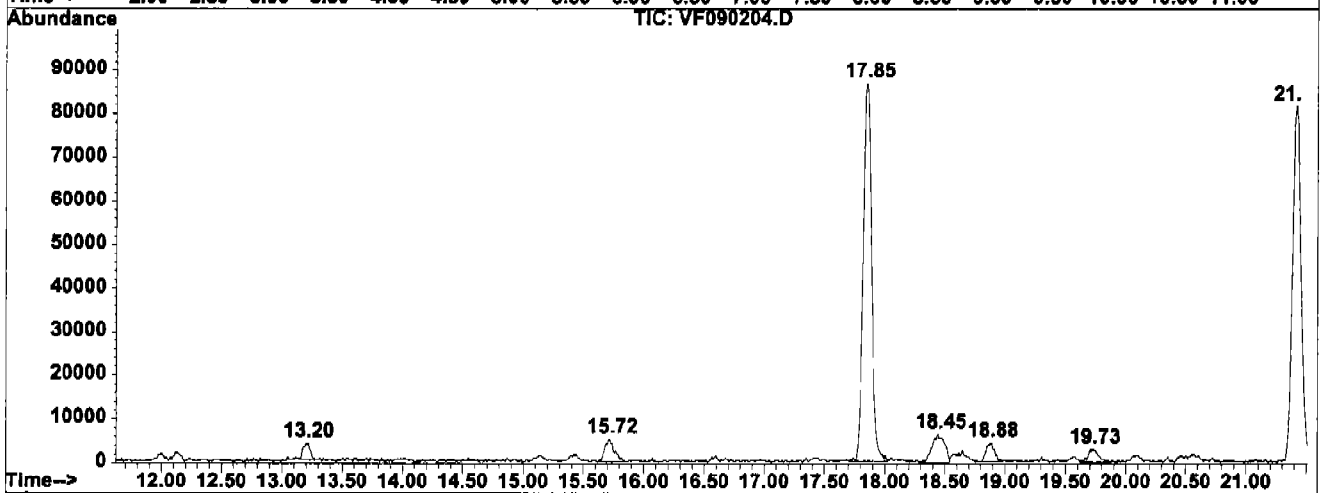
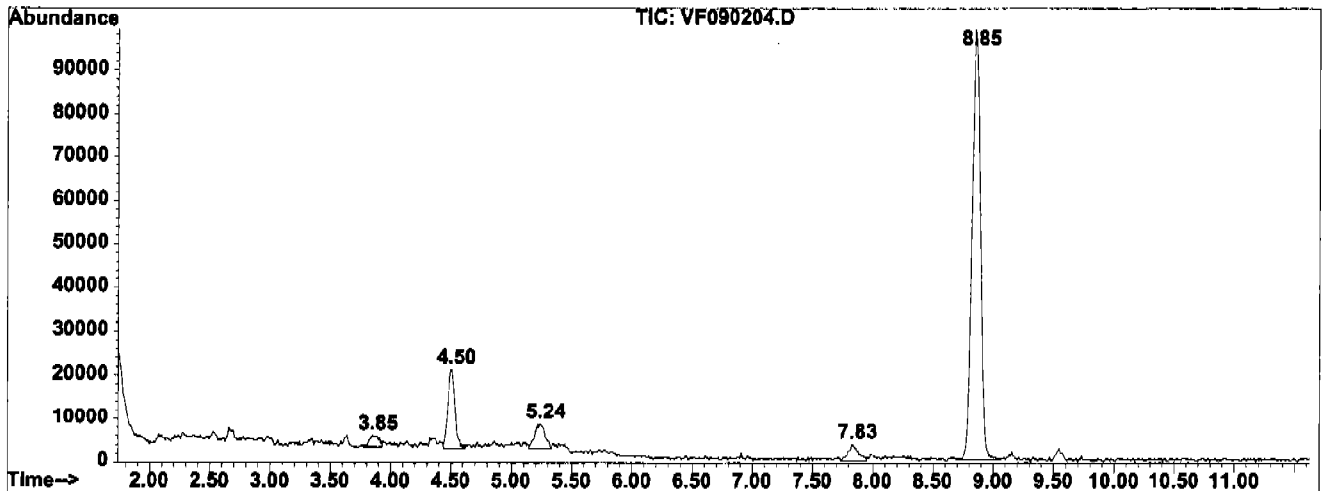
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	3.849	203	210	218	rBV3	2591	15107	3.10%	0.943%
2	4.498	268	274	286	rVB	18136	74895	15.39%	4.677%
3	5.238	338	347	356	rVB3	5852	34082	7.00%	2.129%
4	7.828	594	603	615	rBV3	3649	21341	4.39%	1.333%
5	8.851	690	704	724	rVB	98511	486631	100.00%	30.392%
6	13.201	1128	1133	1141	rBV4	3788	15661	3.22%	0.978%
7	15.720	1371	1381	1395	rBB6	5211	30054	6.18%	1.877%
8	17.853	1578	1592	1610	rBV2	86519	417367	85.77%	26.066%
9	18.447	1635	1651	1660	rBV4	6431	46512	9.56%	2.905%
10	18.882	1686	1694	1704	rBV6	4254	21111	4.34%	1.318%
11	19.726	1767	1777	1792	rBV3	3043	19007	3.91%	1.187%
12	21.413	1933	1944	1962	rVB	81317	419420	86.19%	26.194%

Sum of corrected areas: 1601188

VF090204.D VF0816DW.M Fri Sep 03 11:19:54 2004 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090204.D  
Operator : SAM  
Acquired : 2 Sep 2004 11:01 am using AcqMethod VF\_VOA  
Instrument : VOA F  
Sample Name: VBF0902W2  
Misc Info : 5mL  
Vial Number: 4  
Quant File : VF0816DW.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: SAM Date Acquired: 2 Sep 2004 11:01 am  
Data File: C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090204.D  
Name: VBF0902W2  
Misc: 5mL  
Method: C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title: METHOD 524.2 VOLATILES DRINKING WATER  
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
VF090204.D VF0816DW.M			Fri Sep 03	11:19:55	2004	RPT1		



**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monite</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VBLK03</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>VBF0903W2</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090304.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	0.09	U	1.0	0.09	ug/L
74-87-3	Chloromethane	0.11	U	1.0	0.11	ug/L
75-01-4	Vinyl Chloride	0.14	U	1.0	0.14	ug/L
74-83-9	Bromomethane	0.22	U	1.0	0.22	ug/L
75-00-3	Chloroethane	0.19	U	1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	0.09	U	1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	2.2	U	10	2.2	ug/L
60-29-7	Diethyl Ether	0.21	U	1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	0.16	U	1.0	0.16	ug/L
74-88-4	Iodomethane	0.14	U	1.0	0.14	ug/L
107-5-1	Allyl Chloride	0.18	U	1.0	0.18	ug/L
107-13-1	Acrylonitrile	0.94	U	2.0	0.94	ug/L
67-64-1	Acetone	2.2	J	5.8	1.5	ug/L
75-15-0	Carbon disulfide	0.18	U	1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	0.37	U	1.0	0.37	ug/L
79-20-9	Methyl acrylate	0.17	U	1.0	0.17	ug/L
75-09-2	Methylene Chloride	0.5	J	1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.94	U	5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	0.22	U	1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	0.20	U	1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L
67-66-3	Chloroform	0.22	U	1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	1.4	U	2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L
108-20-3	Isopropyl Ether	0.21	U	1.0	0.21	ug/L
107-12-0	Propionitrile	3.3	U	10	3.3	ug/L
71-43-2	Benzene	0.24	U	1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	0.24	U	1.0	0.24	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

Report of Analysis

Client:	Parsons Engineering	Date Collected:	
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	
Client Sample ID:	VBLK03	SDG No.:	S4414
Lab Sample ID:	VBF0903W2	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090304.D	1		9/2/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	0.21	U	1.0	0.21	ug/L
126-98-7	Methacrylonitrile	0.33	U	1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	0.78	U	2.4	0.78	ug/L
109-69-3	1-Chlorobutane	0.22	U	1.0	0.22	ug/L
74-95-3	Dibromomethane	0.24	U	1.0	0.24	ug/L
75-27-4	Bromodichloromethane	0.20	U	1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	1.0	U	5.0	1.0	ug/L
80-62-6	Methyl methacrylate	0.53	U	2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	0.25	U	1.0	0.25	ug/L
108-88-3	Toluene	0.22	U	1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L
591-78-6	2-Hexanone	1.1	U	5.0	1.1	ug/L
124-48-1	Dibromochloromethane	0.17	U	1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L
127-18-4	Tetrachloroethene	0.34	U	1.0	0.34	ug/L
108-90-7	Chlorobenzene	0.21	U	1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L
67-72-1	Hexachloroethane	0.20	U	1.0	0.20	ug/L
100-41-4	Ethyl Benzene	0.21	U	1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	0.43	U	1.0	0.43	ug/L
95-47-6	o-Xylene	0.21	U	1.0	0.21	ug/L
100-42-5	Styrene	0.19	U	1.0	0.19	ug/L
75-25-2	Bromoform	0.22	U	1.0	0.22	ug/L
108-86-1	Bromobenzene	0.21	U	1.0	0.21	ug/L
98-82-8	Isopropylbenzene	0.20	U	1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	0.28	U	1.0	0.28	ug/L
103-61-5	N-propylbenzene	0.24	U	1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	0.50	U	1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.22	U	1.0	0.22	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VBLK03</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>VBF0903W2</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090304.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	0.22	U	1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	0.18	U	1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	0.20	U	1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	0.22	U	1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
104-51-8	n-Butylbenzene	0.20	U	1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.20	U	1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L
91-20-3	Naphthalene	0.17	U	1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.18	U	1.0	0.18	ug/L

**SURROGATES**

2199-69-1	1,2-Dichlorobenzene-d4	0.97	97 %	80 - 120	SPK: 1
460-00-4	4-Bromofluorobenzene	0.96	96 %	80 - 120	SPK: 1

**INTERNAL STANDARDS**

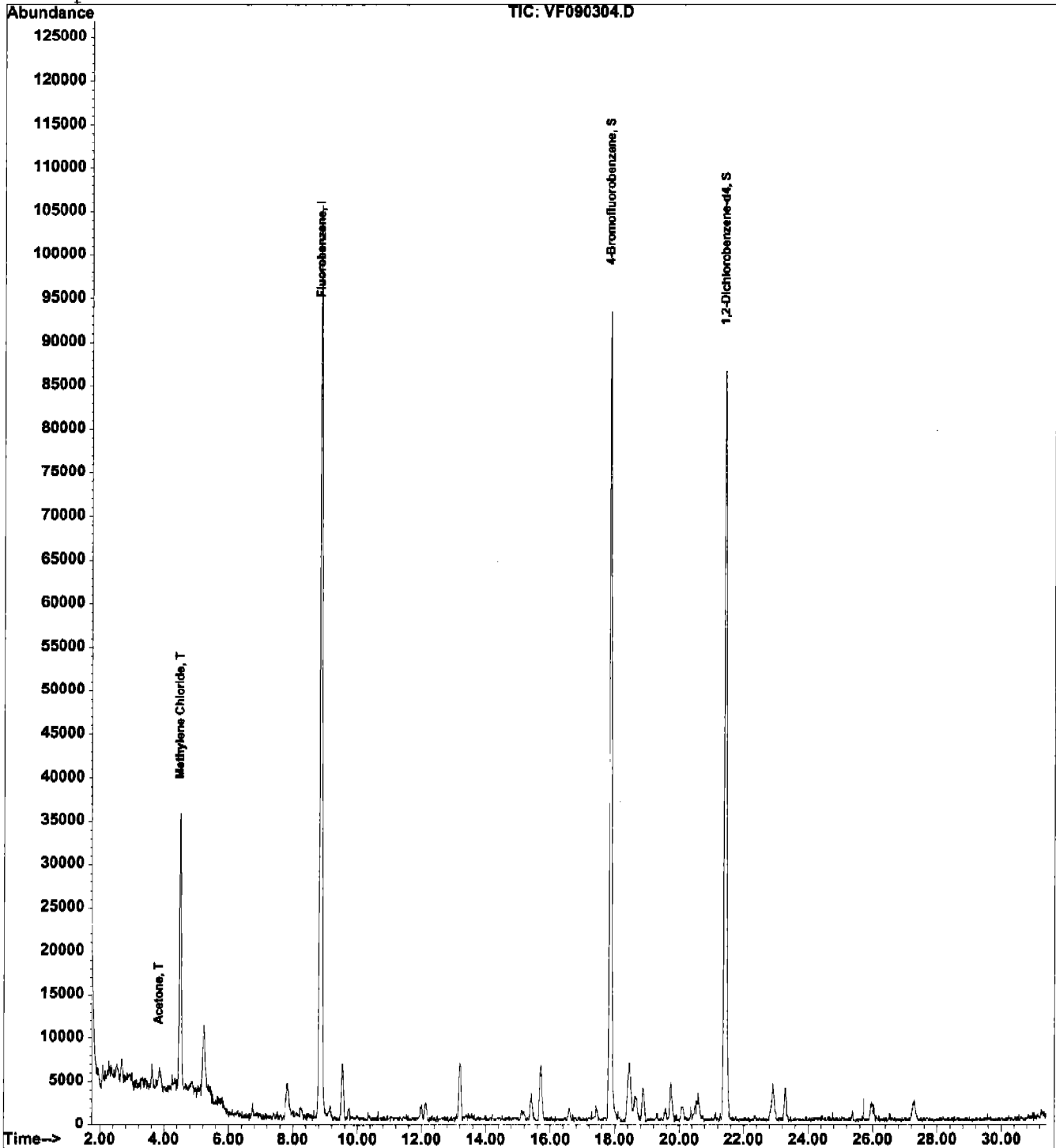
462-06-6	Fluorobenzene	255653	8.85		
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U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090304.D Vial: 4  
Acq On : 2 Sep 2004 11:29 pm Operator: SAM  
Sample : VBF0903W2 Inst : VOA F  
Misc : 25mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Sep 7 12:06 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090304.D Vial: 4  
 Acq On : 2 Sep 2004 11:29 pm Operator: SAM  
 Sample : VBF0903W2 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 7 12:06 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

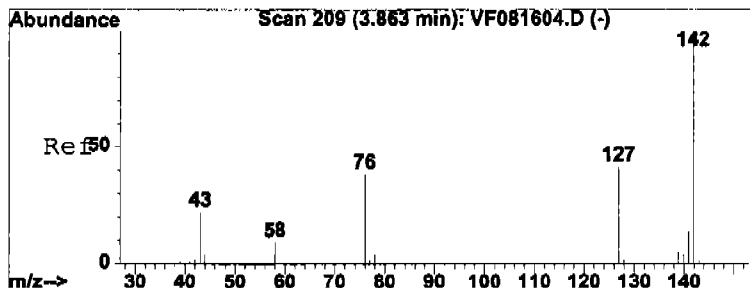
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.85	96	255653	1.00	ug/l	0.00
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.86	95	115877	0.96	ug/l	0.00
Spiked Amount	1.000		Recovery	=	96.00%	
63) 1,2-Dichlorobenzene-	21.42	152	64863	0.97	ug/l	0.00
Spiked Amount	1.000		Recovery	=	97.00%	
Target Compounds						
12) Acetone	3.86	43	7101	2.24	ug/l	99
14) Methylene Chloride	4.51	84	31734	0.52	ug/l	89

Analyst Signature: Sy Analyst Name: Sy Date: 09/09/04

REASONS FOR MANUAL INTEGRATIONS

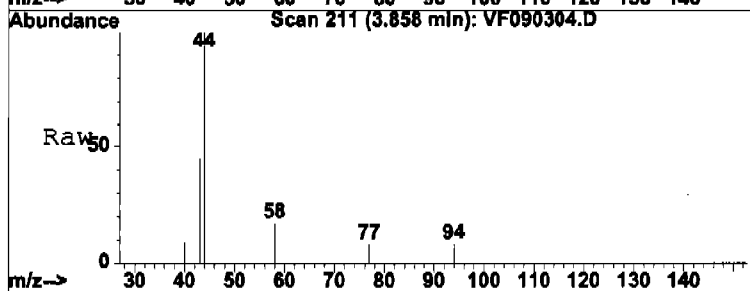
\_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound # : \_\_\_  
 \_\_\_ Peak integrated by software incorrectly.Compound # : \_\_\_  
 OTHER: \_\_\_ Compound # : \_\_\_

(#) = qualifier out of range (m) = manual integration

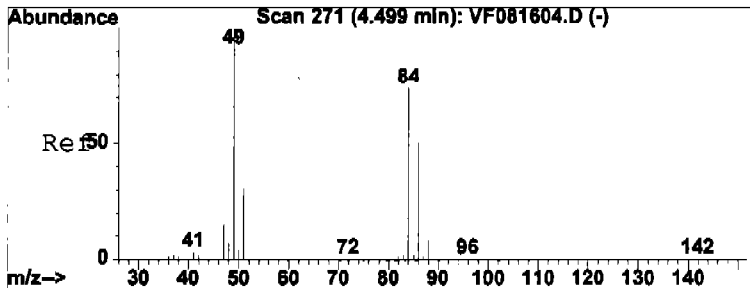
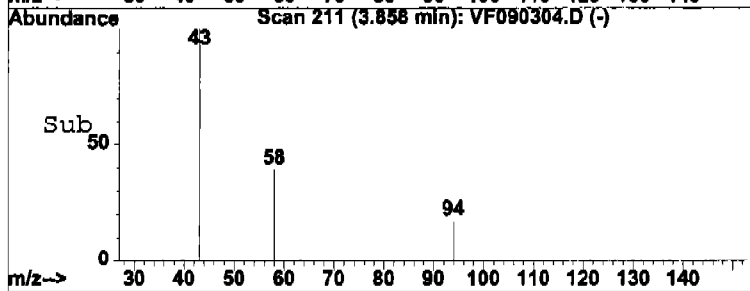
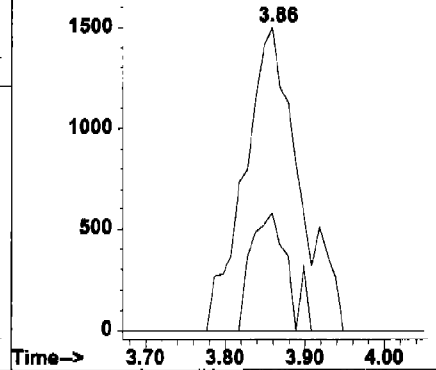


#12  
 Acetone  
 Concen: 2.24 ug/l  
 RT: 3.86 min Scan# 211  
 Delta R.T. 0.01 min  
 Lab File: VF090304.D  
 Acq: 2 Sep 2004 11:29 pm

Tgt Ion: 43 Resp: 7101  
 Ion Ratio Lower Upper  
 43 100  
 58 38.6 31.4 47.2

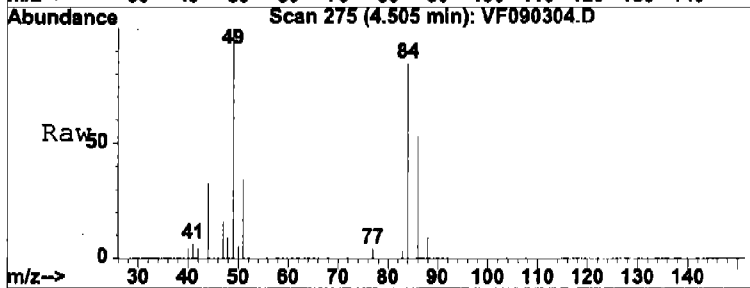


Abundance Ion 43.00 (42.70 to 43.70): VF09  
 Ion 58.00 (57.70 to 58.70): VF09

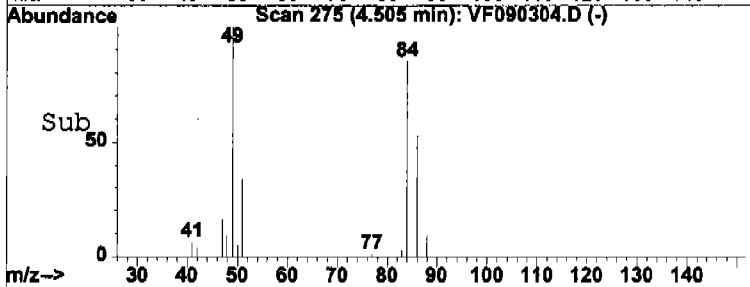
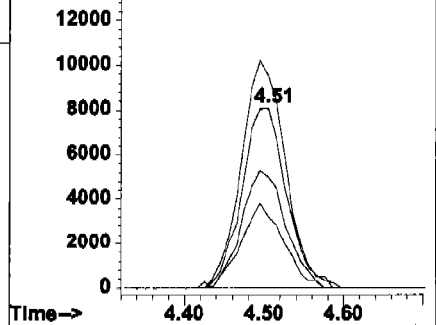


#14  
 Methylene Chloride  
 Concen: 0.52 ug/l  
 RT: 4.51 min Scan# 275  
 Delta R.T. 0.01 min  
 Lab File: VF090304.D  
 Acq: 2 Sep 2004 11:29 pm

Tgt Ion: 84 Resp: 31734  
 Ion Ratio Lower Upper  
 84 100  
 49 118.0 108.6 163.0  
 51 40.0 0.0 84.4  
 86 62.0 54.2 81.2



Abundance Ion 84.00 (83.70 to 84.70): VF09  
 Ion 49.00 (48.70 to 49.70): VF09  
 Ion 51.00 (50.70 to 51.70): VF09  
 Ion 86.00 (85.70 to 86.70): VF09



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090304.D Vial: 4  
 Acq On : 2 Sep 2004 11:29 pm Operator: SAM  
 Sample : VBF0903W2 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

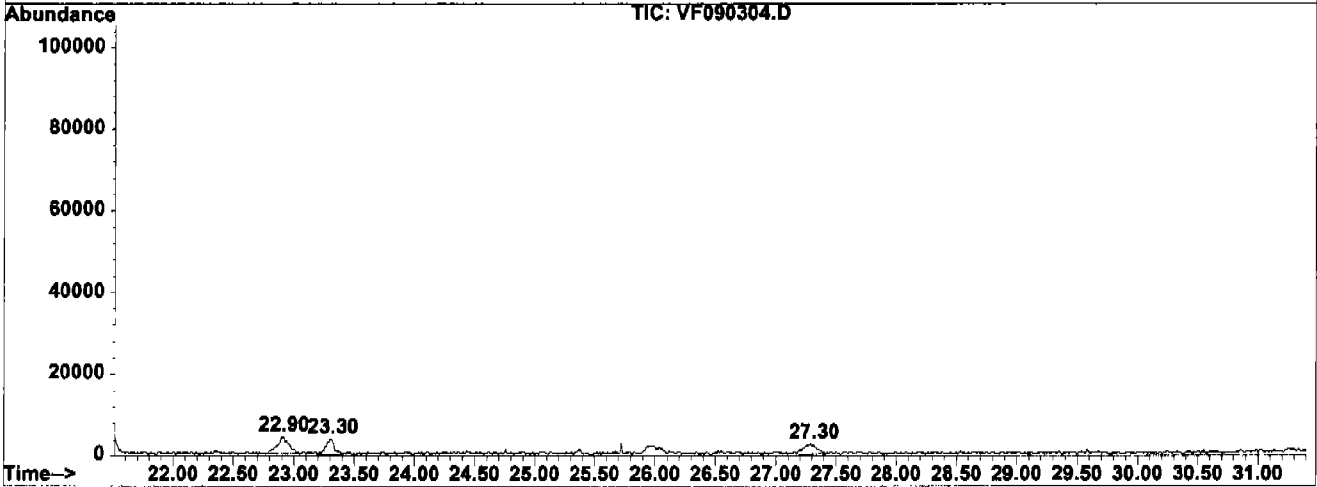
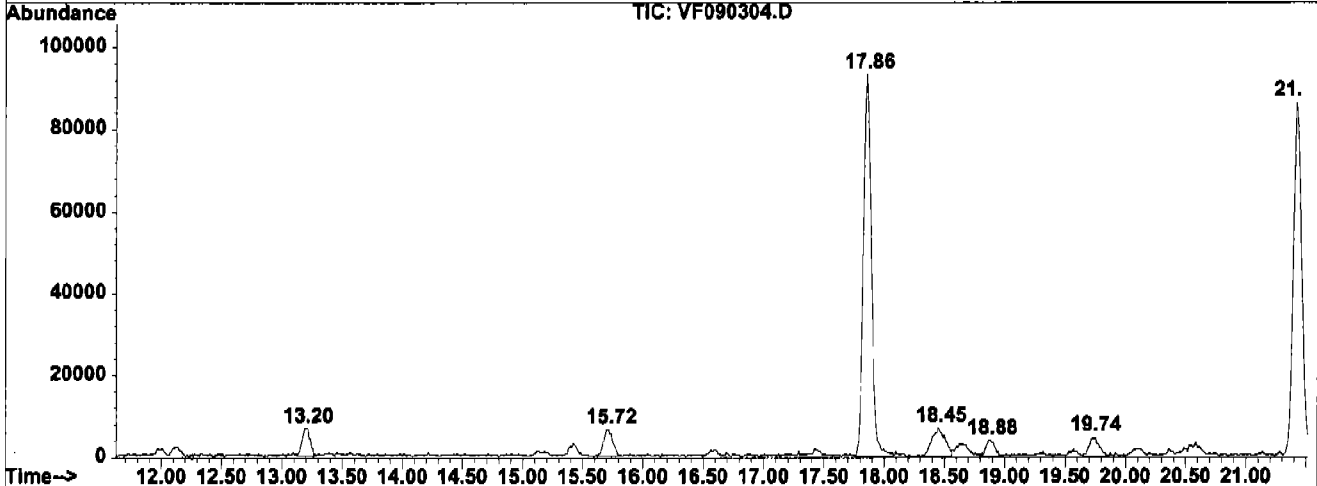
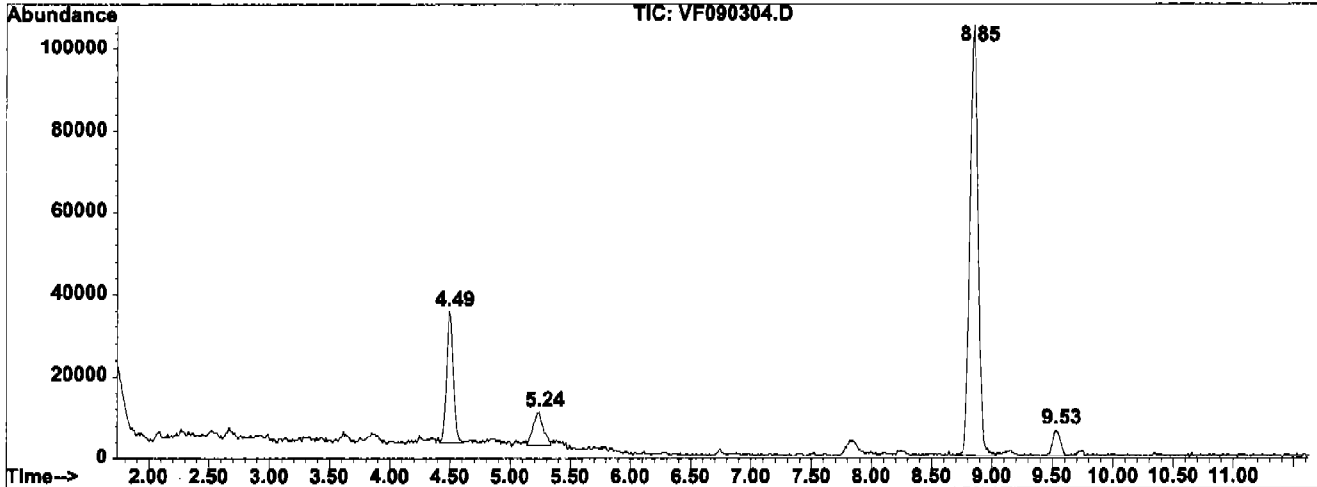
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	4.495	266	274	285	rVB	31862	123890	24.04%	6.837%
2	5.243	338	348	357	rBV6	8091	48395	9.39%	2.671%
3	8.851	689	705	723	rBV	104969	515270	100.00%	28.436%
4	9.530	760	772	781	rBV4	6533	29687	5.76%	1.638%
5	13.199	1129	1136	1145	rVB5	6622	30725	5.96%	1.696%
6	15.718	1372	1385	1396	rBV3	6451	34899	6.77%	1.926%
7	17.858	1586	1597	1619	rBV2	93179	439902	85.37%	24.277%
8	18.453	1641	1656	1667	rBV5	6815	51687	10.03%	2.852%
9	18.878	1690	1698	1707	rBV3	3847	19348	3.75%	1.068%
10	19.735	1774	1783	1795	rVB3	4599	26351	5.11%	1.454%
11	21.422	1938	1949	1966	rBV	86113	424176	82.32%	23.409%
12	22.896	2081	2095	2110	rBV2	4313	29794	5.78%	1.644%
13	23.303	2124	2135	2145	rVB3	3935	18618	3.61%	1.027%
14	27.296	2516	2529	2541	rVB	2532	19281	3.74%	1.064%

Sum of corrected areas: 1812023

VF090304.D VF0816DW.M Thu Sep 09 12:38:06 2004 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090304.D  
Operator : SAM  
Acquired : 2 Sep 2004 11:29 pm using AcqMethod VF\_VOA  
Instrument : VOA F  
Sample Name: VBF0903W2  
Misc Info : 25mL  
Vial Number: 4  
Quant File :VF0816DW.RES (RTE Integrator)





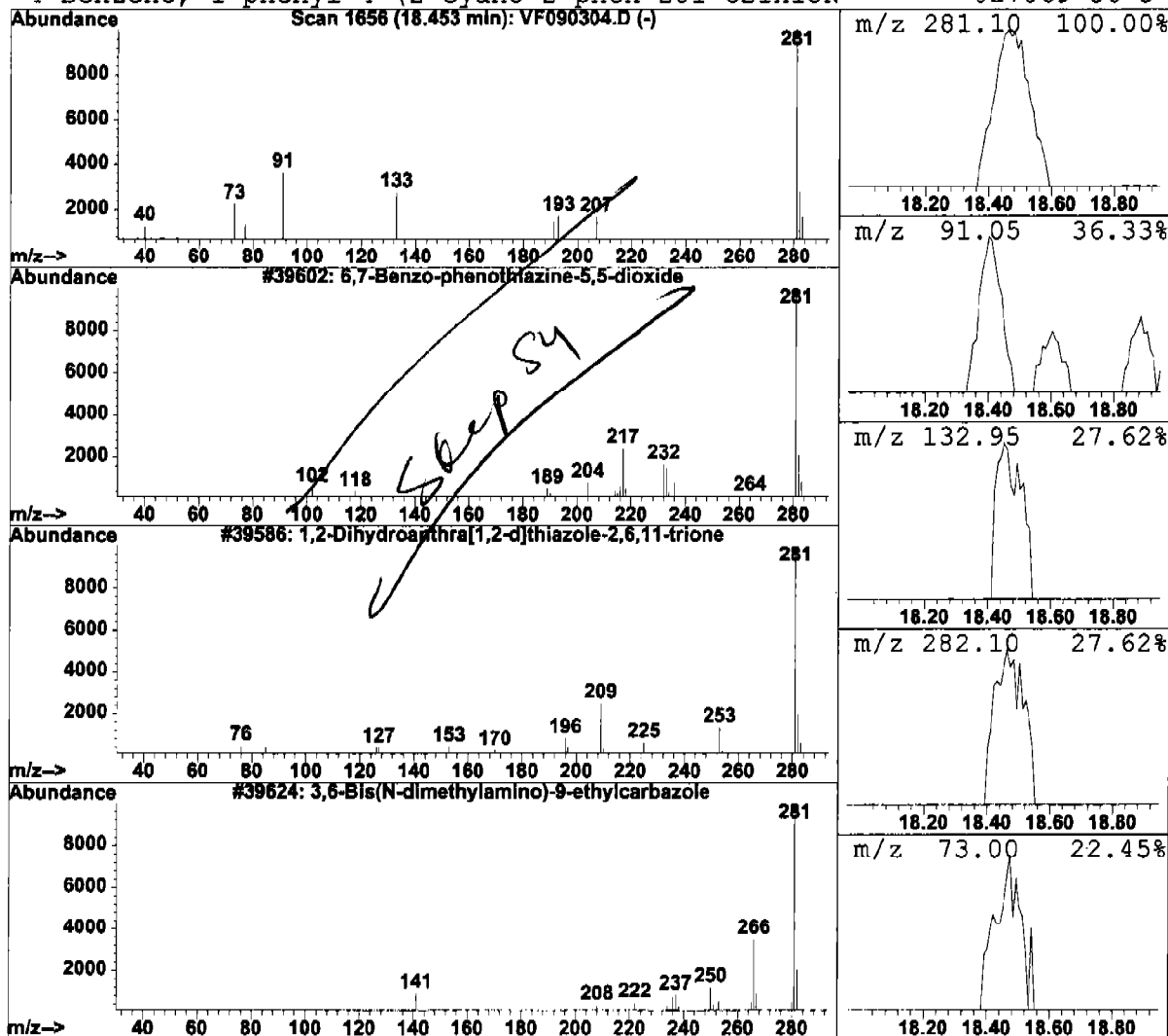
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090304.D Vial: 4  
 Acq On : 2 Sep 2004 11:29 pm Operator: SAM  
 Sample : VBF0903W2 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 1 6,7-Benzo-phenothiazine-5,5-di Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.45	0.10 ug/l	51687	Fluorobenzene	8.85

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	6,7-Benzo-phenothiazine-5,5-dioxide	281	C16H11NO2S	000000-00-0	9
2		1,2-Dihydroanthra[1,2-d]thiazole-2,	281	C15H7NO3S	000000-00-0	5
3		3,6-Bis(N-dimethylamino)-9-ethylcar	281	C18H23N3	057103-04-5	5
4		Benzene, 1-phenyl-4-(2-cyano-2-phen	281	C21H15N	027869-56-3	5



Tentatively Identified Compound (LSC) summary

Operator ID: SAM      Date Acquired: 2 Sep 2004 11:29 pm  
Data File: C:\HPCHEM\1\DATA\MSVOAF\VF090304\VF090304.D  
Name: VBF0903W2  
Misc: 25mL  
Method: C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title: METHOD 524.2 VOLATILES DRINKING WATER  
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
6,7-Benzo-phenothiaz	18.45	0.1	ug/l	51687	ISTD01	8.85	515270	1.0
VF090304.D VF0816DW.M					Thu Sep 09 12:38:07 2004			RPT1

Report of Analysis

Client:	Parsons Engineering	Date Collected:	
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	
Client Sample ID:	VBLK04	SDG No.:	S4414
Lab Sample ID:	VBF0904W2	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090404.D	1		9/3/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	0.09	U	1.0	0.09	ug/L
74-87-3	Chloromethane	0.11	U	1.0	0.11	ug/L
75-01-4	Vinyl Chloride	0.14	U	1.0	0.14	ug/L
74-83-9	Bromomethane	0.22	U	1.0	0.22	ug/L
75-00-3	Chloroethane	0.19	U	1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	0.09	U	1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	2.2	U	10	2.2	ug/L
60-29-7	Diethyl Ether	0.21	U	1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	0.16	U	1.0	0.16	ug/L
74-88-4	Iodomethane	0.14	U	1.0	0.14	ug/L
107-5-1	Allyl Chloride	0.18	U	1.0	0.18	ug/L
107-13-1	Acrylonitrile	0.94	U	2.0	0.94	ug/L
67-64-1	Acetone	3.1	J	5.8	1.5	ug/L
75-15-0	Carbon disulfide	0.18	U	1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	0.37	U	1.0	0.37	ug/L
79-20-9	Methyl acrylate	0.17	U	1.0	0.17	ug/L
75-09-2	Methylene Chloride	0.3	J	1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.94	U	5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	0.22	U	1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	0.20	U	1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L
67-66-3	Chloroform	0.22	U	1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	1.4	U	2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L
108-20-3	Isopropyl Ether	0.21	U	1.0	0.21	ug/L
107-12-0	Propionitrile	3.3	U	10	3.3	ug/L
71-43-2	Benzene	0.24	U	1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	0.24	U	1.0	0.24	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

## Report of Analysis

Client:	Parsons Engineering	Date Collected:	
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	
Client Sample ID:	VBLK04	SDG No.:	S4414
Lab Sample ID:	VBF0904W2	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090404.D	1		9/3/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	0.21	U	1.0	0.21	ug/L
126-98-7	Methacrylonitrile	0.33	U	1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	0.78	U	2.4	0.78	ug/L
109-69-3	1-Chlorobutane	0.22	U	1.0	0.22	ug/L
74-95-3	Dibromomethane	0.24	U	1.0	0.24	ug/L
75-27-4	Bromodichloromethane	0.20	U	1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	1.0	U	5.0	1.0	ug/L
80-62-6	Methyl methacrylate	0.53	U	2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	0.25	U	1.0	0.25	ug/L
108-88-3	Toluene	0.22	U	1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L
591-78-6	2-Hexanone	1.1	U	5.0	1.1	ug/L
124-48-1	Dibromochloromethane	0.17	U	1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L
127-18-4	Tetrachloroethene	0.34	U	1.0	0.34	ug/L
108-90-7	Chlorobenzene	0.21	U	1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L
67-72-1	Hexachloroethane	0.20	U	1.0	0.20	ug/L
100-41-4	Ethyl Benzene	0.21	U	1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	0.43	U	1.0	0.43	ug/L
95-47-6	o-Xylene	0.21	U	1.0	0.21	ug/L
100-42-5	Styrene	0.19	U	1.0	0.19	ug/L
75-25-2	Bromoform	0.22	U	1.0	0.22	ug/L
108-86-1	Bromobenzene	0.21	U	1.0	0.21	ug/L
98-82-8	Isopropylbenzene	0.20	U	1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	0.28	U	1.0	0.28	ug/L
103-61-5	N-propylbenzene	0.24	U	1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	0.50	U	1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.22	U	1.0	0.22	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VBLK04</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>VBF0904W2</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090404.D</b>	<b>1</b>		<b>9/3/2004</b>	<b>VF081604</b>

<b>CAS Number</b>	<b>Parameter</b>	<b>Conc.</b>	<b>Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
106-43-4	4-Chlorotoluene	0.22	U	1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	0.18	U	1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	0.20	U	1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	0.22	U	1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
104-51-8	n-Butylbenzene	0.20	U	1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.20	U	1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L
91-20-3	Naphthalene	0.17	U	1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.18	U	1.0	0.18	ug/L

**SURROGATES**

2199-69-1	1,2-Dichlorobenzene-d4	1.02	102 %	80 - 120		SPK: 1
460-00-4	4-Bromofluorobenzene	0.96	96 %	80 - 120		SPK: 1

**INTERNAL STANDARDS**

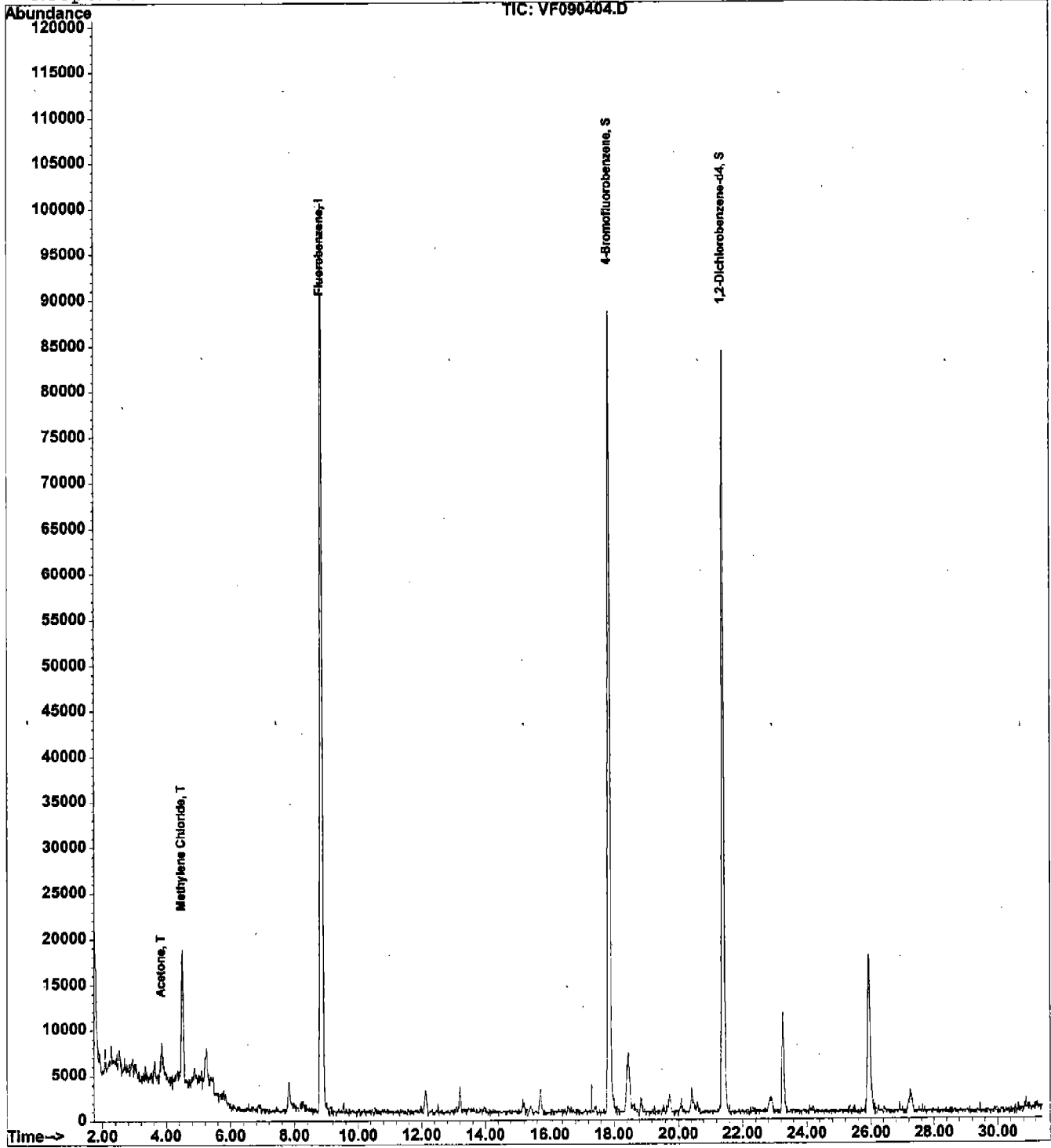
462-06-6	Fluorobenzene	237391	8.85			
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U = Not Detected  
RL = Reporting Limit  
MDL = Method Detection Limit  
E = Value Exceeds Calibration Range

J = Estimated Value  
B = Analyte Found in Associated Method Blank  
N = Presumptive Evidence of a Compound

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090404.D Vial: 4  
Acq On : 3 Sep 2004 11:42 pm Operator: SAM  
Sample : VBF0904W2 Inst : VOA F  
Misc : 25mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Sep 7 11:33 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090404.D Vial: 4  
 Acq On : 3 Sep 2004 11:42 pm Operator: SAM  
 Sample : VBF0904W2 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 7 11:33 2004 Quant Results File: VF0816DW.RES

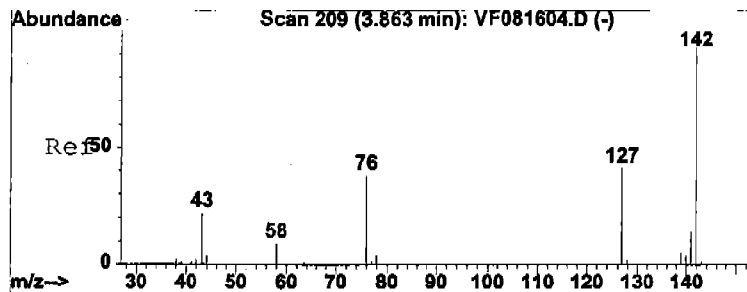
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 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.85	96	237391	1.00	ug/l	0.00
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.85	95	107469	0.96	ug/l	-0.01
Spiked Amount	1.000		Recovery	=	96.00%	
63) 1,2-Dichlorobenzene-	21.41	152	63238	1.02	ug/l	-0.01
Spiked Amount	1.000		Recovery	=	102.00%	
Target Compounds						Qvalue
12) Acetone	3.86	43	9012	3.06	ug/l	95
14) Methylene Chloride	4.49	84	14578	0.26	ug/l	94

-----  
 Analyst Signature:          Analyst Name:          Date: 09/09/04  
 -----

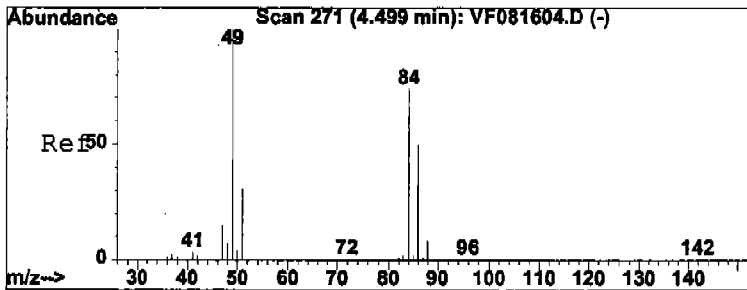
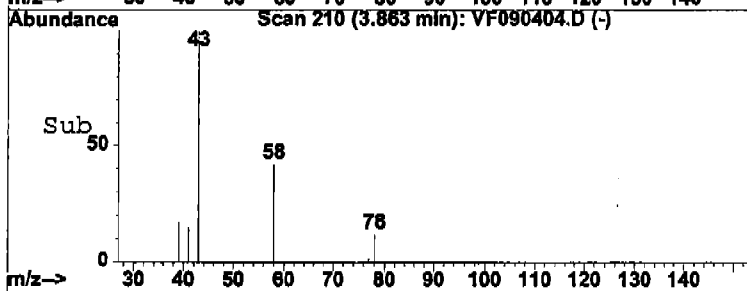
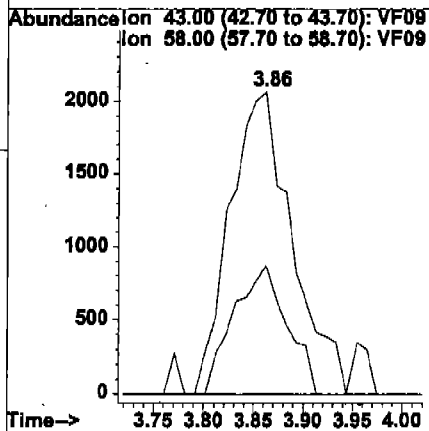
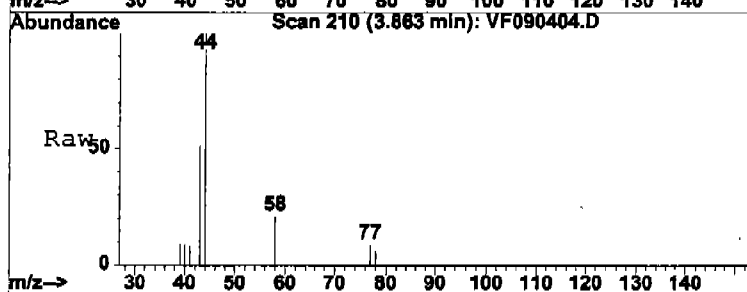
-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_



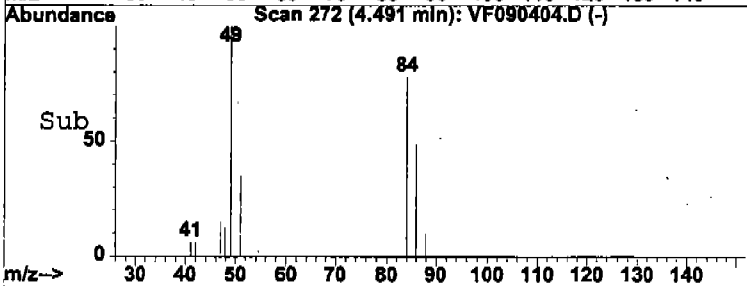
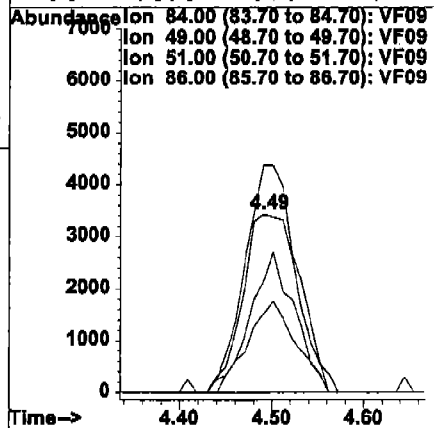
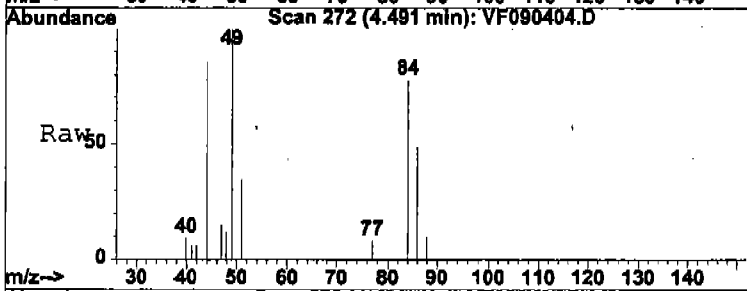
#12  
 Acetone  
 Concen: 3.06 ug/l  
 RT: 3.86 min Scan# 210  
 Delta R.T. 0.01 min  
 Lab File: VF090404.D  
 Acq: 3 Sep 2004 11:42 pm

Tgt Ion: 43 Resp: 9012  
 Ion Ratio Lower Upper  
 43 100  
 58 42.3 31.4 47.2



#14  
 Methylene Chloride  
 Concen: 0.26 ug/l  
 RT: 4.49 min Scan# 272  
 Delta R.T. -0.01 min  
 Lab File: VF090404.D  
 Acq: 3 Sep 2004 11:42 pm

Tgt Ion: 84 Resp: 14578  
 Ion Ratio Lower Upper  
 84 100  
 49 127.8 108.6 163.0  
 51 44.5 0.0 84.4  
 86 62.5 54.2 81.2





Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090404.D Vial: 4  
 Acq On : 3 Sep 2004 11:42 pm Operator: SAM  
 Sample : VBF0904W2 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

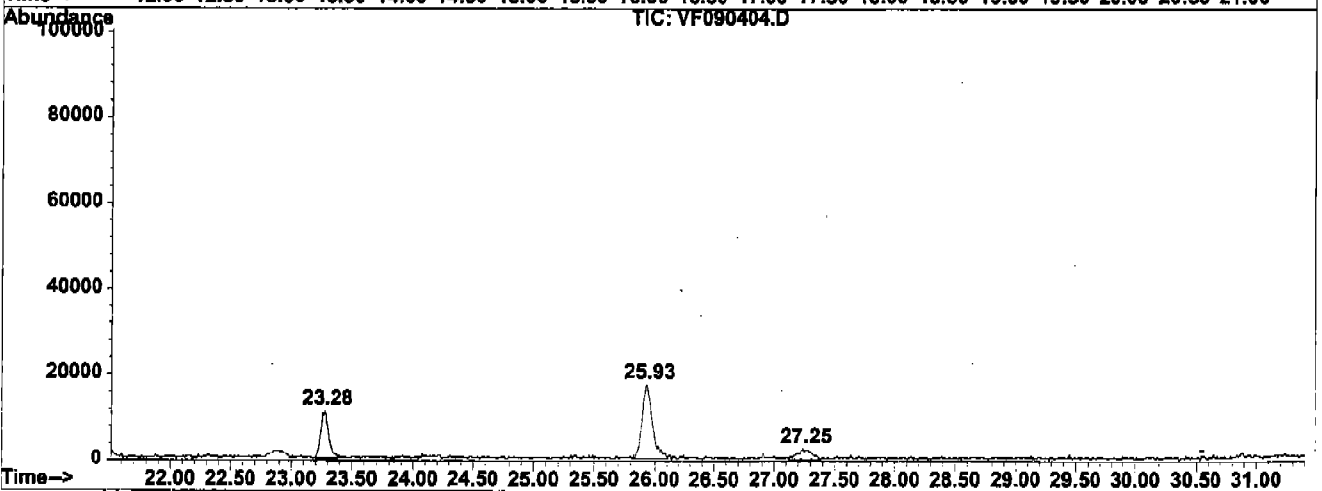
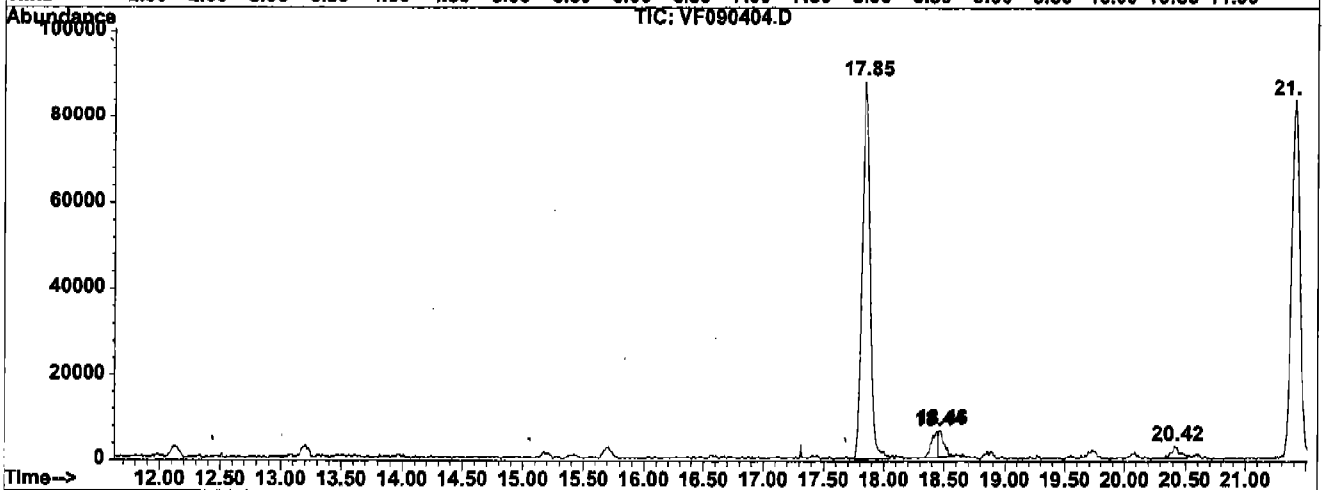
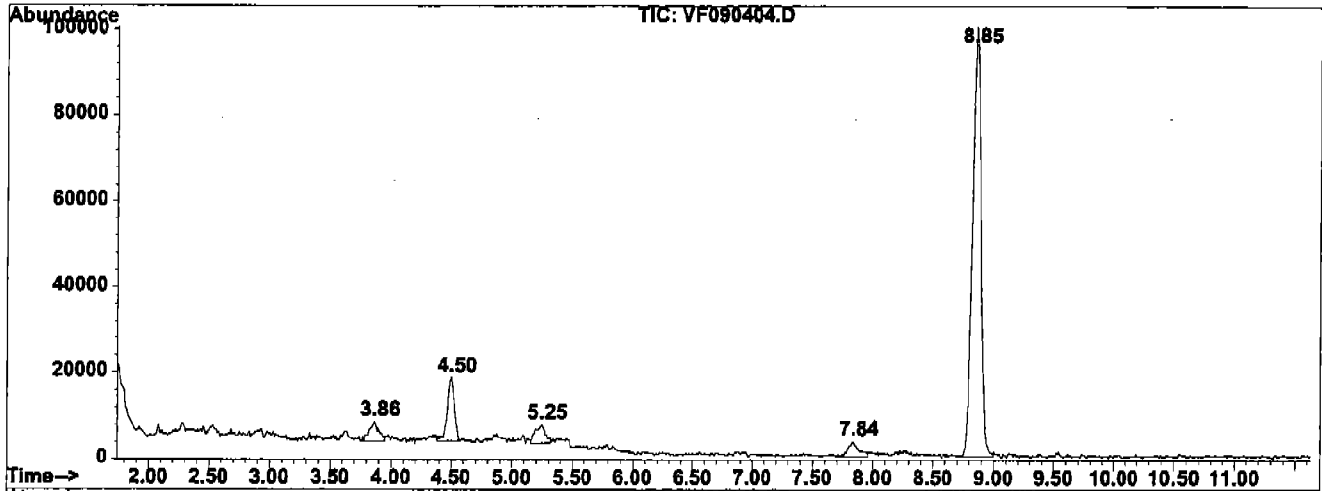
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	3.863	200	210	218	rBV3	4498	23594	4.87%	1.412%
2	4.502	261	273	280	rVB	14520	57654	11.90%	3.451%
3	5.245	337	346	354	rVB7	4151	23295	4.81%	1.394%
4	7.838	588	600	612	rBV	3589	23701	4.89%	1.419%
5	8.850	688	699	713	rBV	99812	484578	100.00%	29.003%
6	17.847	1570	1583	1603	rBV2	88109	413210	85.27%	24.731%
7	18.440	1630	1641	1642	rBV2	6147	23045	4.76%	1.379%
8	18.461	1642	1643	1654	rVB3	6218	19008	3.92%	1.138%
9	20.418	1823	1835	1845	rBV4	2793	14689	3.03%	0.879%
10	21.410	1917	1932	1949	rVB	83643	409578	84.52%	24.514%
11	23.275	2105	2115	2126	rBV5	11161	54386	11.22%	3.255%
12	25.934	2365	2376	2393	rBV4	17353	103625	21.38%	6.202%
13	27.247	2493	2505	2519	rBV2	2726	20443	4.22%	1.224%

Sum of corrected areas: 1670806

VF090404.D VF0816DW.M Thu Sep 09 12:52:56 2004 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090404.D  
Operator : SAM  
Acquired : 3 Sep 2004 11:42 pm using AcqMethod VF\_VOA  
Instrument : VOA F  
Sample Name: VBF0904W2  
Misc Info : 25mL  
Vial Number: 4  
Quant File :VF0816DW.RES (RTE Integrator)



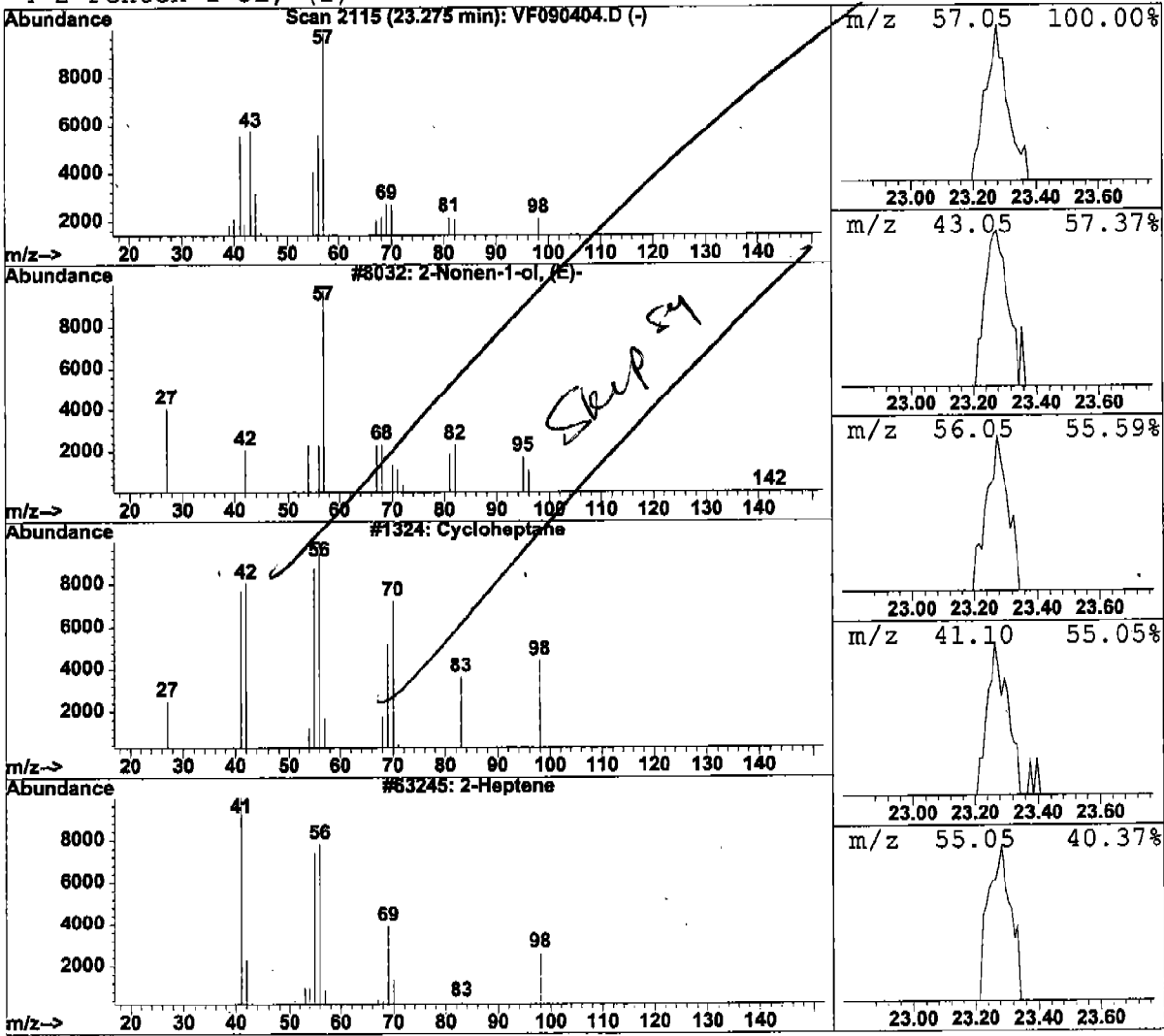
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090404.D Vial: 4  
 Acq On : 3 Sep 2004 11:42 pm Operator: SAM  
 Sample : VBF0904W2 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 1 2-Nonen-1-ol, (E)- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
23.28	0.11 ug/l	54386	Fluorobenzene	8.85

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	2-Nonen-1-ol, (E)-	142	C9H18O	031502-14-4	50
2		Cycloheptane	98	C7H14	000291-64-5	25
3		2-Heptene	98	C7H14	000592-77-8	25
4		2-Penten-1-ol, (Z)-	86	C5H10O	001576-95-0	17



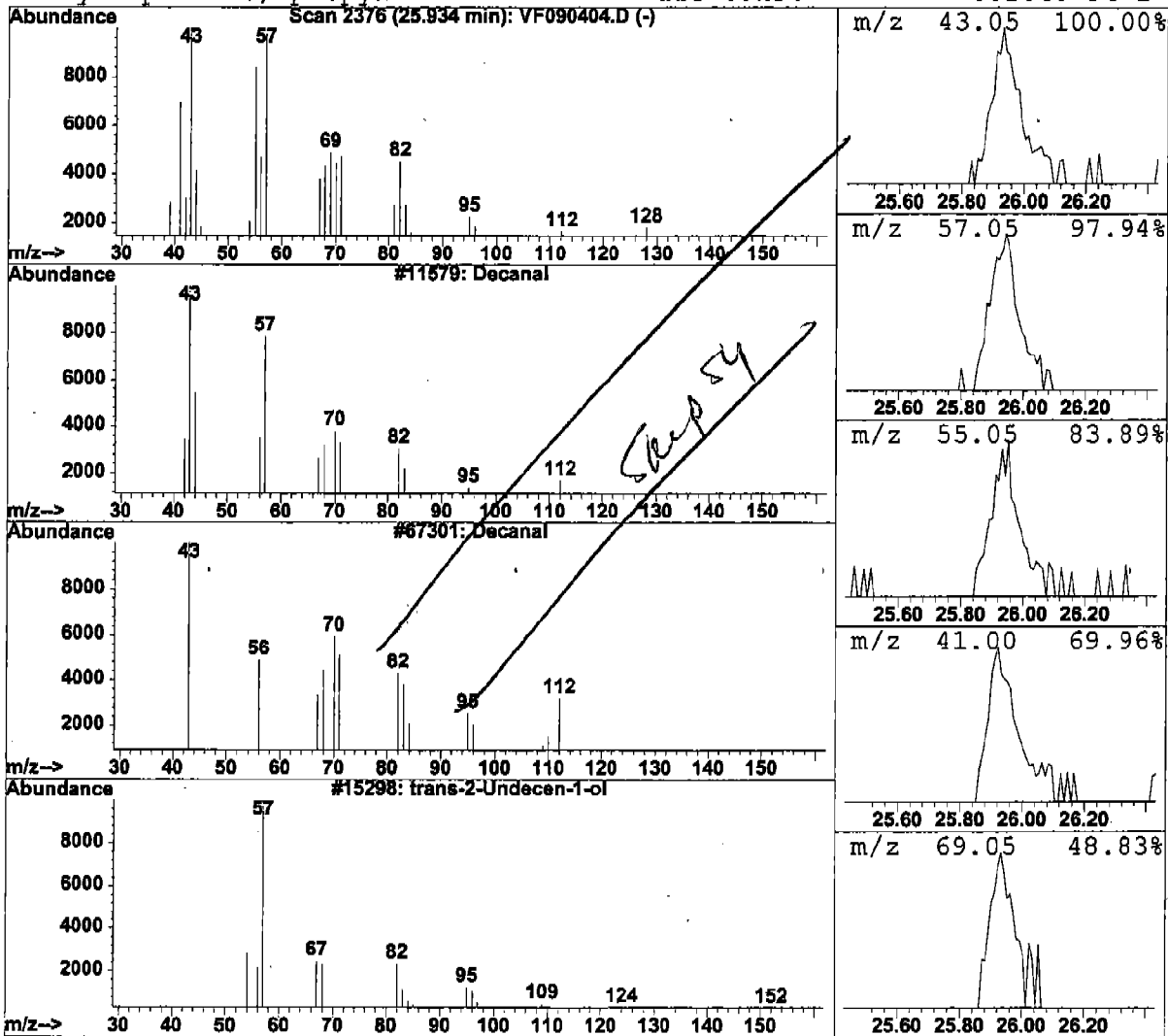
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090404.D Vial: 4  
 Acq On : 3 Sep 2004 11:42 pm Operator: SAM  
 Sample : VBF0904W2 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 2 Decanal Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
25.93	0.21 ug/l	103625	Fluorobenzene	8.85

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Decanal	156	C10H20O	000112-31-2	87
2		Decanal	156	C10H20O	000112-31-2	59
3		trans-2-Undecen-1-ol	170	C11H22O	000000-00-0	38
4		Cyclopentane, propyl-	112	C8H16	002040-96-2	38



Tentatively Identified Compound (LSC) summary

Operator ID: SAM      Date Acquired: 3 Sep 2004 11:42 pm  
 Data File: C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090404.D  
 Name: VBF0904W2  
 Misc: 25mL  
 Method: C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title: METHOD 524.2 VOLATILES DRINKING WATER  
 Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc Units	Area	IntStd	ISRT	ISArea	ISConc
2-Nonen-1-ol, (E)-	23.28	0.1 ug/l	54386	ISTD01	8.85	484578	1.0
Decanal	25.93	0.2 ug/l	103625	ISTD01	8.85	484578	1.0

VF090404.D VF0816DW.M Thu Sep 09 12:52:58 2004 RPT1

Report of Analysis

Client:	Parsons Engineering	Date Collected:	
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	
Client Sample ID:	VBLK05	SDG No.:	S4414
Lab Sample ID:	VBF0907W4	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090714.D	1		9/7/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	0.09	U	1.0	0.09	ug/L
74-87-3	Chloromethane	0.11	U	1.0	0.11	ug/L
75-01-4	Vinyl Chloride	0.14	U	1.0	0.14	ug/L
74-83-9	Bromomethane	0.22	U	1.0	0.22	ug/L
75-00-3	Chloroethane	0.19	U	1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	0.09	U	1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	2.2	U	10	2.2	ug/L
60-29-7	Diethyl Ether	0.21	U	1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	0.16	U	1.0	0.16	ug/L
74-88-4	Iodomethane	0.14	U	1.0	0.14	ug/L
107-5-1	Allyl Chloride	0.18	U	1.0	0.18	ug/L
107-13-1	Acrylonitrile	0.94	U	2.0	0.94	ug/L
67-64-1	Acetone	4.4	J	5.8	1.5	ug/L
75-15-0	Carbon disulfide	0.18	U	1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	0.37	U	1.0	0.37	ug/L
79-20-9	Methyl acrylate	0.17	U	1.0	0.17	ug/L
75-09-2	Methylene Chloride	1.2		1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.94	U	5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	0.22	U	1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	0.20	U	1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L
67-66-3	Chloroform	0.22	U	1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	1.4	U	2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L
108-20-3	Isopropyl Ether	0.21	U	1.0	0.21	ug/L
107-12-0	Propionitrile	3.3	U	10	3.3	ug/L
71-43-2	Benzene	0.24	U	1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	0.24	U	1.0	0.24	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

## Report of Analysis

Client:	Parsons Engineering	Date Collected:	
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	
Client Sample ID:	VBLK05	SDG No.:	S4414
Lab Sample ID:	VBF0907W4	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090714.D	1		9/7/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	0.21	U	1.0	0.21	ug/L
126-98-7	Methacrylonitrile	0.33	U	1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	0.78	U	2.4	0.78	ug/L
109-69-3	1-Chlorobutane	0.22	U	1.0	0.22	ug/L
74-95-3	Dibromomethane	0.24	U	1.0	0.24	ug/L
75-27-4	Bromodichloromethane	0.20	U	1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	1.0	U	5.0	1.0	ug/L
80-62-6	Methyl methacrylate	0.53	U	2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	0.25	U	1.0	0.25	ug/L
108-88-3	Toluene	0.22	U	1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L
591-78-6	2-Hexanone	1.1	U	5.0	1.1	ug/L
124-48-1	Dibromochloromethane	0.17	U	1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L
127-18-4	Tetrachloroethene	0.34	U	1.0	0.34	ug/L
108-90-7	Chlorobenzene	0.21	U	1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L
67-72-1	Hexachloroethane	0.20	U	1.0	0.20	ug/L
100-41-4	Ethyl Benzene	0.21	U	1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	0.43	U	1.0	0.43	ug/L
95-47-6	o-Xylene	0.21	U	1.0	0.21	ug/L
100-42-5	Styrene	0.19	U	1.0	0.19	ug/L
75-25-2	Bromoform	0.22	U	1.0	0.22	ug/L
108-86-1	Bromobenzene	0.21	U	1.0	0.21	ug/L
98-82-8	Isopropylbenzene	0.20	U	1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	0.28	U	1.0	0.28	ug/L
103-61-5	N-propylbenzene	0.24	U	1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	0.50	U	1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.22	U	1.0	0.22	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monitc</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VBLK05</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>VBF0907W4</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090714.D</b>	<b>1</b>		<b>9/7/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	0.22	U	1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	0.18	U	1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	0.20	U	1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	0.22	U	1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
104-51-8	n-Butylbenzene	0.20	U	1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.20	U	1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L
91-20-3	Naphthalene	0.17	U	1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.18	U	1.0	0.18	ug/L
<b>SURROGATES</b>						
2199-69-1	1,2-Dichlorobenzene-d4	1.03	103 %	80 - 120		SPK: 1
460-00-4	4-Bromofluorobenzene	0.95	95 %	80 - 120		SPK: 1
<b>INTERNAL STANDARDS</b>						
462-06-6	Fluorobenzene	240105	8.86			

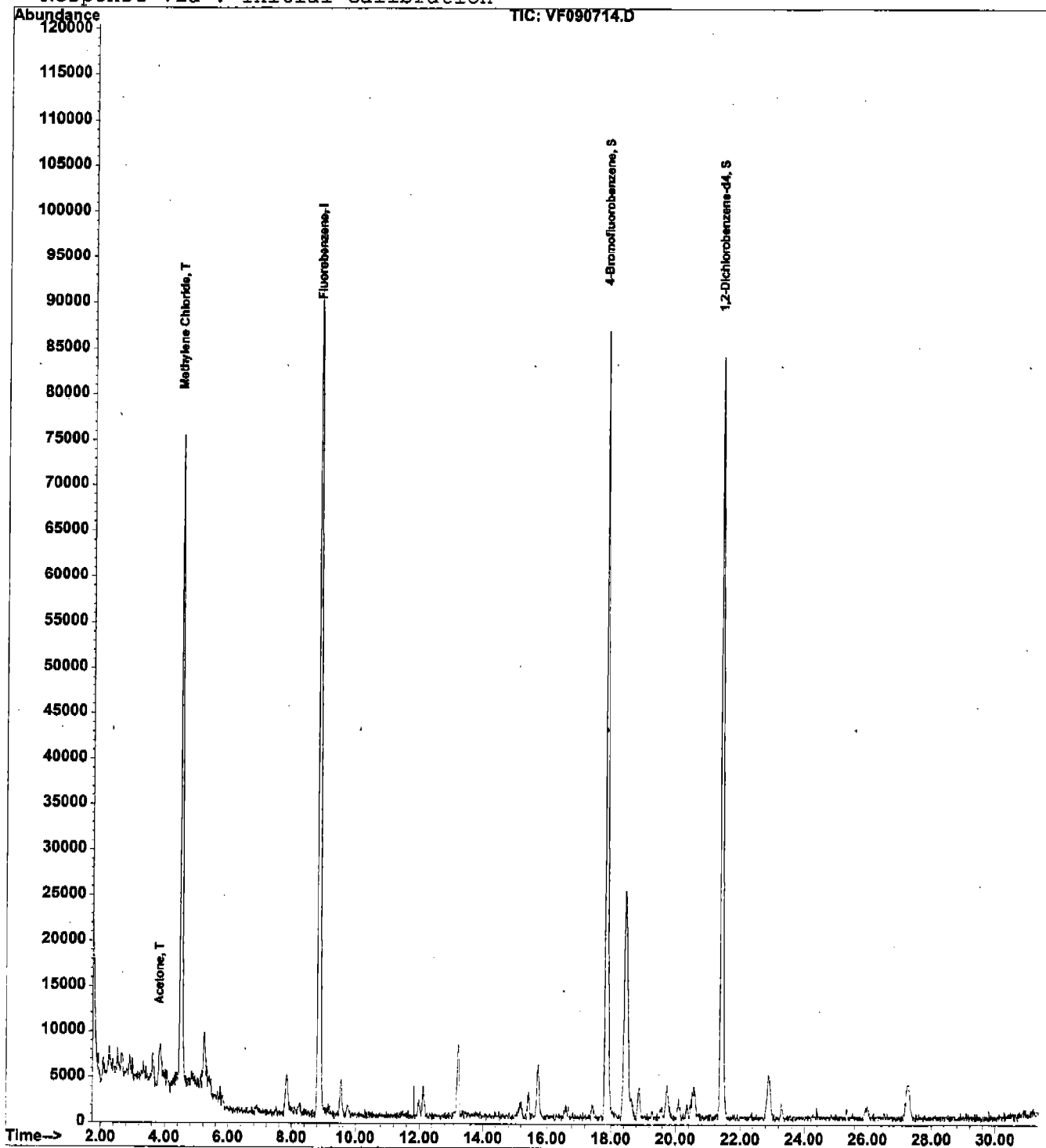
U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090714.D Vial: 4  
Acq On : 7 Sep 2004 8:18 pm Operator: SAM  
Sample : VBF0907W4 Inst : VOA F  
Misc : 25mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Sep 9 15:02 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090714.D Vial: 4  
 Acq On : 7 Sep 2004 8:18 pm Operator: SAM  
 Sample : VBF0907W4 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 9 15:02 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

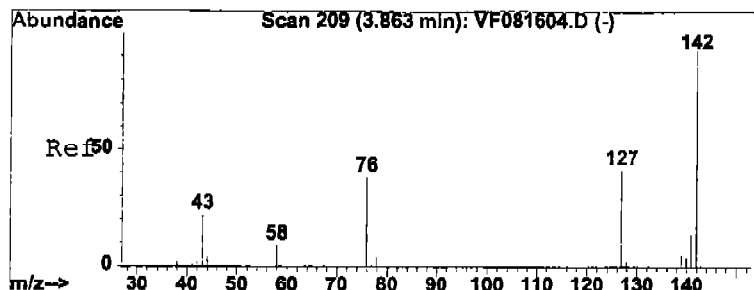
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	8.86	96	240105	1.00	ug/l	0.00
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.85	95	106959	0.95	ug/l	0.00
Spiked Amount	1.000		Recovery	=	95.00%	
63) 1,2-Dichlorobenzene-	21.43	152	64500	1.03	ug/l	0.00
Spiked Amount	1.000		Recovery	=	103.00%	
Target Compounds						
12) Acetone	3.86	43	13244	4.44	ug/l	89
14) Methylene Chloride	4.50	84	69134	1.22	ug/l	97

-----  
 Analyst Signature: Sy Analyst Name: Sy Date: 09/09/04  
 -----

-----REASONS FOR MANUAL INTEGRATIONS-----

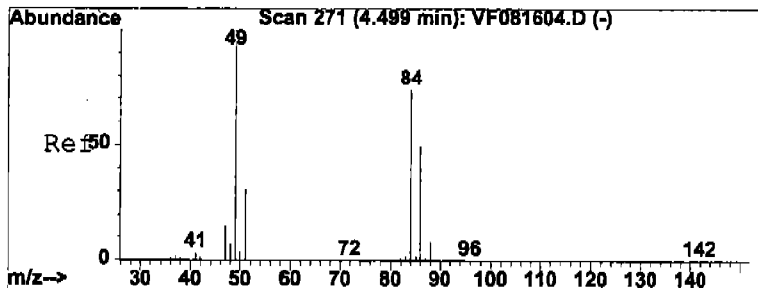
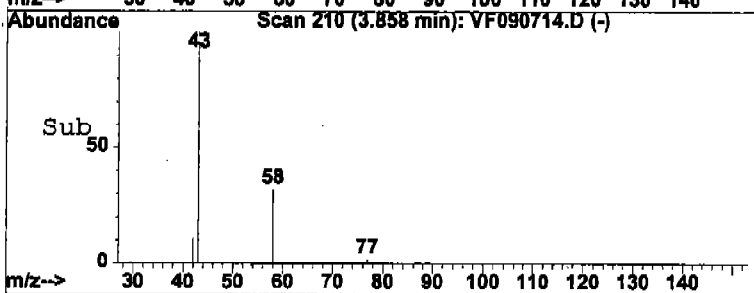
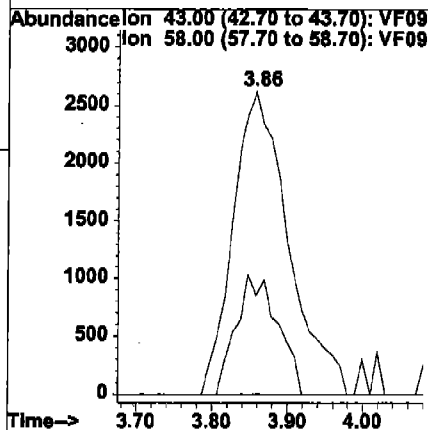
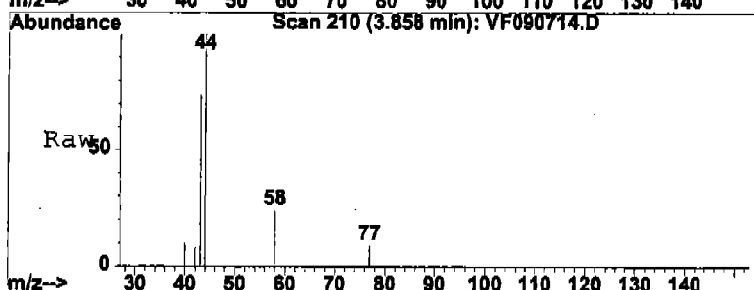
\_\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 \_\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration  
 VF090714.D VF0816DW.M Thu Sep 09 15:02:53 2004 RPT1



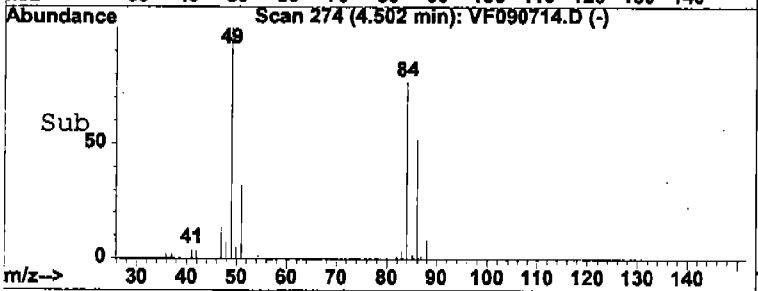
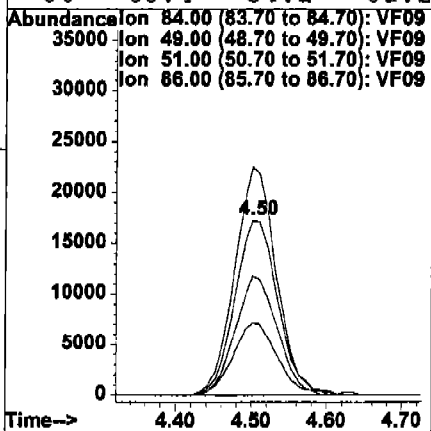
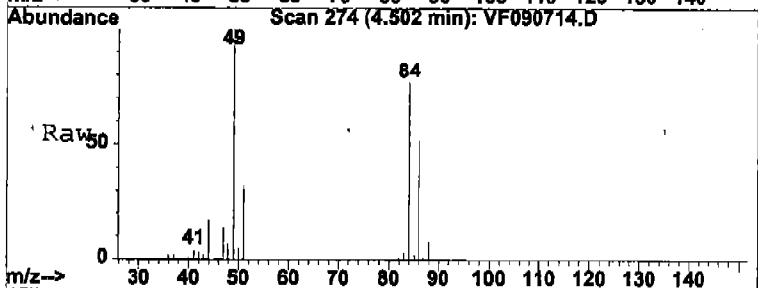
#12  
 Acetone  
 Concen: 4.44 ug/l  
 RT: 3.86 min Scan# 210  
 Delta R.T. 0.01 min  
 Lab File: VF090714.D  
 Acq: 7 Sep 2004 8:18 pm

Tgt Ion: 43 Resp: 13244  
 Ion Ratio Lower Upper  
 43 100  
 58 32.3 31.4 47.2



#14  
 Methylene Chloride  
 Concen: 1.22 ug/l  
 RT: 4.50 min Scan# 274  
 Delta R.T. 0.00 min  
 Lab File: VF090714.D  
 Acq: 7 Sep 2004 8:18 pm

Tgt Ion: 84 Resp: 69134  
 Ion Ratio Lower Upper  
 84 100  
 49 130.3 108.6 163.0  
 51 41.4 0.0 84.4  
 86 68.4 54.2 81.2



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090714.D Vial: 4  
 Acq On : 7 Sep 2004 8:18 pm Operator: SAM  
 Sample : VBF0907W4 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

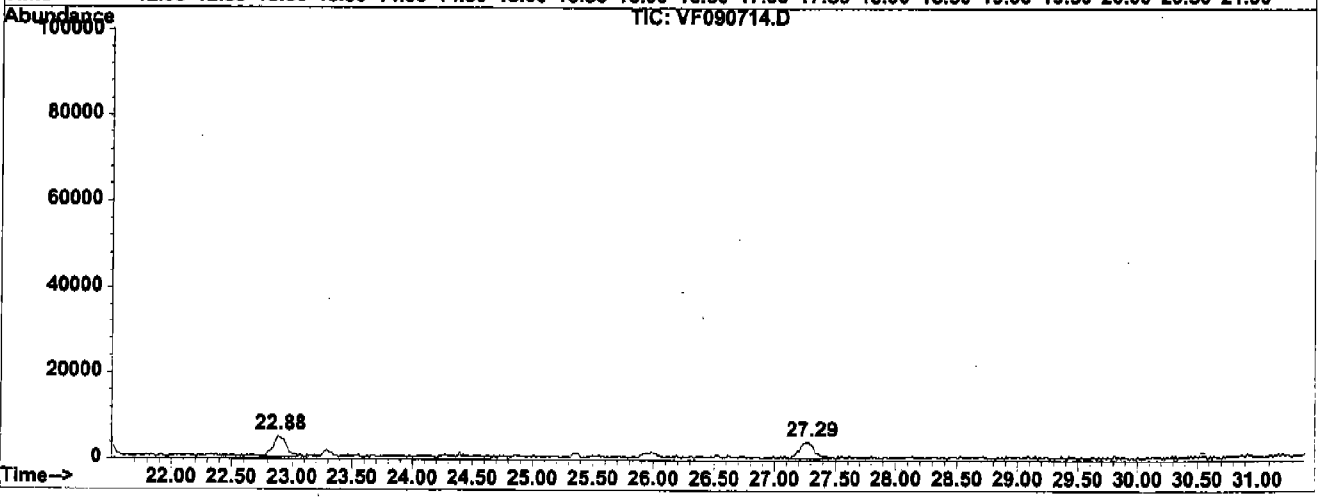
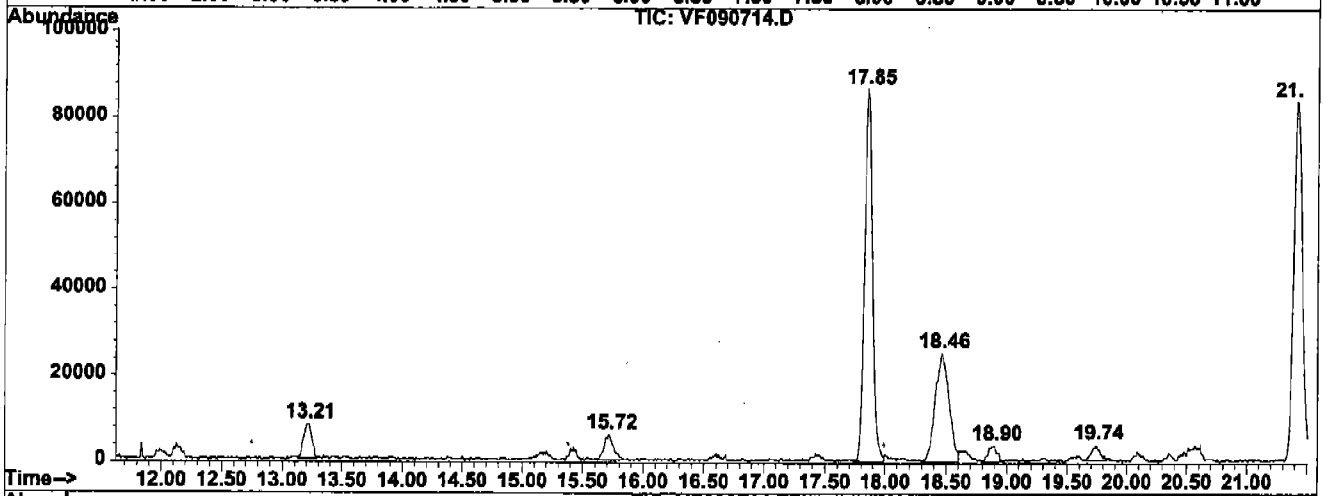
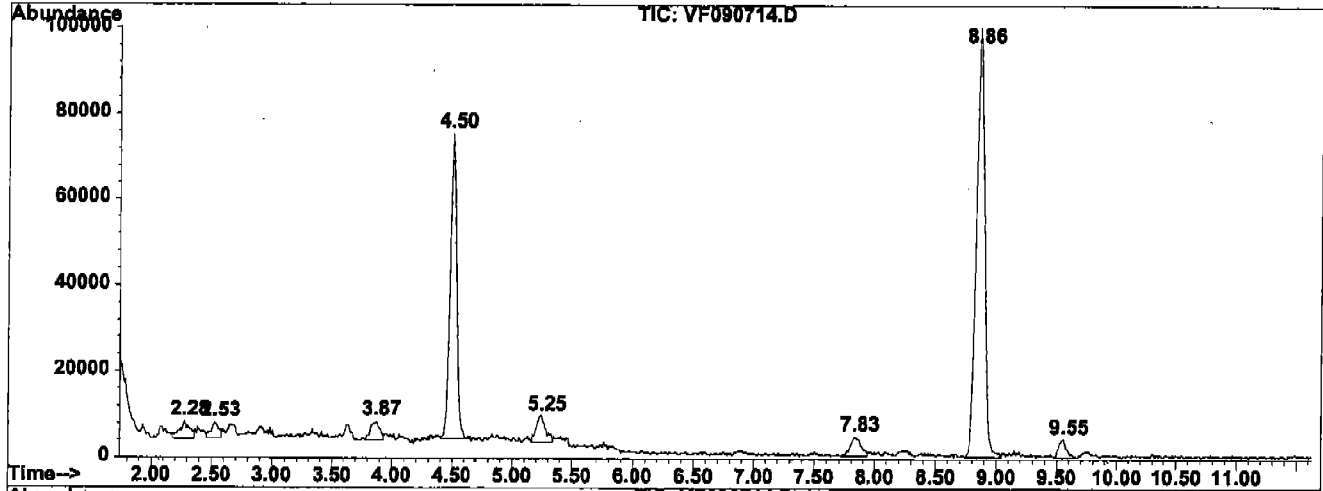
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	2.276	44	54	62	rVV2	3936	22839	4.64%	1.074%
2	2.531	72	79	84	rVV4	3696	16114	3.28%	0.758%
3	3.868	203	211	217	rBV4	4402	22699	4.61%	1.068%
4	4.502	264	274	286	rVB	70970	277807	56.48%	13.068%
5	5.246	339	348	357	rBV5	6024	34656	7.05%	1.630%
6	7.830	593	603	614	rBV4	4507	28706	5.84%	1.350%
7	8.857	693	705	723	rBV	99838	491861	100.00%	23.138%
8	9.553	766	774	785	rVB3	4169	19685	4.00%	0.926%
9	13.212	1127	1136	1143	rVB4	7888	37115	7.55%	1.746%
10	15.721	1370	1383	1397	rBV3	5887	32182	6.54%	1.514%
11	17.852	1581	1593	1607	rBV	86567	409359	83.23%	19.257%
12	18.459	1638	1653	1667	rBV5	25203	198095	40.27%	9.319%
13	18.897	1686	1696	1704	rBV4	3616	19165	3.90%	0.902%
14	19.742	1769	1779	1788	rVV4	3514	17270	3.51%	0.812%
15	21.416	1934	1944	1964	rBV	83698	426562	86.72%	20.066%
16	22.882	2075	2089	2105	rVB	4989	37004	7.52%	1.741%
17	27.289	2507	2523	2539	rVB3	3962	34674	7.05%	1.631%

Sum of corrected areas: 2125793

VF090714.D VF0816DW.M Thu Sep 09 15:03:03 2004 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090714.D  
Operator : SAM  
Acquired : 7 Sep 2004 8:18 pm using AcqMethod VF\_VOA  
Instrument : VOA F  
Sample Name: VBF0907W4  
Misc Info : 25mL  
Vial Number: 4  
Quant File : VF0816DW.RES (RTE Integrator)



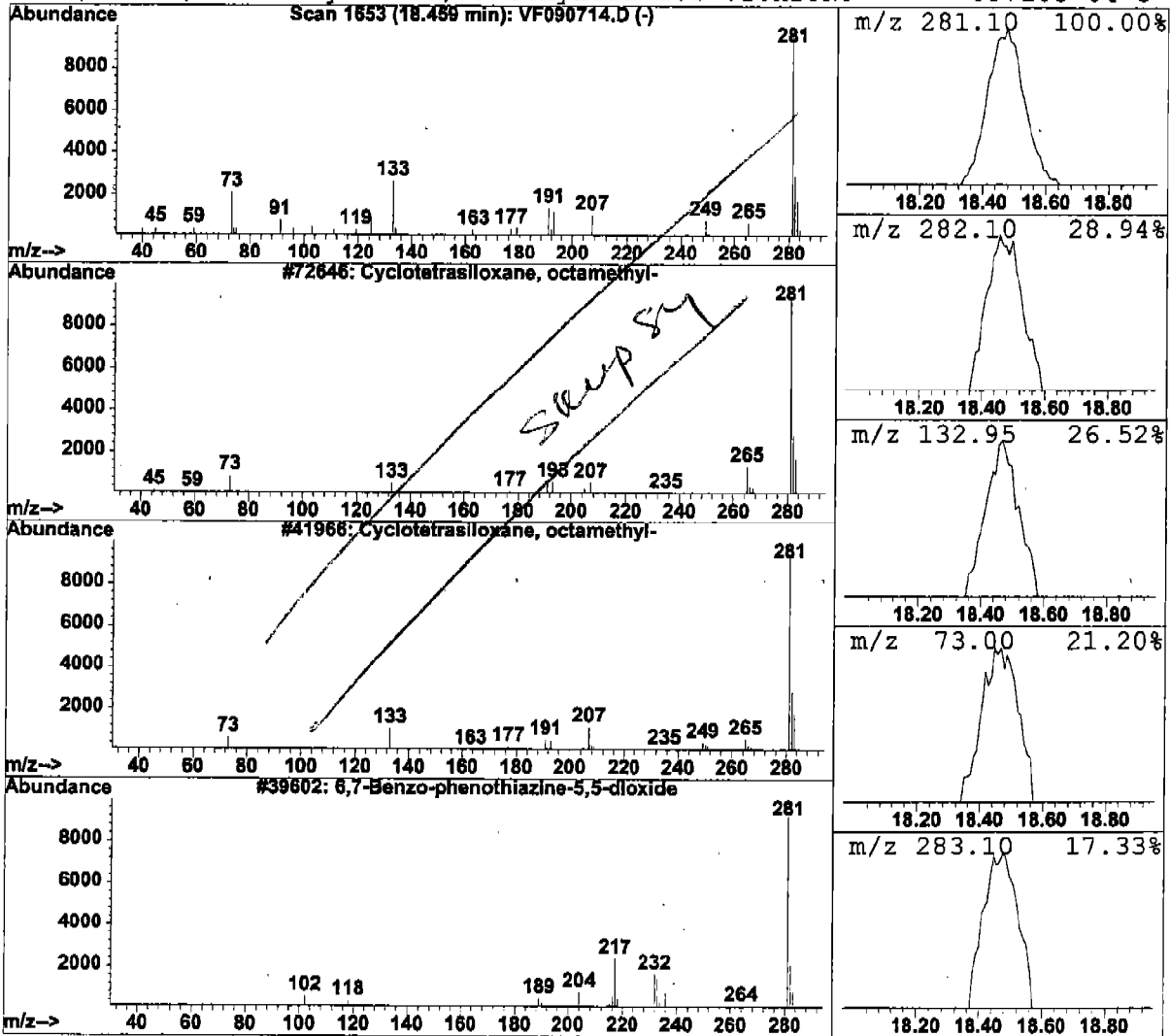
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090714.D Vial: 4  
 Acq On : 7 Sep 2004 8:18 pm Operator: SAM  
 Sample : VBF0907W4 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 1 Cyclotetrasiloxane, octamethyl Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.46	0.40 ug/l	198095	Fluorobenzene	8.86

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	72
2		Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	64
3		6,7-Benzo-phenothiazine-5,5-dioxide	281	C16H11NO2S	000000-00-0	9
4		3,6-Bis(N-dimethylamino)-9-ethylcar	281	C18H23N3	057103-04-5	9



Tentatively Identified Compound (LSC) summary

Operator ID: SAM Date Acquired: 7 Sep 2004 8:18 pm

Data File: C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090714.D

Name: VBF0907W4

Misc: 25mL

Method: C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)

Title: METHOD 524.2 VOLATILES DRINKING WATER

Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Cyclotetrasiloxane,	18.46	0.4	ug/l	198095	ISTD01	8.86	491861	1.0

VF090714.D VF0816DW.M Thu Sep 09 15:03:04 2004 RPT1

Report of Analysis

Client:	Parsons Engineering	Date Collected:	
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	
Client Sample ID:	QC/KNOWN	SDG No.:	S4414
Lab Sample ID:	QC/KNOWN	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF081612.D	1		8/16/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	21		1.0	0.09	ug/L
74-87-3	Chloromethane	16		1.0	0.11	ug/L
75-01-4	Vinyl Chloride	19		1.0	0.14	ug/L
74-83-9	Bromomethane	30		1.0	0.22	ug/L
75-00-3	Chloroethane	22		1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	21		1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	48		10	2.2	ug/L
60-29-7	Diethyl Ether	16		1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	19		1.0	0.16	ug/L
74-88-4	Iodomethane	2.5		1.0	0.14	ug/L
107-5-1	Allyl Chloride	0.18	U	1.0	0.18	ug/L
107-13-1	Acrylonitrile	0.94	U	2.0	0.94	ug/L
67-64-1	Acetone	28		5.8	1.5	ug/L
75-15-0	Carbon disulfide	21		1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	0.37	U	1.0	0.37	ug/L
79-20-9	Methyl acrylate	0.17	U	1.0	0.17	ug/L
75-09-2	Methylene Chloride	19		1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	19		1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	18		1.0	0.21	ug/L
78-93-3	2-Butanone	76		5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	18		1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	16		1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	19		1.0	0.24	ug/L
67-66-3	Chloroform	18		1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	18		1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	1.5	J	2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	19		1.0	0.21	ug/L
108-20-3	Isopropyl Ether	0.21	U	1.0	0.21	ug/L
107-12-0	Propionitrile	20		10	3.3	ug/L
71-43-2	Benzene	18		1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	20		1.0	0.21	ug/L
79-01-6	Trichloroethene	19		1.0	0.24	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>QC/KNOWN</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>QC/KNOWN</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF081612.D</b>	<b>1</b>		<b>8/16/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	19		1.0	0.21	ug/L
126-98-7	Methacrylonitrile	14		1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	0.78	U	2.4	0.78	ug/L
109-69-3	1-Chlorobutane	0.22	U	1.0	0.22	ug/L
74-95-3	Dibromomethane	21		1.0	0.24	ug/L
75-27-4	Bromodichloromethane	20		1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	13		5.0	1.0	ug/L
80-62-6	Methyl methacrylate	21		2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	21		1.0	0.25	ug/L
108-88-3	Toluene	19		1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	20		1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	17		1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	20		1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	20		1.0	0.22	ug/L
591-78-6	2-Hexanone	19		5.0	1.1	ug/L
124-48-1	Dibromochloromethane	22		1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	22		1.0	0.20	ug/L
127-18-4	Tetrachloroethene	18		1.0	0.34	ug/L
108-90-7	Chlorobenzene	19		1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	20		1.0	0.22	ug/L
67-72-1	Hexachloroethane	0.20	U	1.0	0.20	ug/L
100-41-4	Ethyl Benzene	18		1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	37		1.0	0.43	ug/L
95-47-6	o-Xylene	19		1.0	0.21	ug/L
100-42-5	Styrene	19		1.0	0.19	ug/L
75-25-2	Bromoform	23		1.0	0.22	ug/L
108-86-1	Bromobenzene	20		1.0	0.21	ug/L
98-82-8	Isopropylbenzene	18		1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	20		1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	0.28	U	1.0	0.28	ug/L
103-61-5	N-propylbenzene	18		1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	18		1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	18		1.0	0.22	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

**Report of Analysis**

Client:	Parsons Engineering	Date Collected:	
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	
Client Sample ID:	QC/KNOWN	SDG No.:	S4414
Lab Sample ID:	QC/KNOWN	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF081612.D	1		8/16/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	19		1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	14		1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	20		1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	18		1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	18		1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	19		1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	20		1.0	0.20	ug/L
104-51-8	n-Butylbenzene	19		1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	20		1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	22		1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	19		1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	19		1.0	0.17	ug/L
91-20-3	Naphthalene	18		1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	20		1.0	0.18	ug/L

**SURROGATES**

2199-69-1	1,2-Dichlorobenzene-d4	1.05	105 %	80 - 120	SPK: 1
460-00-4	4-Bromofluorobenzene	0.99	99 %	80 - 120	SPK: 1

**INTERNAL STANDARDS**

462-06-6	Fluorobenzene	237826	8.85		
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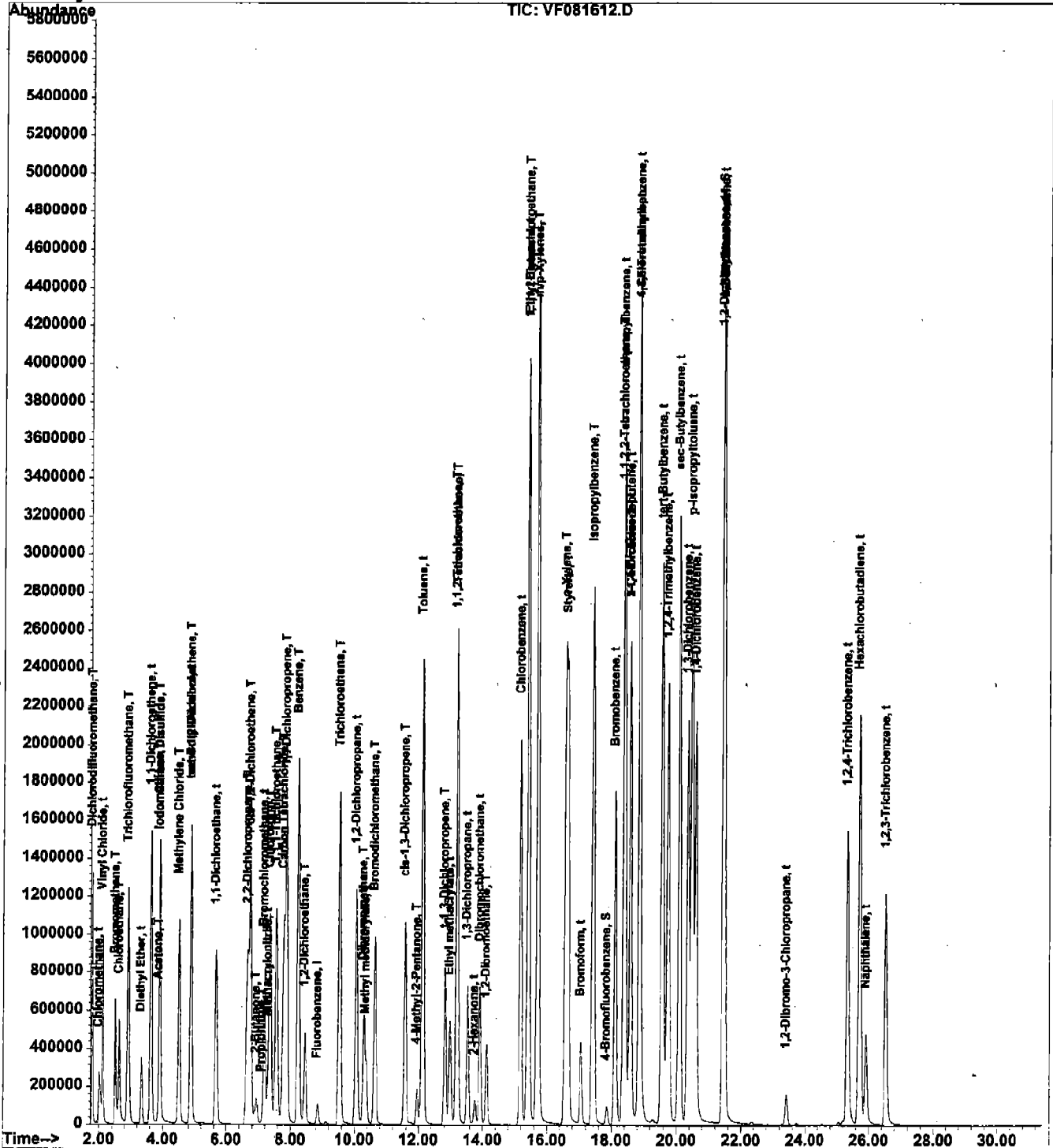
U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

Quantitation Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081612.D Vial: 13  
 Acq On : 16 Aug 2004 4:19 pm Operator: SAM  
 Sample : QC/KNOWN Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 13:08 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081612.D Vial: 13  
 Acq On : 16 Aug 2004 4:19 pm Operator: SAM  
 Sample : QC/KNOWN Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 13:08 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.85	96	237826	1.00	ug/l	0.00

System Monitoring Compounds

52) 4-Bromofluorobenzene	17.85	95	110607	0.99	ug/l	0.00
Spiked Amount	1.000		Recovery	=	99.00%	
63) 1,2-Dichlorobenzene-	21.43	152	65443	1.05	ug/l	0.00
Spiked Amount	1.000		Recovery	=	105.00%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluorometh	1.80	85	1615113	21.38	ug/l	98
3) Chloromethane	2.01	50	836051	16.43	ug/l	97
4) Vinyl Chloride	2.12	62	1331583	19.16	ug/l	99
5) Bromomethane	2.51	94	886220	30.02	ug/l	98
6) Chloroethane	2.63	64	767470	21.83	ug/l	100
7) Trichlorofluorometha	2.91	101	2242872	20.55	ug/l	98
8) 1,1-Dichloroethene	3.63	96	1331996	19.30	ug/l	97
9) Iodomethane	3.90	142	152046	2.48	ug/l	100
12) Acetone	3.87	43	83984	28.42	ug/l	99
13) Carbon Disulfide	3.91	76	3893964	20.97	ug/l	99
14) Methylene Chloride	4.50	84	1064612	18.90	ug/l	95
15) trans-1,2-Dichloroet	4.88	96	1418435	19.25	ug/l	95
16) 1,1-Dichloroethane	5.68	63	2425467	18.48	ug/l	99
17) 2-Butanone	6.94	43	513056	75.51	ug/l	79
18) 2,2-Dichloropropane	6.66	77	1877879	16.47	ug/l	98
19) cis-1,2-Dichloroethe	6.75	96	1376916	19.02	ug/l	95
20) Diethyl Ether	3.34	59	410399	16.48	ug/l	98
21) tert-Butyl Alcohol	4.88	59	74270	47.80	ug/l	100
23) Bromochloromethane	7.19	128	480592	20.74	ug/l	94
24) Chloroform	7.37	83	2282256	18.43	ug/l	99
25) 1,1,1-Trichloroethan	7.57	97	2235742	18.28	ug/l	99
26) 1,1-Dichloropropene	7.88	75	2331205	18.98	ug/l	99
27) Carbon Tetrachloride	7.79	117	1967516	18.44	ug/l	100
29) Propionitrile	7.10	54	31735	19.61	ug/l	100
30) Benzene	8.24	78	4672032	18.44	ug/l	99
31) 1,2-Dichloroethane	8.45	62	863874	20.23	ug/l	98
32) Trichloroethene	9.54	130	1552968	18.74	ug/l	98
33) 1,2-Dichloropropane	10.06	63	1506483	18.85	ug/l	99

Analyst Signature: cy Analyst Name: cy Date: 09/09/07

-----REASONS FOR MANUAL INTEGRATIONS-----

Poor resolution of peaks exhibited on chromatogram.Compound #: \_\_\_\_\_  
 Peak integrated by software incorrectly.Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081612.D Vial: 13  
 Acq On : 16 Aug 2004 4:19 pm Operator: SAM  
 Sample : QC/KNOWN Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 13:08 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
34) Methacrylonitrile	7.29	41	195974	13.96	ug/l #	69
38) Dibromomethane	10.29	93	630685	20.75	ug/l	98
39) Bromodichloromethane	10.64	83	1797419	19.96	ug/l	100
40) 4-Methyl-2-Pentanone	11.95	43	383173	13.42	ug/l #	75
41) t-1,4-Dichloro-2-but	18.60	53	11770	1.48	ug/l #	5
42) Methyl methacrylate	10.37	69	400880	20.68	ug/l	98
43) Ethyl methacrylate	12.98	69	935896	20.52	ug/l	95
44) Toluene	12.12	92	3123614	18.98	ug/l	100
45) t-1,3-Dichloropropen	12.83	75	1237961	19.72	ug/l	98
46) cis-1,3-Dichloroprop	11.57	75	1877170	17.06	ug/l	100
47) 1,1,2-Trichloroethan	13.18	97	730426	20.18	ug/l	98
48) 1,3-Dichloropropane	13.53	76	1327515	20.30	ug/l	99
49) 2-Hexanone	13.75	43	237029	19.42	ug/l	100
50) Dibromochloromethane	13.92	129	1053571	21.56	ug/l	99
51) 1,2-Dibromoethane	14.13	107	810606	21.98	ug/l	100
53) Tetrachloroethene	13.21	164	1417061	18.39	ug/l	98
54) Chlorobenzene	15.19	112	3076837	19.47	ug/l	99
55) 1,1,1,2-Tetrachloroe	15.43	131	1175834	20.03	ug/l	100
58) Ethyl Benzene	15.42	91	6373006	18.35	ug/l	98
59) m/p-Xylenes	15.71	91	9494719	36.69	ug/l	99
60) o-Xylene	16.59	91	4764278	19.31	ug/l	99
61) Styrene	16.66	104	3181945	19.03	ug/l	99
62) Bromoform	17.06	173	537109	22.66	ug/l	99
64) Isopropylbenzene	17.43	105	6309747	18.18	ug/l	100
65) 1,1,2,2-Tetrachloroe	18.37	83	888204	20.29	ug/l	100
67) Bromobenzene	18.12	156	1270832	19.69	ug/l	94
68) n-propylbenzene	18.40	120	1734302	18.39	ug/l	97
69) 2-Chlorotoluene	18.59	126	1344439	18.08	ug/l	99
70) 1,3,5-Trimethylbenze	18.88	105	4814238	18.38	ug/l	100
71) 4-Chlorotoluene	18.88	126	1324402	18.90	ug/l	95
72) tert-Butylbenzene	19.57	119	4782057	14.26	ug/l #	82
73) 1,2,4-Trimethylbenze	19.73	105	4754141	19.94	ug/l	100
74) sec-Butylbenzene	20.09	105	8022320	18.48	ug/l	100
75) p-Isopropyltoluene	20.48	119	6072079	18.18	ug/l	99
76) 1,3-Dichlorobenzene	20.36	146	2583071	19.12	ug/l	99
77) 1,4-Dichlorobenzene	20.60	146	2528833	19.62	ug/l	99
78) n-Butylbenzene	21.46	91	6867707	18.55	ug/l	100

Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

REASONS FOR MANUAL INTEGRATIONS

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081612.D Vial: 13  
 Acq On : 16 Aug 2004 4:19 pm Operator: SAM  
 Sample : QC/KNOWN Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 13:08 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
79) 1,2-Dichlorobenzene	21.47	146	2031507	19.92	ug/l	99
80) 1,2-Dibromo-3-Chloro	23.42	75	138276	21.65	ug/l	96
81) 1,2,4-Trichlorobenze	25.35	180	1583982	19.26	ug/l	100
82) Hexachlorobutadiene	25.72	225	1339726	18.96	ug/l	100
83) Naphthalene	25.92	128	1136504	18.04	ug/l	100
84) 1,2,3-Trichlorobenze	26.53	180	1207782	19.72	ug/l	99

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 Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_  
 -----REASONS FOR MANUAL INTEGRATIONS-----  
 \_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly.Compound #: \_\_\_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VLCS01</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>LFB 2 PPB</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF081617.D</b>	<b>1</b>		<b>8/16/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	1.8		1.0	0.09	ug/L
74-87-3	Chloromethane	1.6		1.0	0.11	ug/L
75-01-4	Vinyl Chloride	1.7		1.0	0.14	ug/L
74-83-9	Bromomethane	2.0		1.0	0.22	ug/L
75-00-3	Chloroethane	2.1		1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	1.8		1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	24		10	2.2	ug/L
60-29-7	Diethyl Ether	2.2		1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	2.1		1.0	0.16	ug/L
74-88-4	Iodomethane	1.6		1.0	0.14	ug/L
107-5-1	Allyl Chloride	2.0		1.0	0.18	ug/L
107-13-1	Acrylonitrile	4.5		2.0	0.94	ug/L
67-64-1	Acetone	21		5.8	1.5	ug/L
75-15-0	Carbon disulfide	2.0		1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	2.3		1.0	0.37	ug/L
79-20-9	Methyl acrylate	2.3		1.0	0.17	ug/L
75-09-2	Methylene Chloride	2.8		1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	2.1		1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	2.1		1.0	0.21	ug/L
78-93-3	2-Butanone	13		5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	2.0		1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	1.8		1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	2.1		1.0	0.24	ug/L
67-66-3	Chloroform	2.1		1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	2.0		1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	4.3		2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	2.1		1.0	0.21	ug/L
108-20-3	Isopropyl Ether	2.2		1.0	0.21	ug/L
107-12-0	Propionitrile	23		10	3.3	ug/L
71-43-2	Benzene	2.1		1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	2.2		1.0	0.21	ug/L
79-01-6	Trichloroethene	2.1		1.0	0.24	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

## Report of Analysis

Client:	Parsons Engineering	Date Collected:	
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	
Client Sample ID:	VLCS01	SDG No.:	S4414
Lab Sample ID:	LFB 2 PPB	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF081617.D	1		8/16/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	2.2		1.0	0.21	ug/L
126-98-7	Methacrylonitrile	2.4		1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	4.8		2.4	0.78	ug/L
109-69-3	1-Chlorobutane	2.1		1.0	0.22	ug/L
74-95-3	Dibromomethane	2.2		1.0	0.24	ug/L
75-27-4	Bromodichloromethane	2.1		1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	11		5.0	1.0	ug/L
80-62-6	Methyl methacrylate	4.7		2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	2.2		1.0	0.25	ug/L
108-88-3	Toluene	2.1		1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	2.1		1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	2.1		1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	2.3		1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	2.2		1.0	0.22	ug/L
591-78-6	2-Hexanone	12		5.0	1.1	ug/L
124-48-1	Dibromochloromethane	2.2		1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	2.3		1.0	0.20	ug/L
127-18-4	Tetrachloroethene	2.1		1.0	0.34	ug/L
108-90-7	Chlorobenzene	2.2		1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	2.2		1.0	0.22	ug/L
67-72-1	Hexachloroethane	2.1		1.0	0.20	ug/L
100-41-4	Ethyl Benzene	2.2		1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	4.3		1.0	0.43	ug/L
95-47-6	o-Xylene	2.2		1.0	0.21	ug/L
100-42-5	Styrene	2.2		1.0	0.19	ug/L
75-25-2	Bromoform	2.1		1.0	0.22	ug/L
108-86-1	Bromobenzene	2.2		1.0	0.21	ug/L
98-82-8	Isopropylbenzene	2.2		1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	2.4		1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	2.2		1.0	0.28	ug/L
103-61-5	N-propylbenzene	2.2		1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	2.2		1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	2.2		1.0	0.22	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound



**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VLCS01</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>LFB 2 PPB</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF081617.D</b>	<b>1</b>		<b>8/16/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	2.2		1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	2.2		1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	2.2		1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	2.2		1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	2.2		1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	2.2		1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	2.2		1.0	0.20	ug/L
104-51-8	n-Butylbenzene	2.2		1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	2.3		1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	2.3		1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	2.3		1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	2.1		1.0	0.17	ug/L
91-20-3	Naphthalene	2.5		1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	2.4		1.0	0.18	ug/L
<b>SURROGATES</b>						
2199-69-1	1,2-Dichlorobenzene-d4	1.06	106 %	80 - 120		SPK: 1
460-00-4	4-Bromofluorobenzene	1.01	101 %	80 - 120		SPK: 1
<b>INTERNAL STANDARDS</b>						
462-06-6	Fluorobenzene	220016	8.86			

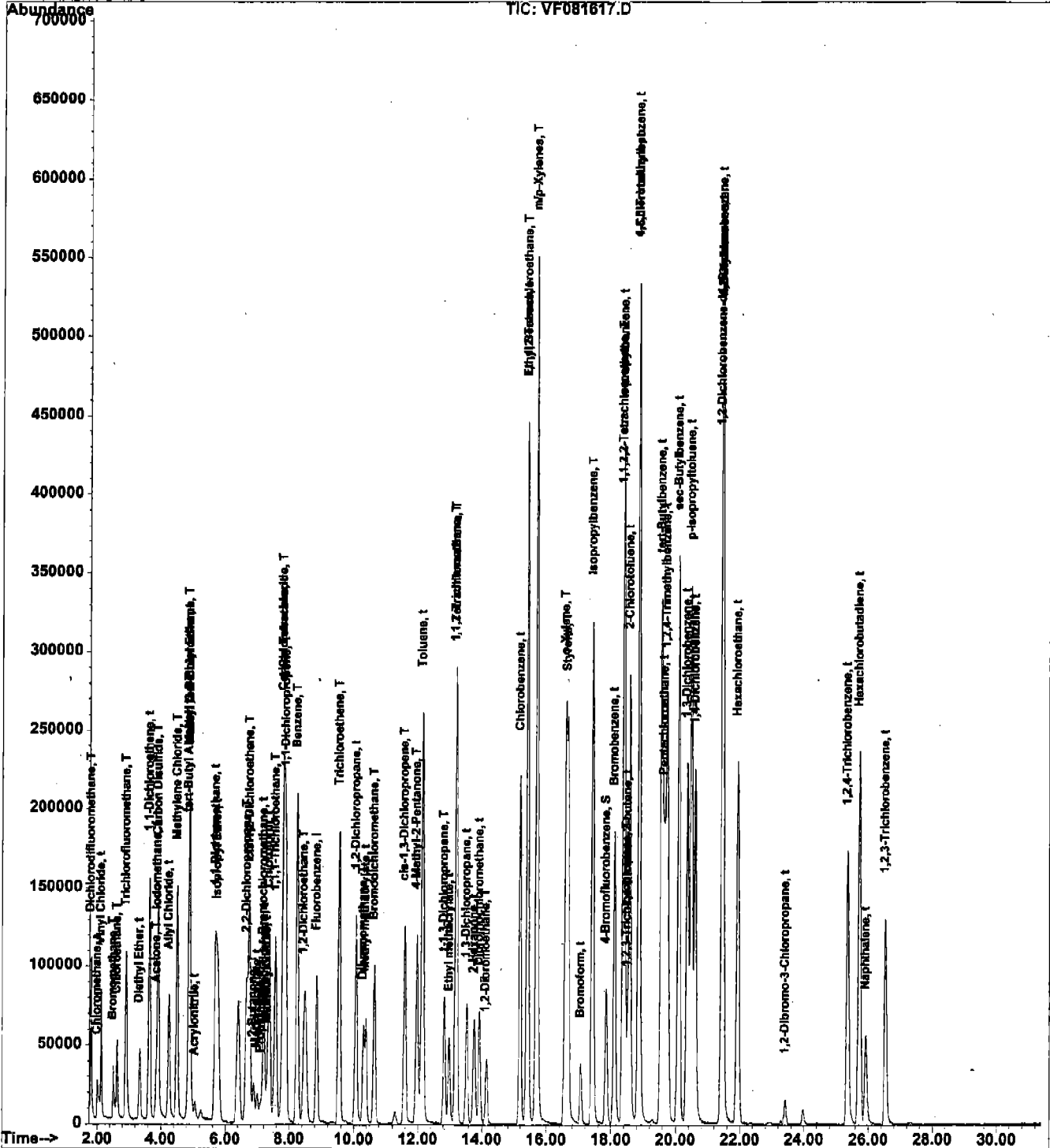
U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

Quantitation Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081617.D Vial: 2  
Acq On : 16 Aug 2004 7:34 pm Operator: SAM  
Sample : LFB 2 PPB Inst : VOA F  
Misc : 25mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Aug 17 13:03 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081617.D Vial: 2  
 Acq On : 16 Aug 2004 7:34 pm Operator: SAM  
 Sample : LFB 2 PPB Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 13:03 2004

Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.86	96	220016	1.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
52) 4-Bromofluorobenzene	17.85	95	104227	1.01	ug/l	0.00
Spiked Amount			Recovery	=	101.00%	
63) 1,2-Dichlorobenzene-	21.41	152	60827	1.06	ug/l	0.00
Spiked Amount			Recovery	=	106.00%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluorometh	1.80	85	126354	1.81	ug/l	98
3) Chloromethane	2.01	50	76808	1.63	ug/l	98
4) Vinyl Chloride	2.13	62	110921	1.73	ug/l	99
5) Bromomethane	2.52	94	55207	2.02	ug/l	98
6) Chloroethane	2.64	64	68539	2.11	ug/l	100
7) Trichlorofluorometha	2.92	101	182490	1.81	ug/l	99
8) 1,1-Dichloroethene	3.64	96	132601	2.08	ug/l	99
9) Iodomethane	3.89	142	93018	1.64	ug/l	96
10) Allyl Chloride	4.26	41	134369	2.02	ug/l	99
11) Acrylonitrile	4.26	53	17107	4.47	ug/l	96
12) Acetone	5.06	53	58713	21.48	ug/l	95
13) Carbon Disulfide	3.86	43	336240	1.96	ug/l	99
14) Methylene Chloride	3.91	76	144741	2.78	ug/l	97
15) trans-1,2-Dichloroet	4.51	84	140711	2.06	ug/l	98
16) 1,1-Dichloroethane	4.88	96	140711	2.11	ug/l	99
17) 2-Butanone	5.68	63	255863	2.11	ug/l	99
18) 2,2-Dichloropropane	6.88	43	81475	12.96	ug/l	98
19) cis-1,2-Dichloroethe	6.68	77	187122	1.77	ug/l	99
20) Diethyl Ether	6.76	96	143449	2.14	ug/l	96
21) tert-Butyl Alcohol	3.33	59	50918	2.21	ug/l	99
22) Methyl tert-Butyl Et	4.85	59	34148	23.76	ug/l	100
23) Bromochloromethane	4.89	73	157842	2.34	ug/l	98
24) Chloroform	7.19	128	49612	2.31	ug/l	96
25) 1,1,1-Trichloroethan	7.36	83	242101	2.11	ug/l	99
26) 1,1-Dichloropropene	7.55	97	227080	2.01	ug/l	100
27) Carbon Tetrachloride	7.89	75	237602	2.09	ug/l	99
28) Isopropyl Ether	7.79	117	198508	2.01	ug/l	98
29) Propionitrile	5.75	45	292239	2.17	ug/l	100
	7.11	54	34137	22.80	ug/l	100

Analyst Signature: Sy Analyst Name: Sy Date: 09/09/04

REASONS FOR MANUAL INTEGRATIONS  
 Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration  
 VF081617.D VF0816DW.M Thu Sep 09 18:17:10 2004

RPT1

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081617.D Vial: 2  
 Acq On : 16 Aug 2004 7:34 pm Operator: SAM  
 Sample : LFB 2 PPB Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 13:03 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Benzene	8.25	78	489259	2.09	ug/l	99
31) 1,2-Dichloroethane	8.46	62	87115	2.20	ug/l	99
32) Trichloroethene	9.55	130	162810	2.12	ug/l	99
33) 1,2-Dichloropropane	10.07	63	160488	2.17	ug/l	97
34) Methacrylonitrile	7.29	41	31001	2.39	ug/l	92
35) Methyl acrylate	7.01	55	48424	2.33	ug/l	96
36) Tetrahydrofuran	7.24	42	20650	4.83	ug/l #	85
37) 1-Chlorobutane	7.82	56	326448	2.09	ug/l	100
38) Dibromomethane	10.30	93	62508	2.22	ug/l	98
39) Bromodichloromethane	10.65	83	176947	2.12	ug/l	99
40) 4-Methyl-2-Pentanone	11.97	43	303526	11.49	ug/l	98
41) t-1,4-Dichloro-2-but	18.52	53	31706	4.32	ug/l	98
42) Methyl methacrylate	10.39	69	83529	4.66	ug/l	99
43) Ethyl methacrylate	13.00	69	95030	2.25	ug/l	99
44) Toluene	12.14	92	321410	2.11	ug/l	98
45) t-1,3-Dichloropropen	12.83	75	122268	2.11	ug/l	93
46) cis-1,3-Dichloroprop	11.58	75	216110	2.12	ug/l	100
47) 1,1,2-Trichloroethan	13.19	97	78198	2.34	ug/l	100
48) 1,3-Dichloropropane	13.53	76	134610	2.22	ug/l	100
49) 2-Hexanone	13.77	43	129877	11.50	ug/l	99
50) Dibromochloromethane	13.93	129	101177	2.24	ug/l	98
51) 1,2-Dibromoethane	14.14	107	77389	2.27	ug/l	98
53) Tetrachloroethene	13.22	164	151060	2.12	ug/l	97
54) Chlorobenzene	15.19	112	323035	2.21	ug/l	99
55) 1,1,1,2-Tetrachloroe	15.44	131	120304	2.22	ug/l	100
56) Pentachloroethane	19.64	117	135904	2.17	ug/l	99
57) Hexachloroethane	21.92	117	192794	2.08	ug/l	98
58) Ethyl Benzene	15.43	91	694164	2.16	ug/l	98
59) m/p-Xylenes	15.71	91	1037579	4.33	ug/l	100
60) o-Xylene	16.59	91	497066	2.18	ug/l	99
61) Styrene	16.66	104	338388	2.19	ug/l	100
62) Bromoform	17.07	173	46670	2.13	ug/l	99
64) Isopropylbenzene	17.43	105	691346	2.15	ug/l	99
65) 1,1,2,2-Tetrachloroe	18.37	83	97200	2.40	ug/l	99
66) 1,2,3-Trichloropropa	18.51	75	62773	2.17	ug/l	95
67) Bromobenzene	18.12	156	131596	2.20	ug/l	98
68) n-propylbenzene	18.40	120	187327	2.15	ug/l	99

Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081617.D Vial: 2  
 Acq On : 16 Aug 2004 7:34 pm Operator: SAM  
 Sample : LFB 2 PPB Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 13:03 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
69) 2-Chlorotoluene	18.59	126	150010	2.18	ug/l	96
70) 1,3,5-Trimethylbenze	18.87	105	526946	2.17	ug/l	100
71) 4-Chlorotoluene	18.88	126	142615	2.20	ug/l	99
72) tert-Butylbenzene	19.56	119	666461	2.15	ug/l	99
73) 1,2,4-Trimethylbenze	19.72	105	496514	2.25	ug/l	99
74) sec-Butylbenzene	20.09	105	879641	2.19	ug/l	100
75) p-Isopropyltoluene	20.48	119	670321	2.17	ug/l	99
76) 1,3-Dichlorobenzene	20.36	146	277204	2.22	ug/l	100
77) 1,4-Dichlorobenzene	20.60	146	266764	2.24	ug/l	99
78) n-Butylbenzene	21.45	91	746790	2.18	ug/l	99
79) 1,2-Dichlorobenzene	21.46	146	215140	2.28	ug/l	98
80) 1,2-Dibromo-3-Chloro	23.42	75	13720	2.32	ug/l	97
81) 1,2,4-Trichlorobenze	25.36	180	177221	2.33	ug/l	98
82) Hexachlorobutadiene	25.72	225	139463	2.13	ug/l	99
83) Naphthalene	25.92	128	145137	2.49	ug/l	100
84) 1,2,3-Trichlorobenze	26.53	180	135627	2.39	ug/l	99

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 Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/27/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monit</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2159MS</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-09MS</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090215.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VF081604</b>

<b>CAS Number</b>	<b>Parameter</b>	<b>Conc.</b>	<b>Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	6.6		1.0	0.09	ug/L
74-87-3	Chloromethane	7.5		1.0	0.11	ug/L
75-01-4	Vinyl Chloride	7.2		1.0	0.14	ug/L
74-83-9	Bromomethane	9.7		1.0	0.22	ug/L
75-00-3	Chloroethane	9.1		1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	8.5		1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	110		10	2.2	ug/L
60-29-7	Diethyl Ether	11		1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	9.0		1.0	0.16	ug/L
74-88-4	Iodomethane	15		1.0	0.14	ug/L
107-5-1	Allyl Chloride	9.0		1.0	0.18	ug/L
107-13-1	Acrylonitrile	22		2.0	0.94	ug/L
67-64-1	Acetone	52		5.8	1.5	ug/L
75-15-0	Carbon disulfide	9.0		1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	11		1.0	0.37	ug/L
79-20-9	Methyl acrylate	11		1.0	0.17	ug/L
75-09-2	Methylene Chloride	9.8		1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	10		1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	9.9		1.0	0.21	ug/L
78-93-3	2-Butanone	57		5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	9.1		1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	7.7		1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	100		1.0	0.24	ug/L
67-66-3	Chloroform	9.8		1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	9.6		1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	22		2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	9.2		1.0	0.21	ug/L
108-20-3	Isopropyl Ether	10		1.0	0.21	ug/L
107-12-0	Propionitrile	120		10	3.3	ug/L
71-43-2	Benzene	9.6		1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	11		1.0	0.21	ug/L
79-01-6	Trichloroethene	31		1.0	0.24	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/27/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/28/2004
Client Sample ID:	TR2159MS	SDG No.:	S4414
Lab Sample ID:	S4414-09MS	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090215.D	1		9/2/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	10		1.0	0.21	ug/L
126-98-7	Methacrylonitrile	11		1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	24		2.4	0.78	ug/L
109-69-3	1-Chlorobutane	9.2		1.0	0.22	ug/L
74-95-3	Dibromomethane	11		1.0	0.24	ug/L
75-27-4	Bromodichloromethane	10		1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	58		5.0	1.0	ug/L
80-62-6	Methyl methacrylate	23		2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	11		1.0	0.25	ug/L
108-88-3	Toluene	9.5		1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	10		1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	10		1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	11		1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	11		1.0	0.22	ug/L
591-78-6	2-Hexanone	59		5.0	1.1	ug/L
124-48-1	Dibromochloromethane	11		1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	11		1.0	0.20	ug/L
127-18-4	Tetrachloroethene	9.4		1.0	0.34	ug/L
108-90-7	Chlorobenzene	10		1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	10		1.0	0.22	ug/L
67-72-1	Hexachloroethane	10		1.0	0.20	ug/L
100-41-4	Ethyl Benzene	9.6		1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	19		1.0	0.43	ug/L
95-47-6	o-Xylene	9.9		1.0	0.21	ug/L
100-42-5	Styrene	10		1.0	0.19	ug/L
75-25-2	Bromoform	11		1.0	0.22	ug/L
108-86-1	Bromobenzene	10		1.0	0.21	ug/L
98-82-8	Isopropylbenzene	9.9		1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	11		1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	10		1.0	0.28	ug/L
103-61-5	N-propylbenzene	9.6		1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	10		1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	9.8		1.0	0.22	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/27/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/28/2004
Client Sample ID:	TR2159MS	SDG No.:	S4414
Lab Sample ID:	S4414-09MS	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090215.D	1		9/2/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	10		1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	9.8		1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	9.7		1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	9.8		1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	9.7		1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	10		1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	10		1.0	0.20	ug/L
104-51-8	n-Butylbenzene	9.3		1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	10		1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	12		1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	9.0		1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	9.2		1.0	0.17	ug/L
91-20-3	Naphthalene	8.2		1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	9.1		1.0	0.18	ug/L
<b>SURROGATES</b>						
2199-69-1	1,2-Dichlorobenzene-d4	1.09	109 %	80 - 120		SPK: 1
460-00-4	4-Bromofluorobenzene	1.12	112 %	80 - 120		SPK: 1
<b>INTERNAL STANDARDS</b>						
462-06-6	Fluorobenzene	236815	8.85			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound





Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090215.D Vial: 16  
 Acq On : 2 Sep 2004 6:10 pm Operator: SAM  
 Sample : S4414-09MS Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 3 8:26 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	8.85	96	236815	1.00	ug/l	0.00
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.86	95	124113	1.12	ug/l	0.00
Spiked Amount	1.000		Recovery	=	112.00%	
63) 1,2-Dichlorobenzene-	21.43	152	67488	1.09	ug/l	0.00
Spiked Amount	1.000		Recovery	=	109.00%	
Target Compounds						
						Qvalue
2) Dichlorodifluorometh	1.80	85	498023	6.62	ug/l	100
3) Chloromethane	2.01	50	380864	7.52	ug/l	99
4) Vinyl Chloride	2.12	62	499489	7.22	ug/l	99
5) Bromomethane	2.51	94	286129	9.74	ug/l	100
6) Chloroethane	2.63	64	318028	9.08	ug/l	100
7) Trichlorofluorometha	2.91	101	924787	8.51	ug/l	97
8) 1,1-Dichloroethene	3.63	96	619936	9.02	ug/l	97
9) Iodomethane	3.87	142	897710	14.72	ug/l	99
10) Allyl Chloride	4.25	41	640668	8.97	ug/l	99
11) Acrylonitrile	5.06	53	92026	22.36	ug/l	97
12) Acetone	3.85	43	153241	52.07	ug/l	96
13) Carbon Disulfide	3.90	76	1655240	8.95	ug/l	100
14) Methylene Chloride	4.50	84	550877	9.82	ug/l	97
15) trans-1,2-Dichloroet	4.88	96	738363	10.06	ug/l	97
16) 1,1-Dichloroethane	5.69	63	1296906	9.92	ug/l	99
17) 2-Butanone	6.88	43	383426	56.67	ug/l	99
18) 2,2-Dichloropropane	6.67	77	874498	7.70	ug/l #	43
19) cis-1,2-Dichloroethe	6.76	96	7337073	101.77	ug/l	84
20) Diethyl Ether	3.34	59	262483	10.59	ug/l	98
21) tert-Butyl Alcohol	4.86	59	176111	113.83	ug/l	100
22) Methyl tert-Butyl Et	4.89	73	797136	10.99	ug/l	99
23) Bromochloromethane	7.20	128	250465	10.86	ug/l	97
24) Chloroform	7.36	83	1205456	9.78	ug/l	98
25) 1,1,1-Trichloroethan	7.56	97	1173678	9.64	ug/l	100
26) 1,1-Dichloropropene	7.88	75	1121438	9.17	ug/l	99
27) Carbon Tetrachloride	7.79	117	964953	9.08	ug/l	99
28) Isopropyl Ether	5.76	45	1464041	10.12	ug/l	99
29) Propionitrile	7.11	54	186535	115.77	ug/l	100

Analyst Signature: Sy Analyst Name: Sy Date: 09/09/04

REASONS FOR MANUAL INTEGRATIONS

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

## CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090215.D Vial: 16  
 Acq On : 2 Sep 2004 6:10 pm Operator: SAM  
 Sample : S4414-09MS Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 3 8:26 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Benzene	8.25	78	2411552	9.56	ug/l	100
31) 1,2-Dichloroethane	8.46	62	453818	10.67	ug/l	100
32) Trichloroethene	9.55	130	2539152	30.77	ug/l	99
33) 1,2-Dichloropropane	10.07	63	814023	10.23	ug/l	99
34) Methacrylonitrile	7.29	41	160008	11.45	ug/l	96
35) Methyl acrylate	7.01	55	252390	11.26	ug/l	100
36) Tetrahydrofuran	7.24	42	110514	24.02	ug/l	98
37) 1-Chlorobutane	7.82	56	1547855	9.22	ug/l	100
38) Dibromomethane	10.31	93	324819	10.73	ug/l	98
39) Bromodichloromethane	10.64	83	926592	10.33	ug/l	99
40) 4-Methyl-2-Pentanone	11.97	43	1659115	58.34	ug/l	99
41) t-1,4-Dichloro-2-but	18.51	53	173540	21.96	ug/l	99
42) Methyl methacrylate	10.39	69	435560	22.56	ug/l	98
43) Ethyl methacrylate	12.99	69	516915	11.38	ug/l	99
44) Toluene	12.13	92	1553569	9.48	ug/l	98
45) t-1,3-Dichloropropen	12.83	75	652937	10.45	ug/l	98
46) cis-1,3-Dichloroprop	11.59	75	1143853	10.44	ug/l	100
47) 1,1,2-Trichloroethan	13.19	97	401863	11.15	ug/l	97
48) 1,3-Dichloropropane	13.53	76	690733	10.61	ug/l	98
49) 2-Hexanone	13.76	43	711987	58.58	ug/l	99
50) Dibromochloromethane	13.93	129	532070	10.93	ug/l	99
51) 1,2-Dibromoethane	14.14	107	406777	11.08	ug/l	100
53) Tetrachloroethene	13.21	164	717191	9.35	ug/l	99
54) Chlorobenzene	15.19	112	1620897	10.30	ug/l	100
55) 1,1,1,2-Tetrachloroe	15.44	131	598018	10.23	ug/l	98
56) Pentachloroethane	19.66	117	701947	10.40	ug/l	100
57) Hexachloroethane	21.93	117	993797	9.97	ug/l	98
58) Ethyl Benzene	15.42	91	3329989	9.63	ug/l	99
59) m/p-Xylenes	15.72	91	4989354	19.36	ug/l	99
60) o-Xylene	16.60	91	2431579	9.90	ug/l	99
61) Styrene	16.67	104	1710238	10.27	ug/l	99
62) Bromoform	17.07	173	266075	11.28	ug/l	99
64) Isopropylbenzene	17.44	105	3430169	9.92	ug/l	100
65) 1,1,2,2-Tetrachloroe	18.37	83	494410	11.34	ug/l	100
66) 1,2,3-Trichloropropa	18.52	75	319981	10.27	ug/l	93
67) Bromobenzene	18.12	156	660048	10.27	ug/l	99
68) n-propylbenzene	18.40	120	903719	9.62	ug/l	99

Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090215.D Vial: 16  
 Acq On : 2 Sep 2004 6:10 pm Operator: SAM  
 Sample : S4414-09MS Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 3 8:26 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
69) 2-Chlorotoluene	18.59	126	743879	10.05	ug/l	96
70) 1,3,5-Trimethylbenze	18.88	105	2548911	9.77	ug/l	100
71) 4-Chlorotoluene	18.88	126	706758	10.13	ug/l	95
72) tert-Butylbenzene	19.58	119	3272514	9.80	ug/l	98
73) 1,2,4-Trimethylbenze	19.74	105	2293597	9.66	ug/l	98
74) sec-Butylbenzene	20.09	105	4232169	9.79	ug/l	100
75) p-Isopropyltoluene	20.49	119	3221457	9.68	ug/l	99
76) 1,3-Dichlorobenzene	20.36	146	1359973	10.11	ug/l	100
77) 1,4-Dichlorobenzene	20.61	146	1319104	10.28	ug/l	99
78) n-Butylbenzene	21.47	91	3417716	9.27	ug/l	99
79) 1,2-Dichlorobenzene	21.47	146	1048031	10.32	ug/l	99
80) 1,2-Dibromo-3-Chloro	23.42	75	73638	11.58	ug/l	99
81) 1,2,4-Trichlorobenze	25.35	180	734438	8.97	ug/l	100
82) Hexachlorobutadiene	25.71	225	649715	9.23	ug/l	100
83) Naphthalene	25.92	128	514056	8.19	ug/l	100
84) 1,2,3-Trichlorobenze	26.54	180	557672	9.14	ug/l	99

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 Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/27/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/28/2004
Client Sample ID:	TR2159MSD	SDG No.:	S4414
Lab Sample ID:	S4414-10MSD	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090216.D	1		9/2/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	7.1		1.0	0.09	ug/L
74-87-3	Chloromethane	8.4		1.0	0.11	ug/L
75-01-4	Vinyl Chloride	8.1		1.0	0.14	ug/L
74-83-9	Bromomethane	10		1.0	0.22	ug/L
75-00-3	Chloroethane	10		1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	9.2		1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	110		10	2.2	ug/L
60-29-7	Diethyl Ether	11		1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	11		1.0	0.16	ug/L
74-88-4	Iodomethane	16		1.0	0.14	ug/L
107-5-1	Allyl Chloride	10		1.0	0.18	ug/L
107-13-1	Acrylonitrile	24		2.0	0.94	ug/L
67-64-1	Acetone	55		5.8	1.5	ug/L
75-15-0	Carbon disulfide	10		1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	12		1.0	0.37	ug/L
79-20-9	Methyl acrylate	12		1.0	0.17	ug/L
75-09-2	Methylene Chloride	11		1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	12		1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	11		1.0	0.21	ug/L
78-93-3	2-Butanone	59		5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	10		1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	9.1		1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	110		1.0	0.24	ug/L
67-66-3	Chloroform	11		1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	11		1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	24		2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	11		1.0	0.21	ug/L
108-20-3	Isopropyl Ether	11		1.0	0.21	ug/L
107-12-0	Propionitrile	120		10	3.3	ug/L
71-43-2	Benzene	11		1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	12		1.0	0.21	ug/L
79-01-6	Trichloroethene	33		1.0	0.24	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/27/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2159MSD</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-10MSD</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524.2</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090216.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	11		1.0	0.21	ug/L
126-98-7	Methacrylonitrile	12		1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	25		2.4	0.78	ug/L
109-69-3	1-Chlorobutane	10		1.0	0.22	ug/L
74-95-3	Dibromomethane	12		1.0	0.24	ug/L
75-27-4	Bromodichloromethane	11		1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	60		5.0	1.0	ug/L
80-62-6	Methyl methacrylate	24		2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	12		1.0	0.25	ug/L
108-88-3	Toluene	11		1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	12		1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	11		1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	12		1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	12		1.0	0.22	ug/L
591-78-6	2-Hexanone	62		5.0	1.1	ug/L
124-48-1	Dibromochloromethane	12		1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	12		1.0	0.20	ug/L
127-18-4	Tetrachloroethene	11		1.0	0.34	ug/L
108-90-7	Chlorobenzene	11		1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	11		1.0	0.22	ug/L
67-72-1	Hexachloroethane	11		1.0	0.20	ug/L
100-41-4	Ethyl Benzene	11		1.0	-0.21	ug/L
136777-61-2	m/p-Xylenes	22		1.0	0.43	ug/L
95-47-6	o-Xylene	11		1.0	0.21	ug/L
100-42-5	Styrene	11		1.0	0.19	ug/L
75-25-2	Bromoform	12		1.0	0.22	ug/L
108-86-1	Bromobenzene	11		1.0	0.21	ug/L
98-82-8	Isopropylbenzene	11		1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	12		1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	12		1.0	0.28	ug/L
103-61-5	N-propylbenzene	11		1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	11		1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	11		1.0	0.22	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

Client:	Parsons Engineering	Date Collected:	8/27/2004
Project:	Seneca Ash Landfill Quarterly Monite	Date Received:	8/28/2004
Client Sample ID:	TR2159MSD	SDG No.:	S4414
Lab Sample ID:	S4414-10MSD	Matrix:	WATER
Analytical Method:	524.2	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090216.D	1		9/2/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	11		1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	11		1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	11		1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	11		1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	11		1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	11		1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	11		1.0	0.20	ug/L
104-51-8	n-Butylbenzene	11		1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	11		1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	13		1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	11		1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	11		1.0	0.17	ug/L
91-20-3	Naphthalene	12		1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	11		1.0	0.18	ug/L
<b>SURROGATES</b>						
2199-69-1	1,2-Dichlorobenzene-d4	1.05	105 %	80 - 120		SPK: 1
460-00-4	4-Bromofluorobenzene	1.11	111 %	80 - 120		SPK: 1
<b>INTERNAL STANDARDS</b>						
462-06-6	Fluorobenzene	224174	8.86			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound





CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090216.D Vial: 1  
 Acq On : 2 Sep 2004 6:48 pm Operator: SAM  
 Sample : S4414-10MSD Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 3 8:26 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.86	96	224174	1.00	ug/l	0.00
<b>System Monitoring Compounds</b>						
52) 4-Bromofluorobenzene	17.86	95	116787	1.11	ug/l	0.00
Spiked Amount	1.000		Recovery	=	111.00%	
63) 1,2-Dichlorobenzene-	21.42	152	61488	1.05	ug/l	0.00
Spiked Amount	1.000		Recovery	=	105.00%	
<b>Target Compounds</b>						
						Qvalue
2) Dichlorodifluorometh	1.80	85	507146	7.12	ug/l	98
3) Chloromethane	2.01	50	404526	8.44	ug/l	97
4) Vinyl Chloride	2.13	62	530440	8.10	ug/l	99
5) Bromomethane	2.51	94	287327	10.33	ug/l	98
6) Chloroethane	2.63	64	333006	10.05	ug/l	99
7) Trichlorofluorometha	2.91	101	942979	9.17	ug/l	98
8) 1,1-Dichloroethene	3.64	96	685686	10.54	ug/l	96
9) Iodomethane	3.87	142	914573	15.84	ug/l	98
10) Allyl Chloride	4.25	41	689007	10.19	ug/l	99
11) Acrylonitrile	5.07	53	95336	24.47	ug/l	97
12) Acetone	3.86	43	152486	54.74	ug/l	99
13) Carbon Disulfide	3.91	76	1807505	10.33	ug/l	99
14) Methylene Chloride	4.50	84	581743	10.96	ug/l	95
15) trans-1,2-Dichloroet	4.88	96	802259	11.55	ug/l	95
16) 1,1-Dichloroethane	5.68	63	1365228	11.04	ug/l	99
17) 2-Butanone	6.88	43	374978	58.55	ug/l	97
18) 2,2-Dichloropropane	6.67	77	981890	9.14	ug/l #	48
19) cis-1,2-Dichloroethe	6.76	96	7432709	108.91	ug/l	83
20) Diethyl Ether	3.34	59	263019	11.21	ug/l	97
21) tert-Butyl Alcohol	4.87	59	168160	114.82	ug/l	100
22) Methyl tert-Butyl Et	4.90	73	801718	11.67	ug/l	97
23) Bromochloromethane	7.20	128	259945	11.90	ug/l	97
24) Chloroform	7.36	83	1288680	11.04	ug/l	98
25) 1,1,1-Trichloroethan	7.56	97	1283884	11.13	ug/l	100
26) 1,1-Dichloropropene	7.88	75	1218964	10.53	ug/l	99
27) Carbon Tetrachloride	7.79	117	1043350	10.37	ug/l	99
28) Isopropyl Ether	5.76	45	1490230	10.88	ug/l	99
29) Propionitrile	7.11	54	189108	123.99	ug/l	100

Analyst Signature: Sy Analyst Name: Sy Date: 09/03/04

REASONS FOR MANUAL INTEGRATIONS

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090216.D Vial: 1  
 Acq On : 2 Sep 2004 6:48 pm Operator: SAM  
 Sample : S4414-10MSD Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 3 8:26 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Benzene	8.25	78	2603599	10.90	ug/l	99
31) 1,2-Dichloroethane	8.46	62	463906	11.52	ug/l	99
32) Trichloroethene	9.55	130	2616680	33.49	ug/l	98
33) 1,2-Dichloropropane	10.07	63	837447	11.11	ug/l	99
34) Methacrylonitrile	7.30	41	157617	11.91	ug/l	98
35) Methyl acrylate	7.01	55	264124	12.45	ug/l	100
36) Tetrahydrofuran	7.24	42	107082	24.58	ug/l	100
37) 1-Chlorobutane	7.82	56	1655266	10.41	ug/l	99
38) Dibromomethane	10.30	93	345710	12.06	ug/l	99
39) Bromodichloromethane	10.65	83	972750	11.46	ug/l	98
40) 4-Methyl-2-Pentanone	11.97	43	1606202	59.66	ug/l	98
41) t-1,4-Dichloro-2-but	18.52	53	176095	23.54	ug/l	99
42) Methyl methacrylate	10.38	69	438326	23.99	ug/l	99
43) Ethyl methacrylate	12.99	69	521629	12.13	ug/l	100
44) Toluene	12.13	92	1657390	10.68	ug/l	98
45) t-1,3-Dichloropropen	12.83	75	687976	11.63	ug/l	99
46) cis-1,3-Dichloroprop	11.58	75	1168967	11.27	ug/l	100
47) 1,1,2-Trichloroethan	13.18	97	412153	12.08	ug/l	98
48) 1,3-Dichloropropane	13.53	76	715211	11.60	ug/l	99
49) 2-Hexanone	13.76	43	715676	62.20	ug/l	98
50) Dibromochloromethane	13.93	129	558845	12.13	ug/l	99
51) 1,2-Dibromoethane	14.14	107	424208	12.20	ug/l	99
53) Tetrachloroethene	13.21	164	775052	10.67	ug/l	99
54) Chlorobenzene	15.19	112	1700455	11.42	ug/l	99
55) 1,1,1,2-Tetrachloroe	15.43	131	629589	11.38	ug/l	99
56) Pentachloroethane	19.65	117	724331	11.33	ug/l	100
57) Hexachloroethane	21.92	117	1039627	11.01	ug/l	98
58) Ethyl Benzene	15.42	91	3505398	10.71	ug/l	98
59) m/p-Xylenes	15.71	91	5385064	22.08	ug/l	100
60) o-Xylene	16.60	91	2570647	11.06	ug/l	99
61) Styrene	16.66	104	1784217	11.32	ug/l	100
62) Bromoform	17.06	173	275995	12.36	ug/l	98
64) Isopropylbenzene	17.43	105	3600151	11.00	ug/l	100
65) 1,1,2,2-Tetrachloroe	18.37	83	500435	12.13	ug/l	100
66) 1,2,3-Trichloropropa	18.52	75	341963	11.60	ug/l	100
67) Bromobenzene	18.12	156	693050	11.39	ug/l	98
68) n-propylbenzene	18.40	120	961413	10.82	ug/l	99

Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration  
 VF090216.D VF0816DW.M Fri Sep 03 11:25:15 2004

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090204\VF090216.D Vial: 1  
 Acq On : 2 Sep 2004 6:48 pm Operator: SAM  
 Sample : S4414-10MSD Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 3 8:26 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
69) 2-Chlorotoluene	18.59	126	772445	11.02	ug/l	98
70) 1,3,5-Trimethylbenze	18.86	105	2688942	10.89	ug/l	99
71) 4-Chlorotoluene	18.88	126	737705	11.17	ug/l	94
72) tert-Butylbenzene	19.56	119	3456193	10.93	ug/l	98
73) 1,2,4-Trimethylbenze	19.73	105	2444318	10.88	ug/l	100
74) sec-Butylbenzene	20.09	105	4465639	10.92	ug/l	100
75) p-Isopropyltoluene	20.48	119	3383174	10.74	ug/l	99
76) 1,3-Dichlorobenzene	20.35	146	1434586	11.26	ug/l	100
77) 1,4-Dichlorobenzene	20.60	146	1375149	11.32	ug/l	99
78) n-Butylbenzene	21.46	91	3719067	10.65	ug/l	99
79) 1,2-Dichlorobenzene	21.46	146	1086812	11.31	ug/l	100
80) 1,2-Dibromo-3-Chloro	23.41	75	77277	12.84	ug/l	97
81) 1,2,4-Trichlorobenze	25.34	180	837882	10.81	ug/l	99
82) Hexachlorobutadiene	25.71	225	707544	10.62	ug/l	100
83) Naphthalene	25.92	128	699127	11.77	ug/l	100
84) 1,2,3-Trichlorobenze	26.53	180	632376	10.95	ug/l	98

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 Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_  
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-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

CHEMTECH

VOLATILES  
MISCELLANEOUS  
DATA

**CHEMTECH** 284 Sheffield Street, Mountainside New Jersey 07092  
 NEW JERSEY LAB ID#:20012 : NEW YORK LAB ID#: 11376

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: 54414 MATRIX: WATER

METHOD: 324.2

	<u>NA</u>	<u>NO</u>	<u>YES</u>
1. Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)	_____	_____	_____ ✓
2. GC/MS Tuning Specifications BFB Meet Criteria (NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY ASP CLP, CLP AND NJ)	_____	_____	_____ ✓
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 Series	_____	_____	_____ ✓
4. GC/MS Calibration - Initial Calibration performed before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series.	_____	_____	_____ ✓
5. GC/MS Calibration Requirements			
a. Calibration Check Compounds for 8260 and CLP	_____	_____	_____ ✓
b. System Performance Check Compounds for 8260 and CLP	_____	_____	_____ ✓

8260 CALIBRATION CRITERIA

<u>SPCC Compounds</u>	<u>MIN RF</u>	<u>CCC Compounds</u>
Chloromethane	0.1	1,1-Dichloroethene
1,1-Dichloroethane	0.1	Chloroform
Bromoform	0.1	1,2-Dichloropropane
Chlorobenzene	0.3	Toluene
1,1,2,2-Tetrachloroethane	0.3	Ethylbenzene
		Vinyl chloride

For CCC compounds Initial Calibration Criteria – RSD less than or equal to 30%  
 For CCC compounds Continuing Calibration Criteria - %D less than or equal to 20%

6. Blank Contamination - If yes, list compounds and concentrations in each blank: \_\_\_\_\_ ✓

Acetone VF090104 2.57 ppb, VF090304 2.24 ppb, VF090404 3.06 ppb, VF090714 4.44  
Methylchloride VF090304 0.30 ppb, VF090304 0.52 ppb, VF090404 0.26 ppb, VF090714 1.24 ppb

7. Surrogate Recoveries Meet Criteria \_\_\_\_\_

If not met, list those compounds and their recoveries which fall outside the acceptable ranges.

**CHEMTECH** 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#: 20012 : NEW YORK LAB ID#: 11376

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY(CONTINUED)

NA    NO    YES

8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria

\_\_\_\_\_

If not met, list those compounds and their recoveries which fall outside the acceptable range.

\_\_\_\_\_

9. Internal Standard Area/Retention Time Shift Meet Criteria

\_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

10. Analysis Holding Time Met

\_\_\_\_\_

If not met, list number of days exceeded for each sample:

\_\_\_\_\_

\_\_\_\_\_

ADDITIONAL COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Semettin Yeslyant

Analyst

09/09/04

Date

QA REVIEW

Date

**Daily Analysis Runlog For GC/MS #: MSVOA F**

Start Date: 08/16/04 End Date: 08/16/04 Analyst: CY Review By: 1410

STD. NAME	STD REF. #:	STD NAME	STD REF. #:
BFB	MSV1- 888	ICV Standard	MSV1- 918-961
ICAL	MSV1- 877	CCV Standard	MSV1- 960-837
Internal Standard	MSV1- 921	Spiking Standard	MSV1- 960-837
Surrogate standard	MSV1- 921	HP Processing Method	VFO816DW.M

SR. #:	Sample ID	Data File Name	Method #:	pH	Run Info.	Comment
1	BFB Tune Check	VFO81601	BFB		5.000004	08/16/04 9:16 AM
2	1 ppb ICC	VFO81602	524.1		25.000004	Initial Cal for
3	2 ppb ICC	03				04 524.1 Drinking W.
4	10 ppb ICC	04				04
5	20 ppb ICC	05				04
6	40 ppb ICC	06				04
7	20 ppb ICC	07				04
8	Inst Blank	08				NG
9	20 ppb ICV	09				04
10	VFO816W	10				NG
11	VFO816W	11				04
12	QC/Knew	12				04
13	Inst Blank	13				04
14	S2935-03	14		12		04
15	S2935-01	15		12		04
16	S2935-02	16		12		04
17	[Redacted]	17				04 08/16/04 7:24 PM
18						
19						08/17/04 54
20						

**Daily Analysis Runlog For GC/MS #: MSVOA F**

Start Date: 09/02/04 End Date: 09/02/04 Analyst Sy Review By: lp

STD. NAME	STD REF. #:	STD NAME	STD REF. #:
BFB	MSV1- 888	ICV Standard	MSV1- N/A
ICAL	MSV1- N/A	CCV Standard	MSV1- 977- 877
Internal Standard	MSV1- 921	Spiking Standard	MSV1- 977- 877
Surrogate standard	MSV1- 921	HP Processing Method	NF0816DW.M

254426  
12279904

SR. #:	Sample ID	Data File Name	Method #:	pH	Run Info.	Comment
1	BFB Tune Check	NF090201	BFB		6.0 uA	OK on 09/02/04 9:14 AM
2	LOP+CCC	02	524.2		25.0 uA	
3	VB F0902.W	03				Not need it
4	NF0816DW	04				OK
5	S4414-01-A	05		2.2		OK MR Conf.
6	INST Blank	06				OK
7	S4414-02-A	07		2.2		MR 25x
8	S4414-03-A	08		2.2		MR
9	S4414-04-A	09		2.2		OK
10	S4414-05-A	10		2.2		MR 50x
11	INST Blank	11				NG
12	S4414-06-A	12		2.2		MR 50x
13	S4414-07-A	13		2.2		MR + 25x
14	S4414-08-A	14		2.2		MR 25x
15	S4414-09-A	15		2.2		OK
16	S4414-10-A	16		2.2		OK
17	LFB	17				MR Calibration
18	LFB	18				25 uA on 09/02/04 8:09 PM
19						
20						

09/02/04 Sy



**Daily Analysis Runlog For GC/MS #: MSVOA F**

Start Date: 09/03/04 End Date: 09/03/04 Analyst: *SY* Review By:

STD. NAME	STD REF. #:	STD NAME	STD REF. #:
BFB	MSV1- 888	ICV Standard	MSV1- N/A
ICAL	MSV1- N/A	CCV Standard	MSV1- 977 877
Internal Standard	MSV1- 921	Spiking Standard	MSV1- 977 877
Surrogate standard	MSV1- 921	HP Processing Method	VF0816DW-4

SR. #:	Sample ID	Data File Name	Method #:	pH	Run Info.	Comment
1	<del>ICV Standard</del>	NF090301	BFB			50µl on 09/04/04 9:24 PM
2	10 ppb CCC	02	824.2 878			25.0 µl on
3	VB F0903W1	03				Not need it
4	VB F0903W2	04				on
5	S4414-01	05		LL		on
6	S4414-02	06		LL		on
7	S4414-07	07		LL		RD 25 X
8	S4414-07 25X	08		LL		ok
9	S4414-08 50X	09		LL		ok
10	Inst. Blank	10				on
11	S4414-02 25X	11		LL		on
12	Inst Blank	12				ok
13	S4414-11	13		LL		RD 10X
14	S4414-12	14		LL		on RD Conf.
15	S4414-13	15		LL		ok
16	S4414-15	16		LL		on RD Conf. meter
17	S4414-14	17		LL		on
18	<del>LFB</del>	18				SW 9/03/04 8:36 AM
19	Blank	19				
20						

09/04/04 SY

**Daily Analysis Runlog For GC/MS #: MSVOA F**

Start Date: 09/04/04 End Date: 09/04/04 Analyst SJ Review By: ICP

<u>STD. NAME</u>	<u>STD REF. #:</u>	<u>STD NAME</u>	<u>STD REF. #:</u>
BFB	MSV1- 888	ICV Standard	MSV1- N/A
ICAL	MSV1-N/A	CCV Standard	MSV1- 977 877
Internal Standard	MSV1- 921	Spiking Standard	MSV1- 977 877
Surrogate standard	MSV1- 921	HP Processing Method	<u>VFO216DW-M</u>

<u>SR. #:</u>	<u>Sample ID</u>	<u>Data File Name</u>	<u>Method #:</u>	<u>pH</u>	<u>Run Info.</u>	<u>Comment</u>
1	<del>54484-01-A</del>	<u>VFO90401</u>	<u>BFB</u>		<u>5.0 uP</u>	<u>09/03/04 9:52 PM</u>
2	<u>10.116.001</u>	<u>01</u>	<u>924.2</u>		<u>25 uP</u>	<u>OK</u>
3	<u>VAF0904W1</u>	<u>03</u>			<u>25 uP</u>	<u>Not need it</u>
4	<u>VAF0904W1</u>	<u>04</u>				<u>OK</u>
5	<u>S4484-01-A</u>	<u>05</u>		<u>LL</u>		<u>OK</u>
6	<u>S4436-01-A</u>	<u>06</u>		<u>LL</u>		<u>OK</u>
7	<u>S4415-01-A</u>	<u>07</u>		<u>LL</u>		<u>OK</u>
8	<u>S4414-01-A</u>	<u>08</u>		<u>LL</u>		<u>OK</u>
9	<u>S4414-11</u>	<u>09</u>		<u>LL</u>		<u>OK</u>
10	<u>S4484-01-A</u>	<u>10</u>		<u>LL</u>		<u>OK</u>
11	<u>S4484-02-A</u>	<u>11</u>		<u>LL</u>		<u>OK</u>
12	<u>S4484-03-A</u>	<u>12</u>		<u>LL</u>		<u>OK</u>
13	<u>Inst blank</u>	<u>13</u>				<u>OK</u>
14	<u>S4484-04-A</u>	<u>14</u>		<u>LL</u>		<u>OK</u>
15	<u>S4436-01-A</u>	<u>15</u>		<u>LL</u>		<u>SWIFT 100.50</u>
16	<u>S4436-02-A</u>	<u>16</u>		<u>LL</u>		<u>OK Control</u>
17	<u>LFB</u>	<u>17</u>				<u>Not need it</u>
18	<u>LFB</u>	<u>18</u>				<u>OK</u>
19	<u>Inst. Blank</u>	<u>19</u>				<u>09/04/04 8:47 AM</u>
20						

09/04/04 SJ

**Daily Analysis Runlog For GC/MS #: MSVOA F**

Start Date: 09/07/04 End Date: 09/07/04 Analyst: SG Review By: 10P

<u>STD. NAME</u>	<u>STD REF. #:</u>	<u>STD NAME</u>	<u>STD REF. #:</u>
BFB	MSV1- <u>888</u>	ICV Standard	MSV1- <u>N/A</u>
ICAL	MSV1- <u>N/A</u>	CCV Standard	MSV1- <u>977</u> <u>877</u>
Internal Standard	MSV1- <u>921</u>	Spiking Standard	MSV1- <u>977</u> <u>877</u>
Surrogate standard	MSV1- <u>921</u>	HP Processing Method	<u>VF081610W</u>

<u>SR. #:</u>	<u>Sample ID</u>	<u>Data File Name</u>	<u>Method #:</u>	<u>pH</u>	<u>Run Info.</u>	<u>Comment</u>
1	<u>BFB Tune Chem</u>	<u>VF090711</u>	<u>13FB</u>			<u>Signal 09/07/04 6:27 PM</u>
2	<u>10816000</u>	<u>VF090712</u>	<u>524.1</u>			<u>25-ml sh</u>
3	<u>VF0807W3</u>	<u>13</u>				<u>Not need it</u>
4	<u>VF0807W4</u>	<u>14</u>				<u>OK</u>
5	<u>S4457-01-A</u>	<u>15</u>		<u>LL</u>		<u>OK</u>
6	<u>10816000</u>	<u>16</u>				<u>OK</u>
7	<u>S4436-20-B</u>	<u>17</u>		<u>LL</u>		<u>OK</u>
8	<u>S4436-07-3x-A</u>	<u>18</u>		<u>LL</u>		<u>OK</u>
9	<u>S4457-01-A</u>	<u>19</u>		<u>LL</u>		<u>OK</u>
10	<u>S4457-02-A</u>	<u>20</u>		<u>LL</u>		<u>OK</u>
11	<u>S4457-03-A</u>	<u>21</u>		<u>72</u>		<u>OK</u>
12	<u>S4457-04-A</u>	<u>22</u>		<u>LL</u>		<u>OK</u>
13	<u>S4414-08</u>	<u>23</u>				<u>OK</u>
14	<u>S4414-06</u>	<u>24</u>		<u>LL</u>		<u>OK</u>
15	<u>10816000</u>	<u>25</u>				<u>OK</u>
16						
17						
18					<u>09/08/04 SG</u>	
19						
20						

# CHEMTECH

## Lab Chronicle

Order ID: S4414  
Client: Parsons Engineering  
Contact: Jennifer Rossmann  
Order Date: 8/30/2004 11:39:09 AM  
Project: Seneca Ash Landfill Quarterly Monitoring

Lab ID	Client ID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
S4414-01	TR2154	WATER	VOC-Drinking Water -15	524.2 Rev3	08/26/04		09/03/04	08/28/04
S4414-02	TR2156	WATER	VOC-Drinking Water -15	524.2 Rev3	08/26/04		09/02/04	08/28/04
S4414-02DL	TR2156DL	WATER	VOC-Drinking Water -15	524.2 Rev3	08/26/04		09/03/04	08/28/04
S4414-03	TR2155	WATER	VOC-Drinking Water -15	524.2 Rev3	08/26/04		09/03/04	08/28/04
S4414-04	TR2149	WATER	VOC-Drinking Water -15	524.2 Rev3	08/25/04		09/02/04	08/28/04
S4414-05	TR2153	WATER	VOC-Drinking Water -15	524.2 Rev3	08/26/04		09/02/04	08/28/04
S4414-05DL	TR2153DL	WATER	VOC-Drinking Water -15	524.2 Rev3	08/26/04		09/03/04	08/28/04
S4414-06	TR2151	WATER	VOC-Drinking Water -15	524.2 Rev3	08/26/04		09/02/04	08/28/04
S4414-06DL	TR2151DL	WATER	VOC-Drinking Water -15	524.2 Rev3	08/26/04		09/08/04	08/28/04
S4414-07	TR2152	WATER	VOC-Drinking Water -15	524.2 Rev3	08/26/04		09/02/04	08/28/04
S4414-07DL	TR2152DL	WATER	VOC-Drinking Water -15	524.2 Rev3	08/26/04		09/02/04	08/28/04
S4414-08	TR2159	WATER	VOC-Drinking Water -15	524.2 Rev3	08/27/04		09/03/04	08/28/04
			VOC-Drinking Water -15	524.2 Rev3			09/02/04	

S4414-08DL	TR2159DL	WATER	<u>VOC-Drinking Water -15</u>	524.2 Rev3	08/27/04	09/08/04	08/28/04
S4414-11	TR2160	WATER	<u>VOC-Drinking Water -15</u>	524.2 Rev3	08/27/04	09/03/04	08/28/04
S4414-11DL	TR2160DL	WATER	<u>VOC-Drinking Water -15</u>	524.2 Rev3	08/27/04	09/04/04	08/28/04
S4414-12	TR2158	WATER	<u>VOC-Drinking Water -15</u>	524.2 Rev3	08/27/04	09/04/04	08/28/04
S4414-13	TR2157	WATER	<u>VOC-Drinking Water -15</u>	524.2 Rev3	08/27/04	09/03/04	08/28/04
S4414-14	TR0055	WATER	<u>VOC-Drinking Water -15</u>	524.2 Rev3	08/27/04	09/03/04	08/28/04
S4414-15	TR0057	WATER	<u>VOC-Drinking Water -15</u>	524.2 Rev3	08/27/04	09/04/04	08/28/04

**CHEMTECH** 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#: 20012; NEW YORK LAB ID#: 11376

**GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY**

CHEMTECH PROJECT NUMBER: S4414

MATRIX: Water

METHOD: 524.3

- |  | NA | NO | YES |
|--|----|----|-----|
| 1. Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)   |    |    | ✓   |
| 2. GC/MS Tuning Specifications<br>BFB Meet Criteria (NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY<br>ASP CLP, CLP AND NJ)   |    |    | ✓   |
| 3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for<br>8000 Series:   |    |    | ✓   |
| 4. GC/MS Calibration - Initial Calibration performed before sample analysis and<br>continuing calibration performed within 24 hours of sample analysis for 600 series and<br>12 hours for 8000 series. |    |    | ✓   |
| 5. GC/MS Calibration Requirements.   |    |    | ✓   |
| a. Calibration Check Compounds for 8260 and CLP.   |    |    | ✓   |
| b. System Performance Check Compounds for 8260 and CLP   |    |    | ✓   |

**8260 CALIBRATION CRITERIA**

<u>SPCC Compounds</u>	<u>MIN RF</u>	<u>CCC Compounds</u>
Chloromethane	0.1	1,1-Dichloroethene
1,1-Dichloroethane	0.1	Chloroform
Bromoform	0.1	1,2-Dichloropropane
Chlorobenzene	0.3	Toluene
1,1,2,2-Tetrachloroethane	0.3	Ethylbenzene
Vinyl chloride		

For CCC compounds Initial Calibration Criteria – RSD less than or equal to 30%  
For CCC compounds Continuing Calibration Criteria - %D less than or equal to 20%

- |  |  |  |   |
|--|--|--|---|
| 6. Blank Contamination - If yes, list compounds and concentrations in each blank:                          |  |  | ✓ |
| The Blank analysis indicated presence of Acetone and Methylene Chloride due to possible lab contamination. |  |  |   |
| 7. Surrogate Recoveries Meet Criteria  |  |  | ✓ |
| If not met, list those compounds and their recoveries which fall outside the acceptable ranges.            |  |  |   |

**CHEMTECH** 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#: 20012; NEW YORK LAB ID#: 11376

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria ✓

If not met, list those compounds and their recoveries which fall outside the acceptable range.

The MS recoveries met the requirements for all compounds except for Iodomethane, cis-1,2-Dichloroethene and Dichlorodifluoromethane. The MSD recoveries met the acceptable requirements except for Iodomethane and t-1,3-Dichloropropene.

9. Internal Standard Area/Retention Time Shift Meet Criteria ✓

Comments:

10. Analysis Holding Time Met ✓

If not met, list number of days exceeded for each sample:

Roy M. Della, Kelpom  
QA REVIEW

9/18/04  
Date

**CHEMTECH**

**SHIPPING AND  
RECEIVING  
DOCUMENTATION**





CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092  
(908) 789-8900 Fax (908) 789-8922  
www.chemtech.net

CHEMTECH PROJECT NO. *56664*  
COC Number **52403**

CLIENT INFORMATION		PROJECT INFORMATION		BILLING INFORMATION			
COMPANY: <i>Parsons</i>	PROJECT NAME: <i>Ash landfill</i>	BILL TO:	PO#:				
ADDRESS: <i>100 Summer St 8th Floor</i>	PROJECT NO.: <i>743155</i> LOCATION: <i>Seneca</i>	ADDRESS:					
CITY: <i>Boston</i> STATE: <i>MA</i> ZIP: <i>02110</i>	PROJECT MANAGER: <i>J. Rossmann</i>	CITY:	STATE:	ZIP:			
ATTENTION: <i>Jennifer Rossmann</i>	e-mail: <i>jennifer.rossmann@parsons.com</i>	ATTENTION:	PHONE:				
PHONE: <i>617-457-7900</i> FAX: <i>617-457-7919</i>	PHONE: <i>617-457-7900</i> FAX: <i>617-457-7979</i>						
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		ANALYSIS			
FAX: _____	DAYS: _____						
HARD COPY: _____	DAYS: _____						
EDD: _____	DAYS: _____						
* TO BE APPROVED BY CHEMTECH STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS							
CHEMTECH SAMPLE ID	PROJECT IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE	SAMPLE COLLECTION DATE	TIME	PRESERVATIVES	COMMENTS
1.	<i>TR2154</i>	<i>W</i>	<i>X</i>	<i>8-26-04</i>	<i>0925</i>	<i>9</i>	
2.	<i>TR2150</i>	<i>W</i>	<i>X</i>	<i>8-26-04</i>	<i>1400</i>	<i>9</i>	
3.	<i>TR2155</i>	<i>W</i>	<i>X</i>	<i>8-26-04</i>	<i>1140</i>	<i>9</i>	
4.	<i>TR2149</i>	<i>W</i>	<i>X</i>	<i>8-25-04</i>	<i>1445</i>	<i>7</i>	
5.	<i>TR2153</i>	<i>W</i>	<i>X</i>	<i>8-26-04</i>	<i>0845</i>	<i>9</i>	
6.	<i>TR2151</i>	<i>W</i>	<i>X</i>	<i>8-26-04</i>	<i>1545</i>	<i>9</i>	
7.	<i>TR2152</i>	<i>W</i>	<i>X</i>	<i>8-26-04</i>	<i>1625</i>	<i>9</i>	
8.	<i>TR2159</i>	<i>W</i>	<i>X</i>	<i>8-27-04</i>	<i>1045</i>	<i>9</i>	
9.	<i>TR2159 MS</i>	<i>W</i>	<i>X</i>	<i>8-27-04</i>	<i>1045</i>	<i>9</i>	
10.	<i>TR2159 MSD</i>	<i>W</i>	<i>X</i>	<i>8-27-04</i>	<i>1045</i>	<i>9</i>	
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY							
RECEIVED BY SAMPLER: <i>[Signature]</i>	DATE/TIME: <i>8/27/04 1300</i>	RECEIVED BY: 1. _____					
RECEIVED BY: _____	DATE/TIME: _____	RECEIVED BY: 2. _____					
RECEIVED BY: <i>[Signature]</i>	DATE/TIME: <i>08/28/04 0930</i>	RECEIVED FOR LAB BY: 3. <i>[Signature]</i>					
Conditions of bottles or coolers at receipt: <input type="checkbox"/> Compliant <input type="checkbox"/> Non Compliant <input checked="" type="checkbox"/> Cooler Temp. <i>A C</i>			MeOH extraction requires an additional 4 oz jar for percent solid.				
Comments:							
SHIPPED VIA: CLIENT: <input type="checkbox"/> HAND DELIVERED <input checked="" type="checkbox"/> OVERNIGHT <input type="checkbox"/> OVERNIGHT		CHEMTECH: <input type="checkbox"/> PICKED UP <input type="checkbox"/> OVERNIGHT		Shipment Complete: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Page <i>1</i> of <i>2</i>	

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY



CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092  
(908) 789-8900 Fax (908) 789-8922  
www.chemtech.net

CHEMTECH PROJECT NO. Sh414  
COC Number 52404

CLIENT INFORMATION		PROJECT INFORMATION		BILLING INFORMATION							
REPORT TO BE SENT TO: COMPANY: <u>Rosen's</u>		PROJECT NAME: <u>Ash landfill</u>		BILL TO:							
ADDRESS: <u>100 Summer St 8th Floor</u>		PROJECT NO.: <u>743155</u> LOCATION: <u>Seneca</u>		PO#:							
CITY: <u>Burton</u> STATE: <u>MA</u> ZIP: <u>02110</u>		PROJECT MANAGER: <u>J Rossman</u>		ADDRESS:							
ATTENTION: <u>Jennifer Rossman</u>		e-mail: <u>jennifer.rossman@rosens.com</u>		CITY: <u>SAME AS CLIENT</u> STATE: <u>MA</u> ZIP:							
PHONE: <u>617-457-7900</u> FAX: <u>617-457-7979</u>		PHONE: <u>617-457-7900</u> FAX: <u>617-457-7979</u>		ATTENTION:							
PHONE: <u>617-457-7900</u> FAX: <u>617-457-7979</u>		PHONE: <u>617-457-7900</u> FAX: <u>617-457-7979</u>		PHONE:							
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		ANALYSIS							
FAX: _____ DAYS *		<input checked="" type="checkbox"/> RESULTS ONLY <input checked="" type="checkbox"/> USEPA CLP		1 2 3 4 5 6 7 8 9							
HARD COPY: _____ DAYS *		<input checked="" type="checkbox"/> RESULTS + QC <input checked="" type="checkbox"/> New York State ASP "B"									
EDD: _____ DAYS *		<input checked="" type="checkbox"/> New Jersey REDUCED <input checked="" type="checkbox"/> New York State ASP "A"									
* TO BE APPROVED BY CHEMTECH		<input type="checkbox"/> New Jersey CLP <input type="checkbox"/> Other _____									
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS		<input checked="" type="checkbox"/> EDD FORMAT									
CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE	SAMPLE COLLECTION DATE	TIME	NO OF BOTTLES	PRESERVATIVES	COMMENTS			
1.	TR2110	W	X	8-27-04	1015	9	A B				
2.	TR2158	W	X	8-27-04	1015	7	1 2 3 4 5 6 7 8 9				
3.	TR2157	W	X	8-27-04	0930	7					
4.	TR0055	W	X	8-27-04		2					
5.	TR0057	W	X	8-27-04	1230	7		Trip Blank			
6.											
7.											
8.											
9.											
10.											
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY							PRESERVATIVES				
RELINQUISHED BY SAMPLER:	DATE/TIME	RECEIVED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME	RECEIVED BY:	
1. <u>[Signature]</u>	<u>8/27/04 1300</u>	1. <u>[Signature]</u>	<u>8/27/04 1300</u>	2. <u>[Signature]</u>	<u>08/28/04 930 AM</u>	3. <u>[Signature]</u>	<u>08/28/04</u>	4. <u>[Signature]</u>	<u>08/28/04</u>	5. <u>[Signature]</u>	<u>08/28/04</u>
RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME	RECEIVED BY:	
3. <u>FED ex</u>	<u>08/28/04</u>										

W.C. (9212)  
Mills. Job. 3

Conditions of bottles or coolers at receipt:  Compliant  Not Compliant  
MeOH extraction requires an additional 4 oz jar for percent solid.

SHIPPED VIA: CLIENT:  HAND DELIVERED  OVERNIGHT  OVERNIGHT  YES  NO  
Page 2 of 2

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY [Signature] [Signature] [Signature]

**CHEMTECH**

284 Sheffield Street Mountainside NJ 07092  
Tel. 908-789-8900

**END OF ANALYTICAL RESULTS**

**DATA PACKAGE FOR  
METALS**

**PROJECT NAME: Seneca Ash Landfill Quarterly Monitoring**

**PARSONS ENGINEERING  
100 SUMMER STREET  
SUITE 800  
BOSTON, MA 02110  
6174577900**

**CHEMTECH PROJECT NO.  
ATTENTION:**

**S4414  
Jennifer Rossmann**

# CHEMTECH

## CASE NARRATIVE

### Parsons Engineering

Project Name: Seneca Ash Landfill Quarterly Monitoring

Project # 743155

Chemtech Project # S4414

### A. Number of Samples and Date of Receipt:

15 Water samples were received on 8/28/04.

### B. Parameters:

According to the Chain of Custody document, the following analyses were requested: Gases methane, ethane, ethene, Metals Group3, and Volatiles Method 524.2 + 15. This data package contains results for Metals Group3

### C. Analytical Techniques:

The analysis of Metals Group3 was based on method 6010

### D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Blank Spike met requirements for all samples.

The Duplicate analysis met criteria for all samples.

The Matrix Spike analysis met criteria for all samples.

The Matrix Spike Duplicate analysis met criteria for all samples.

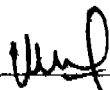
The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

The Serial Dilution met the acceptable requirements except for Sodium.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature \_\_\_\_\_



Name: Krupa Dubey

Date: \_\_\_\_\_



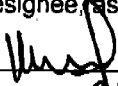
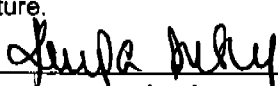
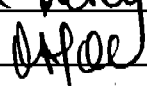
Title: QA/QC

**COVER PAGE**

**OrderID:** S4414      **ProjectID:** Seneca Ash Landfill Quarterl  
**CustomerName:** Parsons Engineering

<b>LAB SAMPLE NO.</b>	<b>CLIENT SAMPLE NO</b>
S4414-01	TR2154
S4414-02	TR2156
S4414-03	TR2155
S4414-04	TR2149
S4414-05	TR2153
S4414-06	TR2151
S4414-07	TR2152
S4414-08	TR2159
S4414-09	TR2159MS
S4414-10	TR2159MSD
S4414-11	TR2160
S4414-12	TR2158
S4414-13	TR2157
S4414-14	TR0055
S4414-15	TR0057

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature:  Name:   
Date: 9/20/04 Title: 

# CHEMTECH

284 Sheffield Street Mountainside NJ 07092  
Tel. 908-789-8900 Fax: 908-789-8922

## DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following " Results Qualifiers" are used:

- J If the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
- U If the analyte was analyzed for, but not detected.
- E The reported value is estimated because of the presence of interference
- M Duplicate injection precision not met.
- N Spiked sample recovery not within control limits.
- S The reported value was determined by the Method of Standard Addition (MSA).
- W Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while absorbance is less than 50% of spike absorbance.
- \* Duplicate analysis not within control limits.
- + Correlation coefficient for the MSA is less than 0.995.
- \*\*\* Entering "S", "W" or "+" is mutually exclusive. NO combination of these qualifiers can appear in the same field for an analyte.
- D The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
- M Method qualifiers  
"P" for ICP instrument  
"A" for Flame AA  
"PM" for ICP when Microwave Digestion is used  
"AM" for flame AA when Microwave Digestion is used  
"FM" for furnace AA when Microwave Digestion is used  
~~"CV" for Manual Cold Vapor AA~~  
"AV" for automated Cold Vapor AA  
"CA" for MIDI-Distillation Spectrophotometric  
"AS" for Semi -Automated Spectrophotometric  
"C" for Manual Spectrophotometric  
"T" for Titrimetric  
"NR" for analyte not required to be analyzed

 **CHEMTECH**

**METALS**

**DATA**



**CHEMTECH**

**METALS**  
**SAMPLE**  
**DATA**



### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/26/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2154</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-01</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	24800		ug/L	1740	1	9/3/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	6950		ug/L	254	1	9/3/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	26.6		ug/L	0.195	1	9/3/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	1010 J		ug/L	51.0	1	9/3/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	17100		ug/L	189	1	9/3/2004	9/10/2004	EPA SW-846 6010

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

U = Not Detected  
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value  
B = Analyte Found In Associated Method Blank  
N = Presumptive Evidence of a Compound



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/26/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2156</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-02</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	143000		ug/L	1740	1	9/3/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	17200		ug/L	254	1	9/3/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	7.640 J		ug/L	0.195	1	9/3/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	1590 J		ug/L	51.0	1	9/3/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	24200		ug/L	189	1	9/3/2004	9/10/2004	EPA SW-846 6010

Comments: \_\_\_\_\_  
\_\_\_\_\_  
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U = Not Detected  
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J = Estimated Value  
B = Analyte Found In Associated Method Blank  
N = Presumptive Evidence of a Compound



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/26/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2155</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-03</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	6860		ug/L	1740	1	9/3/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	6660		ug/L	254	1	9/3/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	33.7		ug/L	0.195	1	9/3/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	1100	J	ug/L	51.0	1	9/3/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	19400		ug/L	189	1	9/3/2004	9/10/2004	EPA SW-846 6010

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

U = Not Detected  
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value  
B = Analyte Found In Associated Method Blank  
N = Presumptive Evidence of a Compound



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/25/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2149</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-04</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	106000		ug/L	1740	1	9/3/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	12800		ug/L	254	1	9/3/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	2.860	J	ug/L	0.195	1	9/3/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	2710	J	ug/L	51.0	1	9/3/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	19900		ug/L	189	1	9/3/2004	9/10/2004	EPA SW-846 6010

Comments: \_\_\_\_\_  
\_\_\_\_\_  
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DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value  
B = Analyte Found In Associated Method Blank  
N = Presumptive Evidence of a Compound



### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/26/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2153</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-05</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	126000		ug/L	1740	1	9/3/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	14800		ug/L	254	1	9/3/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	2.370 J		ug/L	0.195	1	9/3/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	1200 J		ug/L	51.0	1	9/3/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	13300		ug/L	189	1	9/3/2004	9/10/2004	EPA SW-846 6010

Comments: \_\_\_\_\_  
\_\_\_\_\_  
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DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value  
B = Analyte Found In Associated Method Blank  
N = Presumptive Evidence of a Compound



### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/26/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2151</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-06</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	84300		ug/L	1740	1	9/3/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	13000		ug/L	254	1	9/3/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	156		ug/L	0.195	1	9/3/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	1670	J	ug/L	51.0	1	9/3/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	12700		ug/L	189	1	9/3/2004	9/10/2004	EPA SW-846 6010

Comments:

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U = Not Detected  
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J = Estimated Value  
B = Analyte Found In Associated Method Blank  
N = Presumptive Evidence of a Compound



### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/26/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2152</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-07</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	3840	J	ug/L	1740	1	9/3/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	9890		ug/L	254	1	9/3/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	8.910	J	ug/L	0.195	1	9/3/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	956	J	ug/L	51.0	1	9/3/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	9790		ug/L	189	1	9/3/2004	9/10/2004	EPA SW-846 6010

Comments: \_\_\_\_\_  
\_\_\_\_\_  
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J = Estimated Value  
B = Analyte Found In Associated Method Blank  
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### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/27/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2159</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-08</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	146000		ug/L	1740	1	9/3/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	16700		ug/L	254	1	9/3/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	30.4		ug/L	0.195	1	9/3/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	1490	J	ug/L	51.0	1	9/3/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	9980		ug/L	189	1	9/3/2004	9/10/2004	EPA SW-846 6010

Comments: \_\_\_\_\_  
\_\_\_\_\_  
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DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value  
B = Analyte Found In Associated Method Blank  
N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/27/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2160</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-11</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	121000		ug/L	1740	1	9/3/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	14000		ug/L	254	1	9/3/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	24.1		ug/L	0.195	1	9/3/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	1260	J	ug/L	51.0	1	9/3/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	7520		ug/L	189	1	9/3/2004	9/10/2004	EPA SW-846 6010

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_U = Not Detected  
DL = Method Detection Limit or Instrument Detection LimitJ = Estimated Value  
B = Analyte Found In Associated Method Blank  
N = Presumptive Evidence of a Compound



### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/27/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2158</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-12</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	16300		ug/L	1740	1	9/3/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	8420		ug/L	254	1	9/3/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	78.5		ug/L	0.195	1	9/3/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	1060 <sup>J</sup>		ug/L	51.0	1	9/3/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	6440		ug/L	189	1	9/3/2004	9/10/2004	EPA SW-846 6010

Comments: \_\_\_\_\_  
\_\_\_\_\_  
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J = Estimated Value  
B = Analyte Found In Associated Method Blank  
N = Presumptive Evidence of a Compound



### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/27/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR2157</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-13</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	95700		ug/L	1740	1	9/3/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	13400		ug/L	254	1	9/3/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	191		ug/L	0.195	1	9/3/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	1570	J	ug/L	51.0	1	9/3/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	10300		ug/L	189	1	9/3/2004	9/10/2004	EPA SW-846 6010

Comments:

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### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/27/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/28/2004</b>
<b>Client Sample ID:</b>	<b>TR0057</b>	<b>SDG No.:</b>	<b>S4414</b>
<b>Lab Sample ID:</b>	<b>S4414-15</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	1740	U	ug/L	1740	1	9/3/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	341	J	ug/L	254	1	9/3/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	0.220	J	ug/L	0.195	1	9/3/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	62.6	J	ug/L	51.0	1	9/3/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	867	J	ug/L	189	1	9/3/2004	9/10/2004	EPA SW-846 6010

Comments:

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B = Analyte Found In Associated Method Blank  
N = Presumptive Evidence of a Compound

**CHEMTECH**

**METALS**  
**CALIBRATION**  
**DATA**

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**Metals**

- 2a -

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

Client: Parsons Engineering

SDG No.: S4414

Contract: Parsons Engineering Lab Code: CHEMED

Case No.: S4414 SAS No.: S4414

Initial Calibration Source: EPA-ICV

Continuing Calibration Source: EPA-LV

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
<b>ICV01</b>									
	Calcium	10214.55	10180.0	100.3	90.0 - 110.0	P	9/10/2004	08:12	P109104
	Magnesium	6036.98	6003.0	100.6	90.0 - 110.0	P	9/10/2004	08:12	P109104
	Manganese	509.88	495.0	103.0	90.0 - 110.0	P	9/10/2004	08:12	P109104
	Potassium	9684.25	10008.0	96.8	90.0 - 110.0	P	9/10/2004	08:12	P109104
	Sodium	9683.70	10039.0	96.5	90.0 - 110.0	P	9/10/2004	08:12	P109104
<b>CCV01</b>									
	Calcium	26820.51	25000.0	107.3	90.0 - 110.0	P	9/10/2004	08:33	P109104
	Magnesium	26145.44	25000.0	104.6	90.0 - 110.0	P	9/10/2004	08:33	P109104
	Manganese	2641.14	2500.0	105.6	90.0 - 110.0	P	9/10/2004	08:33	P109104
	Potassium	26513.49	25000.0	106.1	90.0 - 110.0	P	9/10/2004	08:33	P109104
	Sodium	26616.00	25000.0	106.5	90.0 - 110.0	P	9/10/2004	08:33	P109104
<b>CCV02</b>									
	Calcium	27211.88	25000.0	108.8	90.0 - 110.0	P	9/10/2004	09:00	P109104
	Magnesium	26606.46	25000.0	106.4	90.0 - 110.0	P	9/10/2004	09:00	P109104
	Manganese	2697.07	2500.0	107.9	90.0 - 110.0	P	9/10/2004	09:00	P109104
	Potassium	26373.80	25000.0	105.5	90.0 - 110.0	P	9/10/2004	09:00	P109104
	Sodium	26243.70	25000.0	105.0	90.0 - 110.0	P	9/10/2004	09:00	P109104
<b>CCV03</b>									
	Calcium	25492.17	25000.0	102.0	90.0 - 110.0	P	9/10/2004	09:35	P109104
	Magnesium	25593.63	25000.0	102.4	90.0 - 110.0	P	9/10/2004	09:35	P109104
	Manganese	2530.40	2500.0	101.2	90.0 - 110.0	P	9/10/2004	09:35	P109104
	Potassium	26167.29	25000.0	104.7	90.0 - 110.0	P	9/10/2004	09:35	P109104
	Sodium	25545.97	25000.0	102.2	90.0 - 110.0	P	9/10/2004	09:35	P109104
<b>CCV04</b>									
	Calcium	25337.48	25000.0	101.3	90.0 - 110.0	P	9/10/2004	10:01	P109104
	Magnesium	25027.22	25000.0	100.1	90.0 - 110.0	P	9/10/2004	10:01	P109104
	Manganese	2497.17	2500.0	99.9	90.0 - 110.0	P	9/10/2004	10:01	P109104
	Potassium	25313.25	25000.0	101.3	90.0 - 110.0	P	9/10/2004	10:01	P109104
	Sodium	25096.87	25000.0	100.4	90.0 - 110.0	P	9/10/2004	10:01	P109104

**Metals**

- 2a -

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

Client: Parsons Engineering

SDG No.: S4414

Contract: Parsons Engineering

Lab Code: CHEMED

Case No.: S4414

SAS No.: S4414

Initial Calibration Source: EPA-ICV

Continuing Calibration Source: EPA-LV

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
<b>CCV05</b>									
	Calcium	24312.23	25000.0	97.2	90.0 - 110.0	P	9/10/2004	10:45	P109104
	Magnesium	24417.11	25000.0	97.7	90.0 - 110.0	P	9/10/2004	10:45	P109104
	Manganese	2405.28	2500.0	96.2	90.0 - 110.0	P	9/10/2004	10:45	P109104
	Potassium	25012.72	25000.0	100.1	90.0 - 110.0	P	9/10/2004	10:45	P109104
	Sodium	24402.44	25000.0	97.6	90.0 - 110.0	P	9/10/2004	10:45	P109104
<b>CCV06</b>									
	Calcium	24863.53	25000.0	99.5	90.0 - 110.0	P	9/10/2004	11:21	P109104
	Magnesium	24439.43	25000.0	97.8	90.0 - 110.0	P	9/10/2004	11:21	P109104
	Manganese	2422.91	2500.0	96.9	90.0 - 110.0	P	9/10/2004	11:21	P109104
	Potassium	25260.83	25000.0	101.0	90.0 - 110.0	P	9/10/2004	11:21	P109104
	Sodium	25088.29	25000.0	100.4	90.0 - 110.0	P	9/10/2004	11:21	P109104
<b>CCV07</b>									
	Calcium	24335.66	25000.0	97.3	90.0 - 110.0	P	9/10/2004	12:05	P109104
	Magnesium	24394.58	25000.0	97.6	90.0 - 110.0	P	9/10/2004	12:05	P109104
	Manganese	2379.98	2500.0	95.2	90.0 - 110.0	P	9/10/2004	12:05	P109104
	Potassium	25552.01	25000.0	102.2	90.0 - 110.0	P	9/10/2004	12:05	P109104
	Sodium	24930.29	25000.0	99.7	90.0 - 110.0	P	9/10/2004	12:05	P109104
<b>CCV08</b>									
	Calcium	24430.46	25000.0	97.7	90.0 - 110.0	P	9/10/2004	12:37	P109104
	Magnesium	24375.28	25000.0	97.5	90.0 - 110.0	P	9/10/2004	12:37	P109104
	Manganese	2397.52	2500.0	95.9	90.0 - 110.0	P	9/10/2004	12:37	P109104
	Potassium	25568.62	25000.0	102.3	90.0 - 110.0	P	9/10/2004	12:37	P109104
	Sodium	25233.31	25000.0	100.9	90.0 - 110.0	P	9/10/2004	12:37	P109104
<b>CCV09</b>									
	Calcium	26072.98	25000.0	104.3	90.0 - 110.0	P	9/10/2004	13:05	P109104
	Magnesium	25177.98	25000.0	100.7	90.0 - 110.0	P	9/10/2004	13:05	P109104
	Manganese	2529.90	2500.0	101.2	90.0 - 110.0	P	9/10/2004	13:05	P109104
	Potassium	25978.49	25000.0	103.9	90.0 - 110.0	P	9/10/2004	13:05	P109104
	Sodium	25996.93	25000.0	104.0	90.0 - 110.0	P	9/10/2004	13:05	P109104



# Chemtech Consulting Group

## Metals

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### INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Parsons Engineering

SDG No.: S4414

Contract: Parsons Engineering Lab Code: CHEMED

Case No.: S4414 SAS No.: S4414

Initial Calibration Source: EPA-ICV

Continuing Calibration Source: EPA-LV

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
<b>CCV10</b>									
	Calcium	24833.76	25000.0	99.3	90.0 - 110.0	P	9/10/2004	13:33	P109104
	Magnesium	24509.38	25000.0	98.0	90.0 - 110.0	P	9/10/2004	13:33	P109104
	Manganese	2422.90	2500.0	96.9	90.0 - 110.0	P	9/10/2004	13:33	P109104
	Potassium	25756.95	25000.0	103.0	90.0 - 110.0	P	9/10/2004	13:33	P109104
	Sodium	25577.91	25000.0	102.3	90.0 - 110.0	P	9/10/2004	13:33	P109104
<b>CCV11</b>									
	Calcium	25140.55	25000.0	100.6	90.0 - 110.0	P	9/10/2004	14:19	P109104
	Magnesium	24570.16	25000.0	98.3	90.0 - 110.0	P	9/10/2004	14:19	P109104
	Manganese	2444.06	2500.0	97.8	90.0 - 110.0	P	9/10/2004	14:19	P109104
	Potassium	25634.69	25000.0	102.5	90.0 - 110.0	P	9/10/2004	14:19	P109104
	Sodium	25754.90	25000.0	103.0	90.0 - 110.0	P	9/10/2004	14:19	P109104
<b>CCV12</b>									
	Calcium	25362.88	25000.0	101.5	90.0 - 110.0	P	9/10/2004	14:51	P109104
	Magnesium	24580.78	25000.0	98.3	90.0 - 110.0	P	9/10/2004	14:51	P109104
	Manganese	2457.86	2500.0	98.3	90.0 - 110.0	P	9/10/2004	14:51	P109104
	Potassium	25835.39	25000.0	103.3	90.0 - 110.0	P	9/10/2004	14:51	P109104
	Sodium	26019.72	25000.0	104.1	90.0 - 110.0	P	9/10/2004	14:51	P109104
<b>CCV13</b>									
	Calcium	26072.24	25000.0	104.3	90.0 - 110.0	P	9/10/2004	15:15	P109104
	Magnesium	25702.68	25000.0	102.8	90.0 - 110.0	P	9/10/2004	15:15	P109104
	Manganese	2496.00	2500.0	99.8	90.0 - 110.0	P	9/10/2004	15:15	P109104
	Potassium	26334.05	25000.0	105.3	90.0 - 110.0	P	9/10/2004	15:15	P109104
	Sodium	25900.47	25000.0	103.6	90.0 - 110.0	P	9/10/2004	15:15	P109104
<b>CCV14</b>									
	Calcium	25336.07	25000.0	101.3	90.0 - 110.0	P	9/10/2004	15:45	P109104
	Magnesium	25475.39	25000.0	101.9	90.0 - 110.0	P	9/10/2004	15:45	P109104
	Manganese	2489.28	2500.0	99.6	90.0 - 110.0	P	9/10/2004	15:45	P109104
	Potassium	26244.14	25000.0	105.0	90.0 - 110.0	P	9/10/2004	15:45	P109104
	Sodium	25832.99	25000.0	103.3	90.0 - 110.0	P	9/10/2004	15:45	P109104

**Metals**

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**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

Client: Parsons Engineering SDG No.: S4414  
 Contract: Parsons Engineering Lab Code: CHEMED Case No.: S4414 SAS No.: S4414  
 Initial Calibration Source: EPA-ICV  
 Continuing Calibration Source: EPA-LV

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
<b>CCV15</b>									
	Calcium	24588.26	25000.0	98.4	90.0 - 110.0	P	9/10/2004	16:28	P109104
	Magnesium	25269.99	25000.0	101.1	90.0 - 110.0	P	9/10/2004	16:28	P109104
	Manganese	2483.84	2500.0	99.4	90.0 - 110.0	P	9/10/2004	16:28	P109104
	Potassium	25695.57	25000.0	102.8	90.0 - 110.0	P	9/10/2004	16:28	P109104
	Sodium	24717.35	25000.0	98.9	90.0 - 110.0	P	9/10/2004	16:28	P109104
<b>CCV16</b>									
	Calcium	25719.73	25000.0	102.9	90.0 - 110.0	P	9/10/2004	17:02	P109104
	Magnesium	25630.10	25000.0	102.5	90.0 - 110.0	P	9/10/2004	17:02	P109104
	Manganese	2500.22	2500.0	100.0	90.0 - 110.0	P	9/10/2004	17:02	P109104
	Potassium	26351.60	25000.0	105.4	90.0 - 110.0	P	9/10/2004	17:02	P109104
	Sodium	25975.91	25000.0	103.9	90.0 - 110.0	P	9/10/2004	17:02	P109104
<b>CCV17</b>									
	Calcium	25507.49	25000.0	102.0	90.0 - 110.0	P	9/10/2004	17:28	P109104
	Magnesium	25435.80	25000.0	101.7	90.0 - 110.0	P	9/10/2004	17:28	P109104
	Manganese	2476.10	2500.0	99.0	90.0 - 110.0	P	9/10/2004	17:28	P109104
	Potassium	26186.90	25000.0	104.7	90.0 - 110.0	P	9/10/2004	17:28	P109104
	Sodium	26028.99	25000.0	104.1	90.0 - 110.0	P	9/10/2004	17:28	P109104
<b>CCV18</b>									
	Calcium	25012.81	25000.0	100.1	90.0 - 110.0	P	9/10/2004	17:56	P109104
	Magnesium	24924.76	25000.0	99.7	90.0 - 110.0	P	9/10/2004	17:56	P109104
	Manganese	2426.11	2500.0	97.0	90.0 - 110.0	P	9/10/2004	17:56	P109104
	Potassium	26033.45	25000.0	104.1	90.0 - 110.0	P	9/10/2004	17:56	P109104
	Sodium	27077.31	25000.0	108.3	90.0 - 110.0	P	9/10/2004	17:56	P109104
<b>CCV19</b>									
	Calcium	23701.85	25000.0	94.8	90.0 - 110.0	P	9/10/2004	18:24	P109104
	Magnesium	24285.71	25000.0	97.1	90.0 - 110.0	P	9/10/2004	18:24	P109104
	Manganese	2309.24	2500.0	92.4	90.0 - 110.0	P	9/10/2004	18:24	P109104
	Potassium	25691.41	25000.0	102.8	90.0 - 110.0	P	9/10/2004	18:24	P109104
	Sodium	26523.63	25000.0	106.1	90.0 - 110.0	P	9/10/2004	18:24	P109104

# Chemtech Consulting Group

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## Metals

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### INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Parsons Engineering

SDG No.: S4414

Contract: Parsons Engineering Lab Code: CHEMED

Case No.: S4414

SAS No.: S4414

Initial Calibration Source: EPA-ICV

Continuing Calibration Source: EPA-LV

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Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
<b>CCV20</b>									
	Calcium	24123.59	25000.0	96.5	90.0 - 110.0	P	9/10/2004	18:47	P109104
	Magnesium	24287.60	25000.0	97.2	90.0 - 110.0	P	9/10/2004	18:47	P109104
	Manganese	2338.45	2500.0	93.5	90.0 - 110.0	P	9/10/2004	18:47	P109104
	Potassium	25169.57	25000.0	100.7	90.0 - 110.0	P	9/10/2004	18:47	P109104
	Sodium	24250.37	25000.0	97.0	90.0 - 110.0	P	9/10/2004	18:47	P109104
<b>CCV21</b>									
	Calcium	24525.97	25000.0	98.1	90.0 - 110.0	P	9/10/2004	19:15	P109104
	Magnesium	24239.49	25000.0	97.0	90.0 - 110.0	P	9/10/2004	19:15	P109104
	Manganese	2360.30	2500.0	94.4	90.0 - 110.0	P	9/10/2004	19:15	P109104
	Potassium	25103.95	25000.0	100.4	90.0 - 110.0	P	9/10/2004	19:15	P109104
	Sodium	24425.79	25000.0	97.7	90.0 - 110.0	P	9/10/2004	19:15	P109104

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**Metals**

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**CRDL STANDARD FOR AA & ICP**

Client: Parsons Engineering

SDG No.: S4414

Contract: Parsons Engineering

Lab Code: CHEMED

Case No.: S4414

SAS No.: S4414

AA CRDL Standard Source: \_\_\_\_\_

ICP CRDL Standard Source: INOR-VEN

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Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Advisory Limits (%R)	M	Analysis Date	Analysis Time	Run Number
<b>CRI01</b>									
	Calcium	10160.06	10000.0	101.6	75 - 125	P	9/10/2004	08:18	P109104
	Magnesium	10176.96	10000.0	101.8	75 - 125	P	9/10/2004	08:18	P109104
	Manganese	32.38	30.0	107.9	75 - 125	P	9/10/2004	08:18	P109104
<b>CRI02</b>									
	Calcium	9679.96	10000.0	96.8	75 - 125	P	9/10/2004	16:15	P109104
	Magnesium	10137.99	10000.0	101.4	75 - 125	P	9/10/2004	16:15	P109104
	Manganese	32.56	30.0	108.5	75 - 125	P	9/10/2004	16:15	P109104

**Metals**

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**INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY**

Client: Parsons Engineering

SDG No.: S4414

Contract: Parsons Engineering

Lab Code: CHEMED

Case No.: S4414

SAS No.: S4414

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
<b>ICB01</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	08:15	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	08:15	P109104
	Manganese	-0.4	+/-15.0	J	0.2	15.0	P	9/10/2004	08:15	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	08:15	P109104
	Sodium	-223.1	+/-5000.0	J	189.5	5000.0	P	9/10/2004	08:15	P109104
<b>CCB01</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	08:36	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	08:36	P109104
	Manganese	0.2	+/-15.0	U	0.2	15.0	P	9/10/2004	08:36	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	08:36	P109104
	Sodium	189.5	+/-5000.0	U	189.5	5000.0	P	9/10/2004	08:36	P109104
<b>CCB02</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	09:04	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	09:04	P109104
	Manganese	0.8	+/-15.0	J	0.2	15.0	P	9/10/2004	09:04	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	09:04	P109104
	Sodium	-252.8	+/-5000.0	J	189.5	5000.0	P	9/10/2004	09:04	P109104
<b>CCB03</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	09:37	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	09:37	P109104
	Manganese	-0.3	+/-15.0	J	0.2	15.0	P	9/10/2004	09:37	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	09:37	P109104
	Sodium	-293.7	+/-5000.0	J	189.5	5000.0	P	9/10/2004	09:37	P109104
<b>CCB04</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	10:05	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	10:05	P109104
	Manganese	0.4	+/-15.0	J	0.2	15.0	P	9/10/2004	10:05	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	10:05	P109104
	Sodium	-372.2	+/-5000.0	J	189.5	5000.0	P	9/10/2004	10:05	P109104

**Metals**

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**INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY**

Client: Parsons Engineering

SDG No.: S4414

Contract: Parsons Engineering

Lab Code: CHEMED

Case No.: S4414

SAS No.: S4414

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
<b>CCB05</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	10:47	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	10:47	P109104
	Manganese	0.2	+/-15.0	U	0.2	15.0	P	9/10/2004	10:47	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	10:47	P109104
	Sodium	-380.1	+/-5000.0	J	189.5	5000.0	P	9/10/2004	10:47	P109104
<b>CCB06</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	11:23	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	11:23	P109104
	Manganese	0.2	+/-15.0	U	0.2	15.0	P	9/10/2004	11:23	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	11:23	P109104
	Sodium	-364.9	+/-5000.0	J	189.5	5000.0	P	9/10/2004	11:23	P109104
<b>CCB07</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	12:08	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	12:08	P109104
	Manganese	0.2	+/-15.0	U	0.2	15.0	P	9/10/2004	12:08	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	12:08	P109104
	Sodium	-463.3	+/-5000.0	J	189.5	5000.0	P	9/10/2004	12:08	P109104
<b>CCB08</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	12:39	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	12:39	P109104
	Manganese	1.7	+/-15.0	J	0.2	15.0	P	9/10/2004	12:39	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	12:39	P109104
	Sodium	-472.0	+/-5000.0	J	189.5	5000.0	P	9/10/2004	12:39	P109104
<b>CCB09</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	13:07	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	13:07	P109104
	Manganese	0.8	+/-15.0	J	0.2	15.0	P	9/10/2004	13:07	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	13:07	P109104
	Sodium	-435.2	+/-5000.0	J	189.5	5000.0	P	9/10/2004	13:07	P109104

**Metals**

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**INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY**

Client: Parsons Engineering

SDG No.: S4414

Contract: Parsons Engineering

Lab Code: CHEMED

Case No.: S4414

SAS No.: S4414

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
<b>CCB10</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	13:35	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	13:35	P109104
	Manganese	-0.2	+/-15.0	J	0.2	15.0	P	9/10/2004	13:35	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	13:35	P109104
	Sodium	-553.8	+/-5000.0	J	189.5	5000.0	P	9/10/2004	13:35	P109104
<b>CCB11</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	14:21	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	14:21	P109104
	Manganese	0.6	+/-15.0	J	0.2	15.0	P	9/10/2004	14:21	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	14:21	P109104
	Sodium	-402.3	+/-5000.0	J	189.5	5000.0	P	9/10/2004	14:21	P109104
<b>CCB12</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	14:53	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	14:53	P109104
	Manganese	0.2	+/-15.0	U	0.2	15.0	P	9/10/2004	14:53	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	14:53	P109104
	Sodium	-508.9	+/-5000.0	J	189.5	5000.0	P	9/10/2004	14:53	P109104
<b>CCB13</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	15:18	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	15:18	P109104
	Manganese	0.2	+/-15.0	U	0.2	15.0	P	9/10/2004	15:18	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	15:18	P109104
	Sodium	-464.8	+/-5000.0	J	189.5	5000.0	P	9/10/2004	15:18	P109104
<b>CCB14</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	15:50	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	15:50	P109104
	Manganese	0.4	+/-15.0	J	0.2	15.0	P	9/10/2004	15:50	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	15:50	P109104
	Sodium	-516.0	+/-5000.0	J	189.5	5000.0	P	9/10/2004	15:50	P109104

**Metals**

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**INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY**

Client: Parsons Engineering

SDG No.: S4414

Contract: Parsons Engineering

Lab Code: CHEMED

Case No.: S4414

SAS No.: S4414

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
<b>CCB15</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	16:34	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	16:34	P109104
	Manganese	0.3	+/-15.0	J	0.2	15.0	P	9/10/2004	16:34	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	16:34	P109104
	Sodium	189.5	+/-5000.0	U	189.5	5000.0	P	9/10/2004	16:34	P109104
<b>CCB16</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	17:05	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	17:05	P109104
	Manganese	-0.4	+/-15.0	J	0.2	15.0	P	9/10/2004	17:05	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	17:05	P109104
	Sodium	-686.8	+/-5000.0	J	189.5	5000.0	P	9/10/2004	17:05	P109104
<b>CCB17</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	17:31	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	17:31	P109104
	Manganese	-0.6	+/-15.0	J	0.2	15.0	P	9/10/2004	17:31	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	17:31	P109104
	Sodium	-605.1	+/-5000.0	J	189.5	5000.0	P	9/10/2004	17:31	P109104
<b>CCB18</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	17:59	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	17:59	P109104
	Manganese	-0.4	+/-15.0	J	0.2	15.0	P	9/10/2004	17:59	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	17:59	P109104
	Sodium	-683.9	+/-5000.0	J	189.5	5000.0	P	9/10/2004	17:59	P109104
<b>CCB19</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	18:26	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	18:26	P109104
	Manganese	-0.6	+/-15.0	J	0.2	15.0	P	9/10/2004	18:26	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	18:26	P109104
	Sodium	-539.4	+/-5000.0	J	189.5	5000.0	P	9/10/2004	18:26	P109104



**Metals**

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**INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY**

Client: Parsons Engineering

SDG No.: S4414

Contract: Parsons Engineering

Lab Code: CHEMED

Case No.: S4414

SAS No.: S4414

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Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
<b>CCB20</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	18:50	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	18:50	P109104
	Manganese	-0.4	+/-15.0	J	0.2	15.0	P	9/10/2004	18:50	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	18:50	P109104
	Sodium	-677.6	+/-5000.0	J	189.5	5000.0	P	9/10/2004	18:50	P109104
<b>CCB21</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	19:17	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	19:17	P109104
	Manganese	-0.5	+/-15.0	J	0.2	15.0	P	9/10/2004	19:17	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	19:17	P109104
	Sodium	-630.8	+/-5000.0	J	189.5	5000.0	P	9/10/2004	19:17	P109104

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**Metals**  
**- 3b -**  
**PREPARATION BLANK SUMMARY**

**Client:** Parsons Engineering

**SDG No.:** S4414

**Instrument:** P1

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Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	MDL ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
<b>PB00854BL</b>		<b>WATER</b>		<b>Batch Number:</b>	<b>PB00854</b>			<b>Prep Date:</b>	<b>9/3/2004</b>	
	Calcium	42.235	<5000.000	U	1744.700	5000.000	P	9/10/2004	17:15	P109104
	Magnesium	10.390	<5000.000	U	254.243	5000.000	P	9/10/2004	17:15	P109104
	Manganese	-0.260	<15.000	J	0.195	15.000	P	9/10/2004	17:15	P109104
	Potassium	-10.065	<5000.000	U	51.001	5000.000	P	9/10/2004	17:15	P109104
	Sodium	-645.965	<5000.000	J	189.471	5000.000	P	9/10/2004	17:15	P109104

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CHEMTECH

METALS  
QC DATA

**Metals**

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**INTERFERENCE CHECK SAMPLE**

Client: Parsons Engineering

SDG No.: S4414

Contract: Parsons Engineering

Lab Code: CHEMED

Case No.: S4414

SAS No.: S4414

ICS Source: EPA

Instrument ID: P1

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
<b>ICS-A01</b>								
	Calcium	425000	491900	86.4	80 - 120%	9/10/2004	08:23	P109104
	Magnesium	464000	542000	85.6	80 - 120%	9/10/2004	08:23	P109104
	Manganese	6.2				9/10/2004	08:23	P109104
	Potassium	48.9				9/10/2004	08:23	P109104
	Sodium	-183				9/10/2004	08:23	P109104
<b>ICS-AB01</b>								
	Calcium	417000	489000	85.3	80 - 120%	9/10/2004	08:27	P109104
	Magnesium	457000	540600	84.5	80 - 120%	9/10/2004	08:27	P109104
	Manganese	412	438	94.1	80 - 120%	9/10/2004	08:27	P109104
	Potassium	40.4				9/10/2004	08:27	P109104
	Sodium	-20.2				9/10/2004	08:27	P109104
<b>ICS-A02</b>								
	Calcium	413000	491900	84.0	80 - 120%	9/10/2004	16:20	P109104
	Magnesium	463000	542000	85.4	80 - 120%	9/10/2004	16:20	P109104
	Manganese	9.3				9/10/2004	16:20	P109104
	Potassium	67.4				9/10/2004	16:20	P109104
	Sodium	-80.5				9/10/2004	16:20	P109104
<b>ICS-AB02</b>								
	Calcium	413000	489000	84.5	80 - 120%	9/10/2004	16:22	P109104
	Magnesium	460000	540600	85.1	80 - 120%	9/10/2004	16:22	P109104
	Manganese	412	438	94.1	80 - 120%	9/10/2004	16:22	P109104
	Potassium	54.0				9/10/2004	16:22	P109104
	Sodium	-98.3				9/10/2004	16:22	P109104

**Metals**

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**MATRIX SPIKE SUMMARY**

Client: Parsons Engineering Level: LOW SDG No.: S4414  
 Contract: Parsons Engineering Lab Code: CHEMED Case No.: S4414 SAS No.: S4414  
 Matrix: WATER Sample ID: S4414-08 Client ID: TR2159S  
 Percent Solids for Sample: 0.00 Spiked ID: S4414-09S Percent Solids for Spike Sample: 0.00

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Calcium	ug/L	80 - 120	151759.5000		145745.0000		5000.00	120.3		P
Magnesium	ug/L	80 - 120	18747.0400		16686.2700		2000.00	103.0		P
Manganese	ug/L	80 - 120	211.9400		30.3900		200.00	90.8		P
Potassium	ug/L	80 - 120	12618.3800		1485.5200	J	10000.00	111.3		P
Sodium	ug/L	80 - 120	13349.2500		9977.1850		3000.00	112.4		P

**Metals**

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**MATRIX SPIKE DUPLICATE SUMMARY**

Client: Parsons Engineering Level: LOW SDG No.: S4414

Contract: Parsons Engineering Lab Code: CHEMED Case No.: S4414 SAS No.: S4414

Matrix: WATER Sample ID: S4414-08 Client ID: TR2159SD

Percent Solids for Sample: 0.00 Spiked ID: S4414-10SD Percent Solids for Spike Sample: 0.00

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Calcium	ug/L	80 - 120	152102.4000		145745.0000		5000.00	127.1		P
Magnesium	ug/L	80 - 120	18827.1400		16686.2700		2000.00	107.0		P
Manganese	ug/L	80 - 120	213.5100		30.3900		200.00	91.6		P
Potassium	ug/L	80 - 120	12615.9200		1485.5200	J	10000.00	111.3		P
Sodium	ug/L	80 - 120	13449.9600		9977.1850		3000.00	115.8		P

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**Metals**

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**DUPLICATE SAMPLE SUMMARY**

**Client:** Parsons Engineering      **Level:** LOW      **SDG No.:** S4414  
**Contract:** Parsons Engineering      **Lab Code:** CHEMED      **Case No.:** S4414      **SAS No.:** S4414  
**Matrix:** WATER      **Sample ID:** S4414-08      **Client ID:** TR2159D  
**Percent Solids for Sample:** 0.00      **Duplicate ID:** S4414-08D      **Percent Solids for Duplicate:** 0.00

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Calcium	ug/L		145745.0000		144595.7000		0.8		P
Magnesium	ug/L	5000.0000	16686.2700		16585.8900		0.6		P
Manganese	ug/L	15.0000	30.3900		29.7100		2.3		P
Potassium	ug/L		1485.5200	J	1476.7400	J	0.6		P
Sodium	ug/L	5000.0000	9977.1850		9898.2450		0.8		P

**Metals**

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**DUPLICATE SAMPLE SUMMARY**

**Client:** Parsons Engineering      **Level:** LOW      **SDG No.:** S4414  
**Contract:** Parsons Engineering      **Lab Code:** CHEMED      **Case No.:** S4414      **SAS No.:** S4414  
**Matrix:** WATER      **Sample ID:** S4414-09S      **Client ID:** TR2159SD  
**Percent Solids for Sample:** 0.00      **Duplicate ID:** S4414-10SD      **Percent Solids for Duplicate:** 0.00

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Calcium	ug/L		151759.5000		152102.4000		0.2		P
Magnesium	ug/L		18747.0400		18827.1400		0.4		P
Manganese	ug/L		211.9400		213.5100		0.7		P
Potassium	ug/L		12618.3800		12615.9200		0.0		P
Sodium	ug/L		13349.2500		13449.9600		0.8		P



**Metals**

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**LABORATORY CONTROL SAMPLE SUMMARY**

Client: Parsons Engineering

SDG No.: S4414

Contract: Parsons Engineering

Lab Code: CHEMED

Case No.: S4414

SAS No.: S4414

Aqueous LCS Source: EPA-ICV

Solid LCS Source:

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
<b>PB00854BS</b>								
	Calcium	ug/L	5000.0	5135.94		102.7	80.0 - 120.0	P
	Magnesium	ug/L	2000.0	2004.86	J	100.2	80.0 - 120.0	P
	Manganese	ug/L	200.0	212.26		106.1	80.0 - 120.0	P
	Potassium	ug/L	10000.0	9462.15		94.6	80.0 - 120.0	P
	Sodium	ug/L	3000.0	2800.94	J	93.4	80.0 - 120.0	P

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**Metals**

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**SERIAL DILUTION SAMPLE SUMMARY**

Client: Parsons Engineering SDG No.: S4414  
Contract: Parsons Engineering Lab Code: CHEMED Case No.: S4414 SAS No.: S4414  
Matrix: WATER Level: LOW Client ID: TR2159L  
Sample ID: S4414-08 Serial Dilution ID: S4414-08L

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Analyte	Initial Result ug/L	C	Serial Result ug/L	C	% Difference	Qual	Acceptance Limits	M
Calcium	145745.00		149920.40		2.9		10.00 %	P
Magnesium	16686.26		16875.15	J	1.1		10.00 %	P
Manganese	30.39		27.95	J	8.0		10.00 %	P
Potassium	1485.52	J	1083.88	J	27.0		10.00 %	P
Sodium	9977.18		5014.80	J	49.7		10.00 %	P

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284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

### INSTRUMENT DETECTION LIMITS

<b>Client:</b>	Parsons Engineering	<b>Project:</b>	
<b>Instrument ID:</b>	P1	<b>SDG No.:</b>	S4414

<b>Matrix</b>	<b>Parameter</b>	<b>Waveleanth</b>	<b>MDL</b>	<b>CRDL</b>	<b>Units</b>
<b>LIQUID</b>	Manganese	257.61	0.20	15.0	ug/L
	Magnesium	279.08	254.24	5000.0	ug/L
	Calcium	317.93	1744.70	5000.0	ug/L
	Sodium	330.23	189.47	5000.0	ug/L
	Potassium	766.49	51.00	5000.0	ug/L

**Metals**

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**ICP INTERELEMENT CORRECTION FACTORS**

Client: Parsons Engineering

SDG No.: S4414

Contract: Parsons Engineering Lab Code: CHEMED

Case No.: S4414 SAS No.: S4414

Instrument ID: P1

Date: 1/31/2004

Interelement Correction Factors (apparent ppb analyte/ppm interferent )

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For:				
		Al	Ca	Fe	Mg	Ag
Aluminum	308.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.70	0.0000000	0.0000000	0.0031000	0.0000000	0.0000000
Cobalt	228.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.70	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0000000	-0.0004000
Lead	220.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0005100
Manganese	257.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0129000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

**Metals  
- 11 -**

**ICP INTERELEMENT CORRECTION FACTORS**

Client: Parsons Engineering

SDG No.: S4414

Contract: Parsons Engineering Lab Code: CHEMED

Case No.: S4414 SAS No.: S4414

Instrument ID: P1

Date: 1/31/2004

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:				
		As	Ba	Be	Cd	Co
Aluminum	308.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.70	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.70	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0001000	0.0000000
Lead	220.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0002000
Potassium	766.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0022000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

**Metals**

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**ICP INTERELEMENT CORRECTION FACTORS**

Client: Parsons Engineering

SDG No.: S4414

Contract: Parsons Engineering Lab Code: CHEMED

Case No.: S4414 SAS No.: S4414

Instrument ID: P1

Date: 1/31/2004

Interelement Correction Factors (apparent ppb analyte/ppm interferent )

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:				
		Cr	Cu	K	Mn	Na
Aluminum	308.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.70	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.70	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.40	0.0000000	0.0000700	0.0000000	0.0002000	0.0000000
Lead	220.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0002000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

**Metals**

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**ICP INTERELEMENT CORRECTION FACTORS**

Client: Parsons Engineering

SDG No.: S4414

Contract: Parsons Engineering Lab Code: CHEMED

Case No.: S4414 SAS No.: S4414

Instrument ID: P1

Date: 1/31/2004

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:				
		Ni	Pb	Sb	Se	Tl
Aluminum	308.20	0.000000	0.0005300	0.000000	0.000000	0.000000
Antimony	206.80	0.000000	0.000000	0.000000	0.000000	0.000000
Arsenic	189.00	0.000000	0.000000	0.000000	0.000000	0.000000
Barium	493.40	0.000000	0.000000	0.000000	0.000000	0.000000
Beryllium	313.00	0.000000	0.000000	0.000000	0.000000	0.000000
Cadmium	226.50	0.000000	0.000000	0.000000	0.000000	0.000000
Calcium	317.90	0.000000	0.000000	0.000000	0.000000	0.000000
Chromium	267.70	0.000000	0.000000	0.0037800	0.000000	0.000000
Cobalt	228.60	0.0002000	0.000000	0.000000	0.000000	0.000000
Copper	324.70	0.000000	0.000000	0.000000	0.000000	0.000000
Iron	271.40	0.0001000	0.0002000	0.0000500	-0.0000600	-0.0000400
Lead	220.40	0.000000	0.000000	0.000000	0.000000	0.000000
Magnesium	279.00	0.000000	0.0001200	0.000000	0.0004200	0.000000
Manganese	257.60	0.000000	0.000000	0.000000	0.000000	0.000000
Nickel	231.60	0.000000	0.0000890	0.000000	0.000000	0.000000
Potassium	766.50	0.000000	0.000000	0.000000	0.000000	0.000000
Selenium	196.00	0.000000	0.000000	0.000000	0.000000	0.000000
Silver	328.00	0.000000	0.000000	0.000000	0.000000	0.000000
Sodium	588.90	0.000000	0.000000	0.000000	0.000000	0.000000
Thallium	190.90	0.000000	0.000000	0.000000	0.000000	0.000000
Vanadium	292.40	0.000000	-0.0000500	0.000000	0.000000	0.000000
Zinc	206.20	0.000000	0.000000	0.000000	0.000000	0.000000



**Metals**  
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**ICP INTERELEMENT CORRECTION FACTORS**

Client: Parsons Engineering

SDG No.: S4414

Contract: Parsons Engineering Lab Code: CHEMED

Case No.: S4414 SAS No.: S4414

Instrument ID: P1

Date: 1/31/2004

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:			
		V	Zn		
Aluminum	308.20	0.000000	0.000000		
Antimony	206.80	0.000000	0.000000		
Arsenic	189.00	0.000000	0.000000		
Barium	493.40	0.000000	0.000000		
Beryllium	313.00	0.000000	0.000000		
Cadmium	226.50	0.000000	0.000000		
Calcium	317.90	0.000000	0.000000		
Chromium	267.70	-0.001820	0.000000		
Cobalt	228.60	0.000000	0.000000		
Copper	324.70	0.000000	0.000600		
Iron	271.40	-0.000040	0.000600		
Lead	220.40	0.000000	0.000000		
Magnesium	279.00	0.000000	0.000000		
Manganese	257.60	0.000000	0.000000		
Nickel	231.60	0.000000	0.000000		
Potassium	766.50	0.000000	0.000000		
Selenium	196.00	0.000000	0.000000		
Silver	328.00	0.000000	0.000000		
Sodium	588.90	0.000000	0.000000		
Thallium	190.90	0.000000	0.000000		
Vanadium	292.40	0.000000	0.000000		
Zinc	206.20	0.000000	0.000000		

**Metals**  
**- 12 -**  
**LINEAR RANGES**

Client: Parsons Engineering SDG No.: S4414  
Contract: Parsons Engineering Lab Code: CHEMED Case No.: S4414 SAS No.: S4414  
Instrument ID: P1 Date: 8/1/2004

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Analyte	Integration Time (sec)	LDR ug/L
Calcium	10.00	600000
Magnesium	10.00	700000
Manganese	10.00	40000
Potassium	10.00	150000
Sodium	10.00	2500000

**Metals  
- 13 -  
SAMPLE PREPARATION SUMMARY**

Client: Parsons Engineering

SDG No.: S4414

Contract: Parsons Engineering

Lab Code: CHEMED

Method: P

Case No.: S4414

SAS No.: S4414

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
<b>Batch Number:</b>	<b>PB00854</b>						
PB00854BL	PB00854BL	MB	WATER	9/3/04	100.0	100.0	
PB00854BS	PB00854BS	LCS	WATER	9/3/04	100.0	100.0	
S4414-01	TR2154	SAM	WATER	9/3/04	100.0	100.0	
S4414-02	TR2156	SAM	WATER	9/3/04	100.0	100.0	
S4414-03	TR2155	SAM	WATER	9/3/04	100.0	100.0	
S4414-04	TR2149	SAM	WATER	9/3/04	100.0	100.0	
S4414-05	TR2153	SAM	WATER	9/3/04	100.0	100.0	
S4414-06	TR2151	SAM	WATER	9/3/04	100.0	100.0	
S4414-07	TR2152	SAM	WATER	9/3/04	100.0	100.0	
S4414-08	TR2159	SAM	WATER	9/3/04	100.0	100.0	
S4414-08D	TR2159D	DUP	WATER	9/3/04	100.0	100.0	
S4414-09S	TR2159S	MS	WATER	9/3/04	100.0	100.0	
S4414-10SD	TR2159SD	MSD	WATER	9/3/04	100.0	100.0	
S4414-11	TR2160	SAM	WATER	9/3/04	100.0	100.0	
S4414-12	TR2158	SAM	WATER	9/3/04	100.0	100.0	
S4414-13	TR2157	SAM	WATER	9/3/04	100.0	100.0	
S4414-15	TR0057	SAM	WATER	9/3/04	100.0	100.0	



**Metals**  
14  
ANALYSIS RUN LOG

Client: Parsons Engineering Contract: Parsons Engineering  
 Lab Code: CHEMED Case No.: S4414 SAS No.: S4414 SDG No.: S4414  
 Instrument ID Number: P1 Method: P Run Number: P109104  
 Start Date: 9/10/2004 End Date: 9/10/2004

EPA Sample No.	D/F	Time	% R	Analytes																											
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K E	S E	A G	N A	T L	V	Z N	C N				
CCV03	1.00	0935							X					X	X			X			X										
CCB03	1.00	0937						X						X	X			X			X										
ZZZZZZ	1.00	0939																													
ZZZZZZ	1.00	0941																													
ZZZZZZ	1.00	0943																													
ZZZZZZ	1.00	0946																													
ZZZZZZ	1.00	0948																													
ZZZZZZ	1.00	0950																													
ZZZZZZ	1.00	0952																													
ZZZZZZ	1.00	0954																													
ZZZZZZ	1.00	0956																													
ZZZZZZ	1.00	0958																													
CCV04	1.00	1001						X						X	X			X			X										
CCB04	1.00	1005						X						X	X			X			X										
ZZZZZZ	1.00	1008																													
ZZZZZZ	1.00	1010																													
ZZZZZZ	1.00	1012																													
ZZZZZZ	1.00	1014																													
ZZZZZZ	1.00	1017																													
ZZZZZZ	1.00	1029																													
ZZZZZZ	1.00	1037																													
ZZZZZZ	1.00	1039																													
ZZZZZZ	1.00	1041																													
ZZZZZZ	5.00	1043																													
CCV05	1.00	1045						X						X	X			X			X										
CCB05	1.00	1047						X						X	X			X			X										
ZZZZZZ	1.00	1054																													
ZZZZZZ	1.00	1056																													
ZZZZZZ	1.00	1057																													
ZZZZZZ	1.00	1100																													
ZZZZZZ	1.00	1102																													
ZZZZZZ	1.00	1109																													
ZZZZZZ	1.00	1111																													
ZZZZZZ	1.00	1113																													
ZZZZZZ	1.00	1115																													
ZZZZZZ	1.00	1117																													

Metals  
14  
ANALYSIS RUN LOG

Client: Parsons Engineering Contract: Parsons Engineering  
 Lab Code: CHEMED Case No.: S4414 SAS No.: S4414 SDG No.: S4414  
 Instrument ID Number: P1 Method: P Run Number: P109104  
 Start Date: 9/10/2004 End Date: 9/10/2004

EPA Sample No.	D/F	Time	% R	Analytes																					
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K E	S G	A L	N T	V L	Z N
CCV06	1.00	1121						X					X	X			X			X					
CCB06	1.00	1123						X					X	X			X			X					
ZZZZZZ	1.00	1125																							
ZZZZZZ	1.00	1130																							
ZZZZZZ	1.00	1134																							
ZZZZZZ	1.00	1137																							
ZZZZZZ	5.00	1139																							
ZZZZZZ	1.00	1141																							
ZZZZZZ	1.00	1143																							
ZZZZZZ	1.00	1147																							
ZZZZZZ	1.00	1152																							
ZZZZZZ	1.00	1157																							
CCV07	1.00	1205						X					X	X			X			X					
CCB07	1.00	1208						X					X	X			X			X					
ZZZZZZ	1.00	1211																							
ZZZZZZ	1.00	1213																							
ZZZZZZ	1.00	1215																							
ZZZZZZ	1.00	1217																							
ZZZZZZ	1.00	1219																							
ZZZZZZ	1.00	1225																							
ZZZZZZ	1.00	1227																							
ZZZZZZ	1.00	1229																							
ZZZZZZ	1.00	1231																							
ZZZZZZ	1.00	1233																							
CCV08	1.00	1237						X					X	X			X			X					
CCB08	1.00	1239						X					X	X			X			X					
ZZZZZZ	1.00	1242																							
ZZZZZZ	1.00	1244																							
ZZZZZZ	1.00	1246																							
ZZZZZZ	1.00	1248																							
ZZZZZZ	1.00	1251																							
ZZZZZZ	1.00	1253																							
ZZZZZZ	1.00	1255																							
ZZZZZZ	1.00	1257																							
ZZZZZZ	1.00	1259																							
ZZZZZZ	1.00	1303																							

**Metals**  
14  
ANALYSIS RUN LOG

Client: Parsons Engineering Contract: Parsons Engineering  
 Lab Code: CHEMED Case No.: S4414 SAS No.: S4414 SDG No.: S4414  
 Instrument ID Number: P1 Method: P Run Number: P109104  
 Start Date: 9/10/2004 End Date: 9/10/2004

EPA Sample No.	D/F	Time	% R	Analytes																				
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C F	P B	M G	M N	H G	N I	K E	S G	A L	N T	V L	Z N
CCV09	1.00	1305						X					X	X		X		X						
CCB09	1.00	1307						X					X	X		X		X						
ZZZZZZ	5.00	1311																						
ZZZZZZ	1.00	1312																						
ZZZZZZ	1.00	1315																						
ZZZZZZ	1.00	1317																						
ZZZZZZ	1.00	1320																						
ZZZZZZ	1.00	1322																						
ZZZZZZ	1.00	1323																						
ZZZZZZ	1.00	1325																						
ZZZZZZ	5.00	1329																						
ZZZZZZ	1.00	1331																						
CCV10	1.00	1333						X					X	X		X		X						
CCB10	1.00	1335						X					X	X		X		X						
ZZZZZZ	1.00	1337																						
ZZZZZZ	1.00	1340																						
ZZZZZZ	1.00	1342																						
ZZZZZZ	1.00	1345																						
ZZZZZZ	1.00	1347																						
ZZZZZZ	1.00	1406																						
ZZZZZZ	1.00	1408																						
ZZZZZZ	1.00	1411																						
ZZZZZZ	1.00	1413																						
ZZZZZZ	1.00	1415																						
CCV11	1.00	1419						X					X	X		X		X						
CCB11	1.00	1421						X					X	X		X		X						
ZZZZZZ	1.00	1425																						
ZZZZZZ	1.00	1427																						
ZZZZZZ	1.00	1428																						
ZZZZZZ	1.00	1430																						
ZZZZZZ	1.00	1432																						
ZZZZZZ	1.00	1435																						
ZZZZZZ	1.00	1438																						
ZZZZZZ	1.00	1441																						
ZZZZZZ	1.00	1444																						
ZZZZZZ	5.00	1445																						

**Metals**  
14  
**ANALYSIS RUN LOG**

Client: Parsons Engineering Contract: Parsons Engineering  
 Lab Code: CHEMED Case No.: S4414 SAS No.: S4414 SDG No.: S4414  
 Instrument ID Number: P1 Method: P Run Number: P109104  
 Start Date: 9/10/2004 End Date: 9/10/2004

EPA Sample No.	D/F	Time	% R	Analytes																						
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K E	S E	A G	N A	T L	V	Z N
CCV12	1.00	1451							X					X	X			X			X					
CCB12	1.00	1453							X					X	X			X			X					
ZZZZZZ	1.00	1455																								
ZZZZZZ	1.00	1457																								
ZZZZZZ	1.00	1459																								
ZZZZZZ	1.00	1501																								
ZZZZZZ	1.00	1503																								
ZZZZZZ	1.00	1505																								
ZZZZZZ	1.00	1507																								
ZZZZZZ	1.00	1509																								
ZZZZZZ	1.00	1511																								
ZZZZZZ	1.00	1513																								
CCV13	1.00	1515							X					X	X			X			X					
CCB13	1.00	1518							X					X	X			X			X					
ZZZZZZ	1.00	1523																								
ZZZZZZ	1.00	1526																								
ZZZZZZ	1.00	1527																								
ZZZZZZ	1.00	1529																								
ZZZZZZ	1.00	1532																								
ZZZZZZ	1.00	1534																								
ZZZZZZ	1.00	1536																								
ZZZZZZ	1.00	1538																								
ZZZZZZ	1.00	1540																								
ZZZZZZ	1.00	1543																								
CCV14	1.00	1545							X					X	X			X			X					
CCB14	1.00	1550							X					X	X			X			X					
ZZZZZZ	1.00	1554																								
ZZZZZZ	1.00	1556																								
ZZZZZZ	1.00	1558																								
ZZZZZZ	1.00	1601																								
ZZZZZZ	1.00	1603																								
ZZZZZZ	1.00	1605																								
ZZZZZZ	1.00	1607																								
CRI02	1.00	1615							X					X	X			X			X					
ICS-A02	1.00	1620							X					X	X			X			X					
ICS-AB02	1.00	1622							X					X	X			X			X					



**Metals**  
14  
ANALYSIS RUN LOG

Client: Parsons Engineering Contract: Parsons Engineering  
 Lab Code: CHEMED Case No.: S4414 SAS No.: S4414 SDG No.: S4414  
 Instrument ID Number: P1 Method: P Run Number: P109104  
 Start Date: 9/10/2004 End Date: 9/10/2004

EPA Sample No.	D/F	Time	% R	Analytes																						
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K E	S G	A G	N A	T L	V	Z N
CCV15	1.00	1628							X					X	X			X		X						
CCB15	1.00	1634						X						X	X			X		X						
ZZZZZZ	10.00	1641																								
ZZZZZZ	10.00	1643																								
ZZZZZZ	10.00	1645																								
ZZZZZZ	10.00	1647																								
ZZZZZZ	10.00	1649																								
ZZZZZZ	10.00	1651																								
ZZZZZZ	1.00	1653																								
ZZZZZZ	1.00	1655																								
ZZZZZZ	1.00	1657																								
ZZZZZZ	1.00	1700																								
CCV16	1.00	1702						X						X	X			X		X						
CCB16	1.00	1705						X						X	X			X		X						
ZZZZZZ	1.00	1707																								
ZZZZZZ	1.00	1709																								
ZZZZZZ	1.00	1711																								
ZZZZZZ	1.00	1713																								
PB00854BL	1.00	1715						X						X	X			X		X						
PB00854BS	1.00	1717						X						X	X			X		X						
ZZZZZZ	1.00	1719																								
ZZZZZZ	1.00	1722																								
TR2154	1.00	1724						X						X	X			X		X						
TR2156	1.00	1726						X						X	X			X		X						
CCV17	1.00	1728						X						X	X			X		X						
CCB17	1.00	1731						X						X	X			X		X						
TR2155	1.00	1734						X						X	X			X		X						
TR2149	1.00	1737						X						X	X			X		X						
TR2153	1.00	1739						X						X	X			X		X						
TR2151	1.00	1741						X						X	X			X		X						
TR2152	1.00	1743						X						X	X			X		X						
TR2159	1.00	1745						X						X	X			X		X						
TR2159D	1.00	1747						X						X	X			X		X						
TR2159L	5.00	1749						X						X	X			X		X						
TR2159S	1.00	1751						X						X	X			X		X						
TR2159SD	1.00	1753						X						X	X			X		X						

**Metals**  
14  
**ANALYSIS RUN LOG**

Client: Parsons Engineering Contract: Parsons Engineering  
 Lab Code: CHEMED Case No.: S4414 SAS No.: S4414 SDG No.: S4414  
 Instrument ID Number: P1 Method: P Run Number: P109104  
 Start Date: 9/10/2004 End Date: 9/10/2004

EPA Sample No.	D/F	Time	% R	Analytes																											
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K E	S G	A L	N T	T V	Z N	C N					
CCV18	1.00	1756						X						X	X			X		X											
CCB18	1.00	1759						X						X	X			X		X											
ZZZZZZ	1.00	1802																													
TR2160	1.00	1804						X						X	X			X		X											
TR2158	1.00	1806						X						X	X			X		X											
TR2157	1.00	1808						X						X	X			X		X											
TR0057	1.00	1810						X						X	X			X		X											
ZZZZZZ	1.00	1812																													
ZZZZZZ	1.00	1815																													
ZZZZZZ	1.00	1819																													
ZZZZZZ	1.00	1820																													
ZZZZZZ	1.00	1822																													
CCV19	1.00	1824						X						X	X			X		X											
CCB19	1.00	1826						X						X	X			X		X											
ZZZZZZ	1.00	1828																													
ZZZZZZ	1.00	1830																													
ZZZZZZ	1.00	1832																													
ZZZZZZ	1.00	1834																													
ZZZZZZ	1.00	1836																													
ZZZZZZ	1.00	1838																													
ZZZZZZ	1.00	1840																													
ZZZZZZ	1.00	1841																													
ZZZZZZ	1.00	1843																													
ZZZZZZ	1.00	1845																													
CCV20	1.00	1847						X						X	X			X		X											
CCB20	1.00	1850						X						X	X			X		X											
ZZZZZZ	1.00	1853																													
ZZZZZZ	1.00	1855																													
ZZZZZZ	1.00	1857																													
ZZZZZZ	5.00	1859																													
ZZZZZZ	1.00	1904																													
ZZZZZZ	1.00	1905																													
ZZZZZZ	1.00	1908																													
ZZZZZZ	1.00	1909																													
ZZZZZZ	1.00	1911																													
ZZZZZZ	1.00	1913																													

**Metals  
14  
ANALYSIS RUN LOG**

Client: Parsons Engineering Contract: Parsons Engineering  
 Lab Code: CHEMED Case No.: S4414 SAS No.: S4414 SDG No.: S4414  
 Instrument ID Number: P1 Method: P Run Number: P109104  
 Start Date: 9/10/2004 End Date: 9/10/2004

EPA Sample No.	D/F	Time	% R	Analytes																											
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K E	S G	A G	N A	T L	V	Z N	C N				
CCV21	1.00	1915							X						X	X		X			X										
CCB21	1.00	1917							X						X	X		X			X										

**CHEMTECH**

**METALS**  
**RAW DATA**

Method: 6010B            Standard: S0  
Run Time: 09/10/04 07:35:48

Elem	As1890	Tl1908	Al3082	Ba4934	Be3130	Cd2265	Ca3179
Avge	-.00647	-.00400	.08040	.00220	.02140	.00240	.00033
SDev	.00255	.00490	.00094	.00009	.00028	.00075	.00009
%RSD	39.365	122.57	1.1726	4.2855	1.3217	31.427	28.284
#1	-.00467	-.00053	.08107	.00213	.02160	.00293	.00027
#2	-.00827	-.00747	.07973	.00227	.02120	.00187	.00040
Elem	Cr2677	Co2296	Cu3247	Fe2714	Mn2576	Mg2790	Ni2316
Avge	.00127	-.00007	.01033	-.00013	.00053	.00060	.00353
SDev	.00047	.00047	.00009	.00019	.00000	.00009	.00066
%RSD	37.216	707.11	.91240	141.42	.00000	15.713	18.678
#1	.00160	-.00040	.01040	.00000	.00053	.00067	.00400
#2	.00093	.00027	.01027	-.00027	.00053	.00053	.00307
Elem	Ag3280	Na3302	V_2924	Zn2138	K_7664	2068-2	2068-1
Avge	-.00027	-.03167	.00020	.00233	-.05607	.00147	.00187
SDev	.00000	.00405	.00009	.00009	.00009	.00057	.00245
%RSD	.00000	12.802	47.140	4.0406	.16816	38.569	131.32
#1	-.00027	-.03453	.00013	.00227	-.05613	.00187	.00013
#2	-.00027	-.02880	.00027	.00240	-.05600	.00107	.00360
Elem	2203-1	2203-2	1960-1	1960-2	Mo2020	B_2496	Ti3349
Avge	.05040	-.00020	-.00273	.01467	.00340	.00793	.00113
SDev	.00434	.00066	.00255	.00132	.00123	.00085	.00028
%RSD	8.6050	329.98	93.131	8.9995	36.049	10.696	24.957
#1	.04733	-.00067	-.00453	.01373	.00253	.00853	.00093
#2	.05347	.00027	-.00093	.01560	.00427	.00733	.00133
Elem	Sn1899	Si2881					
Avge	-.00040	.09087					
SDev	.00811	.00198					
%RSD	2027.0	2.1789					
#1	-.00613	.09227					
#2	.00533	.08947					

OK 9/10/04

Method: 6010B                    Standard: S1  
 Run Time: 09/10/04 07:37:54

Elem	As1890	Tl1908	Al3082	Ba4934	Be3130	Cd2265	Ca3179
Avge	1.4632	.65673	.69787	7.5190	.25520	3.6703	.49233
SDev	.0025	.01292	.00113	.0233	.00151	.0080	.00255
%RSD	.16753	1.9668	.16212	.30971	.59110	.21834	.51705
#1	1.4615	.64760	.69707	7.5025	.25413	3.6647	.49053
#2	1.4649	.66587	.69867	7.5355	.25627	3.6760	.49413
Elem	Cr2677	Co2296	Cu3247	Fe2714	Mn2576	Mg2790	Ni2316
Avge	.31867	.48993	.71733	.02880	.82633	.89040	1.5891
SDev	.00245	.00198	.00189	.00000	.00292	.00170	.0055
%RSD	.76924	.40411	.26286	.00000	.35370	.19060	.34412
#1	.31693	.48853	.71600	.02880	.82427	.88920	1.5852
#2	.32040	.49133	.71867	.02880	.82840	.89160	1.5929
Elem	Ag3280	Na3302	V_2924	Zn2138	K_7664	2068-2	2068-1
Avge	.49467	1.0786	.22553	.45687	2.1172	1.5013	2.6347
SDev	.00094	.0122	.00066	.00217	.0049	.0085	.0124
%RSD	.19060	1.1276	.29263	.47464	.23156	.56518	.47236
#1	.49400	1.0700	.22507	.45533	2.1137	1.5073	2.6259
#2	.49533	1.0872	.22600	.45840	2.1207	1.4953	2.6435
Elem	2203-1	2203-2	1960-1	1960-2	Mo2020	B_2496	Ti3349
Avge	4.2757	2.8024	2.0575	1.9159	2.0766	1.0345	3.6591
SDev	.0089	.0396	.0099	.0168	.0042	.0083	.0150
%RSD	.20727	1.4130	.48113	.87595	.20431	.80198	.40968
#1	4.2695	2.7744	2.0505	1.9040	2.0736	1.0287	3.6485
#2	4.2820	2.8304	2.0645	1.9277	2.0796	1.0404	3.6697
Elem	Sn1899	Si2881					
Avge	1.2034	.57127					
SDev	.0010	.00179					
%RSD	.08618	.31357					
#1	1.2027	.57000					
#2	1.2041	.57253					

09/10/04

Method: 6010B                    Standard: S2  
Run Time: 09/10/04 07:40:12

Elem	As1890	Tl1908	Al3082	Ba4934	Be3130	Cd2265	Ca3179
Avge	3.0436	1.4054	1.3867	14.869	.49987	7.5397	1.0179
SDev	.0023	.0144	.0011	.004	.00019	.0048	.0030
%RSD	.07435	1.0264	.08159	.02853	.03772	.06377	.29640
#1	3.0420	1.4156	1.3859	14.866	.50000	7.5431	1.0157
#2	3.0452	1.3952	1.3875	14.872	.49973	7.5363	1.0200
Elem	Cr2677	Co2296	Cu3247	Fe2714	Mn2576	Mg2790	Ni2316
Avge	.65400	1.0149	1.4857	.05873	1.6804	1.8315	3.2739
SDev	.00075	.0008	.0034	.00009	.0023	.0009	.0033
%RSD	.11533	.07432	.22845	.16053	.13466	.05147	.10079
#1	.65347	1.0155	1.4833	.05880	1.6788	1.8308	3.2716
#2	.65453	1.0144	1.4881	.05867	1.6820	1.8321	3.2763
Elem	Ag3280	Na3302	V_2924	Zn2138	K_7664	2068-2	2068-1
Avge	1.0402	2.4783	.46300	.92680	4.8445	3.1254	5.4778
SDev	.0001	.0180	.00009	.00245	.0019	.0135	.0058
%RSD	.00906	.72660	.02036	.26449	.03892	.43137	.10499
#1	1.0401	2.4656	.46307	.92507	4.8459	3.1159	5.4737
#2	1.0403	2.4911	.46293	.92853	4.8432	3.1349	5.4819
Elem	2203-1	2203-2	1960-1	1960-2	Mo2020	B_2496	Ti3349
Avge	8.9902	5.9109	4.3334	3.9859	4.2655	2.1673	7.4575
SDev	.0357	.0052	.0469	.0049	.0131	.0074	.0042
%RSD	.39746	.08773	1.0813	.12300	.30723	.34367	.05689
#1	8.9649	5.9145	4.3003	3.9893	4.2748	2.1620	7.4545
#2	9.0155	5.9072	4.3665	3.9824	4.2563	2.1725	7.4605
Elem	Sn1899	Si2881					
Avge	2.5405	1.0955					
SDev	.0066	.0030					
%RSD	.25978	.27540					
#1	2.5359	1.0933					
#2	2.5452	1.0976					

09/10/04

Method: 6010B Standard: S

Run Time: 09/10/04 07:54:16

Elem	As1890	Tl1908	Al3082	Ba4934	Be3130	Cd2265	Ca3179
Avge	5.6478	2.6239	2.5571	25.513	.89320	13.788	1.8697
SDev	.0931	.0094	.0349	.293	.01773	.295	.0526
%RSD	1.6476	.35932	1.3642	1.1504	1.9844	2.1362	2.8137

#1	5.5820	2.6172	2.5324	25.306	.88067	13.580	1.8325
#2	5.7136	2.6305	2.5817	25.721	.90573	13.996	1.9069

Elem	Cr2677	Co2296	Cu3247	Fe2714	Mn2576	Mg2790	Ni2316
Avge	1.2081	1.9164	2.8634	.11180	3.0749	3.3989	6.1248
SDev	.0296	.0358	.0169	.00160	.0637	.0495	.1033
%RSD	2.4504	1.8695	.58938	1.4336	2.0727	1.4563	1.6871

#1	1.1872	1.8911	2.8515	.11067	3.0299	3.3639	6.0517
#2	1.2291	1.9417	2.8753	.11293	3.1200	3.4339	6.1979

Elem	Ag3280	Na3302	V_2924	Zn2138	K_7664	2068-2	2068-1
Avge	1.9063	5.0390	.86887	1.6580	9.5111	5.8234	10.509
SDev	.0446	.0553	.01480	.0388	.0236	.0721	.140
%RSD	2.3393	1.0983	1.7036	2.3428	.24782	1.2385	1.3323

#1	1.8748	4.9999	.85840	1.6305	9.4944	5.7724	10.410
#2	1.9379	5.0781	.87933	1.6855	9.5277	5.8744	10.608

Elem	2203-1	2203-2	1960-1	1960-2	Mo2020	B_2496	Ti3349
Avge	17.023	11.184	8.2440	7.4953	7.7025	4.0469	13.813
SDev	.169	.219	.0705	.1516	.1691	.0770	.205
%RSD	.99473	1.9607	.85544	2.0226	2.1959	1.9034	1.4866

#1	16.903	11.029	8.1941	7.3881	7.5829	3.9924	13.668
#2	17.142	11.339	8.2939	7.6025	7.8221	4.1013	13.959

Elem	Sn1899	Si2881
Avge	4.9387	1.8489
SDev	.0698	.0493
%RSD	1.4127	2.6670

#1	4.8893	1.8140
#2	4.9880	1.8837

6/9/04



Method: 6010B

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
As1890	189.042	S0	.000000	-.000239	.000239
		S1	2.50000	2.49944	.000559
		S2	5.00000	5.18746	-.187462
		S	10.0000	9.61681	.383189

CorCoef: 0.99905

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Tl1908	190.864	S0	.000000	.000089	-.000089
		S1	2.50000	2.45901	.040988
		S2	5.00000	5.24518	-.245178
		S	10.0000	9.77971	.220293

CorCoef: 0.99913

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pb2203	220.353	NONE	.000000	.000000	.000000
		NONE	.000000	.000000	.000000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Se1960	196.026	NONE	.000000	.000000	.000000
		NONE	.000000	.000000	.000000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sb2068	206.838	NONE	.000000	.000000	.000000
		NONE	.000000	.000000	.000000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Al3082	308.215	S0	.000000	.000279	-.000279
		S1	5.00000	4.88450	.115496
		S2	10.0000	10.3330	-.332983
		S	20.0000	19.5910	.409033

CorCoef: 0.99948

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ba4934	493.409	S0	.000000	-.002712	.002712
		S1	5.00000	5.28554	-.285542
		S2	10.0000	10.4565	-.456542
		S	20.0000	17.9450	2.05495

CorCoef: 0.99562

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Be3130	313.042	S0	.000000	-.000027	.000027
		S1	.125000	.129665	-.004665
		S2	.250000	.265384	-.015384
		S	.500000	.483571	.016429

CorCoef: 0.99855

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cd2265	226.502	S0	.000000	-.000225	.000225
		S1	1.25000	1.26430	-.014296
		S2	2.50000	2.59825	-.098249
		S	5.00000	4.75232	.247682
CorCoef: 0.99867					
Ca3179	317.933	S0	.000000	-.001737	.001737
		S1	12.5000	12.5664	-.066402
		S2	25.0000	25.9911	-.991150
		S	50.0000	47.7521	2.24791
CorCoef: 0.99881					
Cr2677	267.716	S0	.000000	-.000071	.000071
		S1	.500000	.503850	-.003850
		S2	1.00000	1.03624	-.036243
		S	2.00000	1.91601	.083986
CorCoef: 0.99898					
Co2296	229.616	S0	.000000	-.000055	.000055
		S1	1.25000	1.24462	.005375
		S2	2.50000	2.57821	-.078210
		S	5.00000	4.86808	.131918
CorCoef: 0.99946					
Cu3247	324.753	S0	.000000	.000040	-.000040
		S1	.625000	.613426	.011574
		S2	1.25000	1.28008	-.030082
		S	2.50000	2.47533	.024669
CorCoef: 0.99978					
Fe2714	271.441	S0	.000000	-.000240	.000240
		S1	2.50000	2.53070	-.030696
		S2	5.00000	5.14911	-.149107
		S	10.0000	9.79110	.208899
CorCoef: 0.99959					
Mn2576	257.610	S0	.000000	-.000275	.000275
		S1	1.25000	1.27203	-.022028
		S2	2.50000	2.58788	-.087881
		S	5.00000	4.73643	.263574
CorCoef: 0.99868					
Mg2790	279.078	S0	.000000	-.001588	.001588
		S1	12.5000	12.5681	-.068087
		S2	25.0000	25.8620	-.861975
		S	50.0000	48.0037	1.99630
CorCoef: 0.99909					

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ni2316	231.604	S0	.000000	-.000112	.000112
		S1	1.25000	1.25146	-.001464
		S2	2.50000	2.58145	-.081450
		S	5.00000	4.83184	.168155

CorCoef: 0.99928

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ag3280	328.068	S0	.000000	-.000050	.000050
		S1	.625000	.621554	.003446
		S2	1.25000	1.30671	-.056709
		S	2.50000	2.39452	.105484

CorCoef: 0.99871

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Na3302	330.232	S0	.000000	.006639	-.006639
		S1	12.5000	11.4635	1.03648
		S2	25.0000	25.9074	-.907429
		S	50.0000	52.3310	-2.33104

CorCoef: 0.99946

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
V_2924	292.402	S0	.000000	-.000123	.000123
		S1	1.25000	1.25283	-.002831
		S2	2.50000	2.57325	-.073252
		S	5.00000	4.83005	.169949

CorCoef: 0.99935

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Zn2138	213.856	S0	.000000	-.000364	.000364
		S1	1.25000	1.28635	-.036346
		S2	2.50000	2.61665	-.116652
		S	5.00000	4.68656	.313439

CorCoef: 0.99791

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
K_7664	766.491	S0	.000000	.005111	-.005111
		S1	12.5000	11.6194	.880634
		S2	25.0000	26.1946	-1.19464
		S	50.0000	51.1333	-1.13327

CorCoef: 0.99946

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
2068-2	206.832	S0	.000000	-.000159	.000159
		S1	2.50000	2.49214	.007865
		S2	5.00000	5.19081	-.190810
		S	10.0000	9.67402	.325984

CorCoef: 0.99917

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
2068-1	206.831	S0	.000000	.000063	-.000063
		S1	2.50000	2.46190	.038097
		S2	5.00000	5.12042	-.120420
		S	10.0000	9.82455	.175453

CorCoef: 0.99970

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
2203-1	220.351	S0	.000000	.000152	-.000152
		S1	2.50000	2.44780	.052203
		S2	5.00000	5.17879	-.178785
		S	10.0000	9.83182	.168180

CorCoef: 0.99951

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
2203-2	220.352	S0	.000000	.000093	-.000093
		S1	2.50000	2.45615	.043852
		S2	5.00000	5.18025	-.180250
		S	10.0000	9.80171	.198295

CorCoef: 0.99946

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
1960-1	196.021	S0	.000000	.000112	-.000112
		S1	2.50000	2.45701	.042992
		S2	5.00000	5.17101	-.171009
		S	10.0000	9.83445	.165548

CorCoef: 0.99955

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
1960-2	196.022	S0	.000000	-.000043	.000043
		S1	2.50000	2.47628	.023719
		S2	5.00000	5.17247	-.172468
		S	10.0000	9.74357	.256432

CorCoef: 0.99940

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mo2020	202.030	S0	.000000	-.000545	.000545
		S1	2.50000	2.53671	-.036712
		S2	5.00000	5.21561	-.215608
		S	10.0000	9.42193	.578067

CorCoef: 0.99825

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
B_2496	249.678	S0	.000000	-.000029	.000029
		S1	2.50000	2.47094	.029056
		S2	5.00000	5.19737	-.197375
		S	10.0000	9.72147	.278525

CorCoef: 0.99924

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ti3349	334.941	S0	.000000	-.000431	.000431
		S1	2.50000	2.53089	-.030895
		S2	5.00000	5.15938	-.159377
		S	10.0000	9.55767	.442334

CorCoef: 0.99903

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sn1899	189.989	S0	.000000	.000320	-.000320
		S1	2.50000	2.43433	.065670
		S2	5.00000	5.13793	-.137933
		S	10.0000	9.98681	.013188

CorCoef: 0.99980

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Si2881	288.158	S0	.000000	-.000621	.000621
		S1	2.50000	2.53315	-.033145
		S2	5.00000	5.29792	-.297925
		S	10.0000	9.27157	.728429

CorCoef: 0.99690

OK 9/10/04

Method: 6010B Sample Name: HMS  
 Run Time: 09/10/04 07:57:31  
 Comment: HMS  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.9167	10.149	10.071	10.022	9.9527	20.060	19.417
SDev	.0146	.019	.041	.019	.0176	.035	.032
%RSD	.14729	.19070	.40983	.19257	.17666	.17512	.16621
#1	9.9064	10.163	10.042	10.008	9.9403	20.035	19.394
#2	9.9270	10.136	10.100	10.035	9.9651	20.085	19.440
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.48986	4.9242	49.959	1.9885	5.0129	2.4947	9.9834
SDev	.00108	.0257	.197	.0082	.0002	.0018	.0164
%RSD	.22020	.52205	.39530	.41390	.00482	.07210	.16381
#1	.48909	4.9060	49.820	1.9827	5.0131	2.4960	9.9718
#2	.49062	4.9424	50.099	1.9943	5.0127	2.4935	9.9949
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.8958	48.967	4.9832	2.5066	48.884	4.9601	4.8379
SDev	.0144	.019	.0082	.0099	.264	.0089	.0152
%RSD	.29375	.03808	.16428	.39682	.54074	.17999	.31333
#1	4.8857	48.980	4.9774	2.4996	48.697	4.9538	4.8272
#2	4.9060	48.954	4.9890	2.5136	49.071	4.9664	4.8486
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	46.763	9.9033	10.048	10.023	10.092	10.013	10.025
SDev	.173	.0252	.002	.039	.042	.031	.013
%RSD	.37043	.25436	.02333	.39104	.41924	.31099	.13354
#1	46.641	9.8855	10.047	9.9951	10.062	9.9906	10.015
#2	46.886	9.9211	10.050	10.051	10.122	10.035	10.034
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	9.8150	10.060	9.7428	10.226	9.8581		
SDev	.0233	.006	.0175	.014	.0393		
%RSD	.23747	.06316	.17947	.13422	.39849		
#1	9.7985	10.055	9.7304	10.216	9.8303		
#2	9.8315	10.064	9.7551	10.236	9.8858		

OK 9/10/04

Method: 6010B      Sample Name: HMS/100      Operator: DR  
 Run Time: 09/10/04 08:00:16  
 Comment: HMS/100  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.13282	.11473	.12294	.13611	.13548	.25642	.28320
SDev	.00577	.00141	.00090	.00183	.00355	.01043	.00100
%RSD	4.3455	1.2258	.73513	1.3446	2.6174	4.0681	.35131
#1	.12874	.11374	.12230	.13482	.13798	.24904	.28250
#2	.13690	.11573	.12358	.13740	.13297	.26380	.28390
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00659	.06635	.69309	.02785	.06682	.03161	.17377
SDev	.00011	.00169	.00241	.00075	.00000	.00016	.00002
%RSD	1.6211	2.5475	.34749	2.6863	.00035	.51749	.00913
#1	.00652	.06515	.69138	.02838	.06682	.03150	.17376
#2	.00667	.06754	.69479	.02732	.06682	.03173	.17378
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06885	.65670	.06361	.03256	.41115	.06629	.06652
SDev	.00044	.00000	.00119	.00012	.07686	.00105	.00026
%RSD	.63296	.00000	1.8719	.36292	18.694	1.5837	.39901
#1	.06916	.65670	.06277	.03265	.35680	.06703	.06670
#2	.06854	.65670	.06445	.03248	.46549	.06555	.06633
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.46898	.13488	.13348	.12011	.12196	.13207	.13633
SDev	.00050	.00470	.00124	.00436	.00082	.00304	.00123
%RSD	.10744	3.4825	.92925	3.6333	.67532	2.2987	.90089
#1	.46934	.13820	.13435	.11702	.12254	.12992	.13546
#2	.46863	.13156	.13260	.12319	.12138	.13421	.13720
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.13326	.13925	.13377	.12298	.14671		
SDev	.00242	.00658	.00052	.00724	.00199		
%RSD	1.8183	4.7259	.39017	5.8901	1.3558		
#1	.13497	.14391	.13340	.12811	.14811		
#2	.13155	.13460	.13414	.11786	.14530		

*09/10/04*

Method: 6010B Sample Name: ICV

Operator: DR

Run Time: 09/10/04 08:12:42

Comment: ICV

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0313	.98034	.97797	1.0424	1.0174	2.4138	.50747
SDev	.0071	.04382	.00030	.0068	.0055	.0210	.00158
%RSD	.68541	4.4702	.03049	.65525	.54073	.86796	.31113

#1	1.0263	.94935	.97776	1.0375	1.0213	2.3990	.50635
#2	1.0363	1.0113	.97818	1.0472	1.0135	2.4287	.50858

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.47588	.51311	10.215	.49641	.51076	.47318	4.7097
SDev	.00454	.00877	.159	.00718	.00335	.00156	.0411
%RSD	.95333	1.7087	1.5562	1.4469	.65609	.32939	.87342

#1	.47267	.50691	10.102	.49133	.50839	.47207	4.6806
#2	.47908	.51931	10.327	.50149	.51313	.47428	4.7388

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50989	6.0370	.49747	.46826	9.6837	.48909	1.0481
SDev	.00610	.0519	.00938	.00582	.2757	.00605	.0109
%RSD	1.1968	.86040	1.8848	1.2424	2.8466	1.2374	1.0410

#1	.50558	6.0003	.49084	.46415	9.4888	.48481	1.0404
#2	.51421	6.0737	.50410	.47238	9.8786	.49337	1.0558

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.6843	1.0276	.99369	.98134	.97419	1.0385	1.0426
SDev	.0145	.0096	.00268	.00022	.00042	.0028	.0090
%RSD	.14971	.93280	.26968	.02287	.04288	.27066	.86111

#1	9.6740	1.0344	.99180	.98150	.97390	1.0365	1.0363
#2	9.6945	1.0209	.99559	.98118	.97449	1.0405	1.0490

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	5.1201	5.0207	4.9868	4.8024	5.3310
SDev	.0435	.0526	.0421	.0494	.0338
%RSD	.84959	1.0486	.84516	1.0281	.63428

#1	5.0894	4.9835	4.9570	4.7675	5.3071
#2	5.1509	5.0579	5.0166	4.8373	5.3549

09/10/04



Method: 6010B Sample Name: ICB

Operator: DR

Run Time: 09/10/04 08:15:01

Comment: ICB

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00339	-.00661	-.00003	-.00004	.00213	.02085	-.00327
SDev	.00561	.00176	.00194	.00393	.00193	.00224	.00007
%RSD	165.53	26.579	5551.7	11069.	90.705	10.738	2.0178

#1	-.00058	-.00785	-.00140	.00274	.00076	.02243	-.00332
#2	.00736	-.00537	.00133	-.00282	.00350	.01926	-.00323

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00057	-.00080	-.00174	.00056	.00096	-.00025	.01726
SDev	.00005	.00036	.00241	.00015	.00024	.00016	.02474
%RSD	9.2394	45.138	138.66	26.685	24.912	66.672	143.35

#1	.00060	-.00055	-.00344	.00067	.00113	-.00036	-.00024
#2	.00053	-.00106	-.00003	.00046	.00079	-.00013	.03475

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00038	-.00253	-.00164	-.00046	-.22313	-.00049	-.00093
SDev	.00014	.00000	.00015	.00034	.18388	.00000	.00053
%RSD	38.298	.00000	9.0526	74.690	82.407	.14554	56.780

#1	-.00027	-.00253	-.00174	-.00022	-.09311	-.00049	-.00131
#2	-.00048	-.00253	-.00153	-.00070	-.35315	-.00049	-.00056

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00130	.00172	-.00025	.00026	-.00218	-.00625	.00127
SDev	.00453	.00172	.00926	.00214	.00397	.00371	.00404
%RSD	348.42	100.18	3675.6	829.93	181.84	59.373	319.30

#1	.00190	.00294	-.00680	.00177	-.00498	-.00362	.00413
#2	-.00451	.00050	.00629	-.00125	.00062	-.00887	-.00159

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00054	-.00500	-.00057	.00409	.00711
SDev	.00312	.00045	.00026	.00267	.00447
%RSD	571.78	9.0714	45.838	65.182	62.904

#1	.00166	-.00532	-.00075	.00221	.00395
#2	-.00275	-.00468	-.00038	.00598	.01028

CW9/10/04

Method: 6010B Sample Name: CRI

Operator: DR

Run Time: 09/10/04 08:18:40

Comment: CRI

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02138	.01670	.00735	.00797	.12927	.41354	.45369
SDev	.00128	.01790	.00046	.00204	.00453	.00225	.00000
%RSD	5.9983	107.21	6.1993	25.557	3.5075	.54349	.00007

#1	.02047	Q.00404	Q.00767	.00941	.12606	.41513	.45369
#2	.02228	Q.02935	.00702	Q.00653	.13247	.41195	.45369

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01117	.00865	10.160	.02160	.10391	.04951	.21997
SDev	.00011	.00051	.087	.00090	.00215	.00009	.03299
%RSD	.93597	5.9369	.85337	4.1534	2.0737	.17182	14.996

#1	.01125	.00901	10.221	.02223	.10543	.04957	.24330
#2	.01110	.00829	10.099	.02097	.10238	.04945	.19665

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03239	10.177	.08187	.02080	9.0537	.10261	.04210
SDev	.00029	.020	.00350	.00025	.0564	.00000	.00028
%RSD	.90104	.19631	4.2715	1.2094	.62326	.00288	.65235

#1	.03259	10.191	.08435	.02098	9.0936	.10261	.04190
#2	.03218	10.163	.07940	.02062	9.0138	.10261	.04229

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.1536	.13091	.12278	.00960	.00422	.00759	.00637
SDev	.0479	.00878	.00397	.00104	.00017	.00191	.00210
%RSD	.52292	6.7056	3.2312	10.793	3.9204	25.223	32.975

#1	9.1197	.12470	.12558	.01033	.00434	.00894	.00785
#2	9.1874	.13712	.11997	.00887	.00411	.00623	.00488

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.21036	.19060	.20412	.19011	.24375
SDev	.00185	.00023	.00046	.00076	.00298
%RSD	.87760	.11906	.22373	.40109	1.2240

#1	.21167	.19076	.20380	.19065	.24164
#2	.20906	.19044	.20445	.18957	.24586

09/10/04

Method: 6010B Sample Name: ICSA  
 Run Time: 09/10/04 08:23:51  
 Comment: ICSA  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00493	-.00362	.00017	.00322	.00227	443.07	-.00151
SDev	.00369	.01023	.00691	.00340	.00383	.45	.00007
%RSD	74.914	282.64	4157.9	105.67	168.67	.10133	4.4092

#1	.00754	.00362	.00505	.00081	-.00044	442.75	-.00155
#2	.00232	-.01086	-.00472	.00562	.00498	443.38	-.00146

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00058	.00710	425.27	.01638	.00198	.00726	160.80
SDev	.00005	.00165	1.18	.00030	.00072	.00041	.01
%RSD	9.1584	23.249	.27749	1.8282	36.325	5.6449	.00442

#1	.00062	.00593	426.10	.01617	.00249	.00755	160.81
#2	.00055	.00826	424.44	.01659	.00147	.00697	160.80

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00616	464.21	-.00180	-.01544	-.18323	-.00849	.01501
SDev	.00020	.48	.00060	.00024	.07880	.00052	.00134
%RSD	3.3204	.10318	33.027	1.5540	43.008	6.1788	8.9088

#1	.00630	464.54	-.00138	-.01527	-.12751	-.00886	.01406
#2	.00601	463.87	-.00222	-.01561	-.23895	-.00812	.01595

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04893	-.00582	.01529	-.13396	.06533	-.01584	.01113
SDev	.00302	.00125	.01402	.01139	.00467	.00259	.00380
%RSD	6.1780	21.532	91.719	8.5025	7.1540	16.322	34.176

#1	.04680	-.00494	.00537	-.12590	.06863	-.01767	.00844
#2	.05107	-.00671	.02520	-.14201	.06202	-.01401	.01382

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00838	-.00067	-.00357	.01879	.02575
SDev	.00496	.00204	.00007	.00477	.00298
%RSD	59.225	304.53	1.8285	25.367	11.587

#1	-.01189	-.00211	-.00361	.01542	.02364
#2	-.00487	.00077	-.00352	.02216	.02786

CR 9/10/04

Method: 6010B Sample Name: ICSAB  
 Run Time: 09/10/04 08:27:44  
 Comment: ICSAB  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.09227	.07989	.04635	.05055	.54910	440.13	.48859
SDev	.00435	.00841	.00713	.00564	.00799	1.81	.00185
%RSD	4.7111	10.522	15.378	11.160	1.4549	.41227	.37869
#1	.08920	.08584	.05139	.04656	.54345	438.84	.48728
#2	.09535	.07395	.04131	.05454	.55475	441.41	.48990
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.37260	.82526	416.73	.40196	.42873	.50601	158.45
SDev	.00172	.00580	2.23	.00372	.00239	.00152	.70
%RSD	.46163	.70244	.53402	.92565	.55819	.29951	.43925
#1	.37138	.82116	415.15	.39933	.42704	.50494	157.96
#2	.37381	.82936	418.30	.40459	.43042	.50708	158.94
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.41228	456.93	.81830	.19153	-.02019	.40063	.97901
SDev	.00290	2.37	.00869	.00327	.07394	.00266	.00412
%RSD	.70309	.51857	1.0624	1.7084	366.21	.66292	.42080
#1	.41023	455.25	.81215	.18922	-.07247	.39875	.97610
#2	.41433	458.60	.82444	.19384	.03209	.40250	.98192
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04038	.54750	.54909	-.09060	.11282	.02606	.06107
SDev	.01512	.00669	.01059	.00547	.00781	.00341	.00690
%RSD	37.431	1.2215	1.9295	6.0370	6.9261	13.097	11.290
#1	.02969	.54277	.54159	-.08673	.11835	.02365	.05620
#2	.05107	.55223	.55658	-.09447	.10730	.02848	.06595
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.01221	-.00388	-.00417	.00207	.02681		
SDev	.00438	.00113	.00026	.00286	.00050		
%RSD	35.904	29.244	6.2617	137.97	1.8551		
#1	-.01531	-.00468	-.00435	.00005	.02645		
#2	-.00911	-.00308	-.00398	.00409	.02716		

OK 9/10/04

Method: 6010B Sample Name: CCC  
 Run Time: 09/10/04 08:30:50  
 Comment: CCC  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.9411	3.9035	3.7916	3.9589	3.9106	7.6428	7.9135
SDev	.0410	.0661	.0572	.0462	.0358	.0809	.0679
%RSD	1.0391	1.6941	1.5081	1.1682	.91439	1.0584	.85827
#1	3.9121	3.8567	3.7511	3.9262	3.8853	7.5856	7.8655
#2	3.9700	3.9502	3.8320	3.9916	3.9359	7.7000	7.9616
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.19178	1.9523	19.353	.76437	1.8849	.92024	3.8163
SDev	.00292	.0223	.347	.01197	.0239	.00877	.0903
%RSD	1.5243	1.1445	1.7920	1.5656	1.2702	.95324	2.3673
#1	.18972	1.9365	19.108	.75591	1.8679	.91403	3.7524
#2	.19385	1.9681	19.598	.77283	1.9018	.92644	3.8802
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9026	19.181	1.9071	.97120	18.422	1.8701	1.9394
SDev	.0285	.226	.0317	.01483	.183	.0262	.0354
%RSD	1.4965	1.1804	1.6623	1.5267	.99286	1.4030	1.8238
#1	1.8824	19.021	1.8847	.96072	18.293	1.8515	1.9144
#2	1.9227	19.341	1.9295	.98168	18.551	1.8887	1.9644
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	18.851	3.9513	3.8259	3.8119	3.7793	3.9712	3.9509
SDev	.047	.0275	.0523	.0464	.0624	.0328	.0530
%RSD	.24857	.69655	1.3658	1.2168	1.6519	.82654	1.3402
#1	18.818	3.9319	3.7890	3.7791	3.7352	3.9480	3.9135
#2	18.884	3.9708	3.8629	3.8447	3.8234	3.9944	3.9884
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	3.9236	3.8530	3.7961	3.7780	4.1007		
SDev	.0630	.0529	.0463	.0505	.0403		
%RSD	1.6056	1.3723	1.2185	1.3371	.98225		
#1	3.8791	3.8156	3.7634	3.7423	4.0722		
#2	3.9682	3.8904	3.8289	3.8137	4.1291		

09/10/04

Method: 6010B Sample Name: CCV  
 Run Time: 09/10/04 08:33:04  
 Comment: CCV  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.4259	5.4478	5.2968	5.4489	5.3353	10.528	10.720
SDev	.0130	.0605	.0301	.0211	.0246	.036	.007
%RSD	.24017	1.1103	.56803	.38684	.46050	.34372	.06125
#1	5.4167	5.4051	5.2756	5.4340	5.3179	10.502	10.715
#2	5.4352	5.4906	5.3181	5.4638	5.3527	10.554	10.724
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.26952	2.6924	26.821	1.0642	2.6436	1.2808	5.1588
SDev	.00271	.0277	.417	.0169	.0290	.0001	.1068
%RSD	1.0053	1.0290	1.5535	1.5885	1.0960	.01092	2.0702
#1	.26760	2.6728	26.526	1.0523	2.6231	1.2809	5.0833
#2	.27143	2.7120	27.115	1.0762	2.6640	1.2807	5.2343
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.6411	26.145	2.6611	1.3578	26.616	2.6099	2.6937
SDev	.0327	.121	.0289	.0144	.048	.0283	.0391
%RSD	1.2376	.46356	1.0878	1.0576	.17911	1.0860	1.4513
#1	2.6180	26.060	2.6407	1.3476	26.650	2.5898	2.6661
#2	2.6643	26.231	2.6816	1.3679	26.582	2.6299	2.7214
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.514	5.3829	5.2367	5.2990	5.2933	5.4266	5.4583
SDev	.170	.0200	.0338	.0270	.0316	.0052	.0340
%RSD	.64042	.37125	.64456	.50966	.59745	.09544	.62375
#1	26.634	5.3688	5.2128	5.2799	5.2710	5.4303	5.4342
#2	26.393	5.3971	5.2605	5.3181	5.3157	5.4229	5.4823
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	5.4278	5.3991	5.2011	5.2777	Q5.6422		
SDev	.0406	.0404	.0396	.0437	.0214		
%RSD	.74828	.74815	.76142	.82714	.37897		
#1	5.3991	5.3705	5.1731	5.2468	Q5.6270		
#2	5.4565	5.4276	5.2291	5.3086	Q5.6573		

ckg/10/04

Method: 6010B

Sample Name: CCB

Operator: DR

Run Time: 09/10/04 08:36:04

Comment: CCB

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00193	.00083	.00213	-.00521	.00164	.02664	-.00182
SDev	.00176	.00386	.00393	.00092	.00108	.00151	.00027
%RSD	91.504	462.82	184.62	17.706	66.147	5.6502	14.560
#1	-.00318	-.00190	.00490	-.00586	.00087	.02771	-.00163
#2	-.00068	.00357	-.00065	-.00456	.00241	.02558	-.00201
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00038	-.00147	.01700	.00035	.00045	-.00031	.02309
SDev	.00000	.00026	.00482	.00045	.00096	.00008	.01648
%RSD	.60604	17.456	28.341	127.43	211.34	27.315	71.364
#1	.00038	-.00129	.02040	.00067	.00113	-.00025	.03474
#2	.00038	-.00165	.01359	.00003	-.00022	-.00036	.01144
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00017	.02007	-.00011	-.00037	-.07798	-.00049	-.00018
SDev	.00015	.00533	.00186	.00095	.08367	.00105	.00000
%RSD	85.265	26.541	1649.9	255.01	107.30	213.39	2.1652
#1	-.00007	.02384	.00120	.00030	-.01881	.00025	-.00018
#2	-.00027	.01631	-.00143	-.00105	-.13714	-.00123	-.00018
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00297	.00139	-.00106	.00162	.00038	-.00839	-.00542
SDev	.02973	.00251	.00177	.00038	.00570	.00180	.00049
%RSD	999.63	180.64	166.56	23.527	1495.5	21.423	8.9517
#1	.02399	-.00039	.00019	.00189	.00441	-.00966	-.00576
#2	-.01805	.00316	-.00231	.00135	-.00365	-.00712	-.00507
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00087	-.00661	-.00011	-.00399	.00149		
SDev	.00196	.00182	.00013	.00153	.00249		
%RSD	225.15	27.474	120.82	38.189	167.01		
#1	.00052	-.00532	-.00002	-.00507	.00325		
#2	-.00226	-.00789	-.00020	-.00291	-.00027		

10/9/04

Method: 6010B

Sample Name: PB

Operator: DR

Run Time: 09/10/04 08:38:13

Comment: PBS

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00034	-.00561	.00367	-.00636	.00243	.01979	-.00248
SDev	.00498	.01017	.00013	.00327	.00158	.00371	.00013
%RSD	1468.3	181.12	3.4913	51.414	64.841	18.767	5.3570
#1	-.00386	.00158	.00376	-.00867	.00355	.01716	-.00238
#2	.00318	Q-.01281	.00358	-.00405	.00132	.02242	-.00257
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00031	-.00164	.01018	.00067	.00062	-.00013	.04059
SDev	.00010	.00055	.00000	.00030	.00120	.00016	.00826
%RSD	33.299	33.894	.00000	44.764	192.33	125.52	20.356
#1	.00038	-.00124	.01018	.00088	.00147	-.00001	.03474
#2	.00023	-.00203	.01018	.00046	-.00022	-.00025	.04643
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00038	.01254	-.00090	-.00028	-.07798	-.00049	-.00094
SDev	.00014	.00000	.00000	.00035	.13037	.00105	.00053
%RSD	38.549	.00000	.01831	124.34	167.19	213.69	56.866
#1	-.00027	.01254	-.00090	-.00003	.01421	.00025	-.00131
#2	-.00048	.01254	-.00090	-.00053	-.17016	-.00123	-.00056
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01936	.00205	-.00000	.00625	.00038	-.01221	-.00524
SDev	.01965	.00188	.00098	.00441	.00239	.00292	.00344
%RSD	101.49	91.598	39293.	70.571	631.01	23.950	65.712
#1	.03326	.00338	.00069	.00313	.00207	-.01428	-.00767
#2	.00547	.00072	-.00069	.00937	-.00131	-.01014	-.00280
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00144	-.00853	-.00029	-.00170	.00254		
SDev	.00023	.00182	.00013	.00210	.00100		
%RSD	16.000	21.275	44.605	123.22	39.100		
#1	-.00128	-.00725	-.00020	-.00318	.00184		
#2	-.00161	-.00982	-.00038	-.00022	.00325		

OK 9/10/04



Method: 6010B

Sample Name: PB

Operator: DR

Run Time: 09/10/04 08:41:08

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.76313	1.9021	.97614	1.6560	.79031	2.0036	2.3342
SDev	.00680	.0342	.00773	.0022	.00185	.0118	.0181
%RSD	.89133	1.8000	.79235	.13105	.23358	.58838	.77503

#1	.76794	1.9263	.98160	1.6576	.79162	2.0119	2.3470
#2	.75832	1.8779	.97067	1.6545	.78901	1.9953	2.3214

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.18725	.20718	5.2851	.43518	.20523	.31852	3.2840
SDev	.00283	.00429	.0745	.00730	.00164	.00198	.0659
%RSD	1.5102	2.0723	1.4091	1.6768	.79885	.62015	2.0074

#1	.18925	.21021	5.3378	.44034	.20639	.31992	3.3306
#2	.18525	.20414	5.2325	.43002	.20408	.31712	3.2373

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.22249	2.0343	.51664	.07898	2.4857	.31932	.19147
SDev	.00328	.0303	.00869	.00116	.0933	.00364	.00388
%RSD	1.4740	1.4871	1.6827	1.4654	3.7525	1.1397	2.0264

#1	.22481	2.0557	.52279	.07980	2.5517	.32189	.19421
#2	.22017	2.0129	.51049	.07816	2.4198	.31675	.18873

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.3980	.79067	.78640	.98980	.96731	1.6427	1.6609
SDev	.0598	.00284	.00015	.00941	.00690	.0145	.0040
%RSD	.63627	.35972	.01950	.95046	.71322	.88188	.23955

#1	9.4403	.79268	.78630	.99645	.97219	1.6529	1.6581
#2	9.3557	.78866	.78651	.98315	.96244	1.6324	1.6637

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.42466	.27887	.21791	.70687	Q.88193
SDev	.00950	.00263	.00266	.00019	.01614
%RSD	2.2376	.94258	1.2203	.02648	1.8304

#1	.43138	.28073	.21979	.70674	Q.89334
#2	.41794	.27701	.21603	.70701	Q.87051

ok 9/10/04

Method: 6010B      Sample Name: S4161-01      Operator: DR  
 Run Time: 09/10/04 08:42:51  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06719	-.02189	.15977	.01981	.00420	97.668	2.2815
SDev	.00899	.01162	.00215	.00107	.00023	.051	.0005
%RSD	13.385	53.074	1.3456	5.4238	5.4424	.05193	.02338

#1	.07354	-.01368	.15825	.02057	.00436	97.704	2.2811
#2	.06083	-.03011	.16129	.01905	.00404	97.632	2.2818

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00533	.01727	203.00	.15320	.11132	.23974	177.52
SDev	.00000	.00181	.85	.00059	.00072	.00247	.28
%RSD	.02213	10.488	.41880	.38526	.64573	1.0304	.15795

#1	.00533	.01599	202.40	.15362	.11081	.24149	177.72
#2	.00534	.01855	203.60	.15278	.11183	.23800	177.32

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.8151	86.984	.25662	-.01356	2.9785	.30307	.72690
SDev	.0089	.045	.00186	.00179	.1313	.00054	.00323
%RSD	.15219	.05206	.72284	13.191	4.4096	.17703	.44407

#1	5.8088	86.952	.25793	-.01229	3.0714	.30345	.72462
#2	5.8213	87.016	.25531	-.01482	2.8857	.30269	.72919

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.834	-.00097	.01136	.15300	.16074	-.02881	.04228
SDev	.051	.00030	.00009	.00466	.00089	.00227	.00048
%RSD	.21352	30.505	.80356	3.0490	.55626	7.8775	1.1303

#1	23.870	-.00076	.01142	.14971	.16011	-.02720	.04262
#2	23.798	-.00118	.01129	.15630	.16137	-.03041	.04194

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00256	.02340	2.5972	-.14688	14.214
SDev	.00035	.00295	.0029	.00724	.128
%RSD	13.545	12.608	.11303	4.9320	.89910

#1	.00231	.02548	2.5993	-.14175	14.124
#2	.00280	.02131	2.5952	-.15200	14.304

02 9/19/04

Method: 6010B Sample Name: S4161-02

Operator: DR

Run Time: 09/10/04 08:44:46

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06167	-.03712	.15941	.02022	.00502	94.767	2.3081
SDev	.00322	.01999	.00014	.00039	.00080	.123	.0023
%RSD	5.2248	53.852	.08963	1.9284	15.909	.12984	.10008

#1	.06395	-.05125	.15951	.01994	.00446	94.854	2.3098
#2	.05939	-.02298	.15931	.02049	.00559	94.680	2.3065

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00551	.01555	202.94	.16128	.10167	.24521	169.35
SDev	.00000	.00166	.48	.00026	.00192	.00048	1.14
%RSD	.02275	10.661	.23853	.16438	1.8845	.19417	.67206

#1	.00551	.01438	203.29	.16147	.10032	.24554	170.15
#2	.00551	.01672	202.60	.16110	.10303	.24487	168.54

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.6478	78.769	.23515	-.01405	2.7412	.28867	.72883
SDev	.0166	.166	.00087	.00110	.1887	.00057	.00478
%RSD	.35725	.21136	.37010	7.8010	6.8854	.19755	.65618

#1	4.6596	78.887	.23577	-.01327	2.8746	.28908	.73222
#2	4.6361	78.651	.23454	-.01482	2.6077	.28827	.72545

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.103	.00118	.00953	.15600	.15891	-.03119	.04408
SDev	.002	.00257	.00274	.00418	.00187	.00129	.00006
%RSD	.00654	217.92	28.714	2.6771	1.1773	4.1290	.13274

#1	23.104	-.00064	.01146	.15895	.15759	-.03210	.04412
#2	23.101	.00299	.00759	.15305	.16024	-.03028	.04404

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00272	.02308	2.0587	-.12005	6.7782
SDev	.00081	.00204	.0082	.00515	.0169
%RSD	29.709	8.8499	.39614	4.2873	.24943

#1	.00329	.02452	2.0644	-.11641	6.7663
#2	.00215	.02163	2.0529	-.12369	6.7902

OK 9/10/04

Method: 6010B Sample Name: S4161-03 Operator: DR  
 Run Time: 09/10/04 08:46:41  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03616	-.03971	.45450	.01728	.00113	85.377	2.0874
SDev	.00452	.00591	.00392	.00127	.00299	.918	.0234
%RSD	12.509	14.888	.86308	7.3442	264.49	1.0753	1.1206

#1	.03935	-.03553	.45727	.01818	.00325	86.026	2.1039
#2	.03296	-.04390	.45173	.01638	-.00099	84.728	2.0708

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00506	.01110	142.10	.15294	.07442	.14190	161.81
SDev	.00015	.00135	2.98	.00367	.00120	.00005	2.20
%RSD	2.9138	12.132	2.0983	2.4031	1.6080	.03595	1.3608

#1	.00517	.01206	144.21	.15554	.07527	.14193	163.36
#2	.00496	.01015	139.99	.15034	.07358	.14186	160.25

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.1034	75.178	.17310	-.01280	2.4433	.27612	.68414
SDev	.0506	.855	.00383	.00105	.0088	.00429	.01219
%RSD	1.6317	1.1374	2.2102	8.1871	.35837	1.5532	1.7812

#1	3.1392	75.783	.17581	-.01354	2.4495	.27916	.69276
#2	3.0676	74.574	.17040	-.01206	2.4371	.27309	.67553

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	19.393	.00070	-.00120	.45503	.45204	-.03147	.03982
SDev	.003	.00395	.00108	.00952	.00113	.00438	.00028
%RSD	.01558	564.88	89.983	2.0925	.24943	13.928	.71682

#1	19.395	.00349	-.00044	.46176	.45283	-.02837	.03962
#2	19.391	-.00209	-.00197	.44830	.45124	-.03457	.04002

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00006	.00815	2.3269	-.13461	6.9741
SDev	.00012	.00091	.0283	.01087	.0751
%RSD	208.58	11.131	1.2168	8.0721	1.0766

#1	.00003	.00880	2.3470	-.14229	7.0272
#2	-.00014	.00751	2.3069	-.12693	6.9210

09/11/04

Method: 6010B      Sample Name: S4161-04      Operator: DR  
 Run Time: 09/10/04 08:48:36  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06537	-.04888	.19021	.01866	.00230	96.627	1.7305
SDev	.00276	.00186	.00382	.00414	.00403	.530	.0047
%RSD	4.2226	3.8144	2.0081	22.188	175.20	.54802	.27450

#1	.06342	-.04756	.18751	.01573	-.00055	96.252	1.7271
#2	.06733	-.05020	.19291	.02158	.00515	97.001	1.7338

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00548	.01375	63.742	.15747	.10185	.19838	165.95
SDev	.00004	.00136	1.168	.00366	.00120	.00154	2.55
%RSD	.80329	9.8546	1.8325	2.3274	1.1750	.77838	1.5356

#1	.00544	.01471	62.916	.15488	.10101	.19729	164.14
#2	.00551	.01279	64.568	.16006	.10270	.19947	167.75

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.8742	29.972	.18628	-.01150	2.1200	.28927	.68437
SDev	.0761	.194	.00322	.00075	.3298	.00378	.01256
%RSD	1.5607	.64878	1.7305	6.5426	15.557	1.3061	1.8348

#1	4.8204	29.834	.18400	-.01204	1.8868	.28660	.67549
#2	4.9280	30.109	.18856	-.01097	2.3532	.29194	.69324

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	22.250	-.00108	.00585	.18995	.18814	-.03069	.04150
SDev	.089	.00550	.00108	.00163	.00491	.00439	.00401
%RSD	.40081	511.07	18.443	.86036	2.6102	14.313	9.6703

#1	22.313	-.00496	.00509	.18879	.18467	-.03380	.03866
#2	22.187	.00281	.00662	.19110	.19161	-.02759	.04433

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.00019	.00479	1.7409	-.09188	5.0363
SDev	.00046	.00068	.0150	.00877	.0298
%RSD	243.62	14.227	.86196	9.5439	.59242

#1	-.00014	.00527	1.7303	-.09808	5.0152
#2	.00052	.00430	1.7515	-.08568	5.0574

*DR 9/19/04*

Method: 6010B Sample Name: S4161-05 Operator: DR  
 Run Time: 09/10/04 08:52:19  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07861	-.04422	.43222	.01407	-.00310	94.359	1.8787
SDev	.00002	.00239	.00918	.00208	.00089	.638	.0136
%RSD	.03052	5.4052	2.1227	14.809	28.839	.67658	.72633

#1	.07860	-.04590	.42573	.01260	-.00373	93.908	1.8691
#2	.07863	-.04253	.43871	.01555	-.00247	94.811	1.8884

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00587	.01395	58.690	.16322	.09845	.23048	161.04
SDev	.00020	.00049	.807	.00354	.00263	.00166	1.80
%RSD	3.4455	3.5103	1.3747	2.1675	2.6748	.72181	1.1164

#1	.00572	.01429	58.120	.16072	.09659	.22930	159.77
#2	.00601	.01360	59.261	.16573	.10032	.23165	162.31

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.0626	44.163	.24185	-.01162	2.1888	.29687	.98156
SDev	.0479	.276	.00473	.00138	.1060	.00322	.01281
%RSD	1.1781	.62426	1.9546	11.844	4.8449	1.0859	1.3050

#1	4.0287	43.968	.23850	-.01260	2.1138	.29459	.97251
#2	4.0964	44.358	.24519	-.01065	2.2638	.29915	.99062

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	21.636	-.01016	.00783	.42026	.43599	-.02961	.03409
SDev	.171	.00146	.00025	.00757	.00998	.00295	.00460
%RSD	.79176	14.406	3.1384	1.8007	2.2883	9.9541	13.485

#1	21.515	-.01119	.00801	.41491	.42894	-.02753	.03084
#2	21.758	-.00912	.00766	.42561	.44305	-.03170	.03734

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.00076	.00832	1.6560	-.09013	4.9027
SDev	.00265	.00204	.0153	.00057	.0636
%RSD	348.93	24.562	.92583	.63453	1.2983

#1	-.00112	.00687	1.6452	-.08972	4.8577
#2	.00264	.00976	1.6669	-.09053	4.9477

OK 9/10/04

Method: 6010B      Sample Name: S4161-08      Operator: DR  
 Run Time: 09/10/04 08:54:13  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.08324	-.04022	.42939	.01680	.00474	94.304	1.8789
SDev	.00178	.01434	.00530	.00011	.00008	.524	.0097
%RSD	2.1412	35.660	1.2346	.64248	1.6458	.55516	.51820

#1	.08450	-.03008	.43314	.01687	.00469	94.675	1.8858
#2	.08198	-.05037	.42564	.01672	.00480	93.934	1.8720

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00606	.01348	58.037	.16064	.09676	.23122	158.91
SDev	.00015	.00025	.605	.00160	.00024	.00123	1.40
%RSD	2.5492	1.8393	1.0416	.99865	.24861	.53160	.88227

#1	.00617	.01330	58.464	.16178	.09659	.23208	159.90
#2	.00595	.01365	57.609	.15951	.09693	.23035	157.92

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.0232	43.961	.23863	-.01290	2.2768	.29307	.97402
SDev	.0368	.192	.00533	.00026	.0866	.00111	.00732
%RSD	.91483	.43627	2.2338	1.9916	3.8030	.37788	.75199

#1	4.0493	44.096	.24239	-.01272	2.2156	.29386	.97920
#2	3.9972	43.825	.23486	-.01308	2.3381	.29229	.96884

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	21.826	-.00007	.01118	.42815	.42781	-.02750	.03711
SDev	.071	.00008	.00008	.00426	.00582	.00072	.00052
%RSD	.32550	106.85	.73138	.99448	1.3609	2.6122	1.4023

#1	21.876	-.00013	.01112	.43116	.43193	-.02801	.03748
#2	21.775	-.00002	.01123	.42514	.42369	-.02699	.03674

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.00084	.00703	1.6467	-.09781	4.9231
SDev	.00161	.00204	.0122	.00572	.0467
%RSD	191.81	29.046	.74089	5.8469	.94947

#1	.00198	.00848	1.6553	-.09377	4.9562
#2	-.00030	.00559	1.6381	-.10186	4.8900

09/10/04

Method: 6010B      Sample Name: S4161-05LX5      Operator: DR  
 Run Time: 09/10/04 08:56:09  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01280	-.02706	.10246	-.00206	-.00169	19.982	.40975
SDev	.00175	.00804	.00413	.00384	.00650	.356	.00483
%RSD	13.702	29.728	4.0312	186.17	384.74	1.7803	1.1792

#1	.01156	-.02137	.10538	-.00478	.00291	20.234	.41316
#2	.01404	-.03275	.09954	.00065	-.00629	19.731	.40633

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00176	.00056	13.587	.03628	.02127	.04605	36.878
SDev	.00016	.00022	.472	.00072	.00072	.00006	1.023
%RSD	9.0749	39.042	3.4744	1.9778	3.3759	.13418	2.7730

#1	.00164	.00071	13.920	.03679	.02178	.04609	37.601
#2	.00187	.00040	13.253	.03577	.02076	.04601	36.155

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.92900	10.730	.05477	-.00453	.26805	.06407	.22324
SDev	.02430	.160	.00177	.00145	.16831	.00109	.00424
%RSD	2.6156	1.4895	3.2236	31.967	62.789	1.7025	1.9011

#1	.94618	10.843	.05602	-.00555	.38707	.06484	.22624
#2	.91181	10.617	.05353	-.00350	.14904	.06329	.22023

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.4941	-.00214	-.00399	.10114	.10112	-.01420	.00220
SDev	.0171	.00433	.01085	.00066	.00586	.00197	.00478
%RSD	.49028	202.43	271.81	.65011	5.7993	13.888	217.43

#1	3.4820	.00092	.00368	.10160	.10527	-.01560	-.00118
#2	3.5062	-.00520	-.01166	.10067	.09697	-.01281	.00558

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00161	-.00741	.36171	-.02543	1.1232
SDev	.00000	.00250	.00711	.00591	.0045
%RSD	.00000	33.687	1.9660	23.242	.39846

#1	-.00161	-.00565	.36674	-.02125	1.1263
#2	-.00161	-.00918	.35669	-.02960	1.1200

9/10/04



# Chemtech Consulting Group

## Analytical Summary Report

Analysis Method: 9031 Sulfides  
 Parameter: Sulfide  
 Run Number: LB01266  
 Instrument: Titroline Alpha Titrator

ANALYST RUN: CASSIEW.  
 SUPERVISOR REVIEW: JP

Standard Type: LCSS Lot #: W05887 Concentration: 500mg/kg  
 Titrant 1 = IODINE Titrant 2 = SODIUM THIOSULFATE  
 Normality 1 = 0.025 Normality 2 = 0.025  
 Constant = 16000

Formula = ((Titrant 1 \* Normality 1) - (Titrant 2 \* Normality 2)) \* Constant / ml of Sample

8/26/04w

Seq	Lab ID	Sample Type	(g) ml of Sample	Titrant 1	Normality 1	Titrant 2	Normality 2	Result	Analytical Date	Time/Seq
1	LB01266B	MB	2	2.5	0.025	2.5	0.025	21.0	8/26/04	1
2	LB01266BS	LCS	2	2.5	0.025	1.4	0.025	22.0	"	2
3	S4316-01	SAM	2	2.5	0.025	2.5	0.025	21.0	"	3
4	S4316-01D	DUP	2	2.5	0.025	2.5	0.025	21.0	"	4
5	S4316-01S	MS	2	2.5	0.025	1.4	0.025	22.0	"	5
6	S4316-02	SAM	2	2.5	0.025	2.5	0.025	21.0	"	6
7	S4316-03	SAM	2	2.5	0.025	2.5	0.025	21.0	"	7
8	S4316-04	SAM	2	2.5	0.025	2.5	0.025	21.0	"	8
9	S4317-01	SAM	2	2.5	0.025	2.5	0.025	21.0	"	9
10	S4317-02	SAM	2	2.5	0.025	2.5	0.025	21.0	"	10
11	S4317-03	SAM	2	2.5	0.025	2.5	0.025	21.0	"	11
12	S4317-04	SAM	2	2.5	0.025	2.5	0.025	21.0	"	12
13	S4317-05	SAM	2	2.5	0.025	2.5	0.025	21.0	"	13
14	S4318-01	SAM	2	2.5	0.025	2.5	0.025	21.0	"	14
15	S4318-02	SAM	2	2.5	0.025	2.5	0.025	21.0	"	15
16	S4318-03	SAM	2	2.5	0.025	2.5	0.025	21.0	"	16
17	S4318-04	SAM	2	2.5	0.025	2.5	0.025	21.0	"	17
18	S4318-05	SAM	2	2.5	0.025	2.5	0.025	21.0	"	18

# Chemtech Consulting Group

## Analytical Summary Report

Analysis Method: 9031 Sulfides  
 Parameter: Sulfide  
 Run Number: LB01266  
 Instrument: Titroline Alpha Titrator

ANALYST RUN: CASSEW.  
 SUPERVISOR REVIEW: \_\_\_\_\_

CW

Standard Type: LOSS Lot #: W05887 Concentration: 500 mg/kg  
 Titrant 1 = IODINE Titrant 2 = SODIUM THIOSULFATE  
 Normality 1 = 0.025 Normality 2 = 0.025  
 Constant = 16000

Formula = ((Titrant 1 \* Normality 1) - (Titrant 2 \* Normality 2)) \* Constant / ml of Sample

Seq	Lab ID	Sample Type	mL of Sample	Titrant 1	Normality 1	Titrant 2	Normality 2	Result	Analytical	
									Date	Time/Seq
1	LB01266B	MB	2.0	0.00	0.03	0.00	0.03	0.000	8/26/04	001
2	LB01266BS	LCS	2.0	0.00	0.03	0.00	0.03	220.000	8/26/04	002
3	S4316-01	SAM	2.0	0.00	0.03	0.00	0.03	0.000	8/26/04	003
4	S4316-01D	DUP	2.0	0.00	0.03	0.00	0.03	0.000	8/26/04	004
5	S4316-01S	MS	2.0	0.00	0.03	0.00	0.03	220.000	8/26/04	005
6	S4316-02	SAM	2.0	0.00	0.03	0.00	0.03	0.000	8/26/04	006
7	S4316-03	SAM	2.0	0.00	0.03	0.00	0.03	0.000	8/26/04	007
8	S4316-04	SAM	2.0	0.00	0.03	0.00	0.03	0.000	8/26/04	008
9	S4317-01	SAM	2.0	0.00	0.03	0.00	0.03	0.000	8/26/04	009
10	S4317-02	SAM	2.0	0.00	0.03	0.00	0.03	0.000	8/26/04	010
11	S4317-03	SAM	2.0	0.00	0.03	0.00	0.03	0.000	8/26/04	011
12	S4317-04	SAM	2.0	0.00	0.03	0.00	0.03	0.000	8/26/04	012
13	S4317-05	SAM	2.0	0.00	0.03	0.00	0.03	0.000	8/26/04	013
14	S4318-01	SAM	2.0	0.00	0.03	0.00	0.03	0.000	8/26/04	014
15	S4318-02	SAM	2.0	0.00	0.03	0.00	0.03	0.000	8/26/04	015
16	S4318-03	SAM	2.0	0.00	0.03	0.00	0.03	0.000	8/26/04	016
17	S4318-04	SAM	2.0	0.00	0.03	0.00	0.03	0.000	8/26/04	017
18	S4318-05	SAM	2.0	0.00	0.03	0.00	0.03	0.000	8/26/04	018

WET CHEMISTRY LOG PAGE

PROJECT ID#: S4316 S4317 S4318

ANALYST SIGNATURE: CASSIE W.  
 ANALYSIS DATE: 8/26/04  
 SUPERVISOR REVIEW: \_\_\_\_\_  
 ANALYSIS METHOD: 9031 SULFIDE  
 PARAMETER: SULFIDE  
 INSTRUMENT: TITRAMETRIC  
 MATRIX: 8/26/04 <sup>cu</sup> LB01266 SOIL  
 QC BATCH #: LB01266

REAGENTS USED	CHEMTECH LOG#
1:1HCl	W05563
(0.025N) IODINE	WC0815 X6
(0.025N) SODIUM THIOSUFATE	W05898
(0.025N) SODIUM THIOSUFATE TITRANT	W05899
STARCH INDICATOR	WC0847
ALUMINUM-TREATED HCL (500ppm) SULFIDE STD.	W05772
METHYL ORANGE INDICATOR	W05887
ZINC ACETATE (0.1N)	W05771
	W05773

True value of LCSS = 10mg/kg  
 % Recovery of LCSS value = 220  
 % Recovery percentage difference (RPD) sample duplicate S4316-01 = 0.0  
 True value spike added = 10 mg/kg  
 % Recovery sample spike S4316-01 = 220

QA CONTROL # A3040083

Sulfide as S mg/L =  $\frac{[(A \times B) - (C \times D)] \times 16000}{\text{ml of Sample}}$

A= ml of Iodine      D= Normality of Na2S2O3  
 C= ml of Na2S2O3  
 B= Normality of Iodine

CALCULATIONS FOR (RPD): (1) DUPLICATE - ORIGINAL (2) DUPLICATE + ORIGINAL (3) (1)/(2)X100

Method: 6010B

Sample Name: S4161-07

Operator: DR

Run Time: 09/10/04 08:58:14

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.4829	3.5662	2.1017	2.9130	.55813	110.25	5.8250
SDev	.0121	.0603	.0290	.0230	.00237	.84	.0322
%RSD	.81293	1.6917	1.3796	.79027	.42469	.75903	.55325

#1	1.4744	3.5236	2.0812	2.8967	.55981	109.65	5.8022
#2	1.4914	3.6089	2.1222	2.9293	.55645	110.84	5.8478

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.35506	.38036	53.706	.91908	.46051	.82849	163.41
SDev	.00161	.00016	.347	.00401	.00096	.00611	.96
%RSD	.45465	.04327	.64576	.43651	.20772	.73766	.59047

#1	.35392	.38024	53.461	.91625	.45983	.82417	162.72
#2	.35620	.38047	53.951	.92192	.46119	.83281	164.09

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.8506	41.035	1.1054	.21118	7.5526	.84178	1.2482
SDev	.0201	.278	.0071	.00076	.0097	.00319	.0085
%RSD	.52155	.67835	.63784	.35996	.12881	.37912	.68400

#1	3.8364	40.838	1.1004	.21172	7.5595	.83953	1.2421
#2	3.8648	41.232	1.1104	.21064	7.5457	.84404	1.2542

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	37.234	.55992	.55134	2.0885	2.1062	2.8736	2.9310
SDev	.118	.00273	.00166	.0323	.0278	.0313	.0190
%RSD	.31665	.48698	.30044	1.5454	1.3190	1.0894	.64913

#1	37.150	.56185	.55251	2.0657	2.0865	2.8515	2.9175
#2	37.317	.55800	.55016	2.1113	2.1258	2.8957	2.9444

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.54398	.48778	2.5482	.69263	10.325
SDev	.00058	.00567	.0152	.01449	.053
%RSD	.10605	1.1631	.59654	2.0917	.51533

#1	.54357	.48377	2.5375	.68239	10.287
#2	.54439	.49179	2.5590	.70288	10.363

809/10/04

Method: 6010B Sample Name: CCV  
Run Time: 09/10/04 09:00:19  
Comment: CCV  
Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.3466	5.3576	5.3713	5.3705	5.3185	10.725	10.671
SDev	.0903	.1568	.1458	.0784	.0859	.297	.213
%RSD	1.6893	2.9270	2.7135	1.4604	1.6151	2.7678	1.9987

#1	5.4105	5.4685	5.4744	5.4260	5.3792	10.934	10.822
#2	5.2828	5.2467	5.2683	5.3151	5.2577	10.515	10.520

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.27088	2.6950	27.212	1.0808	2.6861	1.3129	5.4798
SDev	.00654	.0666	.898	.0331	.0668	.0244	.2300
%RSD	2.4134	2.4722	3.3013	3.0645	2.4873	1.8613	4.1974

#1	Q.27550	2.7421	Q27.847	Q1.1042	2.7333	1.3302	Q5.6425
#2	.26626	2.6478	26.577	1.0574	2.6388	1.2956	5.3172

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.6971	26.606	2.6845	1.3513	26.244	2.6690	2.7235
SDev	.0734	.527	.0604	.0387	.629	.0668	.0746
%RSD	2.7209	1.9824	2.2509	2.8635	2.3952	2.5045	2.7393

#1	2.7490	26.979	2.7272	Q1.3786	26.688	2.7162	Q2.7763
#2	2.6452	26.234	2.6418	1.3239	25.799	2.6217	2.6708

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.374	5.3096	5.3329	5.3134	5.3982	5.3386	5.3848
SDev	.488	.0619	.1340	.0711	.1834	.0242	.1057
%RSD	1.8494	1.1659	2.5118	1.3388	3.3980	.45319	1.9622

#1	26.719	5.3534	5.4277	5.3637	5.5279	5.3557	5.4595
#2	26.029	5.2659	5.2382	5.2631	5.2685	5.3215	5.3101

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	5.3934	5.3618	5.3355	5.3417	5.3936
SDev	.1482	.1130	.1250	.1308	.1278
%RSD	2.7472	2.1081	2.3424	2.4492	2.3687

#1	5.4982	5.4417	5.4239	5.4342	5.4839
#2	5.2887	5.2818	5.2472	5.2492	5.3032

ok 9/10/04

Method: 6010B

Sample Name: CCB

Operator: DR

Run Time: 09/10/04 09:04:50

Comment: CCB

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00072	-.00559	.00466	.00357	.00621	.03556	.00069
SDev	.00386	.00067	.00534	.00492	.00057	.00662	.00000
%RSD	537.09	11.959	114.72	137.80	9.1558	18.606	.02402
#1	-.00201	-.00607	.00088	.00705	.00661	.04024	.00069
#2	.00345	-.00512	Q.00843	.00009	.00581	.03088	.00069
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00075	-.00046	.01737	.00083	.00009	-.00010	.02298
SDev	.00020	.00006	.00233	.00015	.00164	.00008	.01650
%RSD	26.984	12.913	13.400	17.717	1891.4	86.634	71.793
#1	.00089	-.00042	.01901	.00072	.00125	-.00004	.03465
#2	.00061	-.00050	.01572	.00093	-.00107	-.00016	.01131
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00077	.00680	-.00104	-.00064	-.25281	-.00041	.00023
SDev	.00014	.00131	.00123	.00022	.04663	.00000	.00026
%RSD	18.673	19.333	119.03	34.240	18.445	.09680	111.09
#1	.00087	.00773	-.00191	-.00079	-.28578	-.00041	.00041
#2	.00067	.00587	-.00016	-.00048	-.21984	-.00041	.00005
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00082	.00623	.00296	.00360	.00318	-.00151	.00431
SDev	.00148	.00045	.00262	.00053	.00827	.00227	.00625
%RSD	180.90	7.2871	88.439	14.852	259.86	149.94	144.84
#1	-.00023	.00591	.00481	.00398	-.00267	.00009	.00873
#2	.00187	.00655	.00111	.00322	.00903	-.00312	-.00010
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00456	.01680	.00104	.00185	.03302		
SDev	.00608	.01446	.00026	.00075	.02122		
%RSD	133.20	86.077	25.003	40.392	64.250		
#1	.00886	.02702	.00085	.00132	.04802		
#2	.00027	.00657	.00122	.00238	.01802		

DR9/10/04

Method: 6010B

Sample Name: PB00931BL

Operator: DR

Run Time: 09/10/04 09:08:17

Comment: PBS

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00257	-.00701	.00479	-.00304	.00325	.03349	-.00087
SDev	.00370	.01130	.00197	.00148	.00404	.00367	.00026
%RSD	143.96	161.38	41.023	48.702	124.41	10.956	29.807

#1	.00519	Q-.01500	Q.00618	-.00200	.00611	.03608	-.00068
#2	-.00005	.00099	.00340	-.00409	.00039	.03090	-.00105

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00082	-.00086	.00585	.00052	-.00008	-.00056	-.00619
SDev	.00020	.00038	.00466	.00029	.00047	.00041	.02475
%RSD	24.682	44.667	79.589	56.525	591.16	72.657	399.64

#1	.00096	-.00113	.00914	.00031	-.00041	-.00085	.01131
#2	.00068	-.00059	.00256	.00072	.00025	-.00027	-.02369

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00014	-.00064	.00025	-.00049	-.32858	.00032	-.00092
SDev	.00000	.00132	.00188	.00044	.05642	.00000	.00021
%RSD	.75816	206.43	764.90	89.709	17.172	.14110	22.608

#1	-.00014	.00029	-.00109	-.00080	-.36847	.00032	-.00077
#2	-.00014	-.00157	.00158	-.00018	-.28868	.00032	-.00106

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00792	.00303	.00050	.00205	.00416	-.00702	-.00286
SDev	.00198	.00772	.00331	.00411	.00089	.00335	.00389
%RSD	24.970	255.03	668.30	200.29	21.481	47.718	136.27

#1	-.00931	.00848	-.00185	.00496	.00479	-.00939	-.00010
#2	-.00652	-.00243	.00284	-.00085	.00353	-.00465	-.00561

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00098	-.00752	-.00020	.00384	.01215
SDev	.00044	.00110	.00019	.00580	.00092
%RSD	44.872	14.560	96.971	151.15	7.5927

#1	-.00130	-.00830	-.00006	-.00026	.01280
#2	-.00067	-.00675	-.00034	.00794	.01150

21 9/10/04

Method: 6010B

Sample Name: PB00931BS

Operator: DR

Run Time: 09/10/04 09:10:34

Comment: LCSS

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.76127	1.8668	.97443	1.6651	.78838	2.0020	2.3220
SDev	.00727	.0236	.00126	.0054	.00003	.0184	.0125
%RSD	.95492	1.2664	.12924	.32235	.00377	.92019	.53977

#1	.75613	1.8835	.97353	1.6689	.78840	1.9890	2.3132
#2	.76641	1.8501	.97532	1.6613	.78836	2.0151	2.3309

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.18582	.20881	5.2390	.43333	.20457	.31904	3.2490
SDev	.00313	.00445	.1210	.00992	.00398	.00190	.0824
%RSD	1.6835	2.1298	2.3100	2.2903	1.9472	.59415	2.5360

#1	.18360	.20566	5.1535	.42631	.20176	.31770	3.1907
#2	.18803	.21195	5.3246	.44035	.20739	.32038	3.3072

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.22178	2.0269	.51295	.07825	2.4936	.31895	.18902
SDev	.00428	.0224	.01246	.00150	.2220	.00520	.00392
%RSD	1.9287	1.1032	2.4293	1.9210	8.9023	1.6296	2.0762

#1	.21876	2.0111	.50414	.07719	Q2.3367	.31527	.18624
#2	.22481	2.0427	.52176	.07931	2.6506	.32262	.19179

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.3599	.79035	.78122	.99995	.95968	1.6466	1.6727
SDev	.0326	.00238	.00485	.00962	.00292	.0003	.0082
%RSD	.34846	.30107	.62151	.96242	.30391	.01989	.49085

#1	9.3368	.78867	.78465	.99315	.96175	1.6463	1.6785
#2	9.3830	.79204	.77779	1.0068	.95762	1.6468	1.6669

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.42427	.28259	.21750	.69721	Q.87378
SDev	.00961	.00000	.00247	.00786	.01107
%RSD	2.2657	.00000	1.1331	1.1275	1.2668

#1	.41747	.28259	.21576	.69165	Q.86595
#2	.43107	.28259	.21924	.70277	Q.88160

04/9/1907



Method: 6010B Sample Name: S4422-01 Operator: DR  
 Run Time: 09/10/04 09:18:11  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00826	-.02333	.01051	-.00317	-.00098	2.7206	.00713
SDev	.00556	.00732	.00036	.00004	.00018	.0411	.00013
%RSD	67.255	31.388	3.4469	1.1784	18.589	1.5115	1.7959
#1	-.00433	-.01815	.01026	-.00320	-.00085	2.7496	.00722
#2	-.01219	-.02850	.01077	-.00315	-.00111	2.6915	.00704
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00112	-.00222	.41397	.01928	.00274	.00365	4.3625
SDev	.00015	.00040	.00931	.00073	.00070	.00008	.1155
%RSD	13.619	18.046	2.2488	3.7683	25.695	2.0721	2.6470
#1	.00102	-.00250	.42055	.01979	.00224	.00359	4.4442
#2	.00123	-.00194	.40739	.01876	.00324	.00370	4.2808
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01756	.20863	.00303	-.00093	.02549	.00895	.02585
SDev	.00057	.00000	.00145	.00017	.14549	.00052	.00066
%RSD	3.2714	.00000	47.780	18.729	570.80	5.8491	2.5410
#1	.01797	.20863	.00405	-.00105	.12837	.00932	.02632
#2	.01716	.20863	.00201	-.00081	-.07739	.00858	.02539
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.16401	-.00026	-.00562	.02123	.00316	-.01456	.00071
SDev	.00791	.00045	.00035	.00176	.00034	.00161	.00075
%RSD	4.8211	171.79	6.1522	8.2843	10.580	11.090	105.48
#1	.15842	.00006	-.00587	.01999	.00340	-.01570	.00124
#2	.16960	-.00057	-.00538	.02248	.00293	-.01342	.00018
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00052	-.01124	.29221	-.00410	1.9379		
SDev	.00066	.00022	.00538	.00318	.0254		
%RSD	128.44	1.9489	1.8422	77.566	1.3090		
#1	-.00005	-.01108	.29602	-.00635	1.9559		
#2	-.00098	-.01139	.28840	-.00185	1.9200		

OK 9/10/04

Method: 6010B Sample Name: S4422-03 Operator: DR  
 Run Time: 09/10/04 09:20:48  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00510	-.02025	.01374	-.00111	.00623	2.8384	.00621
SDev	.00386	.00499	.00053	.00074	.00016	.0169	.00013
%RSD	75.598	24.655	3.8460	66.678	2.6441	.59525	2.0976
#1	-.00237	-.02377	.01336	-.00059	.00611	2.8265	.00630
#2	-.00783	-.01672	.01411	-.00163	.00634	2.8504	.00612
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00105	-.00195	.40410	.01430	.00257	.00496	4.9283
SDev	.00015	.00030	.00931	.00015	.00047	.00040	.1072
%RSD	14.590	15.579	2.3037	1.0438	18.220	8.1422	2.1758
#1	.00116	-.00174	.39752	.01441	.00224	.00524	4.8525
#2	.00094	-.00217	.41068	.01420	.00290	.00467	5.0041
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01910	.23095	.00404	-.00084	.41854	.01043	.04958
SDev	.00015	.00526	.00101	.00018	.12311	.00052	.00141
%RSD	.76899	2.2781	25.046	21.254	29.414	5.0019	2.8371
#1	.01899	.22723	.00333	-.00071	.33149	.01006	.05058
#2	.01920	.23467	.00476	-.00096	.50559	.01080	.04859
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.17868	.00626	.00296	.03132	.00296	-.01529	.00417
SDev	.00494	.00151	.00253	.00297	.00228	.00076	.00149
%RSD	2.7657	24.103	85.355	9.4906	76.785	4.9898	35.707
#1	.17519	.00519	.00475	.03342	.00135	-.01583	.00523
#2	.18218	.00732	.00117	.02921	.00457	-.01475	.00312
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00044	-.01093	.26355	-.01893	1.8218		
SDev	.00144	.00022	.00324	.00019	.0060		
%RSD	327.92	2.0041	1.2305	.98899	.32911		
#1	.00058	-.01108	.26125	-.01879	1.8176		
#2	-.00145	-.01077	.26584	-.01906	1.8261		

OK 9/10/04

Method: 6010B      Sample Name: S4422-03D      Operator: DR  
 Run Time: 09/10/04 09:22:48  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01088	-.00660	.01079	.00107	.00066	2.8722	.00626
SDev	.00339	.00100	.00094	.00146	.00257	.0117	.00006
%RSD	31.196	15.111	8.7631	137.10	390.23	.40905	1.0261
#1	-.01328	-.00590	.01012	.00210	.00248	2.8805	.00621
#2	-.00848	-.00731	.01145	.00003	-.00116	2.8639	.00630
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00098	-.00179	.41068	.01461	.00224	.00479	5.0216
SDev	.00005	.00004	.00000	.00000	.00094	.00016	.0413
%RSD	5.0562	2.2115	.00000	.00777	41.848	3.3643	.82148
#1	.00101	-.00177	.41068	.01461	.00158	.00490	4.9925
#2	.00094	-.00182	.41068	.01461	.00290	.00468	5.0508
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01960	.23467	.00399	-.00063	.33808	.00970	.05078
SDev	.00000	.00263	.00007	.00002	.09886	.00052	.00001
%RSD	.00858	1.1210	1.7960	2.9249	29.241	5.3187	.01007
#1	.01960	.23281	.00394	-.00065	.40799	.01007	.05078
#2	.01961	.23653	.00404	-.00062	.26818	.00934	.05077
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18637	.00112	-.00346	.02484	.00177	-.01200	.00579
SDev	.00099	.00303	.00166	.00219	.00251	.00454	.00446
%RSD	.53032	271.28	48.003	8.8292	142.12	37.854	77.006
#1	.18567	.00326	-.00229	.02640	-.00001	-.01521	.00894
#2	.18707	-.00103	-.00463	.02329	.00354	-.00879	.00264
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00066	-.01031	.26731	-.02567	1.8535		
SDev	.00077	.00022	.00091	.00075	.0028		
%RSD	117.94	2.1246	.33968	2.9160	.14930		
#1	.00011	-.01016	.26666	-.02515	1.8554		
#2	.00120	-.01047	.26795	-.02620	1.8515		

OK 9/10/04

Method: 6010B      Sample Name: S4422-03LX5      Operator: DR  
 Run Time: 09/10/04 09:25:15  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00145	-.00791	.00749	-.00324	.00134	.60724	-.00069
SDev	.00170	.00599	.00146	.00080	.00251	.00441	.00013
%RSD	117.03	75.734	19.516	24.588	187.84	.72588	18.632

#1	-.00265	-.01214	.00852	-.00381	-.00044	.61036	-.00060
#2	-.00025	-.00367	.00646	-.00268	.00312	.60413	-.00079

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00093	-.00120	.08813	.00276	.00058	.00043	1.0437
SDev	.00005	.00075	.00000	.00000	.00141	.00025	.0062
%RSD	5.5942	62.788	.00000	.01272	240.90	57.341	.78970

#1	.00096	-.00173	.08813	.00276	.00158	.00026	1.0379
#2	.00089	-.00067	.08813	.00276	-.00041	.00060	1.0495

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00373	.04773	.00033	-.00090	-.16180	.00147	.00955
SDev	.00000	.00395	.00102	.00012	.01119	.00052	.00000
%RSD	.00752	8.2679	309.48	12.973	6.9169	35.281	.01882

#1	.00373	.04494	.00105	-.00098	-.16972	.00110	.00955
#2	.00373	.05052	-.00039	-.00082	-.15389	.00183	.00955

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01794	.00179	-.00277	.01113	.00367	-.00925	-.00204
SDev	.01384	.00303	.00149	.00406	.00422	.00616	.00188
%RSD	77.121	169.23	53.712	36.494	114.96	66.609	92.006

#1	.00816	-.00035	-.00382	.00826	.00665	-.01361	-.00071
#2	.02773	.00393	-.00172	.01401	.00069	-.00489	-.00337

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00059	-.01108	.05236	-.00596	.40350
SDev	.00144	.00088	.00006	.00356	.00092
%RSD	241.70	7.9045	.12388	59.718	.22861

#1	-.00161	-.01170	.05240	-.00344	.40285
#2	.00042	-.01047	.05231	-.00847	.40415

09/10/04

Method: 6010B Sample Name: S4422-03S

Operator: DR

Run Time: 09/10/04 09:27:18

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.92337	2.1535	1.0947	2.4512	.73392	5.9037	2.4232
SDev	.00864	.0080	.0006	.0002	.00338	.0316	.0160
%RSD	.93567	.37066	.05502	.00855	.46016	.53463	.65860

#1	.91726	2.1592	1.0943	2.4510	.73153	5.9260	2.4345
#2	.92948	2.1479	1.0951	2.4513	.73631	5.8813	2.4119

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.23252	.23262	6.0471	.46047	.21932	.32657	6.7776
SDev	.00066	.00129	.0070	.00059	.00047	.00271	.0247
%RSD	.28459	.55617	.11546	.12706	.21375	.82921	.36486

#1	.23298	.23353	6.0421	.46089	.21965	.32849	6.7601
#2	.23205	.23170	6.0520	.46006	.21899	.32466	6.7951

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.24066	2.5003	.55372	.05060	2.6344	.33195	.21158
SDev	.00029	.0132	.00065	.00010	.0504	.00155	.00096
%RSD	.11904	.52607	.11786	.20152	1.9117	.46779	.45341

#1	.24046	2.5096	.55418	.05067	2.6700	.33085	.21091
#2	.24086	2.4910	.55326	.05052	2.5988	.33305	.21226

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.4364	.73700	.72454	1.0836	1.0985	2.4500	2.4502
SDev	.0904	.00515	.00016	.0033	.0027	.0011	.0002
%RSD	.95837	.69822	.02284	.30046	.24302	.04417	.00923

#1	9.5004	.73336	.72466	1.0859	1.0966	2.4492	2.4504
#2	9.3725	.74064	.72442	1.0813	1.1004	2.4507	2.4501

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.43154	.28662	.33514	.74181	.50754
SDev	.00508	.00175	.00032	.00206	.00507
%RSD	1.1778	.61141	.09676	.27754	.99960

#1	.42794	.28538	.33536	.74327	.50395
#2	.43513	.28785	.33491	.74036	.51112

#k9/10/04

Method: 6010B Sample Name: S4422-03SD Operator: DR  
 Run Time: 09/10/04 09:29:06  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.92554	2.1663	1.0878	2.4486	.73407	5.8792	2.4100
SDev	.00926	.0692	.0021	.0028	.00512	.0235	.0069
%RSD	1.0006	3.1932	.19279	.11453	.69789	.39976	.28687

#1	.93209	2.1173	1.0864	2.4506	.73769	5.8626	2.4051
#2	.91899	2.2152	1.0893	2.4467	.73044	5.8958	2.4148

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.23027	.22926	5.9911	.45573	.21783	.32477	6.6960
SDev	.00020	.00060	.0070	.00175	.00117	.00099	.0083
%RSD	.08796	.25980	.11654	.38450	.53812	.30371	.12328

#1	.23041	.22884	5.9960	.45697	.21700	.32407	6.6902
#2	.23013	.22968	5.9862	.45449	.21866	.32547	6.7019

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.23814	2.4780	.55095	.04976	2.6040	.32791	.21181
SDev	.00014	.0053	.00080	.00034	.0056	.00000	.00059
%RSD	.05977	.21232	.14464	.67329	.21489	.00087	.27613

#1	.23824	2.4742	.55039	.05000	2.6001	.32791	.21139
#2	.23804	2.4817	.55152	.04953	2.6080	.32791	.21222

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.4165	.73788	.72322	1.0724	1.0937	2.4362	2.4533
SDev	.0524	.00302	.00933	.0125	.0031	.0097	.0091
%RSD	.55629	.40931	1.2907	1.1620	.28136	.39933	.36937

#1	9.3795	.74002	.72982	1.0636	1.0959	2.4293	2.4597
#2	9.4535	.73575	.71662	1.0812	1.0916	2.4431	2.4469

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.42599	.28352	.33289	.74565	.50330
SDev	.00144	.00175	.00039	.00075	.01107
%RSD	.33719	.61809	.11690	.10041	2.1993

#1	.42498	.28476	.33261	.74512	.49547
#2	.42701	.28228	.33316	.74618	.51112

OK 9/10/04

Method: 6010B Sample Name: S4422-03A Operator: DR  
 Run Time: 09/10/04 09:30:53  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.92511	2.1733	1.0924	2.4450	.73560	5.8886	2.4197
SDev	.00062	.0100	.0074	.0094	.00580	.0294	.0056
%RSD	.06707	.45946	.67291	.38614	.78901	.49896	.23230
#1	.92467	2.1804	1.0872	2.4383	.73970	5.8678	2.4158
#2	.92555	2.1662	1.0976	2.4516	.73149	5.9094	2.4237
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.23287	.23327	6.0438	.45996	.21982	.32657	6.7543
SDev	.00086	.00094	.0256	.00190	.00211	.00173	.0082
%RSD	.36966	.40356	.42359	.41258	.95959	.52846	.12205
#1	.23226	.23260	6.0257	.45862	.21832	.32535	6.7485
#2	.23348	.23393	6.0619	.46130	.22131	.32779	6.7601
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24066	2.4938	.55618	.05067	2.4609	.33231	.21254
SDev	.00085	.0039	.00428	.00045	.1296	.00000	.00052
%RSD	.35523	.15823	.76862	.88522	5.2678	.00114	.24476
#1	.24006	2.4910	.55315	.05098	2.5526	.33231	.21290
#2	.24127	2.4966	.55920	.05035	2.3693	.33232	.21217
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.4196	.73915	.72528	1.0813	1.0962	2.4401	2.4458
SDev	.0272	.00818	.00105	.0117	.0052	.0059	.0112
%RSD	.28855	1.1065	.14434	1.0783	.47437	.24363	.45738
#1	9.4004	.74493	.72602	1.0731	1.0925	2.4359	2.4379
#2	9.4389	.73336	.72454	1.0896	1.0998	2.4443	2.4537
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.43201	.28600	.33523	.74036	.51210		
SDev	.00088	.00219	.00123	.00973	.00323		
%RSD	.20461	.76592	.36760	1.3146	.63043		
#1	.43138	.28754	.33436	.73348	.51438		
#2	.43263	.28445	.33610	.74724	.50982		

OK 9/10/04

Method: 6010B Sample Name: S4422-04

Operator: DR

Run Time: 09/10/04 09:33:24

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00227	-.01463	.00817	.00043	.00095	2.3462	.00635
SDev	.00447	.00233	.00208	.00297	.00110	.0463	.00019
%RSD	196.68	15.901	25.436	696.48	115.29	1.9721	3.0287
#1	-.00544	-.01628	.00964	-.00167	.00173	2.3789	.00649
#2	.00089	-.01299	.00670	.00252	.00018	2.3135	.00622
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00130	-.00216	.86653	.01184	.00257	.00423	4.4267
SDev	.00010	.00012	.03026	.00043	.00094	.00026	.1402
%RSD	7.8709	5.6526	3.4915	3.6622	36.441	6.0315	3.1677
#1	.00123	-.00225	.88792	.01215	.00324	.00441	4.5258
#2	.00137	-.00208	.84513	.01154	.00191	.00405	4.3275
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02200	.28024	.00400	-.00066	.06308	.00967	.01764
SDev	.00086	.00921	.00181	.00108	.01212	.00052	.00096
%RSD	3.9114	3.2854	45.212	162.53	19.221	5.4178	5.4300
#1	.02261	.28675	.00528	.00010	.05451	.01004	.01832
#2	.02139	.27373	.00272	-.00143	.07165	.00930	.01697
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.15387	.00137	-.00309	.01255	.00399	-.00179	-.00026
SDev	.00346	.00029	.00271	.00134	.00245	.00713	.00089
%RSD	2.2481	21.450	87.640	10.709	61.324	397.16	335.45
#1	.15143	.00158	-.00117	.01350	.00572	-.00683	-.00089
#2	.15632	.00116	-.00500	.01160	.00226	.00324	.00036
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00067	-.00938	.24305	-.01165	1.0081		
SDev	.00199	.00022	.00655	.00524	.0203		
%RSD	295.77	2.3351	2.6952	45.000	2.0130		
#1	-.00208	-.00954	.24768	-.01535	1.0225		
#2	.00073	-.00923	.23841	-.00794	.99379		

OK 9/10/04



Method: 6010B Sample Name: CCV

Operator: DR

Run Time: 09/10/04 09:35:39

Comment: CCV

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.2448	5.2324	5.1182	5.2817	5.1554	10.256	10.440
SDev	.0280	.0297	.0464	.0460	.0421	.080	.059
%RSD	.53299	.56763	.90584	.87100	.81673	.78429	.56256

#1	5.2251	5.2114	5.0854	5.2491	5.1256	10.199	10.398
#2	5.2646	5.2534	5.1509	5.3142	5.1852	10.313	10.481

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25843	2.5796	25.492	1.0147	2.5367	1.2657	4.9278
SDev	.00333	.0293	.403	.0155	.0328	.0055	.0903
%RSD	1.2895	1.1362	1.5794	1.5244	1.2938	.43655	1.8332

#1	.25607	2.5589	25.207	1.0037	2.5135	1.2618	4.8640
#2	.26079	2.6003	25.777	1.0256	2.5599	1.2696	4.9917

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.5304	25.594	2.5627	1.2942	25.546	2.5180	2.3294
SDev	.0349	.203	.0246	.0172	.224	.0275	.0330
%RSD	1.3797	.79143	.95843	1.3282	.87621	1.0908	1.4181

#1	2.5057	25.450	2.5454	1.2821	25.388	2.4986	2.3060
#2	2.5551	25.737	2.5801	1.3064	25.704	2.5374	2.3527

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.167	5.1952	5.0724	5.1162	5.1167	5.2742	5.2836
SDev	.032	.0353	.0556	.0209	.0591	.0280	.0550
%RSD	.12087	.68036	1.0970	.40819	1.1547	.53061	1.0409

#1	26.145	5.1702	5.0331	5.1014	5.0749	5.2545	5.2447
#2	26.190	5.2202	5.1118	5.1310	5.1585	5.2940	5.3224

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	5.1804	5.1736	5.0616	5.0703	5.3854
SDev	.0477	.0467	.0510	.0251	.0563
%RSD	.92140	.90184	1.0084	.49466	1.0448

#1	5.1466	5.1406	5.0255	5.0525	5.3456
#2	5.2141	5.2066	5.0977	5.0880	5.4252

09/11/04

Method: 6010B Sample Name: CCB

Operator: DR

Run Time: 09/10/04 09:37:37

Comment: CCB

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00224	-.00136	-.00050	.00082	-.00141	.03245	-.00160
SDev	.00139	.00001	.00165	.00338	.00314	.00075	.00039
%RSD	61.873	.42920	329.45	412.77	221.90	2.2976	24.277
#1	.00323	-.00137	.00066	.00321	-.00363	.03297	-.00187
#2	.00126	-.00136	-.00166	-.00157	.00080	.03192	-.00132
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00122	-.00152	.00256	.00031	.00158	-.00068	-.00617
SDev	.00005	.00044	.00000	.00000	.00234	.00024	.00825
%RSD	4.1582	28.799	.00000	.07941	148.53	36.024	133.63
#1	.00125	-.00121	.00256	.00031	.00324	-.00085	-.00034
#2	.00118	-.00183	.00256	.00031	-.00008	-.00051	-.01201
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00034	-.00157	.00014	-.00033	-.29370	-.00114	-.00070
SDev	.00000	.00263	.00072	.00046	.02984	.00000	.00052
%RSD	.11049	167.85	503.68	137.47	10.162	.02899	73.635
#1	-.00034	-.00343	-.00037	-.00001	-.31480	-.00114	-.00034
#2	-.00034	.00029	.00066	-.00065	-.27259	-.00114	-.00106
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00792	-.00147	-.00451	-.00131	-.00209	-.00473	.00189
SDev	.00494	.00318	.00305	.00397	.00049	.00184	.00401
%RSD	62.425	216.62	67.715	303.15	23.250	38.893	212.26
#1	-.00442	-.00371	-.00667	.00150	-.00175	-.00343	.00472
#2	-.01141	.00078	-.00235	-.00411	-.00244	-.00603	-.00095
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00308	.00425	-.00038	.00172	.02193		
SDev	.00309	.01030	.00019	.00169	.00277		
%RSD	100.52	242.27	50.657	97.870	12.617		
#1	.00527	.01153	-.00052	.00053	.02389		
#2	.00089	-.00303	-.00025	.00291	.01998		

09/10/04

Method: 6010B Sample Name: S4422-05

Operator: DR

Run Time: 09/10/04 09:39:29

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	-.00900	-.02725	.01794	.00152	.00214	2.9002	.00846
SDev	.00049	.00234	.00099	.00021	.00262	.6491	.00502
%RSD	5.4026	8.5918	5.5294	14.096	122.46	22.383	59.329
#1	-.00934	-.02560	.01724	.00167	.00029	2.4412	.00491
#2	-.00865	-.02891	.01864	.00137	.00400	3.3592	.01201
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.00123	-.00292	.50284	.01327	.00009	.00644	8.3289
SDev	.00011	.00045	.22342	.00228	.00305	.00233	1.9302
%RSD	8.6284	15.360	44.432	17.159	3560.1	36.254	23.175
#1	.00130	-.00261	.34485	.01166	-.00207	.00479	6.9640
#2	.00115	-.00324	.66082	.01488	.00224	.00809	9.6938
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.06175	.27373	.00490	-.00029	.67244	.01020	.04191
SDev	.03271	.18677	.00271	.00141	.15762	.00215	.00165
%RSD	52.965	68.232	55.452	492.04	23.440	21.103	3.9405
#1	.03862	.14166	.00298	.00071	.56099	.00868	.04075
#2	.08488	.40580	.00682	-.00128	.78389	.01172	.04308
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.18043	-.00054	.00432	.04161	.00412	-.02580	.01336
SDev	.05485	.00232	.00324	.00091	.00194	.00303	.00119
%RSD	30.402	427.37	75.073	2.1917	47.130	11.752	8.9341
#1	.14164	-.00218	.00203	.04226	.00275	-.02366	.01251
#2	.21922	.00110	.00661	.04097	.00550	-.02795	.01420
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avgc	.00277	-.00783	.14156	-.00410	1.5162		
SDev	.00044	.00022	.06265	.00580	.0194		
%RSD	15.983	2.7968	44.260	141.44	1.2776		
#1	.00308	-.00799	.09725	.00000	1.5025		
#2	.00245	-.00768	.18586	-.00820	1.5299		

09/10/04

Method: 6010B Sample Name: S4422-06

Operator: DR

Run Time: 09/10/04 09:41:17

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00293	-.02308	.01492	-.00020	-.00299	2.7844	.00900
SDev	.00324	.00832	.00159	.00051	.00297	.0595	.00032
%RSD	110.44	36.051	10.677	254.41	99.439	2.1364	3.5665

#1	-.00522	-.01720	.01604	.00016	-.00089	2.8265	.00923
#2	-.00064	-.02896	.01379	-.00056	-.00509	2.7424	.00878

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00105	-.00236	.35144	.01071	.00158	.00300	4.2984
SDev	.00036	.00089	.01862	.00029	.00000	.00001	.1897
%RSD	33.927	37.553	5.2978	2.6712	.00730	.37880	4.4136

#1	.00080	-.00299	.36460	.01091	.00158	.00301	4.4325
#2	.00130	-.00173	.33827	.01051	.00158	.00300	4.1642

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01454	.19468	.00426	-.00080	.39546	.00930	.03180
SDev	.00058	.00658	.00058	.00059	.02705	.00104	.00236
%RSD	3.9724	3.3782	13.521	74.278	6.8393	11.220	7.4137

#1	.01495	.19933	.00467	-.00122	.37633	.01004	.03347
#2	.01413	.19002	.00385	-.00038	.41458	.00856	.03013

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.17205	-.00268	-.00679	.03075	.00502	-.01426	.00502
SDev	.01433	.00362	.00166	.00443	.00018	.00096	.00125
%RSD	8.3300	134.88	24.491	14.404	3.5301	6.7452	24.901

#1	.18218	-.00012	-.00562	.03388	.00514	-.01494	.00590
#2	.16191	-.00525	-.00797	.02761	.00489	-.01358	.00413

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00081	-.00799	.18677	-.01270	1.5237
SDev	.00055	.00088	.00662	.00449	.0235
%RSD	68.034	10.970	3.5419	35.357	1.5437

#1	.00120	-.00737	.19145	-.01588	1.5404
#2	.00042	-.00861	.18210	-.00953	1.5071

OK 9/10/04

Method: 6010B

Sample Name: S4422-07

Operator: DR

Run Time: 09/10/04 09:43:08

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01310	-.03443	.01938	.00236	.00258	2.0606	.00701
SDev	.00309	.00765	.00060	.00340	.00164	.0169	.00006
%RSD	23.570	22.208	3.1023	143.80	63.484	.81984	.92961
#1	-.01528	-.02902	.01895	-.00004	.00374	2.0486	.00706
#2	-.01091	-.03984	.01980	.00476	.00142	2.0725	.00697
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00099	.00244	1.3125	.00963	.00025	.00412	2.5135
SDev	.00015	.00002	.0372	.00044	.00094	.00008	.0577
%RSD	15.579	.81464	2.8371	4.5284	372.98	1.9241	2.2967
#1	.00110	.00243	1.2862	.00932	.00091	.00417	2.4727
#2	.00088	.00246	1.3388	.00994	-.00041	.00406	2.5544
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00862	.35465	.00465	-.00080	.96195	.00483	.08195
SDev	.00029	.00131	.00022	.00070	.13990	.00104	.00246
%RSD	3.3317	.37088	4.6960	88.013	14.543	21.482	2.9987
#1	.00842	.35372	.00481	-.00130	.86303	.00410	.08021
#2	.00883	.35558	.00450	-.00030	1.0609	.00557	.08369
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.18917	.00244	-.00034	.04932	.00243	-.02521	.01433
SDev	.00494	.00106	.00279	.00180	.00000	.00119	.00449
%RSD	2.6124	43.640	815.89	3.6426	.17456	4.7287	31.372
#1	.19266	.00319	.00163	.04805	.00242	-.02606	.01115
#2	.18567	.00169	-.00231	.05059	.00243	-.02437	.01751
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00144	-.00876	.14674	-.01231	1.4213		
SDev	.00099	.00022	.00162	.00056	.0143		
%RSD	69.198	2.5002	1.1050	4.5622	1.0059		
#1	.00214	-.00892	.14559	-.01270	1.4112		
#2	.00073	-.00861	.14788	-.01191	1.4315		

OK 9/10/04

Method: 6010B      Sample Name: S4422-08      Operator: DR  
 Run Time: 09/10/04 09:46:25  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01155	-.02571	.02059	-.00131	.00303	2.7631	.01559
SDev	.00062	.01597	.00085	.00109	.00221	.0323	.00019
%RSD	5.3291	62.097	4.1166	83.165	72.927	1.1697	1.2389

#1	-.01199	-.03700	.01999	-.00054	.00147	2.7860	.01573
#2	-.01112	-.01442	.02119	-.00208	.00459	2.7403	.01546

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00087	-.00325	.34979	.01352	.00191	.00562	3.3942
SDev	.00000	.00067	.00698	.00044	.00234	.00017	.0660
%RSD	.00087	20.736	1.9960	3.2238	122.83	3.0164	1.9442

#1	.00087	-.00372	.35473	.01383	.00357	.00574	3.4409
#2	.00087	-.00277	.34485	.01322	.00025	.00550	3.3476

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01430	.18909	.00832	.00007	.60517	.01000	.04205
SDev	.00029	.00131	.00167	.00093	.10539	.00000	.00069
%RSD	2.0110	.69558	20.003	1273.2	17.415	.03434	1.6434

#1	.01450	.18816	.00950	.00073	.67969	.01000	.04254
#2	.01410	.19002	.00715	-.00059	.53065	.01000	.04156

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19546	.00152	.00283	.04630	.00576	-.02157	.00700
SDev	.01285	.00379	.00096	.00045	.00105	.00087	.00120
%RSD	6.5737	248.74	33.855	.97002	18.181	4.0263	17.166

#1	.20454	-.00116	.00351	.04599	.00502	-.02096	.00785
#2	.18637	.00420	.00216	.04662	.00650	-.02219	.00615

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00112	-.00783	.26089	-.01826	1.7654
SDev	.00210	.00066	.00220	.00037	.0166
%RSD	186.68	8.3905	.84525	2.0497	.94050

#1	.00261	-.00830	.26245	-.01853	1.7771
#2	-.00036	-.00737	.25933	-.01800	1.7537

OK 9/10/04

Method: 6010B Sample Name: S4422-09 Operator: DR  
 Run Time: 09/10/04 09:48:21  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00610	-.00832	.01210	-.00191	.00297	3.2117	.00897
SDev	.00062	.01064	.00407	.00181	.00371	.0264	.00026
%RSD	10.131	127.93	33.600	94.798	124.84	.82306	2.8784
#1	-.00567	-.01584	.01498	-.00319	.00035	3.2304	.00915
#2	-.00654	-.00079	.00923	-.00063	.00560	3.1930	.00879
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00106	-.00289	.38106	.01240	.00257	.00845	3.1785
SDev	.00005	.00028	.00466	.00058	.00000	.00008	.0247
%RSD	4.7927	9.6086	1.2215	4.7050	.01806	.98874	.77853
#1	.00109	-.00270	.38435	.01281	.00257	.00851	3.1960
#2	.00102	-.00309	.37777	.01198	.00257	.00839	3.1610
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01369	.20584	.02918	-.00066	.35984	.00706	.03264
SDev	.00000	.00395	.00232	.00001	.11285	.00000	.00031
%RSD	.00711	1.9170	7.9438	1.6810	31.361	.02905	.94950
#1	.01369	.20863	.03082	-.00065	.43964	.00706	.03242
#2	.01369	.20305	.02754	-.00067	.28005	.00706	.03286
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.15353	.00453	-.00335	.02300	.00466	-.00737	-.00099
SDev	.00988	.00439	.00236	.00243	.00731	.00562	.00552
%RSD	6.4378	96.864	70.287	10.551	156.69	76.298	560.08
#1	.14654	.00143	-.00502	.02128	.00983	-.00339	-.00489
#2	.16051	.00764	-.00169	.02472	-.00050	-.01134	.00292
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00105	-.00954	.19673	-.00754	1.9986		
SDev	.00000	.00219	.00097	.00430	.0171		
%RSD	.00000	22.971	.49453	57.070	.85385		
#1	.00105	-.01108	.19741	-.00450	2.0107		
#2	.00105	-.00799	.19604	-.01059	1.9865		

OK 9/10/04

Analysis Report

09/10/04 09:51:56 AM

page 1

Method: 6010B      Sample Name: S4422-10      Operator: DR  
 Run Time: 09/10/04 09:50:14  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00335	-.02158	.01265	.00038	-.00108	1.9786	.00429
SDev	.00324	.00400	.00280	.00020	.00265	.0140	.00013
%RSD	96.657	18.516	22.123	51.643	245.20	.70536	3.0053
#1	-.00564	-.02440	.01067	.00024	-.00295	1.9884	.00438
#2	-.00106	-.01875	.01463	.00052	.00079	1.9687	.00120
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00124	-.00198	1.0410	.01657	.00224	.00555	5.0450
SDev	.00010	.00097	.0116	.00073	.00000	.00008	.0247
%RSD	8.0794	49.041	1.1179	4.3995	.00710	1.5070	.49036
#1	.00131	-.00129	1.0492	.01709	.00224	.00561	5.0625
#2	.00117	-.00266	1.0327	.01606	.00224	.00549	5.0275
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07552	.30628	.00337	-.00049	.33544	.00531	.02691
SDev	.00157	.00658	.00080	.00024	.13057	.00052	.00013
%RSD	2.0766	2.1472	23.614	47.924	38.925	9.7854	.48797
#1	.07663	.31093	.00394	-.00033	.42777	.00568	.02700
#2	.07441	.30163	.00281	-.00066	.24312	.00495	.02682
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.14199	-.00114	-.00416	.02654	.00372	-.01737	.00744
SDev	.00049	.00258	.00279	.00020	.00430	.00411	.00235
%RSD	.34803	226.16	66.982	.76229	115.60	23.649	31.510
#1	.14164	-.00296	-.00614	.02668	.00068	-.01447	.00579
#2	.14234	.00068	-.00219	.02640	.00676	-.02028	.00910
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00152	-.01031	.09294	-.00344	1.1516		
SDev	.00199	.00022	.00065	.00599	.0120		
%RSD	131.26	2.1246	.69782	174.09	1.0413		
#1	.00292	-.01016	.09340	-.00768	1.1601		
#2	.00011	-.01047	.09248	.00079	1.1432		

019/10/04



Method: 6010B

Sample Name: S4542-01

Operator: DR

Run Time: 09/10/04 09:52:06

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00459	-.02351	.40992	.00553	-.00171	36.338	.55708
SDev	.00385	.01560	.00739	.00190	.00330	.403	.00484
%RSD	83.878	66.373	1.8028	34.290	193.53	1.1093	.86824
#1	.00731	-.03454	.40470	.00687	-.00404	36.053	.55366
#2	.00187	-.01248	.41515	.00419	.00063	36.623	.56050
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00323	.00293	28.270	.10259	.04566	.15493	86.086
SDev	.00010	.00028	.356	.00032	.00188	.00120	.916
%RSD	3.0288	9.4658	1.2596	.31110	4.1086	.77662	1.0637
#1	.00330	.00313	28.018	.10281	.04698	.15407	85.438
#2	.00316	.00273	28.522	.10236	.04433	.15578	86.733
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.5096	17.956	.12190	-.00152	1.3979	.14048	.15899
SDev	.0268	.129	.00027	.00435	.2789	.00152	.00184
%RSD	1.0689	.71786	.22273	285.14	19.949	1.0798	1.1586
#1	2.4906	17.865	.12171	.00155	1.5950	.14155	.15769
#2	2.5286	18.047	.12209	-.00460	1.2007	.13941	.16029
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.4481	-.00306	-.00221	.41812	.40383	-.01728	.01511
SDev	.0173	.00117	.00758	.00173	.01194	.00448	.00508
%RSD	.23223	38.162	343.46	.41333	2.9573	25.904	33.587
#1	7.4359	-.00388	-.00757	.41934	.39539	-.02044	.01870
#2	7.4603	-.00223	.00315	.41690	.41228	-.01411	.01152
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00013	-.01434	1.9541	-.11276	2.1421		
SDev	.00011	.00197	.0173	.00000	.0180		
%RSD	88.027	13.750	.88618	.00000	.83970		
#1	-.00020	-.01294	1.9419	-.11276	2.1294		
#2	-.00005	-.01573	1.9664	-.11276	2.1548		

OK 9/10/04

Method: 6010B Sample Name: S4543-01

Operator: DR

Run Time: 09/10/04 09:54:07

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02969	-.04763	.64018	.01646	-.00105	83.571	1.4957
SDev	.00108	.00100	.00357	.00153	.00107	.332	.0085
%RSD	3.6289	2.0974	.55818	9.2652	101.49	.39714	.56596

#1	.02893	-.04692	.63765	.01538	-.00030	83.336	1.4897
#2	.03045	-.04833	.64271	.01754	-.00181	83.805	1.5017

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00422	.00871	74.632	.14021	.07599	.52045	146.21
SDev	.00000	.00092	.072	.00087	.00117	.00246	.11
%RSD	.05429	10.581	.09667	.62234	1.5427	.47213	.07333

#1	.00422	.00936	74.683	.14082	.07516	.51871	146.29
#2	.00422	.00806	74.581	.13959	.07682	.52218	146.13

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.3346	45.059	.15016	-.01011	1.5416	.21359	.30298
SDev	.0019	.057	.00036	.00197	.1296	.00104	.00054
%RSD	.05569	.12552	.24270	19.463	8.4091	.48744	.17948

#1	3.3359	45.019	.14990	-.00872	1.6333	.21433	.30336
#2	3.3333	45.099	.15042	-.01150	1.4500	.21286	.30259

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.519	-.00481	.00328	.63530	.64042	-.01081	.02828
SDev	.061	.00347	.00375	.00602	.00235	.00076	.00267
%RSD	.44961	72.135	114.35	.94673	.36767	7.0547	9.4330

#1	13.476	-.00236	.00063	.63105	.63875	-.01027	.02639
#2	13.562	-.00727	.00592	.63955	.64208	-.01134	.03016

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00098	-.00535	2.3917	-.14347	5.4647
SDev	.00199	.00066	.0064	.00337	.0309
%RSD	201.93	12.275	.26847	2.3483	.56547

#1	-.00239	-.00582	2.3872	-.14585	5.4428
#2	.00042	-.00489	2.3963	-.14108	5.4865

09/10/04

Method: 6010B Sample Name: S4544-01  
 Run Time: 09/10/04 09:56:05  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00627	-.02895	.04732	.01680	-.00367	60.827	.41019
SDev	.00601	.00766	.00263	.00078	.00111	.222	.00175
%RSD	95.813	26.465	5.5509	4.6599	30.275	.36456	.42660
#1	.01053	-.03436	.04917	.01625	-.00446	60.983	.41143
#2	.00202	-.02353	.04546	.01735	-.00289	60.670	.40896
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00581	.00918	48.000	.07065	.06208	.13373	172.87
SDev	.00010	.00131	.140	.00002	.00070	.00071	.54
%RSD	1.7827	14.241	.29092	.02306	1.1331	.52879	.31016
#1	.00588	.00826	47.901	.07066	.06258	.13423	172.49
#2	.00574	.01010	48.099	.07064	.06159	.13323	173.25
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.7471	30.502	.04557	-.01219	1.3042	.20575	-.16870
SDev	.0053	.012	.00042	.00123	.1091	.00106	.00152
%RSD	.19269	.03881	.93059	10.089	8.3666	.51358	.90247
#1	2.7434	30.493	.04527	-.01132	1.3814	.20500	-.16763
#2	2.7509	30.510	.04587	-.01306	1.2271	.20650	-.16978
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.7420	-.00588	-.00245	.03812	.04981	-.01981	.03328
SDev	.0529	.00406	.00479	.00546	.00135	.00360	.00062
%RSD	1.1151	68.997	195.95	14.317	2.7189	18.155	1.8694
#1	4.7794	-.00875	.00094	.04198	.05077	-.02236	.03372
#2	4.7046	-.00301	-.00583	.03426	.04885	-.01727	.03284
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00138	-.03649	5.0287	-.32796	3.7248		
SDev	.00122	.00175	.0007	.00299	.0148		
%RSD	88.355	4.8028	.01419	.91313	.39623		
#1	-.00052	-.03525	5.0282	-.32584	3.7352		
#2	-.00224	-.03773	5.0292	-.33008	3.7143		

09/10/04

Method: 6010B Sample Name: S4544-02 Operator: DR  
 Run Time: 09/10/04 09:58:01  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	-.03366	.04185	.01029	.00132	50.013	.40365
SDev	.00679	.00735	.00027	.00003	.00484	.297	.00206
%RSD	5677.6	21.830	.64816	.29900	365.87	.59462	.51163
#1	.00468	-.03885	.04165	.01031	.00475	50.224	.40511
#2	-.00492	-.02846	.04204	.01027	-.00210	49.803	.40219
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00484	.00531	44.427	.05006	.05363	.13169	136.98
SDev	.00005	.00036	.282	.00001	.00047	.00010	.24
%RSD	1.0469	6.8213	.63386	.01434	.87396	.07346	.17464
#1	.00487	.00505	44.626	.05006	.05396	.13176	137.15
#2	.00480	.00557	44.228	.05007	.05330	.13162	136.81
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.5822	28.473	.03993	-.01100	1.2963	.14498	-.17398
SDev	.0140	.097	.00115	.00137	.0233	.00001	.00162
%RSD	.54114	.34184	2.8914	12.433	1.7987	.00659	.93287
#1	2.5920	28.542	.04075	-.01197	1.3128	.14499	-.17513
#2	2.5723	28.404	.03911	-.01003	1.2798	.14497	-.17283
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.8857	-.00241	.00559	.04317	.03899	-.02266	.02494
SDev	.0316	.00574	.00305	.00034	.00058	.00291	.00150
%RSD	.53737	238.53	54.609	.78995	1.4798	12.842	6.0096
#1	5.9081	.00165	.00775	.04341	.03858	-.02472	.02600
#2	5.8634	-.00646	.00343	.04293	.03939	-.02060	.02388
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00098	-.02967	4.2335	-.25967	2.2044		
SDev	.00066	.00000	.0191	.00487	.0083		
%RSD	67.308	.00000	.45194	1.8741	.37660		
#1	-.00145	-.02967	4.2470	-.26311	2.2102		
#2	-.00052	-.02967	4.2200	-.25623	2.1985		

OK 9/10/04

Method: 6010B Sample Name: CCV

Operator: DR

Run Time: 09/10/04 10:01:42

Comment: CCV

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1190	5.1664	5.0070	5.1398	5.0117	9.8891	10.187
SDev	.0262	.0311	.0073	.0180	.0076	.0230	.044
%RSD	.51275	.60279	.14539	.34993	.15086	.23252	.43572

#1	5.1376	5.1884	5.0122	5.1271	5.0170	9.9053	10.219
#2	5.1004	5.1444	5.0019	5.1525	5.0063	9.8728	10.156

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.25450	2.5453	25.337	1.0026	2.4966	1.2311	4.9284
SDev	.00173	.0215	.189	.0104	.0164	.0036	.0245
%RSD	.68163	.84579	.74400	1.0335	.65717	.29435	.49700

#1	.25573	2.5605	25.471	1.0099	2.5082	1.2336	4.9457
#2	.25328	2.5300	25.204	.99528	2.4850	1.2285	4.9111

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.4972	25.027	2.5215	1.2728	25.097	2.4792	2.3059
SDev	.0170	.109	.0289	.0106	.053	.0171	.0135
%RSD	.67902	.43620	1.1465	.83428	.21183	.68980	.58762

#1	2.5092	25.104	2.5420	1.2803	25.134	2.4913	2.3154
#2	2.4852	24.950	2.5011	1.2653	25.059	2.4671	2.2963

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.313	5.0380	4.9558	4.9596	5.0287	5.1019	5.1571
SDev	.054	.0233	.0239	.0423	.0102	.0365	.0452
%RSD	.21475	.46176	.48211	.85348	.20321	.71597	.87650

#1	25.352	5.0544	4.9389	4.9895	5.0215	5.1277	5.1252
#2	25.275	5.0215	4.9727	4.9297	5.0360	5.0761	5.1891

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	5.1019	5.0732	4.9687	4.9727	5.2726
SDev	.0210	.0186	.0193	.0391	.0184
%RSD	.41148	.36700	.38768	.78666	.34990

#1	5.1168	5.0864	4.9824	5.0004	5.2856
#2	5.0871	5.0600	4.9551	4.9451	5.2595

OK 9/10/04

Method: 6010B

Sample Name: CCB

Operator: DR

Run Time: 09/10/04 10:05:23

Comment: CCB

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00148	-.00889	.00218	-.00194	.00119	.03090	-.00027
SDev	.00833	.00864	.00106	.00193	.00168	.00294	.00032
%RSD	562.13	97.248	48.761	99.813	141.61	9.5202	118.47

#1	-.00441	Q-.01500	.00143	-.00057	-.00000	.02882	-.00050
#2	.00737	-.00278	.00293	-.00330	.00237	.03298	-.00004

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00111	-.00073	.00914	.00072	.00092	-.00102	.04047
SDev	.00010	.00101	.00000	.00088	.00094	.00008	.00825
%RSD	9.1483	137.73	.00000	121.13	102.45	8.0082	20.376

#1	.00104	-.00144	.00914	.00134	.00025	-.00097	.04630
#2	.00118	-.00002	.00914	.00010	.00158	-.00108	.03464

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00036	.00773	-.00068	-.00031	-.37218	.00033	-.00133
SDev	.00014	.00263	.00130	.00023	.09047	.00000	.00026
%RSD	39.020	34.016	192.68	73.916	24.307	.58968	19.406

#1	.00026	.00587	.00025	-.00015	-.30821	.00033	-.00114
#2	.00046	.00959	-.00160	-.00047	-.43615	.00032	-.00151

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02982	.00270	-.00506	.00167	.00043	-.00190	-.00376
SDev	.00890	.00182	.00140	.00123	.00097	.00108	.00236
%RSD	29.827	67.343	27.608	73.904	227.01	57.055	62.773

#1	.03611	.00142	-.00604	.00080	-.00026	-.00113	-.00209
#2	.02353	.00399	-.00407	.00254	.00112	-.00266	-.00542

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	-.00458	.00072	-.00556	.01117
SDev	.00066	.00000	.00006	.00225	.00046
%RSD	608.95	.00000	9.0511	40.411	4.1290

#1	-.00036	-.00458	.00076	-.00397	.01084
#2	.00058	-.00458	.00067	-.00715	.01150

OK 9/10/04

Method: 6010B      Sample Name: S4545-01      Operator: DR  
 Run Time: 09/10/04 10:08:48  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00556	-.04127	.05451	.02070	-.00125	81.674	.63633
SDev	.00165	.00403	.00301	.00165	.00246	1.424	.00732
%RSD	29.614	9.7567	5.5143	7.9565	197.77	1.7432	1.1498

#1	-.00440	-.03842	.05239	.02186	.00050	80.668	.63116
#2	-.00673	-.04412	.05664	.01954	-.00299	82.681	.64151

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00511	.01481	22.086	.07752	.09441	.27369	188.08
SDev	.00005	.00233	.863	.00058	.00141	.00118	4.89
%RSD	.88826	15.737	3.9095	.75301	1.4904	.43237	2.6009

#1	.00514	.01645	21.475	.07710	.09342	.27453	184.62
#2	.00508	.01316	22.696	.07793	.09541	.27286	191.54

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.3752	20.822	.05971	-.00590	1.7098	.24846	.04994
SDev	.0932	.318	.00140	.01772	.5577	.00239	.00323
%RSD	2.7625	1.5287	2.3482	300.26	32.619	.96249	6.4762

#1	3.3093	20.597	.06070	.00663	2.1042	.25015	.05222
#2	3.4411	21.048	.05872	-.01844	1.3154	.24677	.04765

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.2908	-.00496	.00298	.05040	.05436	-.02039	.03951
SDev	.0143	.00312	.00115	.00298	.00302	.00526	.00030
%RSD	.22782	62.976	38.472	5.9061	5.5560	25.793	.75212

#1	6.3009	-.00275	.00380	.04829	.05223	-.01667	.03930
#2	6.2806	-.00716	.00217	.05250	.05650	-.02410	.03972

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00044	-.03525	6.7018	-.42127	1.8398
SDev	.00122	.00175	.1422	.01217	.0341
%RSD	277.47	4.9716	2.1213	2.8880	1.8551

#1	-.00130	-.03649	6.6013	-.41266	1.8156
#2	.00042	-.03401	6.8023	-.42987	1.8639

01 9/10/04

Method: 6010B      Sample Name: S4545-02      Operator: DR  
 Run Time: 09/10/04 10:10:37  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01989	-.02085	.07099	.01605	-.00665	106.04	.82041
SDev	.00597	.00524	.00580	.00309	.00222	2.59	.02005
%RSD	30.006	25.114	8.1696	19.272	33.345	2.4432	2.4446
#1	.01567	-.01714	.07509	.01386	-.00508	107.87	.83459
#2	.02411	-.02455	.06689	.01823	-.00822	104.20	.80622
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00594	.01847	103.37	.14892	.13684	.42630	233.90
SDev	.00043	.00161	2.89	.00572	.00750	.00919	3.89
%RSD	7.1685	8.7290	2.7941	3.8415	5.4824	2.1549	1.6610
#1	.00624	.01961	105.41	.15296	.14214	.43280	236.65
#2	.00564	.01733	101.33	.14487	.13153	.41981	231.15
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.3802	24.402	.13129	-.02546	2.1418	.29398	-.71844
SDev	.0798	.548	.00434	.01470	.9634	.01362	.02117
%RSD	2.3609	2.2477	3.3073	57.730	44.983	4.6344	2.9467
#1	3.4366	24.790	.13436	-.01506	2.8230	.30362	-.73341
#2	3.3238	24.014	.12822	-.03585	1.4605	.28435	-.70347
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.8610	-.01522	.00732	.03972	.08430	-.02008	.03228
SDev	.3331	.00054	.00558	.00294	.00737	.00031	.00479
%RSD	3.3778	3.5522	76.170	7.3947	8.7423	1.5319	14.836
#1	10.097	-.01484	.01126	.04180	.08952	-.01987	.02890
#2	9.6255	-.01560	.00338	.03764	.07909	-.02030	.03567
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00083	-.04020	6.9615	-.47990	4.8385		
SDev	.00287	.00219	.1390	.01123	.1296		
%RSD	346.67	5.4484	1.9965	2.3401	2.6785		
#1	.00120	-.03866	7.0598	-.47195	4.9301		
#2	-.00286	-.04175	6.8632	-.48784	4.7469		

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Method: 6010B

Sample Name: S4546-01

Operator: DR

Run Time: 09/10/04 10:12:34

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00704	-.03501	.06830	.01490	-.00473	146.83	.99288
SDev	.00199	.00365	.00526	.00314	.00423	.76	.00399
%RSD	28.243	10.427	7.6940	21.036	89.489	.51613	.40163
#1	.00563	-.03759	.06459	.01712	-.00174	147.36	.99570
#2	.00844	-.03243	.07202	.01268	-.00772	146.29	.99006
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00737	.02015	26.782	.10712	.13037	.25884	242.92
SDev	.00005	.00048	.282	.00006	.00023	.00047	1.83
%RSD	.60785	2.3941	1.0515	.05178	.17930	.17952	.75383
#1	.00740	.02049	26.981	.10708	.13054	.25851	244.22
#2	.00734	.01981	26.583	.10716	.13021	.25917	241.63
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.9042	28.481	.12373	-.02438	1.0965	.39346	.16530
SDev	.0266	.147	.00351	.00066	.0634	.00266	.00008
%RSD	.68069	.51724	2.8398	2.6981	5.7839	.67639	.04844
#1	3.9230	28.585	.12622	-.02484	1.0516	.39534	.16536
#2	3.8854	28.376	.12125	-.02391	1.1413	.39158	.16524
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	10.723	-.01198	.00660	.02968	.08519	-.02137	.03121
SDev	.051	.00233	.00804	.00140	.00858	.00163	.00551
%RSD	.47469	19.440	121.82	4.7118	10.068	7.6314	17.667
#1	10.759	-.01034	.01229	.03066	.07912	-.02252	.03511
#2	10.687	-.01363	.00091	.02869	.09125	-.02021	.02731
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00083	-.04113	9.0977	-.62813	3.2682		
SDev	.00022	.00131	.0488	.00449	.0267		
%RSD	26.667	3.1952	.53681	.71515	.81850		
#1	-.00067	-.04020	9.1322	-.63130	3.2871		
#2	-.00098	-.04206	9.0632	-.62495	3.2493		

OK 9/10/04

Method: 6010B

Sample Name: S4546-02

Operator: DR

Run Time: 09/10/04 10:14:30

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00378	-.03602	.05167	.01706	-.00192	85.392	.62420
SDev	.00015	.00133	.00109	.00373	.00166	.113	.00006
%RSD	3.8807	3.6791	2.1077	21.874	86.865	.13244	.00941
#1	.00388	-.03696	.05244	.01442	-.00074	85.312	.62416
#2	.00368	-.03509	.05090	.01970	-.00309	85.472	.62424
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00574	.01292	23.468	.09259	.07418	.18771	181.39
SDev	.00010	.00056	.095	.00100	.00047	.00053	.59
%RSD	1.8057	4.3251	.40659	1.0843	.63117	.28155	.32742
#1	.00581	.01332	23.401	.09188	.07385	.18734	180.97
#2	.00566	.01253	23.535	.09330	.07451	.18809	181.81
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.7899	21.031	.06266	-.01900	1.3510	.23907	.09464
SDev	.0106	.084	.00354	.00252	.0205	.00106	.00070
%RSD	.37879	.40027	5.6471	13.269	1.5187	.44373	.73637
#1	2.7824	20.971	.06016	-.02078	1.3365	.23832	.09414
#2	2.7973	21.090	.06516	-.01721	1.3655	.23982	.09513
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.8272	-.00372	-.00151	.03701	.05680	-.01978	.03375
SDev	.0119	.00245	.00008	.00058	.00192	.00727	.00211
%RSD	.15152	66.043	5.3627	1.5570	3.3815	36.775	6.2383
#1	7.8189	-.00198	-.00145	.03660	.05815	-.02492	.03227
#2	7.8356	-.00545	-.00157	.03742	.05544	-.01463	.03524
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00083	-.03664	5.5677	-.37494	2.0638		
SDev	.00000	.00022	.0154	.00019	.0097		
%RSD	.00000	.59781	.27724	.04992	.46930		
#1	-.00083	-.03649	5.5568	-.37481	2.0707		
#2	-.00083	-.03680	5.5787	-.37508	2.0570		

OK 9/10/04

Method: 6010B

Sample Name: S4547-01

Operator: DR

Run Time: 09/10/04 10:17:43

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02116	-.02619	.26172	.00398	.00284	32.662	.24388
SDev	.00108	.01695	.00121	.00133	.00110	.059	.00032
%RSD	5.0836	64.725	.46439	33.424	38.776	.18211	.13139
#1	.02192	-.01421	.26257	.00492	.00362	32.620	.24365
#2	.02039	-.03818	.26086	.00304	.00206	32.704	.24411
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00214	.00248	183.99	.07179	.02544	.15471	45.996
SDev	.00015	.00026	.98	.00116	.00188	.00084	.264
%RSD	7.2647	10.546	.53000	1.6155	7.3731	.54014	.57384
#1	.00225	.00230	183.30	.07097	.02677	.15412	45.810
#2	.00203	.00267	184.68	.07261	.02412	.15530	46.183
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.72255	33.299	.04252	-.00603	1.8489	.13370	L-1.4222
SDev	.00300	.096	.00152	.00147	.2416	.00157	.0075
%RSD	.41556	.28835	3.5664	24.403	13.064	1.1710	.52666
#1	.72043	33.231	.04145	-.00708	1.6781	.13259	L-1.4169
#2	.72468	33.367	.04359	-.00499	2.0198	.13480	L-1.4275
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.6480	.00046	.00442	.26293	.25911	-.01763	.01297
SDev	.0030	.00074	.00479	.00103	.00234	.00042	.00178
%RSD	.06379	161.88	108.46	.39357	.90263	2.3695	13.761
#1	4.6501	-.00007	.00780	.26220	.26076	-.01734	.01423
#2	4.6459	.00098	.00103	.26366	.25745	-.01793	.01170
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00144	.01292	2.0112	-.13327	21.772		
SDev	.00011	.00022	.0071	.00430	.091		
%RSD	7.6887	1.6950	.35472	3.2301	.41732		
#1	.00152	.01277	2.0062	-.13632	21.708		
#2	.00136	.01308	2.0163	-.13023	21.837		

OK 9/10/04

Method: 6010B      Sample Name: S4547-02      Operator: DR  
 Run Time: 09/10/04 10:29:12  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.01964	-.02550	.34423	.00604	.00290	39.935	.37756
SDev	.00787	.00765	.00199	.00230	.00558	.018	.00046
%RSD	40.042	29.999	.57714	38.138	192.37	.04408	.12082

#1	.01408	-.02009	.34564	.00767	.00684	39.922	.37724
#2	.02520	-.03091	.34283	.00441	-.00104	39.947	.37788

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.00247	.00467	243.67	.09910	.03174	.20849	64.597
SDev	.00011	.00127	1.57	.00001	.00000	.00022	.388
%RSD	4.3246	27.224	.64565	.01226	.00132	.10697	.60014

#1	.00240	.00377	244.78	.09909	.03174	.20833	64.871
#2	.00255	.00557	242.56	.09911	.03174	.20864	64.323

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.93769	59.921	.05414	-.00528	2.2499	.16011	L-1.9346
SDev	.00500	.085	.00209	.00040	.0774	.00260	.0122
%RSD	.53350	.14267	3.8672	7.5325	3.4406	1.6262	.63119

#1	.94123	59.982	.05562	-.00500	2.3046	.16195	L-1.9432
#2	.93415	59.861	.05266	-.00556	2.1952	.15827	L-1.9260

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	5.6394	-.00015	.00580	.34458	.34206	-.01095	.01272
SDev	.0252	.00709	.00254	.00175	.00210	.00257	.00474
%RSD	.44692	4768.5	43.860	.50828	.61515	23.497	37.240

#1	5.6216	.00487	.00760	.34582	.34355	-.01277	.01607
#2	5.6572	-.00516	.00400	.34334	.34058	-.00913	.00937

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avgc	.00245	.01556	2.1787	-.09291	24.322
SDev	.00287	.00088	.0061	.00112	.001
%RSD	117.12	5.6323	.27983	1.2087	.00380

#1	.00448	.01494	2.1830	-.09211	24.322
#2	.00042	.01618	2.1744	-.09370	24.321

09/10/04

Method: 6010B Sample Name: EXTBLK(9/7/04) Operator: DR  
 Run Time: 09/10/04 10:37:44  
 Comment: FLUID#1  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00146	-.02934	.00203	-.00414	-.00136	.04595	-.00256
SDev	.00447	.02029	.00406	.00269	.00062	.00808	.00006
%RSD	305.48	69.135	199.74	64.929	45.794	17.587	2.5235
#1	-.00463	-.04369	.00490	-.00224	-.00180	.04023	-.00260
#2	.00170	-.01500	-.00084	-.00604	-.00092	.05166	-.00251
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00122	-.00075	.07990	.00021	.00009	-.00132	.04048
SDev	.00005	.00041	.01164	.00015	.00070	.00033	.00825
%RSD	4.1638	54.432	14.563	70.675	812.57	25.041	20.378
#1	.00118	-.00046	.08813	.00031	-.00041	-.00155	.03465
#2	.00125	-.00104	.07167	.00010	.00058	-.00108	.04631
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00024	.00959	.00009	-.00087	159.16	-.00041	.00071
SDev	.00014	.00263	.00007	.00011	.13	.00000	.00040
%RSD	59.234	27.421	78.819	12.555	.08145	.01569	56.587
#1	-.00014	.01145	.00004	-.00079	159.25	-.00041	.00099
#2	-.00034	.00773	.00014	-.00095	159.06	-.00041	.00043
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00012	-.00061	-.00605	.00204	.00003	.00170	-.00875
SDev	.00642	.00076	.00035	.00391	.00414	.00638	.00070
%RSD	5323.6	123.43	5.7707	191.84	13173.	375.75	8.0359
#1	-.00442	-.00115	-.00629	.00480	.00296	.00621	-.00825
#2	.00466	-.00008	-.00580	-.00073	-.00289	-.00281	-.00925
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00153	-.00876	.00017	-.01085	.02487		
SDev	.00122	.00022	.00032	.00187	.00231		
%RSD	79.343	2.5002	195.07	17.248	9.2734		
#1	-.00067	-.00892	.00040	-.00953	.02324		
#2	-.00239	-.00861	-.00006	-.01218	.02650		

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Analysis Report

09/10/04 10:41:24 AM

page 1

Method: 6010B      Sample Name: S4552-01      Operator: DR  
 Run Time: 09/10/04 10:39:36  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.91718	-.05496	.00648	.00297	.00026	.18203	.16972
SDev	.00756	.00627	.00098	.00242	.00127	.00515	.00116
%RSD	.82433	11.414	15.063	81.642	479.06	2.8275	.68555

#1	.92253	-.05052	.00717	.00125	-.00063	.17839	.16890
#2	.91184	-.05939	.00579	.00468	.00116	.18567	.17054

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00301	-.00152	2.7738	-.00024	.00887	.00219	1.2129
SDev	.00035	.00021	.0093	.00015	.00047	.00025	.0495
%RSD	11.756	13.809	.33561	61.084	5.2852	11.392	4.0812

#1	.00276	-.00137	2.7804	-.00035	.00854	.00236	1.2479
#2	.00326	-.00167	2.7673	-.00014	.00920	.00201	1.1779

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8084	1.6930	.00437	-.00190	126.40	.00001	.05080
SDev	.0168	.0158	.00007	.00013	1.44	.00052	.00061
%RSD	.92984	.93228	1.6347	6.6543	1.1422	9649.8	1.2022

#1	1.8203	1.7042	.00442	-.00181	125.38	-.00036	.05123
#2	1.7965	1.6818	.00432	-.00199	127.42	.00037	.05036

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.82830	.00061	-.00364	.00613	.00466	.01285	-.00367
SDev	.00148	.00015	.00410	.00177	.00235	.00584	.00058
%RSD	.17899	24.334	112.76	28.958	50.428	45.439	15.693

#1	.82934	.00072	-.00654	.00487	.00632	.00872	-.00407
#2	.82725	.00051	-.00074	.00738	.00300	.01698	-.00326

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00208	.00471	-.00002	-.00781	.48242
SDev	.00265	.00044	.00006	.00393	.01568
%RSD	127.57	9.2932	376.96	50.341	3.2505

#1	-.00020	.00502	-.00006	-.00503	.47134
#2	-.00395	.00440	.00003	-.01059	.49351

OK 9/10/04

Method: 6010B

Sample Name: S4552-01D

Operator: DR

Run Time: 09/10/04 10:41:34

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.93158	-.04304	.00509	.00274	-.00122	.17839	.16999
SDev	.00818	.00134	.00160	.00235	.00050	.00000	.00013
%RSD	.87795	3.1186	31.396	85.777	41.371	.00187	.07607
#1	.93737	-.04209	.00622	.00108	-.00157	.17839	.16990
#2	.92580	-.04399	.00396	.00440	-.00086	.17839	.17008
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00276	-.00157	2.8018	.00058	.00904	.00265	1.2537
SDev	.00000	.00104	.0023	.00073	.00070	.00008	.0082
%RSD	.00013	65.785	.08306	125.07	7.7809	3.0923	.65778
#1	.00276	-.00084	2.8002	.00110	.00854	.00259	1.2596
#2	.00276	-.00231	2.8035	.00007	.00953	.00271	1.2479
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8341	1.7125	.00868	-.00134	126.75	-.00036	.05133
SDev	.0033	.0013	.00094	.00022	.09	.00000	.00055
%RSD	.17866	.07680	10.860	16.470	.07358	.46373	1.0724
#1	1.8318	1.7135	.00801	-.00149	126.82	-.00036	.05172
#2	1.8364	1.7116	.00934	-.00118	126.69	-.00036	.05094
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.83878	.00039	-.00765	.00586	.00270	.00635	-.00066
SDev	.00642	.00136	.00122	.00171	.00154	.00400	.00153
%RSD	.76592	345.76	15.964	29.164	57.016	62.956	230.07
#1	.84332	-.00057	-.00679	.00707	.00379	.00352	-.00174
#2	.83424	.00136	-.00851	.00465	.00161	.00918	.00042
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00333	.00332	-.00034	-.01072	.47786		
SDev	.00177	.00110	.00026	.00094	.00185		
%RSD	53.108	32.988	76.701	8.7302	.38607		
#1	-.00208	.00409	-.00015	-.01006	.47916		
#2	-.00458	.00255	-.00052	-.01138	.47655		

09/10/04

Method: 6010B

Sample Name: S4552-01LX5

Operator: DR

Run Time: 09/10/04 10:43:29

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.18554	-.01214	.00228	-.00350	.00027	.05946	.03262
SDev	.00756	.01032	.00124	.00229	.00188	.00074	.00019
%RSD	4.0751	85.010	54.442	65.519	702.61	1.2464	.59447
#1	.19088	-.01944	.00316	-.00512	.00160	.05999	.03276
#2	.18019	-.00484	.00141	-.00188	-.00106	.05894	.03248
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00147	-.00111	.59829	-.00011	.00324	-.00014	.26213
SDev	.00000	.00022	.00466	.00029	.00047	.00016	.00826
%RSD	.07771	19.985	.77800	266.78	14.488	118.09	3.1498
#1	.00147	-.00095	.60158	.00010	.00357	-.00002	.25629
#2	.00147	-.00127	.59499	-.00032	.00290	-.00025	.26797
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.38152	.34906	.00127	-.00088	20.159	-.00003	.00907
SDev	.00342	.00658	.00015	.00067	.215	.00052	.00046
%RSD	.89623	1.8840	11.462	75.995	1.0641	1596.1	5.0641
#1	.38394	.35372	.00137	-.00041	20.311	.00033	.00939
#2	.37910	.34441	.00116	-.00136	20.008	-.00040	.00875
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.13326	.00013	-.00265	.00070	.00108	-.00479	-.00455
SDev	.01087	.00181	.00201	.00407	.00389	.00173	.00271
%RSD	8.1587	1440.6	75.771	581.10	361.47	36.117	59.621
#1	.14095	.00141	-.00123	-.00217	.00383	-.00602	-.00647
#2	.12557	-.00116	-.00407	.00357	-.00168	-.00357	-.00263
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00161	-.00907	-.00052	-.00278	.10542		
SDev	.00044	.00066	.00013	.00206	.00461		
%RSD	27.452	7.2444	24.865	74.095	4.3750		
#1	-.00130	-.00861	-.00061	-.00423	.10868		
#2	-.00192	-.00954	-.00043	-.00132	.10216		

OK 9/10/04



Method: 6010B

Sample Name: CCV

Operator: DR

Run Time: 09/10/04 10:45:31

Comment: CCV

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.9915	5.0847	4.8539	5.0493	4.9228	9.6787	9.9955
SDev	.0142	.0619	.0162	.0216	.0116	.0132	.0248
%RSD	.28447	1.2172	.33476	.42873	.23596	.13618	.24822

#1	4.9815	5.1285	4.8424	5.0340	4.9145	9.6880	10.013
#2	5.0015	5.0409	4.8654	5.0646	4.9310	9.6693	9.9780

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.24620	2.4638	24.312	.96299	2.4092	1.2095	4.6963
SDev	.00020	.0079	.102	.00277	.0030	.0024	.0082
%RSD	.07996	.32146	.42119	.28799	.12654	.19665	.17476

#1	.24606	2.4582	24.240	.96102	2.4071	1.2111	4.6905
#2	.24634	2.4694	24.385	.96495	2.4114	1.2078	4.7021

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.4053	24.417	2.4522	1.2334	24.402	2.3957	2.4716
SDev	.0073	.009	.0030	.0012	.412	.0026	.0150
%RSD	.30215	.03771	.12116	.10072	1.6893	.10826	.60529

#1	2.4001	24.424	2.4543	1.2343	24.694	2.3938	2.4610
#2	2.4104	24.411	2.4501	1.2325	24.111	2.3975	2.4821

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.013	4.9794	4.8061	4.8176	4.8700	5.0357	5.0543
SDev	.189	.0153	.0043	.0062	.0213	.0291	.0470
%RSD	.75472	.30672	.08926	.12923	.43641	.57744	.92936

#1	25.146	4.9686	4.8031	4.8132	4.8550	5.0562	5.0210
#2	24.879	4.9902	4.8092	4.8221	4.8850	5.0151	5.0875

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	4.9497	4.9375	4.8234	4.8139	5.1979
SDev	.0169	.0164	.0062	.0241	.0060
%RSD	.34154	.33273	.12908	.50157	.11535

#1	4.9377	4.9259	4.8190	4.7968	5.2021
#2	4.9616	4.9491	4.8278	4.8310	5.1937

09/10/04

Method: 6010B Sample Name: CCB

Operator: DR

Run Time: 09/10/04 10:47:35

Comment: CCB

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00059	-.00069	.00203	-.00078	.00330	.02830	-.00123
SDev	.00448	.00498	.00022	.00427	.00036	.00368	.00013
%RSD	755.15	726.29	10.993	548.28	10.957	13.023	10.477

#1	.00257	.00284	.00188	.00224	.00305	.02569	-.00114
#2	-.00376	-.00421	.00219	-.00380	.00356	.03090	-.00132

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00118	-.00121	.01243	.00000	.00025	-.00074	-.00035
SDev	.00010	.00031	.00000	.00044	.00188	.00016	.01650
%RSD	8.4899	25.656	.00000	27247.	742.24	22.300	4671.8

#1	.00111	-.00099	.01243	.00031	-.00107	-.00085	.01132
#2	.00125	-.00143	.01243	-.00031	.00158	-.00062	-.01202

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00006	.00401	-.00155	-.00009	-.38009	-.00004	-.00141
SDev	.00000	.00263	.00109	.00033	.02705	.00052	.00000
%RSD	1.1472	65.550	70.278	370.93	7.1159	1207.7	.22766

#1	.00006	.00587	-.00232	-.00032	-.36097	-.00041	-.00141
#2	.00006	.00215	-.00078	.00014	-.39921	.00032	-.00141

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00571	.00313	.00043	-.00404	.00307	.00131	-.00352
SDev	.00049	.00212	.00532	.00096	.00081	.00389	.00460
%RSD	8.6522	67.503	1231.9	23.660	26.480	296.59	130.55

#1	.00536	.00463	-.00333	-.00336	.00249	.00406	-.00027
#2	.00606	.00164	.00420	-.00471	.00364	-.00144	-.00677

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00169	-.00907	-.00006	-.00265	.01378
SDev	.00033	.00066	.00013	.00112	.00046
%RSD	19.636	7.2444	205.68	42.437	3.3470

#1	-.00192	-.00861	-.00015	-.00344	.01345
#2	-.00145	-.00954	.00003	-.00185	.01411

09/10/04

Method: 6010B      Sample Name: S4552-01S      Operator: DR  
 Run Time: 09/10/04 10:54:08  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.6664	2.0385	.96128	2.1274	.78705	2.2752	2.2141
SDev	.0040	.0083	.01180	.0027	.00773	.0132	.0109
%RSD	.24105	.40867	1.2279	.12548	.98150	.58184	.49025
#1	1.6692	2.0326	.96962	2.1293	.79251	2.2845	2.2218
#2	1.6635	2.0444	.95293	2.1255	.78159	2.2658	2.2064
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.18607	.18758	7.4130	.35734	.19281	.29120	3.8040
SDev	.00131	.00031	.0675	.00292	.00141	.00074	.0247
%RSD	.70574	.16494	.91046	.81684	.72943	.25452	.64978
#1	.18700	.18780	7.4607	.35940	.19380	.29172	3.8215
#2	.18514	.18736	7.3652	.35528	.19181	.29068	3.7865
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8295	3.6703	.47600	.04933	125.59	.26722	.27747
SDev	.0107	.0210	.00196	.00045	.31	.00156	.00099
%RSD	.58416	.57338	.41090	.90439	.25026	.58348	.35650
#1	1.8371	3.6852	.47738	.04901	125.81	.26833	.27817
#2	1.8220	3.6554	.47462	.04964	125.37	.26612	.27677
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	15.115	.78965	.77864	.94821	.96540	2.1222	2.1281
SDev	.067	.00831	.00655	.01627	.00958	.0040	.0020
%RSD	.44465	1.0524	.84148	1.7154	.99190	.18831	.09431
#1	15.163	.79553	.78327	.95972	.97217	2.1250	2.1296
#2	15.068	.78377	.77400	.93671	.95863	2.1194	2.1267
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.38786	.28104	.18815	.65883	1.1634		
SDev	.00121	.00307	.00117	.00524	.0009		
%RSD	.31336	1.0912	.62048	.79546	.07929		
#1	.38872	.28321	.18898	.65513	1.1627		
#2	.38700	.27887	.18733	.66254	1.1640		

OK 9/10/04

Method: 6010B Sample Name: S4552-01SD Operator: DR  
 Run Time: 09/10/04 10:56:04  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.6719	2.0435	.94394	2.1126	.77987	2.2611	2.2127
SDev	.0008	.0053	.00195	.0072	.00096	.0022	.0008
%RSD	.04659	.26090	.20661	.33983	.12341	.09775	.03505
#1	1.6725	2.0397	.94256	2.1177	.78055	2.2627	2.2121
#2	1.6714	2.0473	.94532	2.1075	.77919	2.2595	2.2132
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18511	.18677	7.3471	.35352	.19148	.28963	3.7457
SDev	.00065	.00160	.0628	.00423	.00141	.00016	.0247
%RSD	.35377	.85570	.85526	1.1973	.73526	.05647	.65979
#1	.18558	.18790	7.3916	.35652	.19049	.28951	3.7632
#2	.18465	.18564	7.3027	.35053	.19248	.28974	3.7282
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8190	3.6461	.47031	.04915	126.48	.26429	.27368
SDev	.0084	.0105	.00551	.00001	.50	.00156	.00332
%RSD	.46220	.28860	1.1708	.01390	.39376	.59088	1.2144
#1	1.8250	3.6536	.47421	.04915	126.13	.26539	.27603
#2	1.8131	3.6387	.46642	.04914	126.83	.26318	.27133
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.127	.78517	.76604	.93142	.94778	2.1140	2.1101
SDev	.054	.00044	.00202	.00406	.00495	.0185	.0015
%RSD	.35608	.05562	.26311	.43563	.52224	.87423	.07283
#1	15.089	.78548	.76746	.93429	.94428	2.1270	2.1112
#2	15.165	.78487	.76461	.92855	.95128	2.1009	2.1091
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.38990	.28259	.18659	.66029	1.1797		
SDev	.00232	.00219	.00065	.00842	.0028		
%RSD	.59511	.77515	.34760	1.2756	.23458		
#1	.39154	.28104	.18705	.65433	1.1777		
#2	.38825	.28414	.18613	.66624	1.1816		

09/10/04

Method: 6010B      Sample Name: S4552-01A      Operator: DR  
 Run Time: 09/10/04 10:57:55  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.63757	.91304	.57297	1.0717	.39585	.93665	1.1091
SDev	1.5487	2.0233	.44870	1.2898	.41468	1.8561	1.5406
%RSD	242.91	221.60	78.312	120.35	104.76	198.17	138.90

#1	1.7327	2.3438	.89025	1.9837	.68908	2.2491	2.1985
#2	-.45753	-.51767	.25568	.15969	.10263	-.37584	.01977

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08883	.10158	3.6444	.19646	.13035	.15913	2.3947
SDev	.13419	.11774	5.1504	.21584	.08271	.18125	1.6220
%RSD	151.06	115.91	141.32	109.86	63.455	113.91	67.733

#1	.18372	.18483	7.2862	.34909	.18883	.28729	3.5416
#2	-.00605	.01832	.00256	.04384	.07186	.03096	1.2478

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.92302	1.8018	.26991	.02607	68.317	.13145	.18595
SDev	1.2687	2.5767	.28198	.03250	81.261	.18629	.11922
%RSD	137.45	143.00	104.47	124.64	118.95	141.72	64.117

#1	1.8201	3.6238	.46929	.04905	125.78	.26317	.27025
#2	.02590	-.02017	.07052	.00309	10.857	-.00028	.10164

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.4170	.37998	.42444	.82920	.44264	.72837	1.2413
SDev	10.679	.38527	.47358	.03972	.69255	1.3865	1.2415
%RSD	143.98	101.39	111.58	4.7901	156.46	190.36	100.01

#1	14.968	.65241	.75931	.80111	.93235	1.7088	2.1191
#2	-.13441	.10755	.08957	.85729	-.04706	-.25206	.36346

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19582	.13761	.09070	.20739	.44394
SDev	.27612	.19495	.12965	.87988	.96393
%RSD	141.00	141.67	142.95	424.26	217.13

#1	.39107	.27546	.18237	.82956	1.1255
#2	.00058	-.00024	-.00098	-.41478	-.23766

OK 9/10/04

Method: 6010B

Sample Name: PB00992BL

Operator: DR

Run Time: 09/10/04 11:00:05

Comment: PBW

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00573	Q.01433	.00097	-.00060	.00165	.03244	-.00233
SDev	.00170	.01692	.00156	.00008	.00353	.00074	.00013
%RSD	29.616	118.08	161.01	13.337	214.68	2.2706	5.5536
#1	.00453	Q.02629	.00207	-.00054	.00414	.03192	-.00224
#2	.00694	.00237	-.00013	-.00066	-.00085	.03297	-.00242
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00143	-.00088	-.00073	-.00051	.00058	-.00161	.00549
SDev	.00015	.00009	.00000	.00058	.00047	.00057	.00824
%RSD	10.690	10.527	.00000	113.42	80.256	35.771	150.08
#1	.00154	-.00095	-.00073	-.00093	.00092	-.00201	-.00034
#2	.00132	-.00081	-.00073	-.00010	.00025	-.00120	.01132
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00024	-.00529	-.00124	-.00081	-.47242	-.00078	-.00159
SDev	.00014	.00263	.00036	.00023	.02332	.00052	.00078
%RSD	59.104	49.752	29.237	28.501	4.9355	66.929	48.914
#1	-.00034	-.00715	-.00098	-.00097	-.48890	-.00114	-.00104
#2	-.00014	-.00343	-.00150	-.00064	-.45593	-.00041	-.00214
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.03098	.00142	-.00111	-.00230	.00060	-.00083	-.00219
SDev	.03163	.00242	.00575	.00653	.00560	.00065	.00059
%RSD	102.09	170.16	516.49	283.94	930.25	78.449	26.770
#1	-.05334	.00314	.00296	-.00691	.00456	-.00129	-.00177
#2	-.00862	-.00029	-.00518	.00232	-.00336	-.00037	-.00260
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00239	-.01093	-.00084	-.00463	.01769		
SDev	.00243	.00197	.00006	.00880	.00323		
%RSD	101.65	18.037	7.6963	189.94	18.248		
#1	-.00067	-.00954	-.00080	.00159	.01998		
#2	-.00411	-.01232	-.00089	-.01085	.01541		

019/10/04

Method: 6010B

Sample Name: PB00992BS

Operator: DR

Run Time: 09/10/04 11:02:18

Comment: LCSW

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.74989	1.8873	.94311	1.6416	.77280	1.9645	2.2977
SDev	.00140	.0285	.01534	.0189	.01152	.0096	.0092
%RSD	.18630	1.5107	1.6270	1.1507	1.4906	.48836	.39928

#1	.74890	1.8671	.93226	1.6283	.76465	1.9577	2.2913
#2	.75088	1.9074	.95396	1.6550	.78094	1.9713	2.3042

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18033	.20095	5.0136	.41568	.19711	.31246	3.0684
SDev	.00181	.00374	.0815	.00482	.00234	.00066	.0247
%RSD	1.0059	1.8590	1.6247	1.1587	1.1893	.21112	.80429

#1	.17905	.19831	4.9560	.41228	.19546	.31200	3.0509
#2	.18161	.20360	5.0712	.41909	.19877	.31293	3.0858

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.21049	1.9739	.49774	.07602	3.0980	.30573	.23199
SDev	.00228	.0105	.00152	.00114	.0196	.00415	.00309
%RSD	1.0835	.53308	.30561	1.4989	.63220	1.3577	1.3307

#1	.20888	1.9664	.49666	.07521	3.0841	.30280	.22981
#2	.21211	1.9813	.49881	.07682	3.1118	.30867	.23417

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.4127	.78101	.75314	.95535	.93501	1.6154	1.6529
SDev	.0222	.01360	.00735	.01097	.01753	.0013	.0277
%RSD	.23626	1.7413	.97622	1.1484	1.8746	.08033	1.6742

#1	9.4284	.77140	.74794	.94760	.92261	1.6145	1.6334
#2	9.3969	.79063	.75834	.96311	.94740	1.6164	1.6725

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.41169	.26694	.20902	.66294	Q.89302
SDev	.00265	.00460	.00188	.00992	.00692
%RSD	.64412	1.7232	.89985	1.4964	.77470

#1	.40982	.26369	.20769	.65592	Q.89791
#2	.41357	.27020	.21035	.66995	Q.88813

01 9/10/04

Method: 6010B

Sample Name: PB00661BL

Operator: DR

Run Time: 09/10/04 11:09:22

Comment: PBS

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00048	.00800	.00477	-.00269	.00091	.04491	-.00233
SDev	.00340	.01858	.00316	.00246	.00143	.00954	.00000
%RSD	702.18	232.33	66.294	91.273	156.70	21.255	.00709

#1	.00192	Q.02113	.00253	-.00095	-.00010	.03816	-.00233
#2	-.00288	-.00514	Q.00700	-.00443	.00193	.05165	-.00233

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00186	-.00179	-.00073	.00000	-.00024	-.00126	-.00035
SDev	.00035	.00032	.00000	.00044	.00023	.00008	.01650
%RSD	19.051	17.742	.00000	26055.	96.053	6.4276	4733.1

#1	.00161	-.00201	-.00073	.00031	-.00008	-.00132	.01132
#2	.00211	-.00157	-.00073	-.00031	-.00041	-.00120	-.01201

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00034	-.00436	-.00180	-.00089	-.39394	-.00041	-.00232
SDev	.00000	.00132	.00261	.00011	.07088	.00000	.00077
%RSD	.19739	30.185	144.68	11.886	17.993	.35623	33.281

#1	-.00034	-.00529	-.00365	-.00096	-.44406	-.00041	-.00177
#2	-.00034	-.00343	.00004	-.00081	-.34382	-.00041	-.00287

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00757	.00174	-.00395	.00485	.00273	-.00396	-.00385
SDev	.00642	.00136	.00157	.00059	.00503	.00335	.00201
%RSD	84.900	78.245	39.757	12.196	184.51	84.614	52.086

#1	-.01211	.00078	-.00506	.00526	-.00083	-.00159	-.00243
#2	-.00302	.00271	-.00284	.00443	.00629	-.00633	-.00527

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00216	-.01170	-.00098	.00212	.02095
SDev	.00033	.00044	.00000	.00150	.00138
%RSD	15.368	3.7431	.00000	70.689	6.6032

#1	-.00239	-.01139	-.00098	.00318	.01998
#2	-.00192	-.01201	-.00098	.00106	.02193

21/9/10/04



Method: 6010B

Sample Name: PB00991BS

Operator: DR

Run Time: 09/10/04 11:11:22

Comment: LCSS

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.76725	1.9128	.96065	1.6667	.79240	1.9900	2.3395
SDev	.00184	.0255	.00516	.0015	.00855	.0044	.0104
%RSD	.23977	1.3344	.53672	.08708	1.0790	.22364	.44463
#1	.76855	1.8948	.95700	1.6677	.79845	1.9868	2.3321
#2	.76595	1.9309	.96429	1.6657	.78636	1.9931	2.3468
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.18405	.20494	5.1403	.42167	.19827	.30974	3.0508
SDev	.00181	.00118	.0884	.00657	.00258	.00025	.0659
%RSD	.98615	.57643	1.7205	1.5574	1.3009	.08129	2.1609
#1	.18276	.20410	5.0778	.41703	.19645	.30956	3.0042
#2	.18533	.20577	5.2028	.42631	.20010	.30991	3.0974
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.21301	1.9813	.50532	.07784	3.0505	.30904	.23619
SDev	.00271	.0105	.00080	.00195	.1259	.00364	.00178
%RSD	1.2721	.53108	.15800	2.5029	4.1274	1.1772	.75597
#1	.21109	1.9739	.50589	.07647	3.1395	.30646	.23492
#2	.21493	1.9888	.50476	.07922	2.9615	.31161	.23745
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.4742	.80464	.76469	.96697	.95549	1.6348	1.6808
SDev	.0193	.01531	.00499	.00492	.00528	.0135	.0089
%RSD	.20343	1.9029	.65305	.50865	.55203	.82664	.53085
#1	9.4605	.81547	.76116	.96349	.95176	1.6252	1.6871
#2	9.4878	.79381	.76822	.97045	.95922	1.6443	1.6745
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.42427	.27453	.20948	.67630	Q.94813		
SDev	.00475	.00307	.00227	.00898	.00369		
%RSD	1.1198	1.1170	1.0837	1.3284	.38915		
#1	.42091	.27237	.20787	.68265	Q.94552		
#2	.42763	.27670	.21108	.66995	Q.95074		

CL 9/10/04

Method: 6010B Sample Name: S4167-01 Operator: DR  
 Run Time: 09/10/04 11:13:50  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00375	-.01956	.15497	.00628	.00077	106.30	.26096
SDev	.00402	.00663	.00435	.00082	.00660	.56	.00148
%RSD	107.05	33.905	2.8054	13.120	856.02	.52774	.56715

#1	-.00659	-.01487	.15190	.00686	.00544	105.90	.25992
#2	-.00091	-.02426	.15805	.00570	-.00390	106.70	.26201

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00535	.00436	10.849	.04835	.04716	.06766	101.30
SDev	.00005	.00119	.086	.00046	.00070	.00012	.60
%RSD	.94488	27.300	.79371	.94332	1.4930	.17536	.59446

#1	.00532	.00520	10.788	.04867	.04667	.06757	100.87
#2	.00539	.00352	10.910	.04802	.04766	.06774	101.72

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.2251	16.346	.04008	-.00648	1.0767	.13696	.42128
SDev	.0090	.064	.00371	.00222	.1585	.00002	.00321
%RSD	.73467	.39429	9.2501	34.224	14.726	.01698	.76096

#1	1.2188	16.300	.04270	-.00491	1.1888	.13695	.41901
#2	1.2315	16.392	.03746	-.00805	.96459	.13698	.42355

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.1651	-.00136	.00184	.14055	.15988	-.01430	.01475
SDev	.0128	.00593	.00794	.00656	.00338	.00505	.00128
%RSD	.30848	434.76	430.58	4.6675	2.1168	35.311	8.7143

#1	4.1560	.00283	.00746	.13591	.15748	-.01073	.01384
#2	4.1742	-.00556	-.00377	.14519	.16227	-.01786	.01566

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00044	-.01790	4.5534	-.31208	13.807
SDev	.00144	.00044	.0278	.00599	.104
%RSD	327.92	2.4475	.60963	1.9192	.75493

#1	.00058	-.01821	4.5338	-.31631	13.734
#2	-.00145	-.01759	4.5730	-.30784	13.881

09/10/04

Method: 6010B Sample Name: S4167-02

Operator: DR

Run Time: 09/10/04 11:15:39

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01383	-.03017	.30069	.01397	.00469	92.012	.45596
SDev	.00432	.02290	.00375	.00046	.00552	.387	.00213
%RSD	31.239	75.898	1.2462	3.2609	117.67	.42054	.46647

#1	.01689	-.01398	.29804	.01429	.00859	92.286	.45747
#2	.01078	-.04637	.30334	.01364	.00079	91.738	.45446

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00367	.00258	10.959	.03329	.02578	.02469	73.283
SDev	.00015	.00117	.140	.00220	.00188	.00079	.528
%RSD	4.0120	45.522	1.2742	6.6256	7.2755	3.2014	.72046

#1	.00357	.00175	11.058	.03173	.02445	.02413	73.656
#2	.00378	.00341	10.861	.03485	.02711	.02525	72.909

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.94543	5.5109	.02568	-.01088	.42579	.15192	.29546
SDev	.00800	.1144	.00081	.00711	.20425	.00205	.00400
%RSD	.84623	2.0765	3.1449	65.329	47.969	1.3516	1.3538

#1	.95109	5.4300	.02511	-.01591	.28137	.15047	.29829
#2	.93977	5.5918	.02625	-.00585	.57022	.15337	.29264

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.5443	.00395	.00298	.28643	.30561	-.00875	.02351
SDev	.0623	.00558	.00540	.00186	.00469	.00257	.00196
%RSD	4.0321	141.44	181.16	.64841	1.5348	29.321	8.3532

#1	1.5003	.00789	.00680	.28512	.30230	-.01057	.02490
#2	1.5883	-.00000	-.00084	.28774	.30893	-.00694	.02212

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00144	-.01573	4.1315	-.27184	13.419
SDev	.00210	.00131	.0288	.01273	.082
%RSD	146.09	8.3546	.69700	4.6819	.60835

#1	.00292	-.01480	4.1518	-.26284	13.477
#2	-.00005	-.01666	4.1111	-.28084	13.361

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Method: 6010B Sample Name: S4167-03 Operator: DR  
 Run Time: 09/10/04 11:17:30  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00079	-.01377	.07433	.01336	.00291	109.52	.19645
SDev	.00200	.00628	.00235	.00287	.00029	.25	.00064
%RSD	252.34	45.643	3.1622	21.526	9.9570	.22732	.32440

#1	-.00062	-.01821	.07267	.01133	.00270	109.69	.19691
#2	.00220	-.00932	.07600	.01539	.00311	109.34	.19600

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00391	.00357	6.4272	.04412	.02478	.02907	87.205
SDev	.00005	.00024	.1117	.00085	.00188	.00003	.883
%RSD	1.1460	6.6984	1.7381	1.9244	7.5679	.09640	1.0121

#1	.00395	.00340	6.5062	.04472	.02611	.02905	87.830
#2	.00388	.00374	6.3482	.04352	.02346	.02909	86.581

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.38993	4.1102	.02392	-.00433	.53065	.17263	.23569
SDev	.00502	.0039	.00013	.00277	.03171	.00263	.00316
%RSD	1.2880	.09600	.53216	63.868	5.9757	1.5206	1.3426

#1	.39348	4.1130	.02401	-.00238	.55307	.17448	.23793
#2	.38638	4.1074	.02383	-.00629	.50823	.17077	.23345

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.1652	.00460	-.00369	.05837	.08001	-.00187	.01916
SDev	.0094	.00026	.00138	.00056	.00310	.00860	.00002
%RSD	.80586	5.5504	37.452	.96175	3.8778	458.84	.10154

#1	1.1585	.00478	-.00466	.05797	.07781	-.00795	.01915
#2	1.1718	.00442	-.00271	.05876	.08220	.00420	.01918

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.00042	-.01852	4.7031	-.33100	17.253
SDev	.00000	.00131	.0252	.00655	.053
%RSD	.00000	7.0968	.53644	1.9791	.30475

#1	.00042	-.01759	4.7210	-.32637	17.290
#2	.00042	-.01945	4.6853	-.33564	17.216

019/10/04

Method: 6010B Sample Name: CCV  
 Run Time: 09/10/04 11:21:48  
 Comment: CCV  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1347	5.2013	4.9732	5.1764	5.0232	9.7894	10.206
SDev	.0034	.0603	.0477	.0197	.0315	.0479	.018
%RSD	.06647	1.1589	.95989	.38144	.62665	.48935	.17790

#1	5.1371	5.2439	5.0069	5.1903	5.0455	9.8232	10.219
#2	5.1323	5.1587	4.9394	5.1624	5.0010	9.7555	10.193

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.25153	2.5228	24.864	.97424	2.4240	1.2026	4.7370
SDev	.00073	.0139	.226	.01080	.0145	.0012	.0493
%RSD	.29156	.55160	.90795	1.1086	.59964	.09656	1.0409

#1	.25205	2.5326	25.023	.98187	2.4342	1.2034	4.7719
#2	.25101	2.5129	24.704	.96660	2.4137	1.2017	4.7022

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.4229	24.439	2.4932	1.2688	25.088	2.3986	2.5099
SDev	.0143	.083	.0097	.0077	.248	.0119	.0175
%RSD	.58814	.33906	.38940	.60649	.98884	.49725	.69757

#1	2.4330	24.498	2.5001	1.2742	25.264	2.4071	2.5222
#2	2.4128	24.381	2.4863	1.2634	24.913	2.3902	2.4975

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.261	5.0880	4.8902	4.9019	5.0067	5.1421	5.1916
SDev	.018	.0280	.0385	.0288	.0572	.0303	.0145
%RSD	.07043	.54936	.78815	.58677	1.1427	.58850	.27917

#1	25.273	5.1078	4.9174	4.9223	5.0472	5.1635	5.2019
#2	25.248	5.0683	4.8629	4.8816	4.9663	5.1207	5.1814

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	5.1180	5.0628	4.8188	4.8452	Q5.5534
SDev	.0028	.0061	.0187	.0253	.0078
%RSD	.05398	.12114	.38761	.52152	.14119

#1	5.1199	5.0672	4.8320	4.8630	Q5.5589
#2	5.1160	5.0585	4.8056	4.8273	Q5.5478

09/10/04

Method: 6010B Sample Name: CCB  
Run Time: 09/10/04 11:23:49  
Comment: CCB  
Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00159	.00518	.00091	-.00154	.00329	.08074	-.00110
SDev	.00293	.00531	.00321	.00326	.00203	.00294	.00032
%RSD	184.21	102.50	354.38	211.42	61.911	3.6464	29.498
#1	.00366	.00143	-.00136	.00076	.00473	.07866	-.00087
#2	-.00048	.00893	.00318	-.00385	.00185	.08282	-.00132
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00211	-.00040	.00420	.00083	.00158	-.00120	.04631
SDev	.00000	.00016	.00233	.00015	.00047	.00033	.00001
%RSD	.10790	39.361	55.377	17.647	29.693	27.394	.02982
#1	.00211	-.00029	.00585	.00072	.00191	-.00143	.04632
#2	.00211	-.00051	.00256	.00093	.00125	-.00097	.04630
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	-.00529	-.00216	-.00015	-.36492	-.00041	-.00142
SDev	.00000	.00526	.00022	.00000	.00933	.00104	.00052
%RSD	.04756	99.503	10.051	.00417	2.5557	255.44	36.510
#1	-.00014	-.00901	-.00201	-.00015	-.35833	-.00114	-.00105
#2	-.00014	-.00157	-.00232	-.00015	-.37152	.00033	-.00178
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00372	.00302	.00062	.00036	-.00082	-.00388	-.00217
SDev	.00494	.00227	.00156	.00444	.00260	.00130	.00553
%RSD	132.73	75.121	254.28	1233.4	316.56	33.412	254.76
#1	-.00023	.00463	.00172	-.00278	-.00266	-.00480	.00174
#2	-.00722	.00142	-.00049	.00350	.00102	-.00296	-.00608
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00581	.00286	.00099	-.00079	.03400		
SDev	.00873	.01008	.00032	.00112	.00876		
%RSD	150.18	352.87	32.699	141.54	25.774		
#1	.01198	.00998	.00122	.00000	.04020		
#2	-.00036	-.00427	.00076	-.00159	.02780		

09/10/04

Method: 6010B      Sample Name: S4167-04      Operator: DR  
 Run Time: 09/10/04 11:25:51  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02335	-.01672	.18350	.00403	.00216	54.587	.43846
SDev	.00015	.00391	.00608	.00274	.00725	.452	.00212
%RSD	.62060	23.376	3.3135	67.944	335.41	.82862	.48421

#1	.02346	-.01948	.18780	.00209	-.00296	54.267	.43695
#2	.02325	-.01395	.17920	.00596	.00729	54.907	.43996

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00477	.00579	31.497	.09231	.03555	.10731	87.882
SDev	.00010	.00100	.410	.00012	.00164	.00044	.916
%RSD	2.1743	17.265	1.3005	.12817	4.6153	.40876	1.0419

#1	.00484	.00650	31.208	.09223	.03672	.10762	87.235
#2	.00469	.00509	31.787	.09239	.03439	.10700	88.530

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.8010	14.608	.05700	-.00625	.65199	.15993	.39608
SDev	.0406	.118	.00147	.00198	.01492	.00107	.00742
%RSD	1.0693	.81037	2.5745	31.709	2.2887	.67036	1.8735

#1	3.7723	14.524	.05804	-.00485	.66255	.15917	.39084
#2	3.8298	14.691	.05596	-.00765	.64144	.16069	.40133

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.5051	.00075	.00179	.18283	.18164	-.01779	.01312
SDev	.0015	.00903	.00367	.00742	.00541	.00731	.00775
%RSD	.03291	1211.4	204.83	4.0609	2.9781	41.109	59.095

#1	4.5062	-.00564	-.00080	.18808	.18547	-.01262	.00764
#2	4.5041	.00713	.00439	.17758	.17782	-.02296	.01860

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.00378	.00673	2.7239	-.18185	6.3644
SDev	.00033	.00241	.0261	.00150	.0314
%RSD	8.7670	35.815	.95958	.82342	.49278

#1	.00402	.00843	2.7054	-.18079	6.3423
#2	.00355	.00502	2.7423	-.18291	6.3866

09/10/04

Method: 6010B      Sample Name: S4167-05      Operator: DR  
 Run Time: 09/10/04 11:30:45  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02831	-.02565	.19018	.00735	.00299	51.080	.45833
SDev	.00910	.00459	.00017	.00647	.00021	.230	.00316
%RSD	32.128	17.899	.09111	88.038	7.1561	.44995	.68951
#1	.02188	-.02240	.19031	.01193	.00314	51.242	.46056
#2	.03474	-.02889	.19006	.00278	.00283	50.917	.45609
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00505	.00598	28.443	.08171	.03440	.10687	83.490
SDev	.00015	.00055	.186	.00101	.00000	.00028	.577
%RSD	3.0054	9.1016	.65460	1.2296	.00113	.26287	.69162
#1	.00516	.00637	28.574	.08242	.03439	.10707	83.898
#2	.00495	.00560	28.311	.08100	.03440	.10667	83.082
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.5254	14.000	.05253	-.00971	.38952	.14363	.37714
SDev	.0274	.059	.00194	.00009	.10819	.00003	.00073
%RSD	.60503	.42276	3.7025	.95728	27.774	.01736	.19419
#1	4.5447	14.042	.05390	-.00978	.31302	.14365	.37662
#2	4.5060	13.959	.05115	-.00964	.46602	.14361	.37766
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.4470	-.00006	.00589	.19016	.18820	-.01430	.01637
SDev	.0272	.00064	.00192	.00398	.00225	.01548	.00198
%RSD	.78851	986.67	32.576	2.0906	1.1926	108.22	12.075
#1	3.4662	-.00052	.00725	.18735	.18978	-.00336	.01776
#2	3.4278	.00039	.00453	.19297	.18661	-.02525	.01497
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00386	-.00365	2.3555	-.15908	9.5220		
SDev	.00044	.00175	.0123	.00150	.0775		
%RSD	11.453	48.011	.52317	.94124	.81373		
#1	.00417	-.00241	2.3642	-.15802	9.5768		
#2	.00355	-.00489	2.3467	-.16014	9.4672		

09/10/04



Method: 6010B      Sample Name: S4167-06      Operator: DR  
 Run Time: 09/10/04 11:34:51  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00115	-.01120	.05602	.00601	-.00209	42.360	.35425
SDev	.00525	.00133	.00091	.00049	.00200	.029	.00000
%RSD	456.53	11.877	1.6166	8.0606	95.931	.06760	.00042
#1	.00486	-.01214	.05666	.00567	-.00067	42.339	.35425
#2	-.00256	-.01026	.05538	.00636	-.00350	42.380	.35424
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00611	.00454	26.412	.05368	.03539	.05662	88.693
SDev	.00005	.00157	.019	.00132	.00047	.00001	.148
%RSD	.82960	34.557	.07048	2.4559	1.3254	.01524	.16742
#1	.00614	.00565	26.399	.05462	.03573	.05661	88.588
#2	.00607	.00343	26.425	.05275	.03506	.05663	88.798
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8414	17.816	.03003	-.01135	1.1176	.12110	.36090
SDev	.0019	.013	.00101	.00129	.1492	.00000	.00074
%RSD	.10091	.07382	3.3677	11.361	13.352	.00292	.20468
#1	1.8401	17.807	.02932	-.01044	1.2231	.12109	.36037
#2	1.8427	17.826	.03075	-.01226	1.0121	.12110	.36142
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.6878	-.00311	-.00325	.06074	.05167	-.01508	.01475
SDev	.0119	.00379	.00157	.00176	.00048	.00172	.00159
%RSD	.32161	121.80	48.392	2.8951	.92885	11.413	10.756
#1	3.6962	-.00043	-.00436	.06198	.05201	-.01386	.01363
#2	3.6794	-.00578	-.00213	.05949	.05133	-.01630	.01587
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00597	-.01248	4.1307	-.26033	6.8827		
SDev	.00254	.00110	.0063	.00655	.0318		
%RSD	42.578	8.7769	.15231	2.5164	.46238		
#1	.00417	-.01325	4.1262	-.25570	6.9052		
#2	.00777	-.01170	4.1351	-.26496	6.8602		

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Analysis Report

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Method: 6010B      Sample Name: S4167-06D      Operator: DR  
 Run Time: 09/10/04 11:37:57  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00039	-.01519	.05615	.00841	.00031	42.327	.35369
SDev	.00231	.00098	.00085	.00308	.00399	.023	.00013
%RSD	598.21	6.4344	1.5089	36.696	1293.3	.05379	.03745
#1	-.00125	-.01450	.05555	.01059	.00313	42.344	.35360
#2	.00202	-.01588	.05674	.00622	-.00251	42.311	.35379
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00600	.00457	26.425	.05285	.03639	.05657	88.886
SDev	.00000	.00032	.223	.00101	.00000	.00023	.322
%RSD	.01953	6.9085	.84549	1.9152	.00116	.40123	.36192
#1	.00600	.00435	26.583	.05357	.03639	.05641	89.113
#2	.00600	.00479	26.267	.05214	.03639	.05673	88.659
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8441	17.834	.02844	-.01286	1.1143	.12074	.36067
SDev	.0110	.017	.00211	.00059	.0793	.00053	.00455
%RSD	.59566	.09588	7.4107	4.5944	7.1144	.44092	1.2607
#1	1.8518	17.846	.02695	-.01244	1.1703	.12111	.36388
#2	1.8363	17.822	.02993	-.01328	1.0582	.12036	.35745
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.6888	-.00044	-.00140	.05977	.05224	-.01438	.01798
SDev	.0054	.00119	.00960	.00024	.00129	.00596	.00165
%RSD	.14736	270.99	687.41	.39407	2.4769	41.435	9.1695
#1	3.6850	.00040	.00539	.05961	.05132	-.01017	.01915
#2	3.6927	-.00128	-.00818	.05994	.05315	-.01860	.01682
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00644	-.01248	4.1326	-.25834	6.8677		
SDev	.00055	.00022	.0093	.00112	.0217		
%RSD	8.5821	1.7554	.22443	.43469	.31564		
#1	.00683	-.01232	4.1392	-.25914	6.8830		
#2	.00605	-.01263	4.1261	-.25755	6.8523		

OK 9/10/04

Analysis Report

09/10/04 11:41:34 AM

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Method: 6010B      Sample Name: S4167-06LX5      Operator: DR  
 Run Time: 09/10/04 11:39:53  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00498	.00815	.02151	.01513	.00378	8.9353	.09424
SDev	.00525	.00795	.00123	.00711	.00175	.1711	.00142
%RSD	105.50	97.500	5.7274	46.994	46.278	1.9149	1.5038
#1	.00869	.01377	.02064	.01010	.00254	9.0563	.09524
#2	.00126	.00253	.02238	.02016	.00501	8.8143	.09324
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00495	.00102	6.0043	.01572	.00970	.01235	19.738
SDev	.00005	.00021	.1885	.00042	.00211	.00022	.429
%RSD	1.0221	20.755	3.1396	2.7052	21.752	1.7751	2.1732
#1	.00499	.00087	6.1376	.01602	.01119	.01220	20.041
#2	.00491	.00117	5.8710	.01541	.00821	.01251	19.435
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.41071	4.1307	.00933	-.00411	-.06816	.02749	.07956
SDev	.01056	.0644	.00035	.00207	.10259	.00002	.00220
%RSD	2.5714	1.5603	3.7911	50.336	150.52	.06522	2.7669
#1	.41818	4.1763	.00958	-.00558	-.14070	.02751	.08112
#2	.40324	4.0851	.00908	-.00265	.00439	.02748	.07800
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.68223	.00401	.00010	.02220	.01917	.01050	.01574
SDev	.00939	.00214	.00096	.00102	.00134	.00592	.00785
%RSD	1.3763	53.347	974.66	4.5922	6.9813	56.403	49.830
#1	.68887	.00250	-.00058	.02148	.01822	.00631	.01020
#2	.67559	.00553	.00078	.02293	.02011	.01469	.02129
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.01097	-.00411	.90216	-.05453	1.5922		
SDev	.00099	.00066	.01965	.00524	.0410		
%RSD	9.0659	15.971	2.1783	9.6113	2.5780		
#1	.01027	-.00365	.91606	-.05082	1.6213		
#2	.01167	-.00458	.88826	-.05823	1.5632		

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Analysis Report

09/10/04 11:43:27 AM

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Method: 6010B      Sample Name: S4167-07      Operator: DR  
 Run Time: 09/10/04 11:41:46  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.61480	1.6036	.81280	1.3390	.51013	40.855	2.2356
SDev	.00141	.0620	.01761	.0074	.00184	.422	.0199
%RSD	.22981	3.8658	2.1666	.55100	.36052	1.0335	.88965
#1	.61380	1.5597	.80035	1.3338	.50882	40.557	2.2216
#2	.61580	1.6474	.82525	1.3442	.51143	41.154	2.2497
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.14607	.16475	29.205	.36438	.18801	.30080	74.837
SDev	.00207	.00429	.538	.00741	.00211	.00294	1.163
%RSD	1.4158	2.6063	1.8408	2.0336	1.1219	.97888	1.5541
#1	.14461	.16171	28.825	.35914	.18652	.29872	74.014
#2	.14753	.16779	29.585	.36962	.18950	.30288	75.659
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9128	18.189	.41807	.05497	3.7212	.33523	.49920
SDev	.0298	.188	.00461	.00028	.1287	.00368	.00922
%RSD	1.5593	1.0341	1.1037	.51380	3.4587	1.0988	1.8464
#1	1.8917	18.056	.41480	.05517	3.6302	.33262	.49268
#2	1.9339	18.322	.42133	.05477	3.8122	.33783	.50572
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.904	.51986	.48743	.81312	.81054	1.3061	1.3537
SDev	.021	.00326	.01206	.00315	.02525	.0006	.0115
%RSD	.16468	.62785	2.4743	.38761	3.1156	.04527	.84935
#1	12.889	.52216	.47890	.81089	.79268	1.3066	1.3456
#2	12.919	.51755	.49596	.81535	.82840	1.3057	1.3619
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.34442	.21227	3.6949	.31856	9.0459		
SDev	.00276	.00175	.0496	.01217	.0867		
%RSD	.80200	.82556	1.3428	3.8190	.95854		
#1	.34247	.21103	3.6598	.30996	8.9845		
#2	.34638	.21351	3.7300	.32717	9.1072		

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Method: 6010B      Sample Name: S4167-08      Operator: DR  
 Run Time: 09/10/04 11:43:29  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.62475	1.5967	.82517	1.3525	.51335	41.418	2.2561
SDev	.01450	.0146	.00331	.0056	.00453	.027	.0004
%RSD	2.3208	.91386	.40107	.41475	.88178	.06563	.01711

#1	.63500	1.5864	.82751	1.3565	.51015	41.399	2.2558
#2	.61450	1.6070	.82283	1.3485	.51655	41.438	2.2563

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.14850	.16624	29.843	.37137	.18917	.30186	76.044
SDev	.00035	.00110	.109	.00160	.00094	.00032	.165
%RSD	.23716	.66273	.36652	.43106	.49592	.10533	.21693

#1	.14825	.16702	29.766	.37023	.18851	.30209	75.927
#2	.14874	.16546	29.921	.37250	.18983	.30164	76.161

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9456	18.391	.42706	.05518	3.7825	.33932	.50889
SDev	.0029	.011	.00131	.00041	.0718	.00104	.00047
%RSD	.14682	.05721	.30617	.74593	1.8986	.30791	.09307

#1	1.9435	18.399	.42798	.05489	3.8333	.33858	.50855
#2	1.9476	18.384	.42614	.05547	3.7318	.34005	.50922

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.956	.51645	.50393	.82653	.82209	1.3152	1.3693
SDev	.003	.00543	.00271	.00491	.00251	.0052	.0058
%RSD	.02288	1.0520	.53787	.59450	.30515	.39382	.42534

#1	12.958	.51261	.50201	.83000	.82387	1.3189	1.3735
#2	12.954	.52029	.50584	.82305	.82032	1.3115	1.3652

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.35052	.21444	3.7475	.31631	9.1453
SDev	.00188	.00263	.0042	.00262	.0226
%RSD	.53588	1.2258	.11249	.82841	.24711

#1	.34919	.21629	3.7445	.31446	9.1293
#2	.35185	.21258	3.7505	.31817	9.1613

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Method: 6010B

Sample Name: S4167-06A

Operator: DR

Run Time: 09/10/04 11:47:14

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.63743	1.6213	.82797	1.3596	.51849	41.756	2.2728
SDev	.00247	.0176	.00094	.0074	.00679	.022	.0004
%RSD	.38673	1.0847	.11330	.54343	1.3098	.05280	.01696

#1	.63917	1.6337	.82731	1.3649	.52329	41.741	2.2725
#2	.63569	1.6089	.82863	1.3544	.51369	41.772	2.2731

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.15096	.16955	30.385	.37742	.19282	.30303	77.193
SDev	.00000	.00125	.088	.00087	.00047	.00075	.206
%RSD	.00228	.73581	.29106	.23038	.24291	.24799	.26713

#1	.15096	.16867	30.322	.37681	.19248	.30250	77.047
#2	.15095	.17043	30.447	.37804	.19315	.30357	77.339

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9744	18.548	.43549	.05608	3.8083	.34413	.51586
SDev	.0034	.013	.00282	.00036	.0429	.00156	.00150
%RSD	.17360	.07092	.64795	.64322	1.1265	.45411	.29004

#1	1.9720	18.538	.43350	.05634	3.8386	.34303	.51480
#2	1.9768	18.557	.43749	.05583	3.7779	.34524	.51692

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.015	.52643	.49939	.83228	.82372	1.3221	1.3767
SDev	.020	.00849	.00339	.00032	.00114	.0026	.0099
%RSD	.15568	1.6123	.67949	.03819	.13852	.19538	.72125

#1	13.030	.53243	.50179	.83250	.82292	1.3240	1.3837
#2	13.001	.52043	.49699	.83205	.82453	1.3203	1.3697

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.35747	.21738	3.7857	.32756	9.2826
SDev	.00066	.00241	.0043	.00468	.0111
%RSD	.18546	1.1084	.11307	1.4285	.11924

#1	.35700	.21568	3.7826	.32425	9.2905
#2	.35794	.21908	3.7887	.33087	9.2748

OK 9/10/04

Method: 6010B Sample Name: S4167-09 Operator: DR  
 Run Time: 09/10/04 11:52:24  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00229	-.01731	.08951	.00813	.00182	65.873	.46138
SDev	.00094	.00073	.00143	.00037	.00428	.776	.00509
%RSD	41.072	4.2175	1.5997	4.5767	235.24	1.1783	1.1041

#1	.00295	-.01783	.09052	.00787	.00484	66.422	.46498
#2	.00162	-.01680	.08849	.00839	-.00121	65.324	.45778

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00679	.00476	26.865	.05918	.03473	.03267	70.711
SDev	.00015	.00011	.510	.00216	.00328	.00056	1.031
%RSD	2.1508	2.3506	1.8972	3.6472	9.4511	1.7032	1.4582

#1	.00690	.00468	27.225	.06071	.03705	.03306	71.440
#2	.00669	.00484	26.504	.05766	.03241	.03227	69.982

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.1814	15.813	.02778	-.01139	.99294	.10099	.50012
SDev	.0351	.200	.00005	.00124	.02705	.00263	.00690
%RSD	1.6088	1.2643	.18660	10.858	2.7239	2.6076	1.3797

#1	2.2062	15.955	.02782	-.01052	1.0121	.10285	.50500
#2	2.1565	15.672	.02774	-.01226	.97382	.09912	.49524

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.7352	-.00009	.00244	.09299	.08557	-.01615	.01846
SDev	.0425	.00614	.00054	.00343	.00043	.00211	.00050
%RSD	1.5538	6862.0	22.105	3.6927	.50527	13.094	2.6972

#1	2.7051	.00426	.00282	.09541	.08588	-.01765	.01881
#2	2.7652	-.00443	.00206	.09056	.08527	-.01465	.01810

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00120	-.00845	3.9006	-.26576	7.0105
SDev	.00309	.00066	.0525	.00524	.0992
%RSD	257.24	7.7754	1.3452	1.9720	1.4145

#1	.00339	-.00799	3.9377	-.26946	7.0806
#2	-.00098	-.00892	3.8635	-.26205	6.9404

OK 9/10/04

Method: 6010B Sample Name: S4167-10

Operator: DR

Run Time: 09/10/04 11:57:53

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03520	-.02175	.15054	.00919	.00083	69.643	.46980
SDev	.00524	.00129	.00180	.00252	.00130	.202	.00045
%RSD	14.898	5.9446	1.1981	27.427	156.25	.28981	.09554

#1	.03150	-.02083	.14927	.00741	.00175	69.500	.46949
#2	.03891	-.02266	.15182	.01097	-.00009	69.786	.47012

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00658	.01015	21.730	.13456	.07996	.76459	142.00
SDev	.00012	.00154	.002	.00264	.00258	.00232	.34
%RSD	1.8331	15.219	.01071	1.9592	3.2240	.30310	.23827

#1	.00649	.01124	21.729	.13643	.08178	.76295	141.76
#2	.00667	.00906	21.732	.13270	.07814	.76623	142.24

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.6215	26.141	.18365	-.00547	.52340	.14936	.57225
SDev	.0009	.033	.00573	.01351	.02332	.00879	.00303
%RSD	.01879	.12579	3.1206	246.99	4.4548	5.8857	.52922

#1	4.6209	26.165	.18770	.00408	.53988	.15558	.57011
#2	4.6221	26.118	.17960	-.01503	.50691	.14315	.57440

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.792	-.00116	.00161	.14281	.15221	-.01825	.02109
SDev	.104	.00349	.00309	.00239	.00151	.00283	.00236
%RSD	.88424	301.43	192.24	1.6741	.99241	15.510	11.216

#1	11.866	.00131	-.00058	.14112	.15114	-.02025	.01941
#2	11.719	-.00362	.00379	.14450	.15327	-.01625	.02276

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00277	-.00582	.64566	-.03057	11.614
SDev	.00111	.00044	.00675	.00505	.010
%RSD	39.957	7.5295	1.0447	16.530	.08340

#1	.00355	-.00613	.65043	-.03415	11.607
#2	.00198	-.00551	.64089	-.02700	11.621

OK 9/10/04



Method: 6010B Sample Name: CCV  
Run Time: 09/10/04 12:05:22  
Comment: CCV  
Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.0977	5.1962	4.9057	5.1468	4.9962	9.7825	10.209
SDev	.0361	.0219	.0238	.0043	.0196	.0542	.036
%RSD	.70906	.42068	.48531	.08329	.39263	.55367	.35365

#1	5.1232	5.2117	4.9225	5.1438	5.0101	9.8208	10.234
#2	5.0721	5.1808	4.8888	5.1498	4.9823	9.7442	10.183

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24736	2.4755	24.336	.95525	2.3887	1.1993	4.6066
SDev	.00067	.0081	.110	.00184	.0076	.0028	.0263
%RSD	.27184	.32677	.45072	.19307	.31971	.23504	.57051

#1	.24783	2.4812	24.413	.95655	2.3941	1.2013	4.6252
#2	.24688	2.4698	24.258	.95394	2.3833	1.1973	4.5880

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3800	24.395	2.4440	1.2588	24.930	2.3574	2.4696
SDev	.0054	.065	.0098	.0056	.061	.0055	.0070
%RSD	.22730	.26847	.40305	.44352	.24340	.23182	.28308

#1	2.3838	24.441	2.4509	1.2627	24.887	2.3613	2.4746
#2	2.3762	24.348	2.4370	1.2548	24.973	2.3535	2.4647

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.552	5.0759	4.8335	4.8671	4.9229	5.1241	5.1564
SDev	.139	.0244	.0100	.0040	.0337	.0017	.0057
%RSD	.54562	.48143	.20610	.08258	.68429	.03237	.11134

#1	25.651	5.0931	4.8405	4.8700	4.9467	5.1229	5.1524
#2	25.453	5.0586	4.8264	4.8643	4.8991	5.1252	5.1605

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	5.0406	5.0193	4.7676	4.7804	Q5.5314
SDev	.0054	.0099	.0132	.0185	.0312
%RSD	.10802	.19745	.27691	.38661	.56422

#1	5.0445	5.0263	4.7770	4.7935	Q5.5534
#2	5.0368	5.0123	4.7583	4.7674	Q5.5093

OK 9/10/04

Method: 6010B Sample Name: CCB

Operator: DR

Run Time: 09/10/04 12:08:49

Comment: CCB

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.00003	.00469	.00237	-.00156	.00068	.07734	-.00069
SDev	.00158	.00135	.00134	.00387	.00103	.00533	.00020
%RSD	5033.1	28.728	56.439	248.53	151.04	6.8964	28.802
#1	-.00109	.00564	.00142	.00118	.00142	.08112	-.00082
#2	.00115	.00374	.00332	-.00429	-.00005	.07357	-.00055
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.00282	-.00140	.00465	-.00072	-.00059	-.00203	.00545
SDev	.00005	.00134	.00000	.00077	.00049	.00000	.00079
%RSD	1.8686	95.555	.00000	107.19	83.486	.04054	161.32
#1	.00278	-.00235	.00465	-.00126	-.00024	-.00203	.01166
#2	.00285	-.00045	.00465	-.00017	-.00094	-.00203	-.00077
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.00011	.00107	-.00130	-.00095	-.46334	-.00138	-.00199
SDev	.00000	.00000	.00068	.00058	.01801	.00000	.00000
%RSD	.32836	.00000	52.131	60.435	3.8879	.07628	.08832
#1	.00011	.00107	-.00082	-.00136	-.45060	-.00138	-.00199
#2	.00011	.00107	-.00178	-.00055	-.47608	-.00137	-.00199
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	-.01153	.00121	-.00357	.00410	-.00049	.00183	-.00504
SDev	.00849	.00232	.00155	.00537	.00067	.00111	.00635
%RSD	73.662	192.33	43.416	131.03	137.30	60.518	125.91
#1	-.01754	.00285	-.00466	.00030	-.00001	.00104	-.00055
#2	-.00553	-.00043	-.00247	.00789	-.00097	.00261	-.00954
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avgc	.00003	-.00680	.00006	.00177	.02899		
SDev	.00306	.00270	.00034	.00374	.00588		
%RSD	11561.	39.773	563.40	210.79	20.286		
#1	.00219	-.00488	-.00018	.00441	.03314		
#2	-.00214	-.00871	.00030	-.00087	.02483		

09/10/04

Method: 6010B Sample Name: S4167-11  
Run Time: 09/10/04 12:11:44  
Comment:  
Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02727	-.02686	.17315	.00738	.00392	54.442	.44728
SDev	.00318	.01763	.00386	.00731	.00026	.621	.00346
%RSD	11.649	65.617	2.2294	99.116	6.6645	1.1414	.77434

#1	.02502	-.01440	.17042	.01255	.00411	54.002	.44483
#2	.02951	-.03933	.17588	.00221	.00374	54.881	.44973

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00599	.00938	52.986	.11144	.07255	.60545	115.47
SDev	.00013	.00289	1.258	.00129	.00345	.00072	2.21
%RSD	2.2380	30.785	2.3737	1.1619	4.7557	.11926	1.9099

#1	.00609	.01143	52.097	.11235	.07499	.60596	113.91
#2	.00590	.00734	53.875	.11052	.07011	.60494	117.03

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.5309	24.852	.21339	.00246	1.2744	.11233	.52392
SDev	.0800	.085	.00191	.01995	.7386	.01083	.00871
%RSD	1.7662	.34038	.89556	809.81	57.956	9.6456	1.6633

#1	4.4744	24.792	.21204	.01657	1.7967	.11999	.51775
#2	4.5875	24.912	.21475	-.01164	.75213	.10467	.53008

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.1842	.00300	.00257	.16773	.17376	-.01699	.01775
SDev	.0979	.00072	.00067	.00282	.00452	.00488	.00853
%RSD	1.1967	24.165	25.934	1.6796	2.6027	28.697	48.069

#1	8.2535	.00351	.00210	.16573	.17056	-.01354	.02378
#2	8.1150	.00248	.00304	.16972	.17695	-.02044	.01172

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00644	-.00329	.49348	-.01769	9.3741
SDev	.00034	.00000	.00633	.00256	.0896
%RSD	5.2815	.00000	1.2825	14.447	.95536

#1	.00668	-.00329	.48901	-.01950	9.3108
#2	.00620	-.00329	.49796	-.01588	9.4375

*OK 9/10/04*

Method: 6010B      Sample Name: S4167-12      Operator: DR  
 Run Time: 09/10/04 12:13:37  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03995	-.02521	.21065	.01235	-.00008	83.626	.51806
SDev	.00443	.00638	.00344	.00107	.00248	.129	.00019
%RSD	11.076	25.313	1.6333	8.6337	3196.0	.15383	.03625

#1	.03682	-.02070	.21308	.01160	-.00183	83.535	.51793
#2	.04308	-.02972	.20821	.01311	.00168	83.717	.51819

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00721	.01212	23.305	.15359	.09695	.88804	171.49
SDev	.00014	.00055	.090	.00203	.00296	.00208	.95
%RSD	1.9922	4.5280	.38697	1.3199	3.0498	.23373	.55337

#1	.00731	.01251	23.241	.15502	.09904	.88951	170.82
#2	.00711	.01173	23.369	.15215	.09485	.88657	172.16

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.9403	32.610	.21100	-.00366	.54095	.16871	.62862
SDev	.0145	.026	.00228	.01619	.01801	.00652	.00165
%RSD	.29276	.07950	1.0782	442.44	3.3301	3.8637	.26218

#1	4.9300	32.628	.21261	.00779	.52821	.17331	.62746
#2	4.9505	32.591	.20939	-.01510	.55369	.16410	.62979

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.847	-.00171	-.00000	.19451	.21651	-.02678	.03009
SDev	.137	.00151	.00443	.00820	.00106	.00183	.00251
%RSD	1.0697	87.969	112420.	4.2160	.49152	6.8281	8.3476

#1	12.944	-.00278	-.00313	.20030	.21726	-.02549	.02831
#2	12.749	-.00065	.00313	.18871	.21575	-.02807	.03186

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00452	-.00425	.66306	-.02756	14.779		
SDev	.00147	.00225	.00184	.00315	.021		
%RSD	32.637	53.030	.27711	11.413	.14078		

#1	.00556	-.00584	.66176	-.02979	14.765		
#2	.00348	-.00265	.66436	-.02534	14.794		

OK 9/10/04

Method: 6010B Sample Name: S4167-13

Operator: DR

Run Time: 09/10/04 12:15:25

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05857	-.02261	.46398	.01389	.00234	93.935	.65167
SDev	.00267	.00543	.01061	.00061	.00182	.430	.00197
%RSD	4.5656	23.989	2.2862	4.3962	77.667	.45738	.30192
#1	.06046	-.01878	.45648	.01432	.00105	93.631	.65027
#2	.05668	-.02645	.47148	.01346	.00362	94.239	.65306
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00624	.01269	13.371	.09978	.06316	.17020	133.79
SDev	.00020	.00012	.046	.00214	.00099	.00157	.54
%RSD	3.1434	.94203	.34637	2.1409	1.5605	.92091	.40707
#1	.00610	.01261	13.338	.09827	.06247	.16910	133.40
#2	.00638	.01277	13.403	.10129	.06386	.17131	134.17
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.3166	14.647	.10216	-.01860	.30295	.15243	.93258
SDev	.0161	.209	.00006	.00976	.23893	.00658	.00226
%RSD	.30280	1.4252	.06295	52.478	78.866	4.3157	.24241
#1	5.3052	14.500	.10212	-.02550	.13400	.14778	.93098
#2	5.3280	14.795	.10221	-.01170	.47190	.15708	.93418
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.1765	-.00039	.00460	.45223	.46765	-.01239	.02521
SDev	.1909	.00352	.00160	.01276	.00953	.00440	.00128
%RSD	2.6599	900.81	34.787	2.8213	2.0386	35.475	5.0759
#1	7.0415	-.00288	.00574	.44321	.46091	-.00928	.02430
#2	7.3115	.00210	.00347	.46125	.47439	-.01550	.02611
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00516	-.01954	1.3865	-.06649	11.602		
SDev	.00125	.00360	.0067	.00590	.038		
%RSD	24.182	18.446	.48099	8.8711	.32748		
#1	.00428	-.01699	1.3818	-.07066	11.575		
#2	.00604	-.02208	1.3913	-.06232	11.629		

OK 9/10/04

Method: 6010B Sample Name: S4167-14

Operator: DR

Run Time: 09/10/04 12:17:14

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04333	-.02916	.13092	.01310	-.00184	73.577	.36303
SDev	.00600	.00672	.00065	.00176	.00031	.491	.00197
%RSD	13.838	23.054	.49677	13.447	16.827	.66765	.54195

#1	.03909	-.03392	.13138	.01185	-.00162	73.924	.36442
#2	.04757	-.02441	.13046	.01434	-.00206	73.230	.36163

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00466	.00505	15.613	.06074	.03303	.08860	100.93
SDev	.00005	.00184	.141	.00248	.00222	.00039	.55
%RSD	1.0012	36.481	.90548	4.0793	6.7151	.44499	.54844

#1	.00463	.00374	15.713	.05899	.03146	.08832	101.32
#2	.00470	.00635	15.513	.06249	.03460	.08888	100.54

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2136
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9036	9.2446	.05916	-.01210	.57112	.14139	.39110
SDev	.0072	.0368	.00014	.00742	.20290	.00271	.00094
%RSD	.38004	.39849	.23550	61.318	35.526	1.9185	.24106

#1	1.9087	9.2186	.05926	-.01735	.42765	.13947	.39176
#2	1.8985	9.2707	.05906	-.00685	.71459	.14331	.39043

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.1045	-.00254	-.00364	.12752	.13042	-.01105	.02335
SDev	.0220	.00203	.00499	.00087	.00054	.00307	.00111
%RSD	.53567	79.936	137.18	.67884	.41627	27.730	4.7515

#1	4.0890	-.00397	-.00011	.12814	.13080	-.01322	.02257
#2	4.1201	-.00110	-.00717	.12691	.13004	-.00889	.02414

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00556	-.01062	1.3822	-.10013	13.072
SDev	.00249	.00135	.0064	.00944	.083
%RSD	44.876	12.728	.46280	9.4248	.63666

#1	.00733	-.01157	1.3867	-.09346	13.131
#2	.00380	-.00966	1.3777	-.10681	13.013

*OK 9/10/04*

Method: 6010B Sample Name: S4167-15

Operator: DR

Run Time: 09/10/04 12:19:01

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.10485	-.02616	.17451	.01274	.00389	94.993	1.0240
SDev	.00237	.00680	.00021	.00328	.00445	.036	.0017
%RSD	2.2573	25.996	.12261	25.752	114.26	.03779	.16771

#1	.10318	-.02135	.17436	.01507	.00703	95.018	1.0253
#2	.10652	-.03097	.17466	.01042	.00075	94.968	1.0228

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00646	.01121	9.5185	.09964	.07500	.15750	164.04
SDev	.00002	.00181	.0634	.00479	.00246	.00209	.75
%RSD	.35257	16.182	.66579	4.8071	3.2847	1.3253	.45535

#1	.00644	.01249	9.4737	.10302	.07675	.15898	163.51
#2	.00648	.00993	9.5633	.09625	.07326	.15603	164.57

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.6911	22.538	.14090	-.00237	.52486	.15325	.44640
SDev	.0400	.248	.00280	.01838	.34227	.01035	.00105
%RSD	.41274	1.1018	1.9853	775.12	65.212	6.7561	.23645

#1	9.6628	22.714	.14288	.01063	.76688	.16057	.44565
#2	9.7194	22.363	.13893	-.01537	.28284	.14593	.44714

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.8666	.00116	.00615	.16404	.17763	-.01281	.02380
SDev	.1174	.00327	.00680	.00315	.00176	.00323	.00668
%RSD	1.7102	281.69	110.50	1.9236	.98788	25.255	28.051

#1	6.9496	.00347	.01096	.16627	.17639	-.01509	.02852
#2	6.7836	-.00115	.00135	.16181	.17887	-.01052	.01908

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.00003	-.02861	.75708	-.04063	8.7015
SDev	.00261	.00068	.00034	.00197	.0158
%RSD	9848.3	2.3614	.04494	4.8390	.18193

#1	-.00182	-.02909	.75684	-.03924	8.6903
#2	.00187	-.02814	.75732	-.04202	8.7127

OK 9/10/04

Method: 6010B      Sample Name: S4167-16      Operator: DR  
 Run Time: 09/10/04 12:25:22  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07859	-.03841	.32463	.01891	.00090	79.214	.79195
SDev	.00144	.01043	.00580	.00187	.00326	.632	.00419
%RSD	1.8362	27.156	1.7857	9.8939	361.44	.79813	.52917

#1	.07757	-.04579	.32054	.01759	.00321	78.767	.78899
#2	.07961	-.03104	.32873	.02024	-.00140	79.661	.79492

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00516	.00724	6.6971	.07976	.04122	.09308	130.24
SDev	.00004	.00042	.1146	.00256	.00148	.00096	1.82
%RSD	.80686	5.7975	1.7106	3.2093	3.5865	1.0339	1.3963

#1	.00513	.00694	6.6161	.07795	.04017	.09240	128.96
#2	.00519	.00753	6.7781	.08157	.04226	.09376	131.53

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.6822	9.3942	.06421	-.01236	.17021	.15032	.38411
SDev	.0315	.1992	.00162	.00487	.09292	.00499	.00843
%RSD	1.1735	2.1205	2.5198	39.366	54.590	3.3208	2.1942

#1	2.6599	9.2533	.06307	-.01580	.10451	.14679	.37815
#2	2.7045	9.5350	.06536	-.00892	.23591	.15385	.39007

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.3095	-.00167	.00285	.32506	.32222	-.00689	.02999
SDev	.0450	.00768	.00559	.00715	.00512	.00510	.00535
%RSD	1.3589	460.07	195.82	2.2002	1.5891	74.059	17.842

#1	3.2777	.00376	-.00110	.32000	.31860	-.00328	.02621
#2	3.3413	-.00710	.00680	.33012	.32584	-.01049	.03378

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00749	-.02208	.95221	-.06691	12.385
SDev	.00113	.00135	.01034	.00885	.102
%RSD	15.153	6.1191	1.0863	13.224	.82537

#1	.00668	-.02113	.94490	-.06065	12.313
#2	.00829	-.02304	.95952	-.07316	12.457

*OK 9/10/04*



Method: 6010B Sample Name: S4167-17

Operator: DR

Run Time: 09/10/04 12:27:13

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06867	-.03171	.26692	.01480	.00068	75.875	.79116
SDev	.00206	.00674	.00213	.00388	.00490	.079	.00033
%RSD	2.9953	21.244	.79666	26.212	720.34	.10440	.04211

#1	.07013	-.02694	.26842	.01206	.00415	75.931	.79092
#2	.06722	-.03647	.26541	.01754	-.00279	75.819	.79140

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00472	.00522	8.2138	.07786	.03494	.08469	121.15
SDev	.00016	.00055	.0414	.00045	.00000	.00049	.44
%RSD	3.3442	10.428	.50448	.57585	.00108	.57269	.36259

#1	.00461	.00484	8.2431	.07818	.03494	.08435	121.46
#2	.00484	.00561	8.1845	.07754	.03494	.08504	120.84

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.1296	9.4598	.06179	-.00944	.42765	.14725	.37993
SDev	.0086	.0109	.00189	.00178	.17445	.00002	.00069
%RSD	.40301	.11538	3.0568	18.870	40.794	.01249	.18184

#1	2.1356	9.4675	.06045	-.01070	.55101	.14726	.38042
#2	2.1235	9.4521	.06312	-.00818	.30429	.14724	.37944

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.4947	-.00460	.00805	.26237	.26699	-.01048	.02563
SDev	.0090	.00617	.00237	.00208	.00423	.00433	.00798
%RSD	.25739	134.04	29.415	.79392	1.5836	41.346	31.144

#1	3.4883	-.00024	.00973	.26090	.26998	-.00742	.01998
#2	3.5010	-.00896	.00638	.26384	.26400	-.01355	.03127

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00700	-.02065	.87546	-.06218	9.4157
SDev	.00091	.00113	.00048	.00177	.0000
%RSD	12.955	5.4532	.05441	2.8458	.00000

#1	.00636	-.01986	.87580	-.06343	9.4157
#2	.00765	-.02145	.87512	-.06093	9.4157

OK 9/10/04

Method: 6010B Sample Name: S4167-18

Operator: DR

Run Time: 09/10/04 12:29:05

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06827	-.03513	.38054	.01078	.00281	88.273	.73350
SDev	.00206	.00096	.00585	.00350	.00323	.457	.00314
%RSD	3.0205	2.7251	1.5372	32.509	114.84	.51765	.42861
#1	.06681	-.03581	.37641	.00830	.00509	87.950	.73127
#2	.06973	-.03445	.38468	.01326	.00053	88.596	.73572
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00702	.00885	8.9842	.10088	.06804	.12088	144.31
SDev	.00015	.00027	.0877	.00142	.00197	.00052	1.28
%RSD	2.1304	3.0002	.97668	1.4099	2.8982	.43088	.88889
#1	.00713	.00867	8.9222	.10189	.06943	.12124	143.41
#2	.00692	.00904	9.0463	.09988	.06664	.12051	145.22
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.7684	16.597	.11897	-.00678	.54967	.15092	.63760
SDev	.0429	.044	.00261	.00630	.20100	.00377	.00526
%RSD	.74326	.26306	2.1908	92.815	36.568	2.5004	.82427
#1	5.7381	16.628	.11712	-.00233	.69180	.15359	.63388
#2	5.7987	16.566	.12081	-.01124	.40754	.14825	.64132
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.8595	-.00103	.00730	.37799	.37962	-.01093	.01982
SDev	.0924	.00501	.00034	.00588	.00583	.00238	.00407
%RSD	1.1762	485.97	4.6914	1.5561	1.5367	21.771	20.512
#1	7.9249	.00251	.00706	.37383	.37550	-.01262	.01695
#2	7.7941	-.00457	.00754	.38215	.38375	-.00925	.02270
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00372	-.02431	1.1236	-.06649	12.391		
SDev	.00261	.00045	.0081	.00826	.052		
%RSD	70.207	1.8527	.72076	12.420	.41613		
#1	.00556	-.02463	1.1178	-.06065	12.355		
#2	.00187	-.02400	1.1293	-.07233	12.428		

CK 9/10/04

Method: 6010B      Sample Name: S4167-19      Operator: DR  
 Run Time: 09/10/04 12:31:45  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.08557	-.03695	.37865	.01818	-.00224	81.159	.38281
SDev	.00395	.01380	.00575	.00237	.00074	.081	.00059
%RSD	4.6171	37.337	1.5182	13.025	33.000	.10038	.15514

#1	.08278	-.02719	.38272	.01650	-.00277	81.217	.38323
#2	.08837	-.04670	.37459	.01985	-.00172	81.102	.38239

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00460	.00626	3.8326	.08677	.04418	.07202	135.92
SDev	.00006	.00162	.0171	.00199	.00320	.00095	.20
%RSD	1.2489	25.930	.44518	2.2975	7.2515	1.3212	.14864

#1	.00464	.00512	3.8447	.08536	.04191	.07135	135.78
#2	.00456	.00741	3.8205	.08818	.04644	.07270	136.06

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.5016	10.330	.07644	-.01106	.27345	.16871	.39314
SDev	.0074	.104	.00045	.00369	.28633	.00220	.00298
%RSD	.16338	1.0038	.58501	33.393	104.71	1.3016	.75882

#1	4.5068	10.257	.07612	-.01368	.07098	.16715	.39525
#2	4.4964	10.403	.07675	-.00845	.47592	.17026	.39103

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.1935	-.00406	-.00181	.36715	.38219	-.01372	.03230
SDev	.0340	.00370	.00518	.00373	.00675	.00167	.00271
%RSD	.47236	91.053	286.56	1.0169	1.7673	12.197	8.4022

#1	7.1694	-.00667	.00186	.36979	.38697	-.01490	.03039
#2	7.2175	-.00145	-.00547	.36451	.37742	-.01254	.03422

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.00420	-.00409	.72393	-.03521	11.663
SDev	.00147	.00203	.00000	.00098	.068
%RSD	35.132	49.587	.00000	2.7921	.58173

#1	.00315	-.00265	.72393	-.03590	11.711
#2	.00524	-.00552	.72393	-.03451	11.615

OK 9/10/04

Method: 6010B

Sample Name: PB00987BL

Operator: DR

Run Time: 09/10/04 12:33:49

Comment: PBS

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00383	.00970	.00141	-.00394	.00091	.11613	-.00227
SDev	.00758	.00034	.00045	.00114	.00011	.01752	.00007
%RSD	197.90	3.4930	31.696	28.910	12.242	15.089	2.8929

#1	-.00153	.00946	.00110	-.00474	.00098	.12852	-.00222
#2	.00918	.00994	.00173	-.00313	.00083	.10374	-.00231

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00281	-.00167	.00121	.00015	-.00059	-.00209	.08619
SDev	.00005	.00053	.00000	.00015	.00000	.00025	.01757
%RSD	1.9131	31.438	.00000	103.18	.03317	12.211	20.379

#1	.00278	-.00204	.00121	.00004	-.00059	-.00227	.09861
#2	.00285	-.00130	.00121	.00026	-.00059	-.00191	.07377

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00266	.00300	-.00353	-.00084	-.53642	-.00021	-.00221
SDev	.00060	.00273	.00098	.00024	.05309	.00055	.00028
%RSD	22.622	90.919	27.682	28.654	9.8980	257.73	12.474

#1	.00309	.00493	-.00422	-.00067	-.49888	.00017	-.00240
#2	.00223	.00107	-.00284	-.00101	-.57396	-.00060	-.00201

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00835	.00131	-.00311	.00216	-.00096	-.00177	-.00662
SDev	.00600	.00217	.00401	.00102	.00016	.00089	.00215
%RSD	71.795	165.32	128.81	47.041	17.119	50.118	32.452

#1	-.01259	.00284	-.00594	.00144	-.00107	-.00114	-.00814
#2	-.00411	-.00022	-.00028	.00288	-.00084	-.00239	-.00510

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00238	-.01412	-.00090	.00149	.03378
SDev	.00057	.00045	.00007	.00295	.00452
%RSD	23.833	3.1899	7.5445	197.38	13.389

#1	-.00198	-.01444	-.00085	-.00059	.03058
#2	-.00278	-.01380	-.00095	.00358	.03698

OK 9/10/04

Method: 6010B Sample Name: CCV  
 Run Time: 09/10/04 12:37:41  
 Comment: CCV  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1277	5.1697	4.9096	5.1472	5.0188	9.8036	10.227
SDev	.0354	.0028	.0044	.0080	.0056	.0306	.042
%RSD	.68962	.05347	.08968	.15640	.11080	.31216	.41350
#1	5.1527	5.1678	4.9127	5.1415	5.0227	9.8253	10.256
#2	5.1027	5.1717	4.9065	5.1528	5.0148	9.7820	10.197
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.24901	2.4887	24.430	.96079	2.3967	1.1992	4.6437
SDev	.00155	.0139	.122	.00507	.0052	.0072	.0086
%RSD	.62318	.55860	.49885	.52813	.21579	.60443	.18537
#1	.25011	2.4985	24.517	.96438	2.4004	1.2043	4.6498
#2	.24792	2.4789	24.344	.95721	2.3931	1.1941	4.6376
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.3975	24.375	2.4554	1.2611	25.233	2.3655	2.4770
SDev	.0116	.087	.0141	.0081	.542	.0126	.0137
%RSD	.48253	.35824	.57576	.64443	2.1492	.53133	.55379
#1	2.4057	24.437	2.4654	1.2668	25.617	2.3744	2.4867
#2	2.3893	24.314	2.4454	1.2553	24.850	2.3566	2.4673
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.569	5.1175	4.8178	4.8767	4.9240	5.1262	5.1559
SDev	.166	.0103	.0040	.0006	.0063	.0115	.0065
%RSD	.64885	.20219	.08358	.01152	.12836	.22438	.12546
#1	25.686	5.1248	4.8149	4.8771	4.9285	5.1180	5.1513
#2	25.451	5.1102	4.8206	4.8763	4.9196	5.1343	5.1605
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	5.0756	5.0459	4.7707	4.7921	Q5.5918		
SDev	.0077	.0151	.0208	.0425	.0299		
%RSD	.15197	.29907	.43507	.88619	.53385		
#1	5.0810	5.0566	4.7854	4.8221	Q5.6129		
#2	5.0701	5.0352	4.7560	4.7621	Q5.5707		

OK 9/10/04

Method: 6010B Sample Name: CCB  
 Run Time: 09/10/04 12:39:56  
 Comment: CCB  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00019	-.00318	.00322	-.00190	.00311	.08974	.00043
SDev	.00316	.00775	.00004	.00786	.00210	.00152	.00243
%RSD	1664.0	244.13	1.2972	414.70	67.542	1.6934	565.40
#1	.00204	.00231	.00325	.00366	.00460	.09082	.00215
#2	-.00242	-.00866	.00319	-.00746	.00163	.08867	-.00129
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00308	-.00046	.00810	.00026	.00063	-.00197	.04271
SDev	.00011	.00039	.00487	.00092	.00025	.00009	.00878
%RSD	3.4608	84.125	60.184	355.22	39.048	4.3532	20.559
#1	.00315	-.00074	.01155	.00091	.00080	-.00203	.03651
#2	.00300	-.00019	.00465	-.00039	.00046	-.00191	.04892
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00170	.00397	-.00156	-.00069	-.47206	-.00099	-.00201
SDev	.00075	.00409	.00286	.00046	.04361	.00054	.00054
%RSD	44.117	103.20	182.66	66.507	9.2390	55.256	26.872
#1	.00223	.00686	.00046	-.00037	-.44122	-.00137	-.00162
#2	.00117	.00107	-.00359	-.00102	-.50290	-.00060	-.00239
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00270	.00241	.00133	-.00050	.00308	-.00380	-.00274
SDev	.00700	.00402	.00173	.00190	.00101	.00155	.01102
%RSD	259.23	167.08	130.29	382.16	32.774	40.697	401.46
#1	.00225	.00525	.00010	-.00184	.00380	-.00271	.00505
#2	-.00765	-.00044	.00256	.00085	.00237	-.00489	-.01053
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00901	.00069	.00030	.00414	.03346		
SDev	.00941	.00968	.00122	.00983	.00769		
%RSD	104.50	1403.8	406.96	237.70	22.978		
#1	.01567	.00754	.00117	.01109	.03890		
#2	.00235	-.00616	-.00057	-.00282	.02803		

OK 9/10/04

Method: 6010B

Sample Name: PB00987BS

Operator: DR

Run Time: 09/10/04 12:42:26

Comment: LCSW

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.75774	1.8951	.94904	1.6341	.78428	2.0543	2.3333
SDev	.01089	.0169	.00940	.0045	.00281	.0069	.0028
%RSD	1.4375	.88916	.99091	.27730	.35804	.33415	.12121

#1	.75004	1.8832	.94239	1.6309	.78229	2.0495	2.3313
#2	.76544	1.9071	.95569	1.6373	.78626	2.0592	2.3353

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.17958	.20103	5.0029	.41144	.19342	.30647	2.9512
SDev	.00047	.00216	.0195	.00138	.00099	.00102	.0176
%RSD	.26319	1.0733	.38977	.33664	.50973	.33358	.59580

#1	.17925	.19950	4.9891	.41046	.19272	.30575	2.9636
#2	.17991	.20256	5.0167	.41242	.19412	.30719	2.9388

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.20979	1.9663	.49438	.07679	3.0450	.30259	.18254
SDev	.00075	.0096	.00120	.00057	.0171	.00055	.00007
%RSD	.35768	.48572	.24330	.74529	.56047	.18105	.04113

#1	.20926	1.9596	.49523	.07639	3.0329	.30221	.18248
#2	.21032	1.9731	.49353	.07720	3.0571	.30298	.18259

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.5407	.79583	.75794	.96498	.93909	1.6053	1.6468
SDev	.0055	.00216	.00410	.00313	.01566	.0057	.0041
%RSD	.05761	.27162	.54129	.32396	1.6676	.35804	.24687

#1	9.5446	.79430	.75504	.96719	.92801	1.6012	1.6439
#2	9.5368	.79736	.76084	.96277	.95016	1.6093	1.6497

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.42015	.27080	.20558	.66144	Q.95266
SDev	.00011	.00022	.00068	.00275	.00679
%RSD	.02699	.08317	.33103	.41614	.71218

#1	.42023	.27096	.20510	.66339	Q.94786
#2	.42007	.27064	.20606	.65949	Q.95746

OK 9/10/04

Method: 6010B      Sample Name: S4550-01      Operator: DR  
 Run Time: 09/10/04 12:44:32  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.1907	.00832	.27773	.00549	.00242	48.546	4.0048
SDev	.0041	.00636	.00486	.00211	.00337	.016	.0059
%RSD	.06626	76.373	1.7491	38.479	139.40	.03296	.14612

#1	6.1878	.01282	.28116	.00699	.00003	48.558	4.0090
#2	6.1936	.00383	.27429	.00400	.00480	48.535	4.0007

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05382	.01427	21.299	.08835	.16174	1.4007	141.91
SDev	.00011	.00035	.046	.00015	.00099	.0002	.10
%RSD	.19563	2.4220	.21744	.17086	.60941	.01171	.06811

#1	.05389	.01403	21.332	.08846	.16243	1.4006	141.98
#2	.05374	.01452	21.266	.08824	.16104	1.4008	141.84

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.9252	20.255	.35962	-.02217	8.5968	.08400	2.1287
SDev	.0171	.023	.00030	.00066	.1375	.00000	.0045
%RSD	.24740	.11452	.08310	2.9863	1.5992	.00493	.21172

#1	6.9373	20.271	.35984	-.02264	8.6940	.08401	2.1319
#2	6.9131	20.238	.35941	-.02170	8.4995	.08400	2.1255

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	14.114	-.00097	.00601	.27342	.27768	-.02540	.01912
SDev	.056	.00542	.00073	.00126	.00665	.00508	.00063
%RSD	.40008	557.25	12.125	.46184	2.3957	20.015	3.2950

#1	14.074	-.00481	.00653	.27431	.28238	-.02181	.01956
#2	14.154	.00286	.00550	.27252	.27297	-.02900	.01867

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.00139	-.00154	1.0432	-.08234	4.0320
SDev	.00068	.00023	.0005	.00629	.0041
%RSD	48.962	14.628	.04566	7.6411	.10095

#1	.00091	-.00170	1.0435	-.08679	4.0291
#2	.00187	-.00138	1.0429	-.07789	4.0349

CK 9/11/04



Method: 6010B Sample Name: S4550-02 Operator: DR  
 Run Time: 09/10/04 12:46:28  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.4588	-.00931	.28157	.01308	-.00141	36.808	.70101
SDev	.0518	.01274	.00563	.00345	.00135	.401	.00574
%RSD	.94913	136.89	2.0011	26.416	95.200	1.0902	.81946

#1	5.4221	-.00030	.27759	.01552	-.00237	36.524	.69694
#2	5.4954	-.01832	.28556	.01063	-.00046	37.091	.70507

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04839	.02108	16.919	.09336	.14798	.13169	268.51
SDev	.00065	.00223	.327	.00049	.00271	.00111	4.28
%RSD	1.3544	10.563	1.9304	.52400	1.8316	.84181	1.5935

#1	.04793	.02265	16.688	.09301	.14990	.13247	265.48
#2	.04886	.01951	17.150	.09370	.14607	.13091	271.53

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.5469	15.868	.28887	-.00831	4.6594	.11379	1.2110
SDev	.0564	.216	.00091	.01994	.2598	.01075	.0224
%RSD	1.5892	1.3586	.31597	239.89	5.5756	9.4465	1.8515

#1	3.5071	15.715	.28952	.00579	4.8431	.12139	1.1952
#2	3.5868	16.020	.28823	-.02241	4.4757	.10619	1.2269

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.802	-.00459	.00174	.28116	.27958	-.02186	.02872
SDev	.092	.00145	.00695	.00207	.00742	.00200	.00618
%RSD	.71822	31.691	399.81	.73477	2.6526	9.1584	21.513

#1	12.737	-.00356	-.00318	.27970	.27433	-.02327	.03309
#2	12.867	-.00561	.00665	.28263	.28482	-.02044	.02435

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00262	-.03148	1.8089	-.11431	8.3577
SDev	.00000	.00068	.0227	.00039	.0796
%RSD	.00000	2.1463	1.2528	.34399	.95249

#1	-.00262	-.03196	1.7929	-.11459	8.3014
#2	-.00262	-.03100	1.8249	-.11403	8.4140

OK 9/10/04

Method: 6010B Sample Name: S4550-03 Operator: DR  
 Run Time: 09/10/04 12:48:41  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	16.615	-.01456	.38658	.02548	-.00103	61.936	.86365
SDev	.225	.00405	.01237	.00295	.00308	1.246	.01357
%RSD	1.3525	27.838	3.1992	11.590	297.90	2.0123	1.5709

#1	16.774	-.01169	.39532	.02757	-.00321	62.818	.87324
#2	16.456	-.01742	.37783	.02340	.00114	61.055	.85405

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.08636	.04095	15.396	.06543	.25253	.11189	484.86
SDev	.00179	.00299	.483	.00720	.01404	.00554	11.18
%RSD	2.0714	7.2939	3.1347	11.002	5.5614	4.9488	2.3048

#1	.08762	.04306	15.737	.07052	.26246	.11580	492.76
#2	.08509	.03884	15.054	.06034	.24260	.10797	476.96

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.4178	15.162	.30730	-.01695	8.7758	.13320	1.5959
SDev	.1596	.347	.00993	.03874	.7225	.02449	.0385
%RSD	2.4863	2.2858	3.2308	228.59	8.2325	18.383	2.4110

#1	6.5306	15.407	.31432	.01045	9.2866	.15052	1.6231
#2	6.3050	14.917	.30028	-.04434	8.2649	.11589	1.5687

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	13.661	-.00928	.01229	.34585	.40481	-.03182	.05229
SDev	.243	.00600	.00278	.00564	.01587	.00913	.00898
%RSD	1.7814	64.656	22.657	1.6317	3.9194	28.682	17.180

#1	13.833	-.01352	.01426	.34984	.41603	-.03827	.05865
#2	13.489	-.00504	.01032	.34186	.39359	-.02536	.04594

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.00348	-.09137	.52818	-.01352	3.2730
SDev	.00045	.00293	.01334	.00531	.0624
%RSD	13.055	3.2048	2.5253	39.262	1.9071

#1	.00315	-.08929	.53761	-.00977	3.3172
#2	.00380	-.09344	.51875	-.01727	3.2289

OK 9/10/04

Method: 6010B      Sample Name: S4550-04      Operator: DR  
 Run Time: 09/10/04 12:51:31  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.3883	-.02273	.38538	.03358	-.00831	33.449	.41001
SDev	.0066	.00021	.00366	.00268	.00103	.445	.00418
%RSD	.47288	.91344	.95050	7.9921	12.351	1.3299	1.0197

#1	1.3836	-.02288	.38279	.03548	-.00758	33.135	.40706
#2	1.3929	-.02259	.38797	.03168	-.00903	33.764	.41297

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06199	.03936	14.086	.02151	.07811	.10781	513.00
SDev	.00094	.00103	.278	.00013	.00345	.00133	9.40
%RSD	1.5217	2.6030	1.9727	.59784	4.4154	1.2366	1.8325

#1	.06132	.03864	13.889	.02160	.07567	.10686	506.35
#2	.06265	.04009	14.282	.02142	.08055	.10875	519.65

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.6877	10.197	.29095	-.05160	6.0230	.12768	1.2610
SDev	.0835	.115	.00493	.00278	.1119	.00201	.0202
%RSD	1.7806	1.1240	1.6929	5.3870	1.8575	1.5773	1.6033

#1	4.6287	10.116	.28746	-.04964	5.9439	.12626	1.2467
#2	4.7467	10.278	.29443	-.05357	6.1021	.12911	1.2753

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	8.2980	-.01818	.00826	.37235	.38989	-.02940	.06323
SDev	.0839	.00341	.00375	.00574	.00263	.00163	.00484
%RSD	1.0117	18.752	45.354	1.5415	.67359	5.5595	7.6548

#1	8.2386	-.01577	.00561	.36829	.38803	-.03056	.06665
#2	8.3574	-.02059	.01091	.37641	.39174	-.02824	.05981

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00767	-.10761	.57707	-.02450	13.564
SDev	.00011	.00383	.00912	.00904	.187
%RSD	1.4782	3.5582	1.5802	36.909	1.3773

#1	-.00759	-.11032	.57062	-.01811	13.432
#2	-.00775	-.10490	.58352	-.03090	13.696

*OK 9/10/04*

Method: 6010B Sample Name: S4550-05

Operator: DR

Run Time: 09/10/04 12:53:22

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.5883	-.01524	.28984	.01290	.00112	49.413	2.6743
SDev	.0205	.00854	.00966	.00256	.00340	.503	.0219
%RSD	.57268	56.065	3.3314	19.847	304.58	1.0171	.82011

#1	3.6029	-.02128	.29667	.01472	-.00129	49.768	2.6898
#2	3.5738	-.00920	.28301	.01109	.00352	49.057	2.6588

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.08593	.01602	22.967	.10224	.17529	.93214	197.56
SDev	.00098	.00224	.544	.00071	.00049	.00191	3.35
%RSD	1.1375	13.957	2.3666	.69752	.28204	.20439	1.6944

#1	.08662	.01444	23.352	.10173	.17494	.93349	199.93
#2	.08524	.01760	22.583	.10274	.17564	.93079	195.19

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.0029	31.194	.56089	-.04461	6.7518	.07506	2.4806
SDev	.1011	.363	.00775	.02688	.2683	.01352	.0535
%RSD	1.6843	1.1635	1.3824	60.257	3.9741	18.011	2.1561

#1	6.0744	31.451	.56637	-.06362	6.5620	.06550	2.5184
#2	5.9314	30.938	.55541	-.02560	6.9415	.08462	2.4428

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.152	-.00184	.00383	.27531	.29509	-.01949	.02728
SDev	.066	.00465	.00090	.00343	.01619	.00281	.00244
%RSD	.54691	252.99	23.434	1.2469	5.4865	14.429	8.9307

#1	12.199	-.00513	.00320	.27289	.30654	-.01750	.02900
#2	12.105	.00145	.00447	.27774	.28365	-.02147	.02555

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00374	-.02607	.82590	-.05703	4.9458
SDev	.00408	.00293	.01109	.00511	.0488
%RSD	109.09	11.233	1.3431	8.9627	.98771

#1	-.00086	-.02400	.83374	-.05342	4.9803
#2	-.00663	-.02814	.81805	-.06065	4.9112

09/10/04

Method: 6010B      Sample Name: S4550-05D      Operator: DR  
 Run Time: 09/10/04 12:55:18  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.5808	-.02236	.28568	.01175	.00166	48.981	2.6609
SDev	.0112	.00846	.00394	.00085	.00481	.251	.0159
%RSD	.31314	37.812	1.3789	7.1989	289.95	.51162	.59791

#1	3.5888	-.02834	.28290	.01235	-.00174	49.159	2.6721
#2	3.5729	-.01638	.28847	.01115	.00506	48.804	2.6496

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.08583	.01656	22.772	.10391	.17529	.92796	196.23
SDev	.00042	.00044	.049	.00106	.00345	.00668	.55
%RSD	.49204	2.6387	.21407	1.0206	1.9681	.72021	.28207

#1	.08613	.01626	22.807	.10466	.17773	.93269	196.62
#2	.08554	.01687	22.738	.10316	.17285	.92324	195.84

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.9662	30.957	.55624	-.02441	7.1379	.08427	2.4606
SDev	.0152	.079	.00014	.00013	.1849	.00052	.0071
%RSD	.25471	.25563	.02503	.51284	2.5902	.61939	.28926

#1	5.9770	31.013	.55634	-.02433	7.2687	.08390	2.4656
#2	5.9555	30.901	.55614	-.02450	7.0072	.08464	2.4555

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.044	-.00243	.00666	.27781	.28761	-.02190	.02695
SDev	.121	.00576	.00292	.00369	.00407	.00069	.00092
%RSD	1.0082	236.41	43.839	1.3275	1.4132	3.1520	3.4279

#1	12.130	-.00651	.00459	.27520	.28474	-.02141	.02761
#2	11.959	.00164	.00872	.28042	.29049	-.02238	.02630

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00318	-.02447	.82079	-.05773	4.9579
SDev	.00238	.00158	.00415	.00138	.0443
%RSD	74.864	6.4421	.50575	2.3840	.89405

#1	-.00487	-.02336	.82373	-.05676	4.9893
#2	-.00150	-.02559	.81786	-.05870	4.9266

*OK 9/10/04*

Method: 6010B      Sample Name: S4550-06      Operator: DR  
 Run Time: 09/10/04 12:57:17  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.3608	1.8289	1.0130	1.4994	.51857	29.253	3.5226
SDev	.0065	.0043	.0090	.0113	.00025	.235	.0168
%RSD	.27445	.23491	.89216	.75150	.04879	.80200	.47782

#1	2.3563	1.8259	1.0066	1.4914	.51839	29.087	3.5107
#2	2.3654	1.8320	1.0194	1.5073	.51874	29.419	3.5345

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.22316	.19774	26.745	.43040	.28537	1.0733	52.639
SDev	.00126	.00096	.197	.00260	.00296	.0072	.404
%RSD	.56567	.48730	.73820	.60483	1.0359	.66945	.76775

#1	.22227	.19706	26.606	.42856	.28328	1.0683	52.353
#2	.22405	.19842	26.885	.43224	.28747	1.0784	52.924

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1346	19.146	.73448	.08350	9.3597	.31002	1.5166
SDev	.0325	.123	.00375	.00051	.1432	.00057	.0141
%RSD	.63238	.64137	.51083	.61516	1.5296	.18288	.92988

#1	5.1116	19.059	.73182	.08314	9.2585	.30962	1.5066
#2	5.1575	19.233	.73713	.08387	9.4609	.31042	1.5265

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	17.216	.52634	.49979	1.0195	1.0078	1.4670	1.5139
SDev	.095	.00312	.00702	.0025	.0148	.0062	.0138
%RSD	.55147	.59361	1.4042	.24298	1.4672	.42274	.91135

#1	17.149	.52855	.49483	1.0212	.99732	1.4626	1.5042
#2	17.283	.52413	.50476	1.0177	1.0182	1.4714	1.5237

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.40491	.25026	.67783	.56037	20.570
SDev	.00170	.00135	.00422	.00885	.071
%RSD	.42020	.54001	.62246	1.5789	.34522

#1	.40371	.25121	.67485	.55411	20.520
#2	.40611	.24930	.68081	.56663	20.621

OK 9/10/04

Method: 6010B      Sample Name: S4550-07      Operator: DR  
 Run Time: 09/10/04 12:59:10  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.3705	1.8608	1.0198	1.5004	.52286	29.532	3.5486
SDev	.0169	.0145	.0033	.0016	.00064	.117	.0145
%RSD	.71269	.77747	.32454	.10787	.12304	.39461	.40953

#1	2.3824	1.8710	1.0222	1.5016	.52240	29.614	3.5589
#2	2.3585	1.8505	1.0175	1.4993	.52331	29.449	3.5383

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.22502	.19725	27.052	.43299	.28781	1.0810	53.311
SDev	.00095	.00084	.061	.00323	.00049	.0035	.114
%RSD	.42115	.42523	.22525	.74538	.17113	.32391	.21410

#1	.22569	.19666	27.095	.43527	.28816	1.0835	53.421
#2	.22435	.19785	27.009	.43071	.28746	1.0786	53.260

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1877	19.310	.74855	.08552	9.4589	.31121	1.5347
SDev	.0114	.025	.00158	.00042	.3973	.00001	.0005
%RSD	.22021	.12718	.21066	.48989	4.1999	.00336	.03083

#1	5.1958	19.328	.74967	.08522	9.7398	.31122	1.5351
#2	5.1797	19.293	.74744	.08581	9.1780	.31120	1.5344

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	17.392	.52859	.50818	1.0205	1.0175	1.4641	1.5168
SDev	.110	.00110	.00027	.0024	.0062	.0002	.0023
%RSD	.63211	.20828	.05378	.23772	.60671	.01524	.15264

#1	17.469	.52781	.50837	1.0188	1.0218	1.4642	1.5184
#2	17.314	.52937	.50798	1.0222	1.0131	1.4639	1.5152

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.41004	.25408	.68577	.56398	20.703
SDev	.00329	.00180	.00279	.00334	.081
%RSD	.80222	.70917	.40686	.59263	.39327

#1	.41237	.25535	.68774	.56635	20.760
#2	.40772	.25281	.68380	.56162	20.645

*OK 9/10/04*

Method: 6010B Sample Name: S4161-05A Operator: DR  
 Run Time: 09/10/04 13:03:45  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.4501	3.5442	2.0495	2.7970	.54804	107.49	5.8000
SDev	.0010	.0215	.0358	.0287	.00959	1.46	.0617
%RSD	.07225	.60571	1.7447	1.0272	1.7507	1.3557	1.0631

#1	1.4508	3.5290	2.0242	2.7767	.54125	106.46	5.7564
#2	1.4494	3.5593	2.0748	2.8173	.55482	108.52	5.8436

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.33842	.36628	50.937	.87197	.43412	.80290	147.39
SDev	.00624	.00416	1.129	.01761	.00838	.00843	2.71
%RSD	1.8434	1.1349	2.2156	2.0194	1.9294	1.0506	1.8418

#1	.33400	.36334	50.139	.85952	.42819	.79694	145.47
#2	.34283	.36922	51.735	.88442	.44004	.80887	149.31

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.6476	39.496	1.0632	.20327	7.4363	.80151	1.1896
SDev	.0674	.553	.0135	.00293	.1308	.01215	.0176
%RSD	1.8484	1.3991	1.2680	1.4410	1.7595	1.5163	1.4762

#1	3.5999	39.106	1.0537	.20120	7.3437	.79291	1.1772
#2	3.6952	39.887	1.0727	.20534	7.5288	.81010	1.2020

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	37.469	.55505	.53080	2.0390	2.0526	2.7455	2.8210
SDev	.132	.01326	.00226	.0288	.0397	.0049	.0408
%RSD	.35341	2.3886	.42520	1.4112	1.9326	.17805	1.4454

#1	37.375	.54567	.52920	2.0187	2.0246	2.7420	2.7922
#2	37.562	.56442	.53239	2.0594	2.0807	2.7489	2.8499

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.53829	.46686	2.4305	.65866	10.856
SDev	.00907	.01036	.0397	.01376	.152
%RSD	1.6858	2.2193	1.6352	2.0895	1.3999

#1	.53188	.45953	2.4024	.64893	10.749
#2	.54471	.47418	2.4586	.66839	10.964

01 9/10/04



Method: 6010B Sample Name: CCV  
 Run Time: 09/10/04 13:05:44  
 Comment: CCV  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.2829	5.4690	5.1573	5.2861	5.1943	10.170	10.531
SDev	.1352	.1237	.1909	.0880	.1096	.309	.224
%RSD	2.5588	2.2627	3.7012	1.6652	2.1107	3.0376	2.1276
#1	5.3785	Q5.5565	5.2922	5.3483	5.2718	10.389	10.689
#2	5.1873	5.3815	5.0223	5.2238	5.1168	9.9519	10.373
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.26065	2.6097	26.073	1.0181	2.5127	1.2258	4.8906
SDev	.00869	.0843	1.314	.0464	.0815	.0227	.2710
%RSD	3.3348	3.2296	5.0388	4.5610	3.2453	1.8479	5.5414
#1	.26679	2.6693	27.002	1.0509	2.5704	1.2418	5.0823
#2	.25450	2.5501	25.144	.98526	2.4551	1.2098	4.6990
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.5299	25.178	2.5713	1.3320	25.997	2.4753	2.6208
SDev	.1047	.666	.1012	.0562	.486	.0935	.1072
%RSD	4.1399	2.6445	3.9362	4.2160	1.8709	3.7761	4.0922
#1	2.6040	25.649	2.6429	1.3717	26.341	2.5414	2.6966
#2	2.4559	24.707	2.4997	1.2923	25.653	2.4092	2.5449
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.978	5.2710	5.0375	5.0547	5.2063	5.2207	5.3170
SDev	.293	.0877	.1536	.1076	.2322	.0530	.1054
%RSD	1.1272	1.6636	3.0489	2.1292	4.4593	1.0159	1.9814
#1	26.186	5.3330	5.1461	5.1308	5.3704	5.2582	5.3915
#2	25.771	5.2090	4.9289	4.9786	5.0421	5.1832	5.2425
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	5.3050	5.2571	4.9663	4.9920	Q5.8662		
SDev	.1549	.1394	.1588	.1435	.1393		
%RSD	2.9207	2.6521	3.1968	2.8751	2.3748		
#1	5.4145	5.3557	5.0786	5.0935	Q5.9647		
#2	5.1954	5.1585	4.8541	4.8905	Q5.7677		

OK 9/10/04

Method: 6010B Sample Name: CCB  
 Run Time: 09/10/04 13:07:45  
 Comment: CCB  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00561	.00851	.00374	.00014	.00480	.07952	-.00027
SDev	.00442	.00472	.00069	.00076	.00134	.00229	.00013
%RSD	78.734	55.464	18.580	524.32	27.818	2.8812	49.245

#1	.00874	Q.01184	.00324	.00068	.00386	.08114	-.00017
#2	.00249	.00517	.00423	-.00039	.00575	.07790	-.00036

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00315	-.00215	.00810	.00070	.00098	-.00203	.03649
SDev	.00010	.00010	.00000	.00061	.00025	.00017	.00001
%RSD	3.3046	4.5605	.00000	88.511	25.199	8.4022	.02457

#1	.00322	-.00222	.00810	.00113	.00115	-.00215	.03648
#2	.00308	-.00208	.00810	.00026	.00080	-.00191	.03650

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00085	.00783	-.00087	-.00053	-.43519	-.00021	-.00143
SDev	.00015	.00136	.00008	.00000	.01043	.00055	.00027
%RSD	17.640	17.436	8.6125	.01522	2.3965	256.85	18.864

#1	.00096	.00879	-.00093	-.00053	-.42781	.00017	-.00124
#2	.00075	.00686	-.00082	-.00053	-.44256	-.00060	-.00162

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00189	.00503	.00114	.00271	.00225	.00589	-.00452
SDev	.00550	.00155	.00091	.00095	.00152	.00133	.00180
%RSD	290.10	30.804	79.487	35.027	67.405	22.515	39.707

#1	-.00199	.00393	.00050	.00338	.00118	.00495	-.00325
#2	.00578	.00613	.00178	.00204	.00332	.00683	-.00579

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.00067	-.00664	-.00028	-.00004	.03154
SDev	.00057	.00248	.00041	.00039	.00498
%RSD	84.884	37.334	147.70	1119.7	15.773

#1	.00107	-.00488	.00001	.00024	.03506
#2	.00027	-.00839	-.00057	-.00031	.02803

ok 9/10/04

Method: 6010B      Sample Name: S4550-05LX5      Operator: DR  
 Run Time: 09/10/04 13:11:03  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.75321	.00353	.06568	-.00002	.00048	9.6088	.54792
SDev	.00173	.00640	.00203	.00211	.00390	.0244	.00204
%RSD	.23005	181.43	3.0882	12262.	814.58	.25377	.37190
#1	.75199	.00805	.06712	-.00151	.00323	9.6261	.54936
#2	.75444	-.00100	.06425	.00148	-.00228	9.5916	.54648
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02176	.00199	4.7133	.02244	.03807	.17796	40.374
SDev	.00016	.00011	.0049	.00138	.00148	.00103	.097
%RSD	.72014	5.5778	.10343	6.1581	3.8852	.57846	.23935
#1	.02187	.00207	4.7168	.02341	.03912	.17869	40.442
#2	.02165	.00192	4.7099	.02146	.03702	.17724	40.306
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.2574	6.7758	.11397	-.00494	.96198	.01688	.51927
SDev	.0029	.0191	.00271	.00085	.08438	.00055	.00213
%RSD	.22734	.28191	2.3770	17.294	8.7718	3.2718	.40999
#1	1.2594	6.7893	.11206	-.00434	1.0216	.01728	.52077
#2	1.2554	6.7623	.11589	-.00555	.90231	.01649	.51776
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8538	.00107	-.00391	.06117	.06594	-.00386	.00030
SDev	.0110	.00448	.00274	.00355	.00127	.00497	.00068
%RSD	.59303	417.91	69.942	5.8045	1.9237	128.67	224.97
#1	1.8615	.00424	-.00198	.06368	.06683	-.00738	-.00018
#2	1.8460	-.00209	-.00585	.05866	.06504	-.00035	.00079
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00053	-.01540	.16588	-.01894	1.0352		
SDev	.00136	.00090	.00020	.00315	.0050		
%RSD	254.44	5.8518	.12308	16.607	.48065		
#1	.00043	-.01476	.16603	-.02117	1.0387		
#2	-.00150	-.01603	.16574	-.01672	1.0317		

ck 9/10/04

Method: 6010B Sample Name: S4550-05A Operator: DR  
 Run Time: 09/10/04 13:12:55  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.3100	1.7906	.98197	1.4763	.51009	28.674	3.4624
SDev	.0161	.0113	.01267	.0109	.00756	.286	.0274
%RSD	.69743	.63007	1.2904	.73664	1.4816	.99616	.79000

#1	2.2986	1.7826	.97301	1.4686	.50475	28.472	3.4430
#2	2.3214	1.7986	.99093	1.4840	.51544	28.876	3.4817

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.21573	.18967	25.621	.41479	.27475	1.0600	50.992
SDev	.00274	.00341	.422	.00414	.00369	.0073	.553
%RSD	1.2690	1.8001	1.6458	.99746	1.3449	.68677	1.0854

#1	.21379	.18725	25.323	.41186	.27214	1.0549	50.601
#2	.21766	.19208	25.920	.41771	.27736	1.0652	51.384

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.9515	18.789	.72100	.08269	9.4904	.30259	1.4563
SDev	.0660	.150	.00676	.00083	.3129	.00003	.0212
%RSD	1.3326	.79877	.93714	1.0034	3.2968	.00981	1.4583

#1	4.9048	18.683	.71623	.08328	9.7117	.30257	1.4413
#2	4.9981	18.895	.72578	.08211	9.2692	.30261	1.4713

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	17.249	.51948	.48809	.98495	.97848	1.4487	1.4884
SDev	.111	.00615	.01039	.00977	.01412	.0066	.0195
%RSD	.64601	1.1830	2.1278	.99170	1.4432	.45749	1.3083

#1	17.328	.51513	.48075	.97805	.96850	1.4534	1.4746
#2	17.170	.52382	.49544	.99186	.98847	1.4440	1.5022

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.40018	.24548	.66084	.53118	20.042
SDev	.00930	.00405	.00742	.00806	.168
%RSD	2.3243	1.6515	1.1225	1.5176	.83952

#1	.39360	.24261	.65560	.52548	19.923
#2	.40675	.24835	.66609	.53688	20.161

OK 9/10/04

Method: 6010B

Sample Name: PB00888BL

Operator: DR

Run Time: 09/10/04 13:15:10

Comment: PBS

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00142	.00208	.00126	-.00376	-.00178	.08596	-.00194
SDev	.00331	.00573	.00133	.00009	.00294	.00381	.00000
%RSD	233.90	275.91	105.83	2.2709	164.82	4.4302	.00000

#1	-.00376	.00613	.00032	-.00370	-.00386	.08327	-.00194
#2	.00093	-.00198	.00219	-.00382	.00029	.08865	-.00194

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00323	-.00099	.00293	.00059	-.00059	-.00233	.01166
SDev	.00000	.00036	.00244	.00015	.00000	.00026	.00000
%RSD	.00002	36.335	83.207	26.194	.06368	10.970	.00412

#1	.00323	-.00073	.00465	.00048	-.00059	-.00215	.01166
#2	.00323	-.00124	.00121	.00070	-.00059	-.00251	.01166

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00021	-.00279	.00019	-.00095	-.46737	-.00137	-.00199
SDev	.00015	.00273	.00188	.00081	.01612	.00000	.00054
%RSD	71.091	97.901	985.14	85.462	3.4487	.02040	27.120

#1	-.00032	-.00086	-.00114	-.00038	-.45597	-.00137	-.00161
#2	-.00011	-.00472	.00152	-.00153	-.47876	-.00137	-.00237

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00694	-.00066	-.00724	-.00176	.00076	-.00497	-.00496
SDev	.00600	.00340	.00200	.00011	.00194	.00122	.00048
%RSD	86.419	517.89	27.687	6.2518	254.63	24.447	9.6638

#1	-.00270	-.00306	-.00866	-.00184	-.00061	-.00411	-.00530
#2	-.01118	.00175	-.00582	-.00168	.00213	-.00583	-.00462

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00142	-.01412	-.00105	-.00448	.03026
SDev	.00261	.00045	.00000	.00118	.00045
%RSD	184.08	3.1899	.00000	26.309	1.4945

#1	.00043	-.01444	-.00105	-.00365	.03058
#2	-.00326	-.01380	-.00105	-.00532	.02994

CV 9/10/04

Method: 6010B

Sample Name: PB00888BS

Operator: DR

Run Time: 09/10/04 13:17:37

Comment: LCSS

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.78098	1.9752	.97472	1.6794	.79788	2.0873	2.3770
SDev	.01310	.0088	.00743	.0125	.00250	.0076	.0087
%RSD	1.6768	.44460	.76278	.74725	.31292	.36611	.36798

#1	.79024	1.9814	.96946	1.6705	.79611	2.0819	2.3708
#2	.77172	1.9690	.97998	1.6883	.79965	2.0927	2.3832

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.18652	.20685	5.2063	.42678	.20126	.30979	3.0256
SDev	.00105	.00323	.0439	.00246	.00222	.00060	.0000
%RSD	.56260	1.5621	.84271	.57672	1.1019	.19301	.00095

#1	.18578	.20457	5.1752	.42504	.19969	.30937	3.0256
#2	.18726	.20914	5.2373	.42852	.20283	.31022	3.0256

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.21638	1.9943	.51150	.07880	3.0389	.31112	.18771
SDev	.00225	.0164	.00090	.00012	.1716	.00164	.00036
%RSD	1.0416	.82098	.17642	.14591	5.6470	.52798	.19309

#1	.21478	1.9827	.51086	.07871	2.9176	.30996	.18746
#2	.21797	2.0059	.51214	.07888	3.1603	.31228	.18797

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.5750	.80835	.77371	.98676	.96672	1.6493	1.6926
SDev	.0110	.00015	.00721	.00095	.01162	.0096	.0140
%RSD	.11481	.01799	.93142	.09585	1.2019	.58312	.82788

#1	9.5672	.80825	.76861	.98743	.95850	1.6425	1.6827
#2	9.5827	.80845	.77880	.98609	.97493	1.6561	1.7025

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.43386	.27463	.21001	.68285	Q.99807
SDev	.00136	.00203	.00082	.00472	.00226
%RSD	.31373	.73814	.38886	.69101	.22659

#1	.43290	.27606	.20943	.67951	Q.99967
#2	.43483	.27319	.21059	.68619	Q.99648

CP 9/10/04

Method: 6010B Sample Name: S4259-01 Operator: DR  
 Run Time: 09/10/04 13:20:10  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00199	-.02465	.02617	.00350	.00141	34.788	.05313
SDev	.00994	.01451	.00040	.00726	.00048	.004	.00020
%RSD	500.47	58.841	1.5238	207.19	33.840	.01099	.36901
#1	-.00902	-.01440	.02645	.00864	.00107	34.785	.05327
#2	.00504	-.03491	.02589	-.00163	.00175	34.791	.05299
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00426	-.00021	6.6730	.02987	.02188	.02453	49.686
SDev	.00000	.00040	.0122	.00031	.00222	.00008	.123
%RSD	.02796	186.37	.18263	1.0421	10.134	.32280	.24757
#1	.00426	.00007	6.6816	.02965	.02032	.02447	49.773
#2	.00426	-.00050	6.6644	.03009	.02345	.02458	49.599
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.62332	4.8028	.01547	-.00511	.36396	.06901	.10679
SDev	.00136	.0014	.00023	.00018	.03698	.00054	.00105
%RSD	.21775	.02841	1.4743	3.4752	10.160	.78495	.98342
#1	.62428	4.8018	.01531	-.00524	.39011	.06863	.10753
#2	.62236	4.8037	.01563	-.00498	.33781	.06939	.10604
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.2778	.00145	-.00187	.03418	.02017	-.02000	.01354
SDev	.0010	.00140	.00136	.00103	.00008	.00664	.00771
%RSD	.07821	96.193	72.887	3.0172	.41163	33.198	56.955
#1	1.2785	.00046	-.00091	.03491	.02023	-.01531	.01899
#2	1.2771	.00244	-.00283	.03345	.02012	-.02470	.00809
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00115	-.02001	2.2083	-.14295	4.3972		
SDev	.00102	.00068	.0035	.00197	.0068		
%RSD	88.818	3.3761	.15716	1.3754	.15429		
#1	.00187	-.01954	2.2107	-.14434	4.4020		
#2	.00043	-.02049	2.2058	-.14156	4.3924		

#19/10/04

Method: 6010B Sample Name: S4259-02

Operator: DR

Run Time: 09/10/04 13:22:00

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00687	-.02206	.02495	.00693	.00327	38.777	.05558
SDev	.00458	.00337	.00102	.00232	.00033	.123	.00013
%RSD	66.661	15.264	4.0751	33.467	10.216	.31628	.22814

#1	-.00363	-.02444	.02424	.00858	.00304	38.864	.05567
#2	-.01011	-.01968	.02567	.00529	.00351	38.690	.05549

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00407	-.00013	6.4455	.03046	.02154	.02177	51.897
SDev	.00006	.00017	.0658	.00029	.00025	.00028	.474
%RSD	1.4135	131.96	1.0210	.96215	1.1428	1.3047	.91412

#1	.00403	-.00001	6.4920	.03066	.02136	.02197	52.233
#2	.00411	-.00024	6.3989	.03025	.02171	.02157	51.562

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.66686	4.8858	.01452	-.00406	.31301	.07335	.09817
SDev	.00543	.0205	.00151	.00126	.06921	.00220	.00204
%RSD	.81398	.41889	10.423	30.970	22.112	3.0045	2.0826

#1	.67070	4.9002	.01345	-.00317	.36195	.07491	.09962
#2	.66302	4.8713	.01559	-.00494	.26407	.07179	.09673

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.1736	.00265	.00131	.03021	.02033	-.01613	.01665
SDev	.0065	.00142	.00184	.00396	.00045	.00157	.00269
%RSD	.55353	53.427	139.94	13.100	2.2177	9.7550	16.176

#1	1.1690	.00165	.00261	.02741	.02065	-.01502	.01856
#2	1.1782	.00365	.00001	.03300	.02001	-.01725	.01475

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00029	-.02065	2.1646	-.14810	3.8244
SDev	.00011	.00068	.0102	.00531	.0109
%RSD	38.537	3.2719	.47157	3.5845	.28385

#1	-.00021	-.02017	2.1719	-.15185	3.8321
#2	-.00037	-.02113	2.1574	-.14434	3.8168

OK 9/10/04



Method: 6010B Sample Name: S4259-03

Operator: DR

Run Time: 09/10/04 13:23:52

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00971	-.01314	.02717	.00579	.00533	35.434	.05520
SDev	.00032	.00607	.00144	.00251	.00119	.040	.00006
%RSD	3.2638	46.199	5.2921	43.285	22.293	.11179	.11723
#1	-.00994	-.01744	.02818	.00402	.00449	35.406	.05516
#2	-.00949	-.00885	.02615	.00757	.00617	35.462	.05525
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00404	-.00087	6.5454	.02874	.01997	.02041	47.424
SDev	.00011	.00018	.0219	.00015	.00099	.00043	.105
%RSD	2.6653	21.182	.33515	.52352	4.9363	2.1156	.22228
#1	.00412	-.00074	6.5299	.02864	.02066	.02011	47.350
#2	.00396	-.00100	6.5609	.02885	.01927	.02072	47.499
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.64501	4.8337	.01647	-.00540	.36530	.06853	.10983
SDev	.00091	.0041	.00023	.00086	.10714	.00110	.00105
%RSD	.14041	.08468	1.3825	15.924	29.329	1.6001	.96056
#1	.64437	4.8366	.01663	-.00601	.28954	.06776	.10909
#2	.64565	4.8308	.01631	-.00479	.44106	.06931	.11058
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.2895	.00616	.00045	.04138	.01807	-.01600	.01488
SDev	.0035	.00046	.00265	.00619	.00094	.00697	.00028
%RSD	.27127	7.4342	594.13	14.964	5.1788	43.559	1.8776
#1	1.2870	.00584	-.00143	.04576	.01741	-.02093	.01468
#2	1.2919	.00649	.00232	.03700	.01873	-.01107	.01507
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00011	-.02001	2.2093	-.13962	4.4254		
SDev	.00068	.00023	.0061	.00472	.0068		
%RSD	637.86	1.1254	.27722	3.3797	.15331		
#1	-.00037	-.02017	2.2050	-.14295	4.4302		
#2	.00059	-.01986	2.2136	-.13628	4.4206		

ex 9/10/04

Method: 6010B Sample Name: S4259-03D

Operator: DR

Run Time: 09/10/04 13:25:58

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00324	-.00361	.02365	.00478	.00073	35.409	.05507
SDev	.00411	.01552	.00178	.00067	.00096	.067	.00013
%RSD	126.54	429.99	7.5223	14.063	132.04	.18929	.23518

#1	-.00615	-.01458	.02491	.00430	.00005	35.362	.05498
#2	-.00034	.00736	.02239	.00525	.00140	35.456	.05516

Elem	Bc3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00404	-.00034	6.4489	.02832	.01892	.01984	46.959
SDev	.00011	.00029	.0024	.00016	.00049	.00016	.202
%RSD	2.6030	84.534	.03780	.56466	2.6080	.79942	.43032

#1	.00397	-.00054	6.4506	.02843	.01927	.01996	46.816
#2	.00412	-.00014	6.4472	.02821	.01857	.01973	47.101

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.63936	4.8259	.01520	-.00544	.35390	.06697	.10861
SDev	.00076	.0314	.00323	.00044	.06637	.00001	.00077
%RSD	.11877	.65026	21.241	8.0649	18.753	.01164	.70587

#1	.63882	4.8037	.01292	-.00575	.30697	.06696	.10807
#2	.63989	4.8481	.01749	-.00513	.40083	.06697	.10916

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.2919	-.00147	.00192	.03275	.01711	-.01157	.01114
SDev	.0050	.00107	.00073	.00289	.00411	.00485	.00343
%RSD	.38678	73.114	37.995	8.8140	24.007	41.931	30.782

#1	1.2884	-.00223	.00140	.03071	.02002	-.00814	.00872
#2	1.2955	-.00071	.00243	.03479	.01421	-.01500	.01357

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00070	-.01970	2.1948	-.13850	4.4139
SDev	.00113	.00068	.0066	.00079	.0104
%RSD	163.12	3.4307	.30076	.56781	.23569

#1	.00011	-.02017	2.1901	-.13906	4.4065
#2	-.00150	-.01922	2.1995	-.13795	4.4212

OK 9/10/04

Method: 6010B Sample Name: S4259-03LX5 Operator: DR  
 Run Time: 09/10/04 13:29:28  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00343	-.00120	.00571	-.00224	.00084	7.2282	.00945
SDev	.00063	.00371	.00137	.00232	.00190	.0838	.00006
%RSD	18.414	308.44	23.940	103.57	224.85	1.1590	.68502
#1	-.00298	.00142	.00474	-.00060	.00219	7.2874	.00949
#2	-.00388	-.00383	.00667	-.00388	-.00050	7.1689	.00940
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00334	-.00146	1.3869	.00595	.00516	.00224	9.8769
SDev	.00000	.00070	.0244	.00047	.00025	.00009	.1054
%RSD	.03570	47.703	1.7574	7.8145	4.7691	4.0768	1.0675
#1	.00334	-.00097	1.4042	.00562	.00499	.00231	9.9515
#2	.00334	-.00195	1.3697	.00627	.00533	.00218	9.8023
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.13267	1.0575	.00132	-.00151	-.22199	.01332	.02036
SDev	.00181	.0068	.00196	.00039	.04077	.00054	.00105
%RSD	1.3622	.64511	147.96	26.214	18.365	4.0747	5.1669
#1	.13395	1.0623	-.00006	-.00123	-.19316	.01293	.02110
#2	.13139	1.0527	.00271	-.00179	-.25082	.01370	.01962
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.20153	.00266	-.00599	.00498	.00407	-.00561	-.00235
SDev	.01399	.00448	.00328	.00398	.00006	.00376	.00160
%RSD	6.9426	168.65	54.766	79.896	1.5593	67.088	67.824
#1	.19164	.00583	-.00832	.00217	.00403	-.00295	-.00123
#2	.21143	-.00051	-.00367	.00779	.00412	-.00827	-.00348
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00102	-.01460	.44734	-.03966	.97473		
SDev	.00181	.00023	.00517	.00020	.02352		
%RSD	178.59	1.5428	1.1562	.49578	2.4130		
#1	.00027	-.01444	.45099	-.03952	.99136		
#2	-.00230	-.01476	.44368	-.03980	.95810		

09/10/04

Method: 6010B Sample Name: S4259-17

Operator: DR

Run Time: 09/10/04 13:31:26

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.68264	1.7395	.86371	1.4743	.64418	33.733	2.1279
SDev	.00109	.0121	.00516	.0106	.00251	.176	.0053
%RSD	.16030	.69732	.59785	.71773	.38904	.52169	.24699

#1	.68341	1.7480	.86006	1.4668	.64240	33.608	2.1242
#2	.68187	1.7309	.86737	1.4818	.64595	33.857	2.1316

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.15855	.18394	11.502	.39639	.19482	.30627	61.864
SDev	.00110	.00152	.124	.00291	.00148	.00089	.553
%RSD	.69125	.82702	1.0807	.73304	.75945	.28884	.89460

#1	.15777	.18286	11.414	.39434	.19587	.30564	61.472
#2	.15932	.18502	11.590	.39845	.19378	.30690	62.255

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.76952	6.6474	.45848	.03470	3.0363	.35319	.29317
SDev	.00558	.0205	.00533	.00033	.1583	.00440	.00284
%RSD	.72531	.30788	1.1621	.96375	5.2148	1.2446	.96786

#1	.76557	6.6330	.45471	.03494	3.1482	.35008	.29117
#2	.77346	6.6619	.46225	.03446	2.9243	.35630	.29518

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.243	.65160	.62611	.86586	.86084	1.4445	1.4876
SDev	.010	.00189	.01132	.00024	.00762	.0054	.0131
%RSD	.08889	.29086	1.8083	.02816	.88519	.37716	.88361

#1	11.236	.65294	.61810	.86569	.85545	1.4406	1.4783
#2	11.251	.65026	.63412	.86604	.86623	1.4483	1.4969

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.37796	.23019	2.5141	.44025	6.3639
SDev	.00442	.00496	.0153	.00452	.0235
%RSD	1.1704	2.1526	.60903	1.0271	.36959

#1	.37483	.22669	2.5033	.44345	6.3473
#2	.38109	.23369	2.5250	.43706	6.3805

09/10/04

Method: 6010B Sample Name: CCV  
 Run Time: 09/10/04 13:33:29  
 Comment: CCV  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1583	5.2914	4.9992	5.2181	5.0849	9.8611	10.324
SDev	.0291	.0264	.0523	.0013	.0344	.0904	.079
%RSD	.56346	.49849	1.0453	.02548	.67634	.91658	.76946
#1	5.1789	5.3100	5.0362	5.2171	5.1092	9.9250	10.381
#2	5.1378	5.2727	4.9623	5.2190	5.0606	9.7972	10.268
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.25201	2.5215	24.834	.97254	2.4215	1.2022	4.6309
SDev	.00276	.0287	.448	.01430	.0372	.0070	.0610
%RSD	1.0957	1.1386	1.8060	1.4703	1.5364	.58353	1.3167
#1	.25396	2.5418	25.151	.98265	2.4478	1.2071	4.6741
#2	.25006	2.5012	24.517	.96243	2.3952	1.1972	4.5878
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.4229	24.509	2.4906	1.2804	25.578	2.3914	2.5057
SDev	.0355	.263	.0360	.0217	.465	.0372	.0349
%RSD	1.4636	1.0744	1.4462	1.6968	1.8163	1.5539	1.3945
#1	2.4480	24.696	2.5161	1.2957	25.906	2.4177	2.5305
#2	2.3978	24.323	2.4652	1.2650	25.249	2.3651	2.4810
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.757	5.1619	4.9275	4.9321	5.0308	5.1682	5.2413
SDev	.185	.0329	.0374	.0520	.0524	.0278	.0160
%RSD	.71977	.63731	.75869	1.0543	1.0412	.53884	.30601
#1	25.888	5.1852	4.9539	4.9688	5.0678	5.1879	5.2299
#2	25.626	5.1386	4.9011	4.8953	4.9937	5.1485	5.2526
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	5.1424	5.0957	4.7989	4.8159	Q5.7437		
SDev	.0482	.0392	.0506	.0568	.0529		
%RSD	.93745	.76909	1.0550	1.1799	.92136		
#1	5.1765	5.1234	4.8347	4.8561	Q5.7812		
#2	5.1083	5.0680	4.7631	4.7757	Q5.7063		

OK 9/10/04

Method: 6010B Sample Name: CCB  
 Run Time: 09/10/04 13:35:38  
 Comment: CCB  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00186	.00446	.00381	-.00124	.00393	.07305	-.00110
SDev	.00110	.00236	.00071	.00249	.00122	.00229	.00013
%RSD	59.314	53.054	18.549	200.41	31.064	3.1309	11.911
#1	-.00108	.00278	.00431	.00052	.00307	.07467	-.00101
#2	-.00264	.00613	.00331	-.00301	.00479	.07144	-.00120
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00326	-.00173	.00293	.00091	.00220	-.00221	.04893
SDev	.00005	.00036	.00244	.00000	.00148	.00009	.00001
%RSD	1.5765	20.704	83.207	.01194	67.254	3.9032	.01440
#1	.00323	-.00199	.00465	.00091	.00324	-.00215	.04893
#2	.00330	-.00148	.00121	.00091	.00115	-.00227	.04892
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00021	-.00182	-.00273	-.00036	-.55385	-.00098	-.00257
SDev	.00015	.00409	.00120	.00046	.04172	.00055	.00027
%RSD	71.555	224.59	44.001	129.12	7.5323	55.472	10.471
#1	-.00010	-.00472	-.00188	-.00003	-.58335	-.00137	-.00238
#2	-.00032	.00107	-.00359	-.00069	-.52435	-.00060	-.00276
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00235	.00569	-.00279	.00042	.00350	.00120	-.00427
SDev	.01049	.00031	.00428	.00364	.00076	.00221	.00264
%RSD	447.43	5.4429	153.48	856.17	21.658	183.75	61.776
#1	.00507	.00590	-.00582	.00300	.00296	.00277	-.00240
#2	-.00977	.00547	.00024	-.00215	.00403	-.00036	-.00613
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00893	.00053	-.00013	-.00156	.03250		
SDev	.00907	.00901	.00007	.00334	.00090		
%RSD	101.62	1697.8	51.521	213.65	2.7831		
#1	.01535	.00690	-.00008	.00080	.03314		
#2	.00251	-.00584	-.00018	-.00393	.03186		

OK 9/10/04

Method: 6010B Sample Name: S4259-18

Operator: DR

Run Time: 09/10/04 13:37:29

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.69851	1.7437	.86863	1.4764	.64725	33.798	2.1379
SDev	.00711	.0317	.01595	.0187	.00864	.296	.0114
%RSD	1.0186	1.8193	1.8359	1.2696	1.3345	.87640	.53485
#1	.69348	1.7213	.85736	1.4632	.64115	33.589	2.1298
#2	.70354	1.7662	.87991	1.4897	.65336	34.008	2.1459
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.16135	.18634	11.745	.40572	.19865	.30802	62.795
SDev	.00155	.00041	.214	.00259	.00049	.00165	.870
%RSD	.95815	.22192	1.8262	.63865	.24855	.53657	1.3853
#1	.16025	.18605	11.594	.40388	.19900	.30918	62.180
#2	.16244	.18663	11.897	.40755	.19830	.30685	63.411
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.78305	6.7709	.47261	.04464	3.2542	.36560	.30134
SDev	.00815	.0505	.00457	.01250	.6751	.00870	.00439
%RSD	1.0407	.74558	.96693	28.009	20.745	2.3789	1.4555
#1	.77729	6.8066	.46937	.05348	3.7315	.37175	.29823
#2	.78881	6.7352	.47584	.03580	2.7768	.35945	.30444
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.269	.65830	.62193	.88036	.86098	1.4498	1.4882
SDev	.217	.00552	.01489	.00795	.01994	.0103	.0333
%RSD	1.9290	.83799	2.3942	.90277	2.3160	.71346	2.2354
#1	11.422	.65440	.61140	.87474	.84688	1.4571	1.4646
#2	11.115	.66220	.63246	.88598	.87508	1.4424	1.5117
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.38045	.23608	2.5355	.44665	6.4307		
SDev	.00658	.00203	.0261	.01593	.0620		
%RSD	1.7293	.85864	1.0307	3.5655	.96359		
#1	.37580	.23465	2.5170	.43539	6.3869		
#2	.38510	.23752	2.5539	.45791	6.4745		

9/10/04

Method: 6010B      Sample Name: S4259-03A      Operator: DR  
 Run Time: 09/10/04 13:40:13  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.69741	1.7793	.88128	1.4934	.65461	34.160	2.1580
SDev	.00772	.0091	.00153	.0026	.00123	.005	.0026
%RSD	1.1074	.51215	.17365	.17682	.18867	.01334	.11906

#1	.70287	1.7728	.88236	1.4953	.65548	34.163	2.1598
#2	.69195	1.7857	.88020	1.4915	.65374	34.157	2.1562

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.16288	.18794	11.944	.40929	.19987	.30823	63.317
SDev	.00063	.00198	.090	.00337	.00025	.00108	.448
%RSD	.38637	1.0549	.75509	.82363	.12342	.35080	.70763

#1	.16244	.18934	11.880	.40691	.20005	.30899	63.000
#2	.16333	.18654	12.007	.41168	.19970	.30746	63.634

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.79104	6.7545	.47089	.03575	3.0698	.36176	.30445
SDev	.00378	.0027	.00127	.00026	.1033	.00112	.00098
%RSD	.47716	.04039	.26958	.74063	3.3665	.30854	.32089

#1	.78837	6.7565	.47000	.03594	2.9967	.36097	.30376
#2	.79371	6.7526	.47179	.03557	3.1429	.36255	.30514

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	11.224	.66603	.62854	.87894	.88065	1.4601	1.5084
SDev	.084	.00081	.00209	.00131	.00295	.0068	.0006
%RSD	.75239	.12143	.33232	.14897	.33475	.46770	.03643

#1	11.284	.66660	.63002	.87801	.88273	1.4649	1.5088
#2	11.164	.66545	.62707	.87986	.87857	1.4553	1.5080

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.38718	.23911	2.5616	.44637	6.5337
SDev	.00113	.00090	.0085	.00492	.0167
%RSD	.29296	.37679	.33208	1.1012	.25614

#1	.38638	.23975	2.5556	.44290	6.5219
#2	.38799	.23847	2.5676	.44985	6.5456

09/10/04



Method: 6010B Sample Name: S4259-04

Operator: DR

Run Time: 09/10/04 13:42:11

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01437	-.01274	.14208	.00846	.00117	40.249	.10543
SDev	.00173	.01316	.00227	.00320	.00011	.024	.00033
%RSD	12.055	103.29	1.5990	37.775	9.2970	.06058	.30889

#1	.01315	-.00343	.14047	.01072	.00109	40.266	.10566
#2	.01560	-.02204	.14369	.00620	.00124	40.232	.10520

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00476	.00203	4.0050	.02771	.01404	.04150	56.457
SDev	.00010	.00030	.0122	.00030	.00099	.00019	.316
%RSD	2.1885	14.559	.30430	1.0759	7.0233	.45786	.56021

#1	.00483	.00224	4.0136	.02792	.01474	.04164	56.681
#2	.00468	.00182	3.9963	.02750	.01335	.04137	56.234

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.73844	3.8679	.01826	-.00434	.32977	.08240	.21990
SDev	.00182	.0027	.00286	.00026	.11188	.00056	.00047
%RSD	.24588	.07055	15.686	5.9354	33.926	.67864	.21366

#1	.73972	3.8698	.01623	-.00416	.25066	.08280	.22023
#2	.73715	3.8660	.02028	-.00452	.40888	.08201	.21957

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.3577	.00156	-.00282	.14500	.13862	-.00714	.01455
SDev	.0060	.00358	.00684	.00683	.00001	.00532	.00228
%RSD	.44167	229.20	242.10	4.7132	.00425	74.621	15.639

#1	1.3619	-.00097	.00201	.14017	.13863	-.00337	.01616
#2	1.3534	.00409	-.00766	.14984	.13862	-.01090	.01294

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.00356	-.01412	1.1675	-.07539	7.3432
SDev	.00193	.00045	.0024	.00275	.0109
%RSD	54.233	3.1899	.20400	3.6512	.14783

#1	.00492	-.01380	1.1692	-.07344	7.3509
#2	.00219	-.01444	1.1659	-.07733	7.3355

01 9/10/04

Method: 6010B Sample Name: S4259-05  
Run Time: 09/10/04 13:45:20  
Comment:  
Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00587	-.02113	.07931	.00617	.00032	51.724	.11427
SDev	.00126	.00403	.00326	.00151	.00045	.183	.00033
%RSD	21.454	19.097	4.1044	24.441	138.97	.35343	.28954

#1	.00676	-.01827	.07701	.00510	.00001	51.853	.11450
#2	.00498	-.02398	.08161	.00723	.00064	51.595	.11404

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00491	.00216	3.4707	.03202	.01927	.04106	65.024
SDev	.00016	.00104	.0171	.00061	.00148	.00050	.202
%RSD	3.1950	47.894	.49161	1.9036	7.6740	1.2182	.31077

#1	.00502	.00143	3.4586	.03158	.02031	.04141	64.881
#2	.00480	.00290	3.4827	.03245	.01822	.04070	65.167

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.72455	4.5201	.02335	-.00343	.35323	.09820	.26920
SDev	.00106	.0082	.00082	.00235	.01991	.00054	.00023
%RSD	.14627	.18112	3.5252	68.407	5.6367	.54670	.08393

#1	.72390	4.5259	.02277	-.00177	.36731	.09858	.26904
#2	.72540	4.5143	.02393	-.00509	.33915	.09782	.26936

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.3983	-.00053	-.00119	.08252	.07571	-.01615	.01561
SDev	.0095	.00153	.00173	.00262	.00357	.00466	.00008
%RSD	.67899	291.94	146.22	3.1709	4.7207	28.818	.48970

#1	1.4050	-.00161	.00004	.08067	.07318	-.01944	.01555
#2	1.3916	.00056	-.00241	.08437	.07824	-.01286	.01566

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00203	-.01890	1.3482	-.07789	6.4829
SDev	.00181	.00090	.0005	.00197	.0199
%RSD	89.330	4.7670	.03533	2.5242	.30699

#1	.00075	-.01954	1.3479	-.07928	6.4969
#2	.00331	-.01826	1.3485	-.07650	6.4688

ok 9/10/04

Method: 6010B      Sample Name: S4259-06      Operator: DR  
 Run Time: 09/10/04 13:47:46  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03748	-.01060	.13525	.01210	-.00131	72.640	.49767
SDev	.00426	.02327	.00053	.00215	.00460	.049	.00053
%RSD	11.366	219.47	.38993	17.764	351.56	.06814	.10601

#1	.04049	-.02706	.13562	.01058	-.00456	72.605	.49804
#2	.03447	.00585	.13488	.01362	.00194	72.675	.49729

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00665	.00685	30.904	.10284	.04957	.12078	122.82
SDev	.00005	.00065	.058	.00016	.00148	.00042	.15
%RSD	.80969	9.4868	.18929	.15386	2.9817	.34614	.12161

#1	.00661	.00731	30.863	.10295	.05061	.12108	122.72
#2	.00669	.00639	30.945	.10273	.04852	.12049	122.93

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.5083	17.908	.13269	-.00995	.40821	.11840	.49252
SDev	.0026	.020	.00309	.00156	.05783	.00054	.00212
%RSD	.10208	.11428	2.3258	15.683	14.168	.45638	.43052

#1	2.5065	17.894	.13487	-.00884	.44910	.11878	.49102
#2	2.5101	17.923	.13051	-.01105	.36731	.11802	.49402

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.7278	-.00412	.00112	.13487	.13334	-.01469	.02368
SDev	.0020	.00340	.00701	.00425	.00119	.00397	.00521
%RSD	.03490	82.427	625.20	3.1524	.89283	27.048	21.988

#1	5.7292	-.00652	-.00384	.13787	.13250	-.01188	.02000
#2	5.7264	-.00172	.00608	.13186	.13418	-.01749	.02736

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.00043	-.01603	.46687	-.03521	8.2646
SDev	.00068	.00180	.00027	.00374	.0023
%RSD	159.19	11.239	.05830	10.610	.02737

#1	.00091	-.01731	.46668	-.03785	8.2662
#2	-.00005	-.01476	.46706	-.03257	8.2630

*OK 9/10/04*

Method: 6010B Sample Name: S4259-07 Operator: DR  
 Run Time: 09/10/04 14:06:31  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03985	-.02425	.14182	.01378	.00270	83.018	.63511
SDev	.00191	.00536	.00530	.00134	.00679	.096	.00210
%RSD	4.7889	22.115	3.7354	9.7013	251.20	.11567	.33003
#1	.04120	-.02046	.13807	.01284	.00751	83.086	.63660
#2	.03850	-.02804	.14556	.01473	-.00210	82.950	.63363
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00705	.00755	43.400	.11205	.04852	.13128	124.05
SDev	.00004	.00153	.317	.00367	.00197	.00039	.84
%RSD	.59203	20.237	.73011	3.2720	4.0613	.29913	.67987
#1	.00708	.00863	43.624	.11464	.04991	.13156	124.64
#2	.00702	.00647	43.176	.10945	.04713	.13100	123.45
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.6975	17.861	.13325	-.00744	.86275	.13855	.52479
SDev	.0203	.057	.00404	.00467	.17351	.00496	.00192
%RSD	.75324	.32084	3.0348	62.721	20.111	3.5763	.36516
#1	2.7118	17.902	.13611	-.00414	.98544	.14205	.52614
#2	2.6831	17.821	.13039	-.01074	.74007	.13504	.52343
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	8.3729	.00049	.00394	.13695	.14205	-.01672	.02721
SDev	.0520	.00876	.00285	.00074	.00831	.00128	.00136
%RSD	.62068	1798.6	72.336	.54189	5.8521	7.6812	5.0094
#1	8.4097	.00668	.00596	.13748	.13617	-.01763	.02625
#2	8.3362	-.00571	.00193	.13643	.14793	-.01582	.02818
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00171	-.00186	.44459	-.03702	8.9820		
SDev	.00068	.00293	.00347	.00551	.0317		
%RSD	39.780	157.57	.78064	14.872	.35250		
#1	.00123	.00021	.44705	-.04091	9.0044		
#2	.00219	-.00393	.44214	-.03312	8.9596		

OK 9/10/04

Method: 6010B Sample Name: S4259-08

Operator: DR

Run Time: 09/10/04 14:08:20

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03468	-.02702	.16807	.01446	.00385	68.180	.79705
SDev	.00426	.00403	.00238	.00023	.00089	.227	.00171
%RSD	12.299	14.914	1.4163	1.6038	23.253	.33295	.21411
#1	.03166	-.02987	.16639	.01429	.00321	68.019	.79584
#2	.03770	-.02417	.16976	.01462	.00448	68.340	.79825
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00549	.00543	14.630	.08243	.04557	.06432	113.90
SDev	.00005	.00007	.034	.00045	.00222	.00096	.33
%RSD	.89211	1.2298	.23324	.54735	4.8649	1.4909	.29310
#1	.00546	.00548	14.606	.08211	.04400	.06364	113.66
#2	.00553	.00538	14.655	.08275	.04714	.06499	114.13
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.4587	12.330	.07065	-.01149	.10182	.13577	.38151
SDev	.0081	.091	.00413	.00293	.50250	.00165	.00125
%RSD	.23497	.74141	5.8443	25.523	493.50	1.2170	.32833
#1	3.4530	12.265	.06773	-.01357	-.25350	.13460	.38062
#2	3.4645	12.395	.07357	-.00942	.45715	.13694	.38239
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.5486	.00253	.00328	.16982	.16500	-.01257	.02615
SDev	.0934	.00126	.00520	.00274	.00494	.00764	.00347
%RSD	1.6841	49.671	158.43	1.6151	2.9928	60.813	13.267
#1	5.4826	.00342	-.00039	.17176	.16151	-.01798	.02860
#2	5.6147	.00164	.00696	.16788	.16849	-.00717	.02370
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00053	-.01970	.45691	-.03104	9.7938		
SDev	.00068	.00023	.00211	.00098	.0154		
%RSD	127.22	1.1436	.46171	3.1673	.15702		
#1	-.00005	-.01954	.45542	-.03173	9.7829		
#2	-.00102	-.01986	.45840	-.03034	9.8046		

OK 9/10/04

Method: 6010B      Sample Name: S4259-0809      Operator: DR  
 Run Time: 09/10/04 14:11:44  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03094	-.03413	.16716	.00813	.00147	66.526	.79027
SDev	.00189	.01621	.00070	.00168	.00112	.117	.00085
%RSD	6.1256	47.482	.41963	20.709	76.532	.17631	.10817
#1	.02960	-.04559	.16666	.00694	.00226	66.609	.79087
#2	.03228	-.02267	.16765	.00932	.00067	66.443	.78966
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00540	.00487	12.442	.07956	.04505	.06536	108.29
SDev	.00000	.00082	.039	.00077	.00098	.00017	.02
%RSD	.02228	16.844	.31346	.96744	2.1874	.25827	.01624
#1	.00540	.00429	12.469	.07901	.04574	.06525	108.31
#2	.00540	.00544	12.414	.08010	.04435	.06548	108.28
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.6732	12.689	.07422	-.00969	.33513	.12782	.36657
SDev	.0071	.012	.00150	.00024	.01138	.00055	.00192
%RSD	.19227	.09678	2.0258	2.4416	3.3949	.42777	.52339
#1	3.6782	12.698	.07529	-.00952	.34318	.12743	.36522
#2	3.6683	12.680	.07316	-.00986	.32709	.12820	.36793
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.7296	.00194	-.00269	.16708	.16510	-.01698	.01887
SDev	.0075	.00310	.00283	.00402	.00292	.00309	.00407
%RSD	.13082	159.22	105.14	2.4071	1.7675	18.214	21.563
#1	5.7243	.00413	-.00469	.16992	.16303	-.01480	.01599
#2	5.7349	-.00024	-.00069	.16423	.16716	-.01917	.02174
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00134	-.02033	.38853	-.02200	8.6756		
SDev	.00023	.00203	.00068	.00433	.0145		
%RSD	16.967	9.9695	.17515	19.660	.16684		
#1	-.00150	-.02177	.38901	-.02506	8.6859		
#2	-.00118	-.01890	.38805	-.01894	8.6654		

02 9/10/04

Method: 6010B Sample Name: S4259-05 | 0 Operator: DR  
 Run Time: 09/10/04 14:13:48  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.02136	-.02974	.14231	.01205	.00558	93.931	.62191
SDev	.00016	.01314	.00093	.00006	.00087	.162	.00151
%RSD	.75148	44.183	.65002	.50089	15.637	.17274	.24307

#1	.02148	-.02045	.14166	.01201	.00620	94.046	.62298
#2	.02125	-.03904	.14296	.01209	.00496	93.817	.62085

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.00873	.00805	32.414	.09707	.05933	.11819	118.78
SDev	.00015	.00021	.034	.00107	.00098	.00086	.09
%RSD	1.7542	2.6499	.10527	1.1063	1.6601	.72607	.07394

#1	.00884	.00790	32.438	.09783	.06003	.11880	118.84
#2	.00862	.00820	32.390	.09631	.05863	.11759	118.72

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	3.2179	16.677	.09470	-.00950	.92577	.18812	.42871
SDev	.0020	.040	.00368	.00468	.14696	.00219	.00084
%RSD	.06081	.23725	3.8892	49.298	15.874	1.1640	.19477

#1	3.2192	16.705	.09730	-.00619	1.0297	.18967	.42812
#2	3.2165	16.649	.09209	-.01281	.82186	.18657	.42930

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	11.665	.00343	.00668	.13196	.14538	-.01061	.02156
SDev	.161	.00108	.00047	.00192	.00248	.00719	.00368
%RSD	1.3837	31.302	7.0098	1.4527	1.7096	67.748	17.067

#1	11.779	.00419	.00701	.13332	.14362	-.00553	.01896
#2	11.551	.00267	.00635	.13061	.14713	-.01570	.02417

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avgc	.00187	-.00520	1.6938	-.11390	8.2435
SDev	.00000	.00225	.0042	.00098	.0213
%RSD	.00000	43.290	.24909	.86311	.25789

#1	.00187	-.00680	1.6968	-.11459	8.2586
#2	.00187	-.00361	1.6909	-.11320	8.2285

01 9/10/04

Method: 6010B Sample Name: S4259-11

Operator: DR

Run Time: 09/10/04 14:15:38

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01582	-.01651	.10977	.00896	.00032	78.125	.45758
SDev	.00331	.00811	.00132	.00024	.00034	.133	.00158
%RSD	20.924	49.100	1.1985	2.7312	105.29	.17061	.34414

#1	.01348	-.02225	.10884	.00879	.00056	78.219	.45869
#2	.01817	-.01078	.11070	.00913	.00008	78.031	.45647

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00759	.00471	22.099	.07706	.05777	.10677	104.10
SDev	.00005	.00025	.124	.00016	.00025	.00023	.36
%RSD	.69322	5.3981	.56252	.21366	.42734	.21911	.34603

#1	.00763	.00489	22.186	.07695	.05794	.10660	104.35
#2	.00755	.00453	22.011	.07718	.05759	.10693	103.85

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3125	13.110	.08053	-.01113	.53894	.16433	.34010
SDev	.0113	.015	.00219	.00042	.12705	.00001	.00097
%RSD	.48795	.11448	2.7170	3.8126	23.574	.00859	.28421

#1	2.3204	13.120	.07898	-.01143	.44910	.16434	.34078
#2	2.3045	13.099	.08208	-.01083	.62878	.16432	.33942

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.9309	-.00342	.00461	.10868	.10821	-.02018	.02171
SDev	.0635	.00017	.00137	.00009	.00216	.00212	.00142
%RSD	.91564	5.0388	29.652	.07957	1.9932	10.491	6.5593

#1	6.8860	-.00354	.00558	.10874	.10669	-.01869	.02070
#2	6.9758	-.00329	.00364	.10862	.10974	-.02168	.02272

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00019	-.01667	1.4930	-.09999	4.9605
SDev	.00374	.00135	.0044	.00098	.0235
%RSD	2002.7	8.1069	.29626	.98311	.47415

#1	.00283	-.01763	1.4962	-.09930	4.9771
#2	-.00246	-.01571	1.4899	-.10069	4.9438

02/9/1904



Method: 6010B Sample Name: CCV

Operator: DR

Run Time: 09/10/04 14:19:46

Comment: CCV

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1972	5.3194	5.0219	5.2051	5.1192	9.9275	10.378
SDev	.0231	.0832	.0256	.0199	.0010	.0634	.051
%RSD	.44359	1.5639	.50999	.38170	.01950	.63817	.48855

#1	5.2135	5.3782	5.0401	5.1911	5.1184	9.9723	10.414
#2	5.1809	5.2605	5.0038	5.2192	5.1199	9.8827	10.343

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.25437	2.5442	25.141	.98178	2.4397	1.2037	4.6991
SDev	.00114	.0066	.195	.00677	.0123	.0054	.0174
%RSD	.44778	.26028	.77562	.68928	.50496	.44680	.37109

#1	.25517	2.5489	25.278	.98657	2.4485	1.2075	4.7114
#2	.25356	2.5396	25.003	.97700	2.4310	1.1999	4.6868

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.4441	24.570	2.5096	1.2968	25.755	2.4030	2.5364
SDev	.0131	.076	.0058	.0073	.129	.0088	.0072
%RSD	.53485	.31097	.23072	.56424	.50066	.36413	.28519

#1	2.4533	24.624	2.5137	1.3020	25.846	2.4092	2.5415
#2	2.4348	24.516	2.5055	1.2916	25.664	2.3968	2.5313

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.635	5.2113	4.9314	4.9399	5.0609	5.1504	5.2309
SDev	.173	.0073	.0116	.0131	.0318	.0234	.0181
%RSD	.67641	.14004	.23564	.26607	.62905	.45515	.34570

#1	25.757	5.2061	4.9396	4.9492	5.0834	5.1338	5.2181
#2	25.512	5.2165	4.9232	4.9306	5.0384	5.1670	5.2437

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	5.2117	5.1429	4.8169	4.8620	Q5.8531
SDev	.0287	.0063	.0207	.0285	.0267
%RSD	.55064	.12263	.42948	.58635	.45593

#1	5.2320	5.1473	4.8315	4.8822	Q5.8720
#2	5.1914	5.1384	4.8023	4.8419	Q5.8342

OK 9/10/04

Method: 6010B

Sample Name: CCB

Operator: DR

Run Time: 09/10/04 14:21:50

Comment: CCB

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00059	.00875	-.00008	-.00235	-.00013	.08329	-.00078
SDev	.00142	.01585	.00105	.00127	.00069	.00001	.00020
%RSD	240.26	181.23	1332.2	54.195	525.78	.00707	25.334
#1	-.00041	Q.01995	-.00082	-.00145	-.00062	.08328	-.00092
#2	.00160	-.00246	.00066	-.00325	.00036	.08329	-.00064
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00330	-.00175	.00810	.00037	.00063	-.00221	.01785
SDev	.00011	.00065	.00000	.00015	.00123	.00026	.00878
%RSD	3.1927	37.181	.00000	41.591	195.63	11.632	49.219
#1	.00322	-.00221	.00810	.00026	-.00024	-.00239	.01164
#2	.00337	-.00129	.00810	.00048	.00150	-.00203	.02406
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00064	.00300	-.00183	-.00054	-.40233	.00017	-.00257
SDev	.00015	.00273	.00143	.00024	.10240	.00000	.00081
%RSD	23.476	90.919	78.071	43.892	25.451	.36737	31.467
#1	.00074	.00107	-.00284	-.00071	-.32993	.00017	-.00314
#2	.00053	.00493	-.00082	-.00037	-.47474	.00017	-.00200
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00941	-.00044	-.00272	-.00242	-.00091	-.00239	-.00402
SDev	.00450	.00124	.00456	.00139	.00227	.00243	.00084
%RSD	47.782	282.95	167.42	57.510	250.69	101.53	20.754
#1	-.00623	.00044	-.00594	-.00144	-.00251	-.00068	-.00343
#2	-.01259	-.00131	.00050	-.00341	.00070	-.00411	-.00461
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00134	-.00807	-.00004	-.00268	.02771		
SDev	.00181	.00045	.00007	.00570	.00226		
%RSD	135.74	5.5823	189.85	213.02	8.1626		
#1	-.00005	-.00775	-.00008	.00136	.02611		
#2	-.00262	-.00839	.00001	-.00671	.02931		

09/10/04

Method: 6010B Sample Name: S4259-12 Operator: DR  
 Run Time: 09/10/04 14:25:12  
 Comment:  
 Mode: CQNC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02927	-.04904	.13045	.01227	.00061	136.64	1.0196
SDev	.00802	.00879	.00181	.00406	.00454	1.55	.0069
%RSD	27.401	17.931	1.3864	33.094	750.28	1.1376	.68046
#1	.03494	-.04282	.13173	.00940	-.00261	135.55	1.0146
#2	.02360	-.05526	.12917	.01515	.00382	137.74	1.0245
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01130	.01591	35.151	.13764	.08459	.14706	165.68
SDev	.00009	.00396	.858	.00179	.00172	.00219	3.33
%RSD	.78588	24.900	2.4409	1.3010	2.0384	1.4876	2.0099
#1	.01136	.01872	34.544	.13891	.08581	.14861	163.32
#2	.01123	.01311	35.757	.13638	.08337	.14551	168.03
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.9371	26.512	.13199	-.00330	.94186	.25725	.56880
SDev	.0700	.179	.00323	.01747	.56413	.00751	.01258
%RSD	1.7780	.67416	2.4433	529.62	59.895	2.9212	2.2109
#1	3.8876	26.386	.13427	.00905	1.3408	.26256	.55991
#2	3.9866	26.639	.12971	-.01565	.54296	.25194	.57770
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	17.302	-.00464	.00792	.11801	.13425	-.01631	.02475
SDev	.152	.00510	.00342	.00258	.00400	.00083	.00567
%RSD	.87800	109.81	43.172	2.1846	2.9784	5.1117	22.928
#1	17.409	-.00825	.00550	.11619	.13708	-.01690	.02073
#2	17.194	-.00104	.01033	.11984	.13143	-.01572	.02876
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00275	-.00807	2.1370	-.15171	10.022		
SDev	.00306	.00045	.0278	.01003	.105		
%RSD	111.22	5.5823	1.3025	6.6094	1.0516		
#1	.00059	-.00775	2.1173	-.14462	9.9473		
#2	.00492	-.00839	2.1567	-.15880	10.096		

OK 9/10/04

Method: 6010B Sample Name: S4259-13 Operator: DR  
 Run Time: 09/10/04 14:27:01  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01915	-.01657	.19160	.01028	.00332	86.671	.82234
SDev	.00142	.01885	.00181	.00161	.00605	.021	.00013
%RSD	7.4115	113.72	.94654	15.709	182.53	.02469	.01632

#1	.01814	-.02990	.19288	.00914	-.00096	86.656	.82224
#2	.02015	-.00325	.19032	.01142	.00760	86.687	.82243

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00571	.00469	26.080	.13265	.06665	.18104	114.49
SDev	.00002	.00302	.017	.00078	.00148	.00058	.26
%RSD	.29444	64.491	.06543	.58472	2.2177	.32130	.23031

#1	.00572	.00255	26.092	.13210	.06560	.18063	114.68
#2	.00569	.00682	26.068	.13320	.06769	.18145	114.31

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.4478	36.060	.10090	-.02023	.41692	.25983	.53999
SDev	.0022	.026	.00241	.01498	.04361	.00764	.00023
%RSD	.09164	.07189	2.3902	74.017	10.461	2.9387	.04180

#1	2.4462	36.078	.09919	-.03082	.44776	.25443	.54015
#2	2.4494	36.041	.10260	-.00964	.38608	.26523	.53983

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	20.085	.00067	.00542	.19141	.18940	-.01555	.02138
SDev	.020	.00883	.00050	.00079	.00218	.00385	.00050
%RSD	.09952	1321.1	9.2206	.41276	1.1527	24.775	2.3291

#1	20.071	-.00557	.00507	.19197	.19094	-.01827	.02103
#2	20.099	.00691	.00577	.19085	.18785	-.01283	.02173

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.00155	-.01858	5.3059	-.37318	5.5608
SDev	.00091	.00090	.0042	.01219	.0059
%RSD	58.528	4.8487	.07952	3.2665	.10574

#1	.00219	-.01922	5.3029	-.36456	5.5566
#2	.00091	-.01794	5.3089	-.38179	5.5649

OK 9/10/04

Method: 6010B Sample Name: S4259-14

Operator: DR

Run Time: 09/10/04 14:28:55

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01699	-.06724	.27515	.00428	.00384	62.654	1.1569
SDev	.00032	.01594	.00155	.00187	.00039	.018	.0020
%RSD	1.8887	23.700	.56227	43.636	10.130	.02794	.17647

#1	.01722	-.07851	.27625	.00560	.00412	62.642	1.1555
#2	.01676	-.05597	.27406	.00296	.00357	62.666	1.1584

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00589	.00723	33.532	.09059	.05933	.25831	95.638
SDev	.00000	.00066	.105	.00138	.00197	.00032	.290
%RSD	.02090	9.1234	.31256	1.5188	3.3222	.12479	.30313

#1	.00589	.00770	33.607	.09156	.06072	.25809	95.843
#2	.00590	.00677	33.458	.08962	.05794	.25854	95.433

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	14.068	26.635	.10383	-.01247	.79772	.17367	.50664
SDev	.033	.065	.00150	.00035	.04361	.00056	.00063
%RSD	.23292	.24589	1.4429	2.7738	5.4673	.32255	.12482

#1	14.091	26.681	.10489	-.01223	.76688	.17406	.50709
#2	14.045	26.588	.10277	-.01272	.82856	.17327	.50620

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.561	.00232	.00370	.27590	.27258	-.02414	.01667
SDev	.037	.00277	.00437	.00315	.00075	.00995	.00777
%RSD	.29438	119.34	118.20	1.1401	.27480	41.199	46.584

#1	12.535	.00427	.00061	.27812	.27311	-.03118	.02216
#2	12.588	.00036	.00679	.27367	.27205	-.01711	.01118

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.00564	-.01221	3.3411	-.22303	4.9310
SDev	.00147	.00135	.0089	.00275	.0063
%RSD	26.141	11.068	.26682	1.2342	.12842

#1	.00460	-.01125	3.3474	-.22108	4.9266
#2	.00668	-.01317	3.3348	-.22498	4.9355

02/11/04

Method: 6010B      Sample Name: S4259-15      Operator: DR  
 Run Time: 09/10/04 14:30:45  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05420	-.03552	.30394	.00879	.00446	76.065	.67573
SDev	.00821	.01277	.00434	.00343	.00316	.087	.00164
%RSD	15.143	35.955	1.4270	39.067	70.873	.11414	.24334

#1	.06000	-.04455	.30700	.00636	.00669	76.126	.67689
#2	.04839	-.02649	.30087	.01122	.00222	76.003	.67457

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00537	.00736	13.750	.08028	.04923	.17516	113.01
SDev	.00011	.00058	.037	.00015	.00099	.00026	.02
%RSD	2.0057	7.9348	.26591	.19256	2.0033	.14572	.01553

#1	.00545	.00695	13.724	.08039	.04992	.17534	113.00
#2	.00529	.00777	13.776	.08017	.04853	.17498	113.03

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.7477	12.912	.08280	-.00749	.46251	.14152	.80630
SDev	.0144	.079	.00248	.00186	.20479	.00109	.00033
%RSD	.21378	.61289	2.9968	24.800	44.279	.77198	.04042

#1	6.7375	12.856	.08104	-.00618	.31770	.14075	.80653
#2	6.7579	12.968	.08455	-.00880	.60732	.14229	.80607

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.2586	.00269	.00480	.29947	.30396	-.01432	.01853
SDev	.0570	.00356	.00236	.00455	.00423	.00143	.00443
%RSD	1.3377	132.27	49.229	1.5179	1.3926	10.003	23.929

#1	4.2183	.00521	.00647	.30269	.30696	-.01533	.01539
#2	4.2989	.00017	.00313	.29626	.30097	-.01331	.02166

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.00652	-.01317	1.2817	-.06663	8.3600
SDev	.00045	.00180	.0006	.00334	.0005
%RSD	6.9554	13.686	.04779	5.0165	.00541

#1	.00620	-.01189	1.2813	-.06426	8.3603
#2	.00684	-.01444	1.2821	-.06899	8.3596

*OK 9/10/04*

Method: 6010B

Sample Name: S4259-16

Operator: DR

Run Time: 09/10/04 14:32:56

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05236	-.04107	.27503	.01837	.00101	80.182	.39984
SDev	.00474	.00198	.00230	.00241	.00727	.094	.00098
%RSD	9.0576	4.8232	.83790	13.127	720.93	.11686	.24520

#1	.05571	-.03967	.27340	.02008	-.00413	80.248	.40053
#2	.04901	-.04247	.27666	.01667	.00615	80.116	.39914

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00546	.00617	8.8326	.08240	.03651	.09822	107.55
SDev	.00006	.00004	.0682	.00106	.00123	.00004	.61
%RSD	1.0306	.68024	.77269	1.2844	3.3750	.03628	.56362

#1	.00542	.00620	8.8808	.08315	.03564	.09825	107.98
#2	.00550	.00614	8.7843	.08166	.03738	.09820	107.13

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.0641	11.375	.07083	-.00907	.26943	.14942	.45918
SDev	.0244	.048	.00044	.00044	.09671	.00166	.00330
%RSD	.59953	.41982	.61985	4.8107	35.894	1.1139	.71840

#1	4.0813	11.409	.07115	-.00938	.33781	.15059	.46151
#2	4.0469	11.341	.07052	-.00876	.20105	.14824	.45685

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.3494	.00055	-.00128	.26943	.27562	-.00117	.02633
SDev	.0035	.00885	.00409	.00207	.00242	.00080	.00322
%RSD	.08043	1613.3	320.69	.76866	.87837	68.539	12.216

#1	4.3469	-.00571	-.00417	.26797	.27391	-.00060	.02860
#2	4.3519	.00681	.00162	.27090	.27733	-.00173	.02406

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00829	-.01173	.77017	-.06635	10.362
SDev	.00068	.00113	.00265	.00609	.060
%RSD	8.2118	9.5986	.34460	9.1860	.57620

#1	.00877	-.01094	.77205	-.06204	10.404
#2	.00781	-.01253	.76830	-.07066	10.320

OK 9/10/04

Method: 6010B

Sample Name: PB00986BL

Operator: DR

Run Time: 09/10/04 14:35:38

Comment: PBS

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00250	-.00383	-.00390	-.00305	.00798	.01432	-.00298
SDev	.00080	.00210	.00014	.00413	.00311	.00654	.00000
%RSD	31.863	54.786	3.6588	135.30	38.909	45.705	.00000

#1	-.00194	-.00235	-.00380	-.00013	.00579	.00969	-.00298
#2	-.00307	-.00531	-.00400	-.00597	.01018	.01894	-.00298

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00008	-.00243	-.00180	-.00038	-.00169	-.00475	-.02215
SDev	.00005	.00063	.00000	.00042	.00000	.00000	.00001
%RSD	61.535	25.821	.00000	110.47	.00170	.00001	.05145

#1	.00004	-.00287	-.00180	-.00008	-.00169	-.00475	-.02214
#2	.00011	-.00198	-.00180	-.00068	-.00169	-.00475	-.02216

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00051	.00119	-.00153	-.00085	-.25383	-.00017	-.00783
SDev	.00000	.00391	.00014	.00023	.02325	.00098	.00026
%RSD	.00009	327.62	9.3306	27.144	9.1605	585.98	3.2685

#1	-.00051	.00395	-.00164	-.00068	-.23739	-.00086	-.00801
#2	-.00051	-.00157	-.00143	-.00101	-.27027	.00053	-.00765

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02077	.00651	.00772	-.01376	-.00098	.00304	-.00789
SDev	.00449	.00015	.00963	.00424	.00233	.00874	.00182
%RSD	21.639	2.3561	124.80	30.820	238.71	287.67	23.105

#1	.02395	.00662	.00091	-.01676	.00067	.00922	-.00660
#2	.01759	.00641	.01453	-.01076	-.00262	-.00314	-.00918

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00974	-.00462	-.00052	-.00260	.00318
SDev	.00111	.00247	.00012	.00654	.00615
%RSD	11.436	53.445	23.853	251.80	193.30

#1	-.00896	-.00636	-.00043	.00203	-.00117
#2	-.01053	-.00287	-.00060	-.00722	.00753

09/10/04



Method: 6010B

Sample Name: PB00986BS

Operator: DR

Run Time: 09/10/04 14:38:57

Comment: LCSS

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.75403	1.8423	.94029	1.7616	.78223	1.9983	2.2779
SDev	.00367	.0049	.00557	.0148	.00195	.0102	.0089
%RSD	.48683	.26501	.59240	.83828	.24967	.50986	.39043
#1	.75143	1.8389	.93635	1.7511	.78085	1.9911	2.2716
#2	.75663	1.8458	.94423	1.7720	.78361	2.0055	2.2842
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.18093	.19878	4.9769	.41028	.19455	.31071	3.1382
SDev	.00111	.00185	.0208	.00225	.00023	.00229	.0078
%RSD	.61425	.93006	.41704	.54761	.11638	.73551	.24933
#1	.18014	.19747	4.9622	.40869	.19439	.30910	3.1437
#2	.18171	.20008	4.9916	.41187	.19471	.31233	3.1326
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.21044	1.9952	.49907	.07470	2.8832	.30489	.22863
SDev	.00150	.0143	.00315	.00023	.0940	.00247	.00127
%RSD	.71246	.71778	.63122	.31325	3.2596	.80934	.55714
#1	.20938	1.9851	.49684	.07487	2.9496	.30315	.22773
#2	.21150	2.0054	.50130	.07454	2.8167	.30664	.22953
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.4232	.78389	.77571	.95189	.93249	1.7493	1.7661
SDev	.0190	.00511	.00437	.01108	.00282	.0185	.0129
%RSD	.20140	.65188	.56344	1.1644	.30217	1.0598	.72948
#1	9.4097	.78027	.77880	.94405	.93050	1.7362	1.7570
#2	9.4366	.78750	.77262	.95973	.93449	1.7624	1.7752
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.39828	.27801	.20804	.67205	Q.85437		
SDev	.00045	.00135	.00166	.00963	.00205		
%RSD	.11192	.48435	.79964	1.4324	.23982		
#1	.39860	.27896	.20687	.66524	Q.85292		
#2	.39797	.27706	.20922	.67885	Q.85582		

09/10/04

Method: 6010B Sample Name: S4477-07 Operator: DR  
 Run Time: 09/10/04 14:41:51  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04961	-.02346	.45181	.01707	.00125	83.321	.36018
SDev	.00333	.00907	.00049	.00153	.00656	.541	.00115
%RSD	6.7208	38.674	.10919	8.9674	524.78	.64921	.32036
#1	.05197	-.01705	.45146	.01815	-.00339	82.938	.35936
#2	.04725	-.02988	.45216	.01599	.00589	83.703	.36099
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00354	.01234	53.826	.13889	.07389	.20131	159.39
SDev	.00015	.00030	.231	.00032	.00023	.00111	1.46
%RSD	4.2136	2.4486	.42846	.23364	.30656	.55266	.91835
#1	.00365	.01212	53.663	.13912	.07373	.20052	158.35
#2	.00343	.01255	53.989	.13866	.07405	.20210	160.42
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.4218	41.464	.16107	-.01056	14.746	.18869	.50515
SDev	.0215	.305	.00262	.00039	.109	.00142	.00091
%RSD	.48551	.73473	1.6264	3.6565	.74244	.75271	.17961
#1	4.4066	41.249	.15922	-.01028	14.669	.18970	.50451
#2	4.4370	41.680	.16292	-.01083	14.823	.18769	.50579
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.697	-.00264	.00584	.43504	.45798	-.00512	.02635
SDev	.085	.00722	.00524	.00990	.00568	.00205	.00127
%RSD	.43356	273.40	89.710	2.2751	1.2405	39.970	4.8318
#1	19.637	-.00774	.00213	.44204	.45396	-.00367	.02725
#2	19.758	.00246	.00954	.42804	.46199	-.00657	.02545
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00683	.09694	2.2297	-.11728	12.612		
SDev	.00167	.00022	.0132	.00381	.031		
%RSD	24.477	.23150	.59412	3.2521	.24370		
#1	-.00801	.09710	2.2203	-.11998	12.633		
#2	-.00565	.09678	2.2390	-.11459	12.590		

09/10/04

Method: 6010B Sample Name: S4477-07D Operator: DR  
 Run Time: 09/10/04 14:44:02  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05246	-.02766	.45850	.01998	.00029	83.998	.36047
SDev	.00414	.00315	.00527	.00160	.00191	.078	.00019
%RSD	7.8941	11.383	1.1497	7.9877	660.21	.09248	.05349

#1	.05539	-.02543	.46223	.02111	.00164	83.943	.36033
#2	.04953	-.02988	.45477	.01885	-.00106	84.053	.36060

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00328	.01122	54.362	.14048	.07245	.20428	162.45
SDev	.00010	.00029	.012	.00126	.00045	.00009	.19
%RSD	3.0621	2.5803	.02121	.89561	.62637	.04443	.11982

#1	.00335	.01142	54.354	.13959	.07213	.20421	162.31
#2	.00321	.01101	54.371	.14137	.07277	.20434	162.59

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.4697	41.935	.16460	-.01075	14.699	.19230	.51395
SDev	.0041	.056	.00143	.00009	.109	.00048	.00108
%RSD	.09171	.13350	.86752	.79581	.73823	.25100	.20960

#1	4.4668	41.895	.16359	-.01081	14.622	.19265	.51471
#2	4.4726	41.974	.16561	-.01068	14.775	.19196	.51318

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	19.747	-.00236	.00239	.43157	.46974	-.00312	.02971
SDev	.010	.00169	.00912	.00008	.00794	.00497	.00487
%RSD	.05311	71.659	381.02	.01923	1.6912	159.29	16.404

#1	19.740	-.00356	.00884	.43151	.47536	-.00663	.03316
#2	19.755	-.00116	-.00405	.43163	.46412	.00039	.02626

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00588	.09980	2.2538	-.12666	12.495
SDev	.00189	.00157	.0044	.01526	.034
%RSD	32.199	1.5741	.19684	12.045	.27468

#1	-.00454	.09869	2.2506	-.11587	12.519
#2	-.00722	.10091	2.2569	-.13745	12.470

09/10/04

Method: 6010B      Sample Name: S4477-07LX5      Operator: DR  
 Run Time: 09/10/04 14:45:53  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01246	-.00367	.09877	.00008	.00238	17.253	.07354
SDev	.00256	.01187	.00910	.00272	.00194	.245	.00084
%RSD	20.536	323.58	9.2163	3389.9	81.530	1.4224	1.1360
#1	.01426	.00472	.10521	-.00184	.00375	17.427	.07413
#2	.01065	-.01206	.09233	.00200	.00101	17.080	.07295
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00031	-.00138	12.211	.02940	.01436	.03702	36.593
SDev	.00020	.00123	.279	.00087	.00091	.00026	.849
%RSD	63.924	89.442	2.2853	2.9525	6.3275	.71253	2.3192
#1	.00017	-.00225	12.408	.02878	.01500	.03684	37.193
#2	.00046	-.00051	12.014	.03001	.01371	.03721	35.993
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0145	9.7016	.03590	-.00560	2.3330	.03968	.10666
SDev	.0184	.0573	.00145	.00434	.0891	.00095	.00411
%RSD	1.8180	.59047	4.0354	77.468	3.8205	2.4022	3.8553
#1	1.0276	9.7421	.03488	-.00866	2.3961	.03900	.10957
#2	1.0015	9.6611	.03693	-.00253	2.2700	.04035	.10375
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.1789	.00194	.00005	.08074	.10577	-.00404	.00044
SDev	.0420	.00291	.00001	.00321	.01204	.00255	.00294
%RSD	1.3197	149.91	11.439	3.9788	11.387	63.192	668.45
#1	3.1493	.00400	.00004	.08302	.11429	-.00585	-.00164
#2	3.2086	-.00012	.00005	.07847	.09725	-.00224	.00252
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00809	.01585	.48840	-.03021	2.7657		
SDev	.00011	.00359	.00764	.00381	.0108		
%RSD	1.3775	22.652	1.5643	12.626	.38895		
#1	-.00801	.01839	.49380	-.03291	2.7733		
#2	-.00817	.01331	.48300	-.02751	2.7581		

OK 9/10/04

Method: 6010B Sample Name: CCV

Operator: DR

Run Time: 09/10/04 14:51:27

Comment: CCV

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.2462	5.3708	5.0449	5.2321	5.1406	9.9384	10.459
SDev	.0412	.0419	.0480	.0084	.0324	.1003	.094
%RSD	.78570	.78033	.95124	.16063	.62996	1.0088	.90167
#1	5.2753	5.4004	5.0788	5.2380	5.1635	10.009	10.526
#2	5.2170	5.3411	5.0110	5.2261	5.1177	9.8675	10.392
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25695	2.5762	25.363	.99081	2.4523	1.2033	4.6368
SDev	.00328	.0363	.412	.01553	.0291	.0091	.0346
%RSD	1.2781	1.4072	1.6241	1.5674	1.1855	.75245	.74608
#1	.25928	2.6019	25.654	1.0018	2.4728	1.2097	4.6613
#2	.25463	2.5506	25.072	.97983	2.4317	1.1969	4.6124
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4579	24.581	2.5272	1.3058	26.020	2.4111	2.5478
SDev	.0335	.239	.0330	.0171	.185	.0388	.0358
%RSD	1.3632	.97137	1.3062	1.3072	.71055	1.6092	1.4037
#1	2.4816	24.750	2.5506	1.3179	26.150	2.4386	2.5731
#2	2.4342	24.412	2.5039	1.2937	25.889	2.3837	2.5225
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.835	5.2326	4.9530	4.9573	5.0866	5.1624	5.2652
SDev	.167	.0293	.0385	.0469	.0485	.0135	.0059
%RSD	.64795	.56064	.77705	.94692	.95372	.26104	.11151
#1	25.954	5.2533	4.9802	4.9905	5.1209	5.1720	5.2694
#2	25.717	5.2119	4.9258	4.9242	5.0523	5.1529	5.2611
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	5.2544	5.1867	4.8316	4.8803	Q5.9612		
SDev	.0648	.0403	.0573	.0633	.0466		
%RSD	1.2327	.77732	1.1859	1.2972	.78151		
#1	5.3002	5.2152	4.8722	4.9250	Q5.9942		
#2	5.2086	5.1582	4.7911	4.8355	Q5.9283		

OK 9/10/04

Method: 6010B Sample Name: CCB

Operator: DR

Run Time: 09/10/04 14:53:28

Comment: CCB

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00260	.00469	.00276	-.00117	.00163	.06928	-.00092
SDev	.00553	.00674	.00447	.00037	.00374	.00304	.00053
%RSD	212.41	143.48	161.95	31.366	229.63	4.3856	57.311
#1	.00651	.00946	Q.00592	-.00091	.00427	.06713	-.00055
#2	-.00131	-.00007	-.00040	-.00143	-.00101	.07143	-.00129
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00345	-.00159	.00465	.00080	.00098	-.00203	.02407
SDev	.00000	.00036	.00000	.00046	.00271	.00017	.00001
%RSD	.03479	22.571	.00000	57.398	277.26	8.3261	.02328
#1	.00345	-.00134	.00465	.00113	.00290	-.00215	.02407
#2	.00345	-.00184	.00465	.00048	-.00094	-.00191	.02406
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00010	.00107	-.00050	-.00078	-.50893	-.00021	-.00352
SDev	.00030	.00000	.00316	.00012	.09197	.00055	.00108
%RSD	286.93	.00000	630.82	14.879	18.071	255.57	30.627
#1	.00011	.00107	-.00273	-.00086	-.44390	-.00060	-.00276
#2	-.00032	.00107	.00173	-.00070	-.57396	.00017	-.00428
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01401	.00394	-.00620	.00169	.00129	-.00263	-.00224
SDev	.00100	.00278	.00565	.00465	.00438	.00254	.00072
%RSD	7.1357	70.705	91.027	274.82	338.66	96.723	32.055
#1	-.01471	.00590	-.00221	.00498	.00439	-.00083	-.00275
#2	-.01330	.00197	-.01019	-.00160	-.00180	-.00443	-.00173
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00941	-.00027	-.00032	.00080	.03058		
SDev	.01021	.00833	.00034	.00315	.00000		
%RSD	108.48	3137.0	104.84	393.70	.00000		
#1	.01663	.00563	-.00008	-.00143	.03058		
#2	.00219	-.00616	-.00057	.00302	.03058		

09/10/04

Method: 6010B Sample Name: S4777-07S Operator: DR  
 Run Time: 09/10/04 14:55:27  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.79701	1.8806	1.4965	1.7815	.32054	88.799	2.5181
SDev	.00782	.0118	.0075	.0032	.00336	.010	.0013
%RSD	.98072	.62973	.50264	.17993	1.0484	.01149	.05157
#1	.79149	1.8722	1.4911	1.7793	.31817	88.792	2.5172
#2	.80254	1.8889	1.5018	1.7838	.32292	88.806	2.5191
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.17943	.20066	69.157	.52304	.26051	.52156	155.97
SDev	.00025	.00060	.385	.00253	.00227	.00055	.02
%RSD	.13783	.29877	.55691	.48333	.87155	.10579	.01500
#1	.17926	.20024	68.884	.52125	.25890	.52195	155.99
#2	.17961	.20109	69.429	.52483	.26211	.52117	155.96
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.3606	46.347	.64758	.09239	17.618	.47881	.72601
SDev	.0087	.081	.00014	.00033	.009	.00296	.00458
%RSD	.20014	.17416	.02203	.35677	.04949	.61825	.63056
#1	4.3544	46.290	.64768	.09215	17.624	.47671	.72277
#2	4.3668	46.404	.64748	.09262	17.612	.48090	.72924
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	30.319	.31675	.32494	1.4731	1.5059	1.7675	1.7868
SDev	.096	.00666	.00325	.0026	.0100	.0112	.0008
%RSD	.31791	2.1028	1.0002	.17700	.66240	.63448	.04437
#1	30.387	.31204	.32724	1.4713	1.4989	1.7595	1.7873
#2	30.251	.32146	.32264	1.4750	1.5130	1.7754	1.7862
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.38828	.34688	2.0382	.50984	8.7748		
SDev	.00256	.00045	.0008	.00835	.0487		
%RSD	.66013	.12939	.03931	1.6387	.55457		
#1	.38646	.34720	2.0377	.51575	8.7403		
#2	.39009	.34656	2.0388	.50393	8.8092		

ca 9/10/04

Method: 6010B Sample Name: S4777-07SD Operator: DR  
 Run Time: 09/10/04 14:57:20  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.80953	1.9069	1.4994	1.7892	.31823	89.180	2.5339
SDev	.01085	.0178	.0029	.0058	.00967	.285	.0101
%RSD	1.3407	.93381	.19240	.32153	3.0382	.31915	.39688
#1	.80185	1.8943	1.5015	1.7933	.32506	88.979	2.5268
#2	.81720	1.9195	1.4974	1.7852	.31139	89.381	2.5410
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.18051	.20248	69.636	.52434	.26275	.52160	155.76
SDev	.00076	.00048	.367	.00321	.00227	.00082	.58
%RSD	.42300	.23688	.52658	.61277	.86402	.15747	.36989
#1	.17997	.20214	69.377	.52206	.26436	.52102	155.35
#2	.18105	.20282	69.895	.52661	.26115	.52218	156.17
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.3768	46.543	.65371	.09171	17.777	.47880	.72780
SDev	.0164	.168	.00080	.00140	.039	.00096	.00494
%RSD	.37442	.36085	.12223	1.5260	.21799	.19980	.67887
#1	4.3652	46.425	.65428	.09072	17.805	.47948	.72431
#2	4.3884	46.662	.65315	.09270	17.750	.47812	.73129
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	30.408	.31522	.32105	1.4651	1.5143	1.7718	1.7962
SDev	.078	.01260	.00379	.0018	.0033	.0263	.0045
%RSD	.25786	3.9984	1.1801	.11947	.21858	1.4848	.25103
#1	30.352	.32413	.32373	1.4663	1.5167	1.7904	1.7930
#2	30.463	.30631	.31837	1.4638	1.5120	1.7532	1.7994
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.39096	.35228	2.0440	.50868	8.9432		
SDev	.00412	.00045	.0097	.00563	.0522		
%RSD	1.0547	.12741	.47326	1.1069	.58423		
#1	.38804	.35259	2.0371	.50470	8.9062		
#2	.39387	.35196	2.0508	.51266	8.9801		

09/10/04



Method: 6010B Sample Name: S4777-07A

Operator: DR

Run Time: 09/10/04 14:59:11

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.80795	1.9239	1.4983	1.7895	.31905	89.426	2.5473
SDev	.01371	.0259	.0021	.0105	.00111	.221	.0032
%RSD	1.6972	1.3437	.13906	.58712	.34665	.24683	.12749
#1	.79825	1.9057	1.4968	1.7970	.31983	89.270	2.5450
#2	.81765	1.9422	1.4997	1.7821	.31827	89.583	2.5496
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.18137	.20324	69.892	.52693	.26323	.52092	155.49
SDev	.00005	.00069	.065	.00155	.00023	.00046	.16
%RSD	.02859	.33821	.09239	.29411	.08585	.08887	.10515
#1	.18133	.20373	69.846	.52583	.26339	.52059	155.60
#2	.18141	.20275	69.938	.52802	.26307	.52124	155.37
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.3899	46.646	.65564	.09345	17.897	.47914	.72672
SDev	.0003	.026	.00522	.00050	.178	.00050	.00106
%RSD	.00637	.05582	.79663	.53597	.99610	.10362	.14540
#1	4.3901	46.627	.65933	.09310	17.771	.47949	.72597
#2	4.3897	46.664	.65195	.09381	18.023	.47879	.72747
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	30.568	.31566	.32263	1.4728	1.5087	1.7649	1.8000
SDev	.113	.00294	.00258	.0028	.0044	.0100	.0107
%RSD	.36923	.93280	.79860	.19262	.29155	.56931	.59642
#1	30.488	.31774	.32081	1.4748	1.5056	1.7720	1.8076
#2	30.648	.31358	.32445	1.4708	1.5118	1.7578	1.7924
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.39844	.35894	2.0466	.51022	9.0602		
SDev	.00290	.00224	.0012	.00345	.0128		
%RSD	.72720	.62523	.05719	.67636	.14134		
#1	.40049	.36053	2.0458	.51266	9.0511		
#2	.39639	.35735	2.0474	.50778	9.0692		

OK 9/10/04

Method: 6010B Sample Name: S4480-02

Operator: DR

Run Time: 09/10/04 15:01:09

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00199	.00475	.04727	.00863	.00126	26.405	.27276
SDev	.00271	.00070	.00110	.00397	.00016	.012	.00019
%RSD	136.15	14.801	2.3279	45.974	13.067	.04675	.07084
#1	.00391	.00425	.04805	.01144	.00138	26.414	.27290
#2	.00007	.00525	.04649	.00583	.00115	26.396	.27263
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00144	-.00038	74.352	.04051	.01901	.04997	36.807
SDev	.00000	.00131	.394	.00028	.00113	.00030	.156
%RSD	.07445	343.91	.53040	.68207	5.9690	.61087	.42307
#1	.00144	-.00131	74.631	.04070	.01981	.04975	36.918
#2	.00144	.00055	74.073	.04031	.01821	.05018	36.697
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50788	47.338	.04734	-.00435	.69911	.05190	.28591
SDev	.00314	.044	.00229	.00108	.04360	.00049	.00098
%RSD	.61881	.09351	4.8328	24.831	6.2362	.93643	.34306
#1	.51010	47.369	.04896	-.00511	.72994	.05156	.28660
#2	.50566	47.307	.04572	-.00359	.66829	.05225	.28522
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.7569	-.00195	.00450	.04297	.04741	.00011	.01109
SDev	.0355	.00001	.00051	.00460	.00394	.00436	.00813
%RSD	1.2862	.45250	11.410	10.694	8.3177	4064.2	73.284
#1	2.7318	-.00196	.00486	.03972	.05020	-.00298	.01684
#2	2.7820	-.00195	.00413	.04622	.04463	.00319	.00534
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00841	.00681	.47716	-.03239	6.3244		
SDev	.00078	.00337	.00136	.00363	.0307		
%RSD	9.2808	49.456	.28408	11.214	.48595		
#1	-.00785	.00919	.47812	-.02982	6.3462		
#2	-.00896	.00443	.47620	-.03496	6.3027		

ok 9/10/04

Method: 6010B Sample Name: S4480-03 Operator: DR  
 Run Time: 09/10/04 15:03:04  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01138	-.00751	.05800	.00353	.00497	50.670	.34312
SDev	.00032	.00489	.00259	.00003	.00073	.107	.00032
%RSD	2.7918	65.144	4.4600	.95349	14.770	.21206	.09406
#1	.01161	-.00405	.05983	.00356	.00445	50.594	.34289
#2	.01116	-.01097	.05617	.00351	.00549	50.746	.34334
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00205	.00723	448.02	.07089	.04822	.11248	79.869
SDev	.00010	.00060	1.22	.00043	.00113	.00023	.187
%RSD	4.8410	8.3085	.27334	.60198	2.3541	.20084	.23397
#1	.00212	.00766	447.16	.07119	.04902	.11264	79.737
#2	.00198	.00681	448.89	.07058	.04742	.11232	80.001
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.7911	161.99	.10338	-.00912	1.8617	.09793	.31270
SDev	.0048	.32	.00058	.00187	.2984	.00098	.00097
%RSD	.17128	.19450	.55764	20.511	16.029	.99950	.30975
#1	2.7877	161.77	.10379	-.00780	2.0727	.09862	.31202
#2	2.7945	162.21	.10297	-.01044	1.6507	.09724	.31339
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	14.026	.00126	.00920	.04400	.06299	-.00403	.00561
SDev	.035	.00123	.00026	.00540	.00118	.00283	.00150
%RSD	.25281	97.548	2.8649	12.275	1.8763	70.104	26.752
#1	14.051	.00039	.00939	.04782	.06382	-.00203	.00455
#2	14.001	.00214	.00902	.04018	.06215	-.00603	.00667
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00896	.02823	1.1339	-.07991	10.457		
SDev	.00178	.00359	.0031	.00654	.014		
%RSD	19.907	12.720	.27713	8.1823	.13716		
#1	-.01022	.03077	1.1316	-.07529	10.447		
#2	-.00770	.02569	1.1361	-.08454	10.467		

OK 9/10/04

Method: 6010B Sample Name: S4480-07 Operator: DR  
 Run Time: 09/10/04 15:05:08  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02393	-.00522	.04439	.00057	.00016	34.596	.19438
SDev	.00255	.02379	.00231	.00145	.00231	.099	.00084
%RSD	10.648	455.92	5.2011	256.31	1444.5	.28542	.43229

#1	.02213	-.02204	.04602	-.00046	-.00148	34.666	.19497
#2	.02573	.01160	.04276	.00159	.00180	34.526	.19378

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00119	.00384	H899.55	.04645	.02607	.11145	53.670
SDev	.00000	.00062	5.46	.00043	.00023	.00037	.366
%RSD	.08842	16.037	.60685	.93034	.87305	.33400	.68182

#1	.00119	.00427	H903.41	.04615	.02591	.11119	53.929
#2	.00119	.00340	H895.69	.04676	.02623	.11172	53.411

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.6159	151.66	.08072	-.01018	2.1816	.06513	.21294
SDev	.0165	.48	.00271	.00030	.2025	.00048	.00167
%RSD	.63135	.31676	3.3613	2.9777	9.2816	.73530	.78338

#1	2.6276	152.00	.08264	-.01040	2.3248	.06479	.21176
#2	2.6042	151.32	.07880	-.00997	2.0384	.06547	.21412

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.043	-.00106	-.00059	.03190	.04863	-.01213	.00510
SDev	.025	.00188	.00318	.00728	.00710	.00176	.00130
%RSD	.19528	176.75	535.67	22.838	14.597	14.486	25.442

#1	13.061	-.00239	-.00285	.02675	.05365	-.01337	.00419
#2	13.025	.00027	.00166	.03705	.04361	-.01088	.00602

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00911	.03601	.45311	-.05474	7.0488
SDev	.00045	.00112	.00136	.00182	.0020
%RSD	4.8907	3.1165	.29915	3.3180	.02907

#1	-.00880	.03680	.45407	-.05346	7.0503
#2	-.00943	.03521	.45215	-.05602	7.0474

*DR 9/10/04*

Method: 6010B

Sample Name: S4480-11

Operator: DR

Run Time: 09/10/04 15:07:48

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00042	-.00835	.02335	.00249	.00341	10.860	.05784
SDev	.00367	.01188	.00006	.00124	.00287	.004	.00006
%RSD	869.51	142.40	.23845	50.010	84.163	.03338	.11183
#1	.00301	-.01675	.02339	.00161	.00543	10.863	.05788
#2	-.00217	.00006	.02331	.00337	.00138	10.858	.05779
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00070	-.00264	260.98	.01801	.01179	.06276	18.866
SDev	.00000	.00034	.95	.00000	.00000	.00023	.023
%RSD	.15487	12.875	.36584	.00335	.00364	.37448	.12384
#1	.00070	-.00240	261.66	.01801	.01179	.06260	18.883
#2	.00070	-.00288	260.30	.01801	.01179	.06293	18.850
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.1341	97.670	.02532	-.00381	1.4678	.02815	.18826
SDev	.0019	.197	.00215	.00024	.0455	.00049	.00027
%RSD	.16845	.20128	8.4796	6.2820	3.1024	1.7473	.14200
#1	1.1354	97.809	.02684	-.00364	1.5000	.02780	.18807
#2	1.1327	97.531	.02380	-.00398	1.4356	.02850	.18845
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.9018	.00419	-.00136	.02323	.02142	-.00315	.00360
SDev	.0065	.00232	.00395	.00112	.00064	.00425	.00040
%RSD	.16640	55.561	291.44	4.8265	3.0030	134.83	11.064
#1	3.9064	.00583	.00144	.02243	.02187	-.00616	.00389
#2	3.8972	.00254	-.00415	.02402	.02096	-.00015	.00332
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00967	.00792	.36053	-.02931	4.7039		
SDev	.00145	.00045	.00006	.00400	.0451		
%RSD	14.988	5.6690	.01709	13.633	.95829		
#1	-.00864	.00823	.36048	-.03214	4.7358		
#2	-.01069	.00760	.36057	-.02648	4.6720		

OK 9/10/04

Method: 6010B Sample Name: S4482-02

Operator: DR

Run Time: 09/10/04 15:09:45

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03560	-.00070	.05074	-.00122	-.00095	30.488	.14234
SDev	.00495	.00688	.00297	.00471	.00168	.235	.00071
%RSD	13.898	985.38	5.8522	386.78	176.70	.76927	.49751

#1	.03210	-.00556	.04864	.00211	-.00214	30.322	.14184
#2	.03910	.00417	.05284	-.00455	.00024	30.654	.14284

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00130	.00467	H778.49	.04028	.02494	.10559	60.921
SDev	.00010	.00066	10.61	.00016	.00091	.00004	.592
%RSD	7.8391	14.230	1.3627	.39272	3.6367	.03414	.97128

#1	.00137	.00420	H770.99	.04039	.02430	.10556	60.502
#2	.00122	.00514	H785.99	.04017	.02558	.10561	61.339

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.7093	120.00	.08832	-.00983	2.5420	.05043	.16988
SDev	.0452	1.21	.00536	.00010	.2161	.00002	.00176
%RSD	1.2175	1.0101	6.0662	1.0308	8.4994	.04636	1.0380

#1	3.6774	119.15	.08453	-.00976	2.6948	.05041	.16863
#2	3.7413	120.86	.09211	-.00990	2.3892	.05044	.17113

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	11.104	-.00557	.00510	.04191	.05315	-.01415	.00344
SDev	.005	.00183	.00138	.00294	.00592	.00648	.00383
%RSD	.04948	32.899	26.998	7.0119	11.137	45.774	111.15

#1	11.100	-.00686	.00412	.04399	.04896	-.00957	.00615
#2	11.108	-.00427	.00607	.03983	.05733	-.01873	.00074

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.00050	.03061	.31212	-.08055	7.7877
SDev	.00111	.00157	.00345	.00054	.0799
%RSD	223.27	5.1321	1.1054	.67642	1.0261

#1	.00129	.02950	.30968	-.08094	7.7312
#2	-.00029	.03172	.31456	-.08017	7.8442

DR 9/10/04

Method: 6010B Sample Name: S4482-05 Operator: DR  
 Run Time: 09/10/04 15:11:45  
 Comment:  
 mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00548	-.00775	.04324	.00746	.00237	30.425	.13394
SDev	.00302	.00064	.00102	.00296	.00186	.212	.00084
%RSD	55.177	8.2474	2.3482	39.637	78.485	.69689	.62676
#1	.00334	-.00729	.04252	.00955	.00105	30.575	.13453
#2	.00762	-.00820	.04396	.00537	.00368	30.275	.13335
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00144	.00326	H863.83	.04288	.02302	.11612	47.042
SDev	.00026	.00053	12.80	.00041	.00046	.00066	.444
%RSD	17.727	16.166	1.4822	.95101	1.9748	.56567	.94336
#1	.00126	.00289	H872.89	.04317	.02270	.11659	47.355
#2	.00163	.00363	H854.78	.04259	.02334	.11566	46.728
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0337	117.49	.08171	-.00921	2.4406	.06451	.25474
SDev	.0273	1.13	.00235	.00062	.1095	.00100	.00390
%RSD	1.3420	.96183	2.8805	6.7105	4.4858	1.5563	1.5327
#1	2.0530	118.29	.08338	-.00965	2.3632	.06522	.25750
#2	2.0144	116.69	.08005	-.00878	2.5180	.06380	.25198
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	10.336	.00049	.00293	.03061	.04754	.00384	.00747
SDev	.001	.00266	.00025	.00136	.00084	.00447	.00667
%RSD	.00966	544.17	8.6099	4.4599	1.7681	116.52	89.217
#1	10.336	-.00139	.00275	.02965	.04695	.00068	.01219
#2	10.337	.00237	.00311	.03158	.04814	.00700	.00276
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00738	.03474	.28877	-.02135	4.8810		
SDev	.00089	.00112	.00222	.00109	.0231		
%RSD	12.079	3.2304	.76812	5.1049	.47226		
#1	-.00801	.03553	.29034	-.02058	4.8973		
#2	-.00675	.03394	.28720	-.02212	4.8647		

049/10/04

Method: 6010B Sample Name: S4482-10

Operator: DR

Run Time: 09/10/04 15:13:44

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01048	-.01278	.04863	.00278	.00162	45.796	.65371
SDev	.00334	.00630	.00332	.00055	.00596	.256	.00318
%RSD	31.919	49.293	6.8184	19.817	367.07	.55969	.48604
#1	.01285	-.00832	.04628	.00239	.00584	45.614	.65146
#2	.00812	-.01723	.05097	.00317	-.00259	45.977	.65596
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00182	.00465	494.16	.06673	.04292	.08644	69.514
SDev	.00005	.00036	1.44	.00057	.00045	.00042	.366
%RSD	2.8527	7.8444	.29121	.85844	1.0563	.48098	.52640
#1	.00186	.00440	493.14	.06713	.04324	.08615	69.255
#2	.00178	.00491	495.18	.06632	.04260	.08674	69.773
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.5714	144.53	.09053	-.00912	1.5102	.09019	.26784
SDev	.0094	.63	.00344	.00064	.0707	.00051	.00143
%RSD	.36650	.43510	3.8042	7.0623	4.6831	.56141	.53282
#1	2.5648	144.08	.09296	-.00867	1.5603	.08984	.26683
#2	2.5781	144.97	.08809	-.00958	1.4602	.09055	.26884
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.5692	-.00040	.00247	.03927	.05130	-.00798	.00635
SDev	.0400	.00684	.00421	.00420	.00287	.00321	.00077
%RSD	.52785	1727.9	170.50	10.692	5.6041	40.169	12.205
#1	7.5409	.00444	.00545	.03630	.04927	-.01025	.00690
#2	7.5974	-.00523	-.00051	.04223	.05334	-.00572	.00580
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.01085	.01411	.96451	-.06437	7.6153		
SDev	.00111	.00292	.00382	.00309	.0430		
%RSD	10.273	20.682	.39606	4.7966	.56501		
#1	-.01006	.01204	.96180	-.06219	7.5849		
#2	-.01164	.01617	.96721	-.06655	7.6458		

029/10/04



Method: 6010B Sample Name: CCV  
 Run Time: 09/10/04 15:15:49  
 Comment: CCV  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.2422	5.3118	5.1265	5.4795	5.1824	10.303	10.394
SDev	.0300	.0041	.0687	.0330	.0458	.189	.057
%RSD	.57233	.07722	1.3399	.60249	.88378	1.8300	.55151

#1	5.2634	5.3089	5.1751	Q5.5029	5.2148	10.436	10.434
#2	5.2210	5.3147	5.0780	5.4562	5.1500	10.169	10.353

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25594	2.5534	26.072	.99678	2.5128	1.2497	4.9691
SDev	.00343	.0343	.662	.01614	.0368	.0031	.1163
%RSD	1.3393	1.3417	2.5387	1.6192	1.4634	.24828	2.3404

#1	.25837	2.5776	26.540	1.0082	2.5388	1.2519	5.0514
#2	.25352	2.5291	25.604	.98536	2.4868	1.2475	4.8869

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4960	25.703	2.5544	1.3034	25.900	2.4768	2.5720
SDev	.0379	.256	.0359	.0228	.094	.0340	.0400
%RSD	1.5191	.99788	1.4041	1.7474	.36285	1.3741	1.5552

#1	2.5228	25.884	2.5798	1.3195	25.834	2.5009	2.6003
#2	2.4692	25.521	2.5290	1.2873	25.967	2.4527	2.5437

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.334	5.2229	5.0981	5.1005	5.1375	5.4523	5.4915
SDev	.043	.0444	.0485	.0301	.0880	.0112	.0439
%RSD	.16499	.85097	.95168	.59003	1.7121	.20561	.79938

#1	26.365	5.2544	5.1324	5.1217	5.1997	5.4602	5.5226
#2	26.303	5.1915	5.0638	5.0792	5.0753	5.4444	5.4605

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	5.1591	5.2000	4.9776	5.0459	5.4725
SDev	.0417	.0503	.0555	.0667	.0533
%RSD	.80787	.96675	1.1153	1.3210	.97346

#1	5.1886	5.2355	5.0168	5.0930	Q5.5102
#2	5.1296	5.1644	4.9383	4.9987	5.4348

04 9/10/04

Method: 6010B Sample Name: CCB

Operator: DR

Run Time: 09/10/04 15:18:03

Comment: CCB

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00810	-.00507	-.00217	-.00288	.00185	-.01970	-.00243
SDev	.00048	.00105	.00311	.00151	.00134	.46109	.00130
%RSD	5.9291	20.658	143.54	52.298	72.253	2340.6	53.491

#1	.00844	-.00433	.00003	-.00182	.00090	Q.30634	-.00151
#2	.00776	-.00581	-.00437	-.00395	.00279	Q-.34574	-.00335

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00044	-.00212	.15312	.00379	-.00153	-.00492	.01086
SDev	.00005	.00000	.05304	.00126	.00068	.00024	.01558
%RSD	11.364	.14673	34.641	33.375	44.529	4.7806	143.43

#1	.00047	-.00212	.19063	.00468	-.00201	-.00475	-.00015
#2	.00040	-.00212	.11561	.00289	-.00105	-.00508	.02188

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00007	.05643	-.00083	-.00091	-.46484	.00019	-.00820
SDev	.00055	.02474	.00100	.00034	.08526	.00049	.00077
%RSD	813.65	43.837	121.23	36.944	18.342	261.21	9.3743

#1	.00045	.07392	-.00154	-.00067	-.52512	.00054	-.00765
#2	-.00032	.03894	-.00012	-.00115	-.40455	-.00016	-.00874

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00206	.00123	-.00012	-.01093	.00021	.00371	-.00787
SDev	.00300	.00016	.00369	.00396	.00269	.00165	.00130
%RSD	145.81	12.898	3080.7	36.221	1285.9	44.560	16.452

#1	.00417	.00112	-.00273	-.00813	.00211	.00488	-.00696
#2	-.00006	.00135	.00249	-.01374	-.00169	.00254	-.00879

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00714	-.00287	-.00008	-.00606	.00644
SDev	.00368	.00314	.00074	.00890	.00564
%RSD	51.474	109.34	913.42	146.75	87.497

#1	-.00454	-.00065	.00044	.00023	.01042
#2	-.00974	-.00510	-.00060	-.01236	.00246

OK 9/10/04

Method: 6010B

Sample Name: S4482-11

Operator: DR

Run Time: 09/10/04 15:23:55

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.01748	-.02155	.07480	.00354	-.00048	96.580	1.1448
SDev	.00111	.00176	.00296	.00264	.00233	.269	.0017
%RSD	6.3599	8.1576	3.9525	74.688	482.63	.27876	.14712
#1	.01669	-.02279	.07271	.00541	.00116	96.389	1.1437
#2	.01827	-.02031	.07689	.00167	-.00213	96.770	1.1460
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.00396	.00816	162.95	.10623	.04902	.11432	86.310
SDev	.00019	.00170	1.05	.00464	.00318	.00290	.358
%RSD	4.6906	20.834	.64396	4.3711	6.4838	2.5338	.41510
#1	.00409	.00936	162.21	.10952	.05126	.11636	86.056
#2	.00383	.00696	163.69	.10295	.04677	.11227	86.563
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	2.5284	70.423	.12264	.00187	1.4774	.14494	.42253
SDev	.0093	.060	.00208	.01650	.8768	.00788	.00527
%RSD	.36736	.08504	1.6988	882.33	59.350	5.4354	1.2468
#1	2.5218	70.381	.12411	.01354	2.0974	.15052	.41881
#2	2.5350	70.465	.12117	-.00980	.85737	.13937	.42626
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	6.0365	-.00402	.00339	.04463	.08787	-.01372	.01036
SDev	.0649	.00651	.00606	.00005	.00441	.00116	.00338
%RSD	1.0755	162.17	178.48	.10607	5.0178	8.4788	32.652
#1	6.0824	.00059	-.00089	.04460	.08475	-.01290	.01275
#2	5.9906	-.00862	.00768	.04466	.09098	-.01454	.00797
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avgc	-.00588	.00395	.84631	-.05384	5.9169		
SDev	.00123	.00067	.00339	.00345	.0231		
%RSD	20.835	17.044	.40042	6.4095	.38956		
#1	-.00675	.00443	.84391	-.05140	5.9006		
#2	-.00502	.00347	.84870	-.05628	5.9332		

09/10/04

Method: 6010B Sample Name: S4482-14

Operator: DR

Run Time: 09/10/04 15:26:02

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02062	-.02293	.08404	.01094	-.00206	109.22	1.1304
SDev	.00096	.00697	.00189	.00124	.00056	.05	.0025
%RSD	4.6337	30.408	2.2495	11.306	26.962	.04184	.22396
#1	.01994	-.01800	.08270	.01181	-.00246	109.19	1.1322
#2	.02129	-.02786	.08538	.01006	-.00167	109.26	1.1286
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00436	.01094	22.354	.12755	.05848	.15208	136.93
SDev	.00010	.00009	.201	.00070	.00204	.00095	.02
%RSD	2.3287	.82998	.89756	.55014	3.4932	.62332	.01137
#1	.00443	.01101	22.496	.12805	.05993	.15275	136.94
#2	.00429	.01088	22.212	.12706	.05704	.15141	136.91
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.8971	28.987	.15408	-.01138	.52853	.15885	.73878
SDev	.0040	.022	.00215	.00115	.09882	.00000	.00075
%RSD	.10149	.07635	1.3938	10.136	18.698	.00120	.10143
#1	3.8999	29.003	.15560	-.01057	.59841	.15886	.73931
#2	3.8943	28.972	.15256	-.01220	.45865	.15885	.73825
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.6146	-.00652	.00366	.04969	.09909	-.00809	.01864
SDev	.0185	.00294	.00757	.00454	.00524	.00449	.00039
%RSD	.27935	45.153	206.85	9.1286	5.2883	55.493	2.0706
#1	6.6277	-.00444	-.00169	.05290	.09539	-.00491	.01837
#2	6.6016	-.00860	.00901	.04648	.10280	-.01126	.01891
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00186	.00570	.92011	-.05679	9.1522		
SDev	.00067	.00224	.00092	.00727	.0302		
%RSD	35.854	39.401	.10045	12.792	.33021		
#1	-.00234	.00411	.92076	-.05166	9.1735		
#2	-.00139	.00728	.91946	-.06193	9.1308		

OK 9/10/04

Method: 6010B Sample Name: S4482-16

Operator: DR

Run Time: 09/10/04 15:27:58

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02846	-.00002	.06368	.00504	.00311	52.193	.33220
SDev	.00494	.00664	.00183	.00588	.00174	.067	.00020
%RSD	17.371	37367.	2.8789	116.56	56.159	.12755	.05946
#1	.02497	.00467	.06498	.00920	.00187	52.146	.33234
#2	.03196	-.00471	.06239	.00089	.00434	52.241	.33206
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00192	.00982	H876.63	.05805	.04131	.14733	87.731
SDev	.00010	.00044	1.01	.00085	.00000	.00049	.280
%RSD	5.4053	4.5293	.11523	1.4658	.00021	.33238	.31950
#1	.00184	.00951	H875.92	.05865	.04131	.14699	87.533
#2	.00199	.01014	H877.35	.05744	.04131	.14768	87.929
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.1669	83.303	.12307	-.01512	2.8140	.06129	.37920
SDev	.0040	.092	.00044	.00035	.0853	.00098	.00198
%RSD	.12523	.11097	.35360	2.3408	3.0299	1.5922	.52102
#1	3.1641	83.369	.12337	-.01537	2.8742	.06198	.37780
#2	3.1697	83.238	.12276	-.01487	2.7537	.06060	.38060
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.076	.00048	.00516	.03991	.07355	-.00230	.00691
SDev	.029	.00030	.00464	.00232	.00159	.00483	.00640
%RSD	.19214	62.272	89.886	5.8047	2.1645	210.19	92.686
#1	15.055	.00027	.00188	.04155	.07468	.00112	.01144
#2	15.096	.00069	.00844	.03827	.07243	-.00571	.00238
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00200	.05632	.20355	-.11279	7.8928		
SDev	.00100	.00157	.00012	.00363	.0297		
%RSD	50.240	2.7894	.06054	3.2206	.37641		
#1	.00271	.05521	.20364	-.11022	7.8718		
#2	.00129	.05743	.20347	-.11536	7.9138		

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Method: 6010B      Sample Name: S4482-18      Operator: DR  
 Run Time: 09/10/04 15:29:59  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03341	-.01425	.08819	.00398	.00294	60.074	.51738
SDev	.00001	.00275	.00047	.00051	.00363	.287	.00129
%RSD	.04114	19.323	.53027	12.740	123.63	.47808	.24850

#1	.03340	-.01619	.08852	.00434	.00550	59.871	.51647
#2	.03342	-.01230	.08786	.00362	.00037	60.277	.51829

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00217	.00521	523.86	.06271	.04292	.15973	74.243
SDev	.00015	.00100	8.07	.00066	.00045	.00126	1.261
%RSD	7.1226	19.248	1.5400	1.0590	1.0578	.78767	1.6988

#1	.00228	.00592	518.15	.06224	.04260	.15884	73.351
#2	.00206	.00450	529.56	.06318	.04324	.16062	75.135

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.8088	189.42	.09722	-.01101	2.1789	.09351	.37488
SDev	.0343	1.84	.00026	.00044	.1269	.00104	.00679
%RSD	1.2204	.97049	.26862	3.9519	5.8250	1.1092	1.8099

#1	2.7846	188.12	.09703	-.01132	2.0891	.09278	.37008
#2	2.8331	190.72	.09740	-.01071	2.2686	.09424	.37967

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.924	.00201	.00158	.06746	.09654	-.01389	.01111
SDev	.082	.00596	.00104	.00507	.00183	.01080	.00463
%RSD	.63372	295.76	65.828	7.5095	1.8937	77.753	41.713

#1	12.982	.00623	.00084	.07104	.09524	-.00626	.00783
#2	12.866	-.00220	.00231	.06388	.09783	-.02153	.01438

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00076	.02442	.89654	-.08312	14.963
SDev	.00134	.00179	.00850	.00527	.028
%RSD	175.57	7.3517	.94839	6.3367	.18486

#1	-.00171	.02315	.89053	-.08685	14.983
#2	.00018	.02569	.90255	-.07940	14.944

*OK 9/10/04*

Analysis Report

09/10/04 03:34:04 PM

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Method: 6010B      Sample Name: S4482-22      Operator: DR  
 Run Time: 09/10/04 15:32:09  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02035	-.00334	.04772	-.00198	.00273	35.940	.27539
SDev	.00527	.00493	.00072	.00123	.00069	.141	.00084
%RSD	25.887	147.83	1.5126	61.987	25.307	.39265	.30452
#1	.02407	-.00683	.04721	-.00284	.00322	36.040	.27598
#2	.01662	.00015	.04823	-.00111	.00224	35.840	.27480
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00142	.01305	H943.79	.04295	.03281	.11973	68.044
SDev	.00010	.00115	10.73	.00026	.00068	.00044	.529
%RSD	7.2239	8.7843	1.1367	.61678	2.0748	.36809	.77804
#1	.00135	.01386	H951.38	.04313	.03329	.11942	68.419
#2	.00149	.01224	H936.21	.04276	.03233	.12004	67.670
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3907	140.53	.09972	-.01335	2.5721	.05873	1.3127
SDev	.0221	.85	.00221	.00046	.0610	.00051	.0123
%RSD	.92497	.60588	2.2150	3.4635	2.3730	.87589	.94072
#1	2.4064	141.13	.10128	-.01367	2.5290	.05910	1.3214
#2	2.3751	139.93	.09816	-.01302	2.6153	.05837	1.3040
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.272	-.00144	.00788	.02510	.05701	-.00741	-.00086
SDev	.038	.00168	.00129	.00383	.00083	.00427	.00397
%RSD	.30929	116.66	16.329	15.283	1.4606	57.675	459.44
#1	12.245	-.00025	.00697	.02238	.05760	-.00439	-.00367
#2	12.299	-.00263	.00879	.02781	.05642	-.01043	.00194
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00515	.04093	.33330	-.10303	6.4570		
SDev	.00390	.00045	.00136	.00291	.0154		
%RSD	75.761	1.0967	.40669	2.8206	.23799		
#1	.00791	.04124	.33426	-.10508	6.4679		
#2	.00239	.04061	.33234	-.10097	6.4461		

09/10/04

Method: 6010B Sample Name: S4482-25

Operator: DR

Run Time: 09/10/04 15:34:18

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01362	-.01049	.02895	.00246	.00443	20.834	.17807
SDev	.00701	.00141	.00187	.00130	.00043	.160	.00097
%RSD	51.488	13.465	6.4703	52.690	9.6369	.76792	.54540
#1	.01858	-.00950	.02763	.00338	.00473	20.721	.17739
#2	.00866	-.01149	.03028	.00155	.00412	20.947	.17876
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00110	.00104	440.53	.02779	.01949	.08101	40.568
SDev	.00010	.00042	2.53	.00015	.00045	.00041	.257
%RSD	9.2006	40.403	.57324	.53316	2.3300	.50513	.63332
#1	.00118	.00074	438.75	.02789	.01981	.08072	40.386
#2	.00103	.00133	442.32	.02768	.01917	.08130	40.749
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.7048	117.03	.05612	-.00627	1.3486	.03983	.20009
SDev	.0098	.74	.00021	.00023	.0165	.00001	.00145
%RSD	.57655	.63077	.37353	3.5940	1.2213	.02512	.72336
#1	1.6979	116.51	.05598	-.00643	1.3369	.03983	.19907
#2	1.7118	117.55	.05627	-.00611	1.3602	.03984	.20112
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.9327	.00328	.00351	.02444	.02921	-.00184	.00291
SDev	.0400	.00017	.00095	.00008	.00277	.00037	.00199
%RSD	.67344	5.0994	26.908	.31621	9.4842	19.869	68.212
#1	5.9045	.00340	.00418	.02438	.02725	-.00210	.00432
#2	5.9610	.00316	.00285	.02449	.03116	-.00158	.00151
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00580	.02061	.29008	-.04562	5.5928		
SDev	.00045	.00224	.00185	.00200	.0102		
%RSD	7.6791	10.888	.63721	4.3794	.18318		
#1	-.00612	.01903	.28877	-.04703	5.5855		
#2	-.00549	.02220	.29139	-.04421	5.6000		

09/10/04



Method: 6010B      Sample Name: S4505-01      Operator: DR  
 Run Time: 09/10/04 15:36:20  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02204	-.00829	.45379	.00969	-.00250	65.196	.44182
SDev	.00590	.02131	.00419	.00286	.00164	.130	.00142
%RSD	26.784	256.91	.92214	29.476	65.749	.19967	.32227
#1	.01787	-.02336	.45083	.01171	-.00134	65.104	.44081
#2	.02622	.00677	.45675	.00767	-.00366	65.288	.44283
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00281	.00872	20.050	.12209	.07582	.51530	156.65
SDev	.00005	.00001	.046	.00055	.00023	.00050	.43
%RSD	1.8092	.09494	.23005	.44959	.29927	.09672	.27335
#1	.00284	.00872	20.017	.12170	.07598	.51495	156.35
#2	.00277	.00873	20.083	.12248	.07566	.51565	156.95
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.5163	19.307	.16588	-.01181	1.2054	.19517	.57285
SDev	.0098	.042	.00065	.00062	.1976	.00002	.00065
%RSD	.27972	.21579	.39359	5.2172	16.397	.00929	.11271
#1	3.5093	19.278	.16634	-.01138	1.0656	.19516	.57239
#2	3.5232	19.337	.16542	-.01225	1.3451	.19519	.57330
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	11.286	-.00606	.00144	.43301	.46197	-.01309	.01927
SDev	.006	.00029	.00550	.00139	.00558	.00447	.00205
%RSD	.05310	4.7322	383.03	.32038	1.2081	34.122	10.658
#1	11.282	-.00626	.00533	.43203	.45802	-.00993	.02072
#2	11.291	-.00586	-.00245	.43399	.46592	-.01625	.01781
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00328	-.01446	3.6078	-.18497	6.1527		
SDev	.00022	.00067	.0085	.00799	.0400		
%RSD	6.7883	4.6568	.23567	4.3205	.64938		
#1	-.00313	-.01398	3.6017	-.17932	6.1245		
#2	-.00344	-.01493	3.6138	-.19062	6.1810		

09/10/04

Method: 6010B Sample Name: S4505-02

Operator: DR

Run Time: 09/10/04 15:38:13

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01657	-.01639	.13459	.01079	.00437	60.392	.45903
SDev	.00096	.00630	.00228	.00575	.00028	.042	.00046
%RSD	5.7923	38.441	1.6905	53.262	6.4912	.06914	.09932
#1	.01590	-.01193	.13298	.00673	.00457	60.362	.45935
#2	.01725	-.02084	.13620	.01486	.00417	60.421	.45871
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00267	.00401	15.520	.15502	.06282	.21553	111.35
SDev	.00010	.00069	.023	.00112	.00000	.00015	.15
%RSD	3.6451	17.206	.14859	.72161	.00024	.06902	.13282
#1	.00260	.00352	15.503	.15423	.06282	.21563	111.25
#2	.00273	.00450	15.536	.15581	.06282	.21542	111.46
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0837	19.543	.12832	-.01051	1.1287	.21084	.35849
SDev	.0046	.036	.00078	.00202	.0523	.00198	.00005
%RSD	.22280	.18653	.61143	19.185	4.6354	.93861	.01296
#1	2.0804	19.517	.12776	-.01194	1.0917	.20944	.35852
#2	2.0870	19.569	.12887	-.00909	1.1657	.21224	.35846
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	14.315	.00113	.00767	.12071	.13942	-.00852	.01864
SDev	.017	.00030	.00145	.00032	.00371	.00308	.00708
%RSD	.12211	26.503	18.912	.26122	2.6609	36.102	38.001
#1	14.327	.00092	.00869	.12093	.13680	-.01070	.01363
#2	14.302	.00134	.00664	.12048	.14204	-.00635	.02365
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00596	-.00716	3.6120	-.23223	8.7552		
SDev	.00201	.00067	.0031	.00545	.0077		
%RSD	33.642	9.4057	.08529	2.3463	.08776		
#1	-.00738	-.00763	3.6098	-.22838	8.7498		
#2	-.00454	-.00668	3.6142	-.23608	8.7606		

09/10/04

Method: 6010B Sample Name: S4505-03 Operator: DR  
 Run Time: 09/10/04 15:40:03  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01539	-.02115	.10061	.01181	.00402	231.46	1.7786
SDev	.00488	.01068	.00119	.00331	.00193	1.91	.0118
%RSD	31.679	50.480	1.1785	28.034	48.146	.82442	.66562
#1	.01195	-.01360	.10144	.00947	.00538	232.81	1.7870
#2	.01884	-.02870	.09977	.01415	.00265	230.11	1.7702
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00654	.02609	12.876	.40287	.18062	.35004	255.67
SDev	.00030	.00513	.348	.01448	.00908	.00837	4.11
%RSD	4.6487	19.649	2.7045	3.5936	5.0272	2.3912	1.6077
#1	.00675	.02971	13.122	.41310	.18705	.35596	258.58
#2	.00632	.02246	12.630	.39263	.17420	.34413	252.76
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.2440	65.660	.30362	-.00282	2.8838	.48989	.77584
SDev	.1000	.891	.00629	.02891	1.0425	.02335	.01748
%RSD	1.9067	1.3563	2.0715	1025.9	36.149	4.7665	2.2534
#1	5.3147	66.289	.30807	.01762	3.6210	.50641	.78821
#2	5.1733	65.030	.29918	-.02326	2.1467	.47338	.76348
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	70.108	.00021	.00844	.02290	.13700	-.01255	.02217
SDev	1.080	.00253	.00074	.00070	.00143	.00570	.00212
%RSD	1.5401	1194.5	8.7406	3.0661	1.0416	45.422	9.5473
#1	70.872	.00200	.00896	.02340	.13801	-.01658	.02067
#2	69.345	-.00158	.00791	.02241	.13599	-.00852	.02366
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.01432	-.02176	13.533	-.98085	12.764		
SDev	.00379	.00292	.172	.01072	.058		
%RSD	26.468	13.409	1.2707	1.0925	.45751		
#1	-.01164	-.01969	13.654	-.98842	12.805		
#2	-.01699	-.02382	13.411	-.97327	12.722		

OK 9/10/04

Method: 6010B Sample Name: S4505-04 Operator: DR  
 Run Time: 09/10/04 15:43:04  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03312	-.00856	1.7941	.00617	.00422	57.405	.69177
SDev	.00382	.01219	.0169	.00712	.00235	.177	.00181
%RSD	11.529	142.39	.94390	115.51	55.697	.30831	.26225
#1	.03582	-.01719	1.7821	.01121	.00588	57.280	.69049
#2	.03042	.00006	1.8061	.00113	.00256	57.530	.69306
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00225	.00674	193.54	.08357	.03858	.55892	87.091
SDev	.00003	.00315	.99	.00266	.00341	.00538	.358
%RSD	1.2884	46.782	.51359	3.1778	8.8252	.96309	.41107
#1	.00223	.00451	192.83	.08169	.03618	.55512	86.838
#2	.00227	.00897	194.24	.08544	.04099	.56273	87.344
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.1854	45.387	.10572	-.01951	6.5826	.15330	1.3745
SDev	.0100	.264	.00207	.01658	.3439	.00987	.00008
%RSD	.84095	.58231	1.9572	84.988	5.2250	6.4414	.49442
#1	1.1783	45.200	.10425	-.03123	6.3394	.14631	1.3697
#2	1.1924	45.574	.10718	-.00779	6.8258	.16028	1.3793
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.292	.00064	.00819	1.7794	1.7994	-.00493	.00991
SDev	.596	.00282	.00140	.0166	.0171	.00967	.00585
%RSD	5.7939	443.59	17.157	.93370	.94999	196.22	59.099
#1	9.8702	.00263	.00918	1.7677	1.7873	.00191	.01405
#2	10.714	-.00136	.00719	1.7912	1.8115	-.01176	.00577
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00596	-.00033	2.3821	-.12268	11.745		
SDev	.00156	.00045	.0085	.00708	.020		
%RSD	26.166	134.23	.35694	5.7740	.17445		
#1	-.00486	-.00002	2.3761	-.12769	11.731		
#2	-.00707	-.00065	2.3881	-.11767	11.760		

09/10/04

Method: 6010B Sample Name: CCV  
 Run Time: 09/10/04 15:45:01  
 Comment: CCV  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1826	5.2272	5.0597	5.3513	5.1332	10.930	10.325
SDev	.0291	.0123	.0142	.0072	.0114	.011	.022
%RSD	.56194	.23550	.28019	.13497	.22213	.10125	.21502

#1	5.1620	5.2185	5.0697	5.3462	5.1413	10.922	10.309
#2	5.2032	5.2359	5.0496	5.3565	5.1251	10.938	10.341

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.25427	2.5434	25.336	.99470	2.4984	1.2482	4.9160
SDev	.00080	.0045	.042	.00114	.0055	.0003	.0398
%RSD	.31573	.17643	.16402	.11419	.21991	.02502	.80936

#1	.25370	2.5402	25.365	.99550	2.5023	1.2480	4.9442
#2	.25484	2.5466	25.307	.99390	2.4945	1.2484	4.8879

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.4893	25.475	2.5255	1.2860	25.833	2.4796	2.5549
SDev	.0004	.029	.0034	.0007	.325	.0040	.0067
%RSD	.01671	.11246	.13342	.05184	1.2592	.16117	.26070

#1	2.4896	25.455	2.5278	1.2855	25.603	2.4768	2.5502
#2	2.4890	25.496	2.5231	1.2865	26.063	2.4825	2.5596

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	26.244	5.1913	5.0136	5.0576	5.0587	5.3579	5.3463
SDev	.155	.0115	.0112	.0176	.0125	.0192	.0011
%RSD	.59229	.22194	.22265	.34863	.24614	.35776	.02090

#1	26.134	5.1994	5.0215	5.0701	5.0675	5.3444	5.3456
#2	26.354	5.1832	5.0057	5.0451	5.0499	5.3715	5.3471

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	5.1198	5.1401	4.9679	4.9986	5.3751
SDev	.0039	.0004	.0024	.0166	.0080
%RSD	.07599	.00865	.04773	.33286	.14805

#1	5.1226	5.1398	4.9696	4.9868	5.3694
#2	5.1171	5.1404	4.9663	5.0104	5.3807

09/10/04

Method: 6010B

Sample Name: CCB

Operator: DR

Run Time: 09/10/04 15:50:45

Comment: CCB

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00941	.00412	-.00074	.00149	.00409	.02404	-.00097
SDev	.00173	.00068	.00302	.00474	.00386	.02583	.00006
%RSD	18.406	16.453	409.14	318.66	94.472	107.44	6.6906

#1	.00818	.00364	-.00287	.00484	.00682	.04231	-.00101
#2	Q.01063	.00460	.00140	-.00187	.00136	.00578	-.00092

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00058	-.00224	.04388	.00030	-.00076	-.00520	.01098
SDev	.00015	.00091	.00462	.00028	.00229	.00008	.01590
%RSD	26.174	40.497	10.524	94.203	301.57	1.5740	144.84

#1	.00069	-.00288	.04714	.00050	-.00238	-.00526	-.00026
#2	.00047	-.00160	.04061	.00010	.00086	-.00514	.02222

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00042	.01684	.00003	-.00025	-.51599	-.00021	-.00693
SDev	.00000	.00000	.00351	.00035	.00770	.00000	.00000
%RSD	.14772	.00000	12011.	139.42	1.4922	.05522	.04661

#1	.00042	.01684	-.00245	-.00050	-.51055	-.00021	-.00693
#2	.00042	.01684	.00251	-.00000	-.52143	-.00021	-.00693

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01346	.00314	.00279	-.01282	.00329	.00767	-.00340
SDev	.00497	.00369	.00422	.00199	.00353	.01400	.00012
%RSD	36.909	117.52	150.93	15.504	107.11	182.48	3.5235

#1	.00994	.00575	.00577	-.01422	.00080	.01758	-.00331
#2	.01697	.00053	-.00019	-.01141	.00579	-.00223	-.00348

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00389	.00208	.00112	.00458	.01101
SDev	.00267	.00333	.00006	.00402	.00398
%RSD	68.606	159.95	5.5868	87.743	36.154

#1	-.00200	.00444	.00116	.00174	.00819
#2	-.00578	-.00027	.00107	.00743	.01382

09/10/04

Method: 6010B

Sample Name: S4506-01

Operator: DR

Run Time: 09/10/04 15:54:18

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.00514	-.00156	.02805	.00534	.00321	18.294	.25241
SDev	.00283	.01774	.00471	.00029	.00232	.142	.00155
%RSD	55.095	1135.2	16.785	5.5127	72.221	.77703	.61410
#1	.00714	-.01411	.03138	.00513	.00157	18.193	.25131
#2	.00314	.01098	.02472	.00555	.00486	18.394	.25350
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.00185	-.00052	7.1538	.05900	.02270	.07817	41.616
SDev	.00000	.00112	.0485	.00042	.00023	.00089	.342
%RSD	.00172	214.79	.67776	.70482	1.0089	1.1454	.82123
#1	.00185	-.00132	7.1196	.05870	.02254	.07753	41.374
#2	.00185	.00027	7.1881	.05929	.02286	.07880	41.858
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	1.7302	11.983	.06800	-.00338	2.0265	.05813	.11948
SDev	.0140	.077	.00044	.00020	.1232	.00001	.00090
%RSD	.80684	.64118	.64273	5.7851	6.0790	.02482	.75615
#1	1.7203	11.928	.06831	-.00324	2.1136	.05812	.11884
#2	1.7401	12.037	.06769	-.00352	1.9394	.05814	.12012
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	4.9343	.00290	.00064	.02416	.02799	-.00249	.00765
SDev	.0263	.00382	.00069	.00140	.00776	.00013	.00038
%RSD	.53342	131.78	108.01	5.8171	27.722	5.2016	4.9252
#1	4.9157	.00020	.00112	.02317	.03348	-.00258	.00738
#2	4.9529	.00561	.00015	.02515	.02251	-.00240	.00792
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avgc	-.00420	.00696	.88977	-.05450	4.8275		
SDev	.00044	.00044	.00580	.01152	.0303		
%RSD	10.579	6.3901	.65234	21.136	.62848		
#1	-.00452	.00727	.88567	-.06265	4.8060		
#2	-.00389	.00664	.89388	-.04636	4.8489		

09/10/04

Method: 6010B

Sample Name: S4535-01

Operator: DR

Run Time: 09/10/04 15:56:25

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00827	-.01052	.01838	.00151	.00436	12.868	.09871
SDev	.00126	.00682	.00205	.00331	.00224	.024	.00019
%RSD	15.211	64.811	11.178	219.31	51.335	.18311	.19600

#1	.00916	-.01534	.01983	-.00083	.00594	12.851	.09858
#2	.00738	-.00570	.01692	.00385	.00278	12.885	.09885

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00097	-.00076	276.83	.01894	.01219	.04957	28.061
SDev	.00010	.00102	.82	.00028	.00046	.00008	.072
%RSD	10.438	134.62	.29441	1.4887	3.7527	.16852	.25492

#1	.00104	-.00148	276.26	.01874	.01251	.04951	28.010
#2	.00090	-.00004	277.41	.01914	.01186	.04963	28.111

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.4538	107.70	.02665	-.00385	1.0377	.03418	.16283
SDev	.0066	.37	.00280	.00037	.0472	.00000	.00073
%RSD	.45609	.33976	10.501	9.6255	4.5447	.00987	.44764

#1	1.4491	107.44	.02862	-.00412	1.0043	.03418	.16231
#2	1.4585	107.96	.02467	-.00359	1.0710	.03418	.16335

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.0659	.00438	.00111	.02057	.01528	-.00513	.00313
SDev	.0050	.00293	.00086	.00280	.00168	.00815	.00103
%RSD	.12215	66.735	77.743	13.590	11.020	158.79	32.997

#1	4.0623	.00645	.00172	.02255	.01647	-.01090	.00240
#2	4.0694	.00231	.00050	.01860	.01409	.00063	.00385

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00680	.01042	.38181	-.02955	4.2190
SDev	.00256	.00133	.00056	.00183	.0005
%RSD	37.615	12.806	.14711	6.1880	.01179

#1	-.00499	.01136	.38141	-.02825	4.2187
#2	-.00861	.00947	.38220	-.03084	4.2194

DR 9/10/04



Method: 6010B

Sample Name: S4535-09

Operator: DR

Run Time: 09/10/04 15:58:22

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01921	-.00146	.02040	.00004	-.00135	9.7718	.04867
SDev	.00173	.00344	.00047	.00032	.00161	.0479	.00013
%RSD	9.0018	236.01	2.3208	765.10	118.53	.49012	.26352

#1	.01799	-.00389	.02006	-.00018	-.00022	9.8056	.04876
#2	.02043	.00097	.02073	.00027	-.00249	9.7379	.04858

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00082	-.00107	409.46	.01525	.00830	.02775	20.541
SDev	.00005	.00007	4.59	.00071	.00092	.00040	.119
%RSD	6.1890	6.5565	1.1210	4.6337	11.029	1.4605	.58039

#1	.00078	-.00102	412.71	.01575	.00895	.02804	20.625
#2	.00086	-.00112	406.21	.01475	.00766	.02746	20.457

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0550	100.17	.02076	-.00349	1.0737	.02185	.10159
SDev	.0083	.52	.00043	.00029	.0039	.00001	.00046
%RSD	.78579	.52129	2.0607	8.3980	.35853	.02771	.45015

#1	1.0608	100.54	.02106	-.00369	1.0765	.02185	.10191
#2	1.0491	99.801	.02046	-.00328	1.0710	.02184	.10126

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.6518	-.00381	.00037	.01710	.02005	.00213	-.00280
SDev	.0065	.00245	.00009	.00031	.00055	.00046	.00071
%RSD	.17678	64.267	23.501	1.8240	2.7638	21.714	25.434

#1	3.6564	-.00208	.00031	.01688	.01966	.00246	-.00330
#2	3.6473	-.00555	.00043	.01732	.02044	.00180	-.00230

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00648	.01026	.25572	-.02800	2.1905
SDev	.00167	.00067	.00162	.01243	.0164
%RSD	25.722	6.5009	.63458	44.410	.74931

#1	-.00530	.00979	.25687	-.03679	2.2021
#2	-.00766	.01073	.25457	-.01920	2.1789

09/10/04

Method: 6010B Sample Name: S4535-13

Operator: DR

Run Time: 09/10/04 16:01:42

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.03610	.00782	.05706	.00528	.00165	21.256	.18139
SDev	.00504	.00270	.00135	.00330	.00131	.008	.00019
%RSD	13.954	34.543	2.3736	62.432	79.695	.03935	.10630
#1	.03254	.00973	.05801	.00295	.00072	21.250	.18152
#2	.03966	.00591	.05610	.00761	.00258	21.262	.18125
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.00155	.00407	H919.79	.05017	.02448	.11041	44.775
SDev	.00005	.00004	8.01	.00057	.00046	.00055	.135
%RSD	3.2739	.87460	.87053	1.1405	1.8727	.49706	.30178
#1	.00158	.00410	H925.45	.04976	.02415	.11002	44.870
#2	.00151	.00405	H914.13	.05057	.02480	.11080	44.679
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	2.0410	183.52	.08766	-.00865	1.5011	.04905	.37781
SDev	.0134	.66	.00251	.00005	.0539	.00000	.00402
%RSD	.65652	.35906	2.8598	.62401	3.5904	.00889	1.0634
#1	2.0505	183.98	.08943	-.00861	1.4630	.04905	.38065
#2	2.0315	183.05	.08589	-.00869	1.5392	.04904	.37497
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	8.7528	-.00179	.00533	.03942	.06386	.00845	.00190
SDev	.0482	.00446	.00499	.00295	.00056	.00218	.00385
%RSD	.55035	249.61	93.627	7.4939	.86979	25.790	203.11
#1	8.7187	-.00494	.00886	.04151	.06425	.00691	-.00083
#2	8.7869	.00137	.00180	.03734	.06347	.00999	.00462
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avgc	.00075	.03447	.12235	-.01274	2.0909		
SDev	.00056	.00289	.00050	.00073	.0099		
%RSD	74.216	8.3848	.40809	5.7406	.47574		
#1	.00114	.03243	.12270	-.01222	2.0839		
#2	.00036	.03651	.12200	-.01326	2.0980		

09/10/04

Method: 6010B Sample Name: S4536-03

Operator: DR

Run Time: 09/10/04 16:03:49

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01655	-.00771	.05548	.00568	.00388	40.903	.38971
SDev	.00046	.00301	.00443	.00176	.00046	.641	.00361
%RSD	2.7752	38.985	7.9769	31.061	11.868	1.5666	.92690

#1	.01688	-.00984	.05235	.00692	.00420	40.450	.38716
#2	.01623	-.00558	.05861	.00443	.00355	41.356	.39226

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00219	.00426	563.65	.05130	.03176	.10246	60.354
SDev	.00010	.00022	13.24	.00025	.00069	.00127	1.248
%RSD	4.6434	5.1740	2.3492	.48068	2.1651	1.2368	2.0676

#1	.00226	.00410	554.29	.05113	.03225	.10157	59.471
#2	.00212	.00441	573.01	.05148	.03128	.10336	61.236

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0657	118.16	.08872	-.00794	1.9407	.06876	.32179
SDev	.0445	1.95	.00428	.00106	.1155	.00005	.00829
%RSD	2.1548	1.6499	4.8212	13.321	5.9509	.07324	2.5746

#1	2.0343	116.78	.08569	-.00719	2.0224	.06873	.31593
#2	2.0972	119.53	.09174	-.00869	1.8591	.06880	.32765

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	11.879	.00080	.00684	.04947	.05648	-.00126	.00754
SDev	.047	.00270	.00680	.00100	.00714	.00235	.00382
%RSD	.39298	338.59	99.316	2.0251	12.633	186.44	50.623

#1	11.846	-.00111	.01165	.05018	.05144	-.00292	.01024
#2	11.912	.00271	.00204	.04876	.06153	.00040	.00484

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00640	.02787	.75587	-.05890	6.4537
SDev	.00000	.00022	.01329	.00091	.0482
%RSD	.00000	.79781	1.7588	1.5522	.74756

#1	-.00640	.02771	.74647	-.05825	6.4196
#2	-.00640	.02802	.76527	-.05954	6.4878

*OK 9/10/04*

Method: 6010B

Sample Name: S4536-05

Operator: DR

Run Time: 09/10/04 16:05:45

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01476	-.00516	.06596	.00548	.00106	57.101	.61428
SDev	.00045	.01123	.00010	.00030	.00248	.841	.00652
%RSD	3.0702	217.86	.15275	5.4902	233.22	1.4724	1.0615

#1	.01444	.00279	.06588	.00527	-.00069	57.695	.61889
#2	.01508	-.01310	.06603	.00569	.00282	56.506	.60967

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00314	.00409	149.11	.07876	.04649	.10114	99.081
SDev	.00006	.00032	3.26	.00123	.00092	.00006	1.701
%RSD	1.7961	7.7710	2.1833	1.5576	1.9677	.05580	1.7166

#1	.00310	.00431	151.41	.07962	.04714	.10110	100.28
#2	.00318	.00386	146.81	.07789	.04585	.10118	97.879

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9868	52.364	.11172	-.00999	.72531	.10890	.44096
SDev	.0401	.686	.00506	.00040	.05005	.00257	.00872
%RSD	2.0189	1.3106	4.5264	3.9598	6.9000	2.3603	1.9782

#1	2.0152	52.849	.11530	-.01027	.76070	.11072	.44713
#2	1.9585	51.879	.10815	-.00971	.68992	.10709	.43479

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.3675	-.00135	.00270	.04573	.07406	-.00451	.00876
SDev	.0437	.00240	.00265	.00022	.00004	.00158	.00138
%RSD	.59318	177.38	98.379	.49088	.05264	35.012	15.745

#1	7.3984	-.00304	.00082	.04557	.07403	-.00339	.00779
#2	7.3366	.00034	.00457	.04588	.07408	-.00562	.00974

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00908	.00319	.69824	-.04028	4.1913
SDev	.00022	.00089	.01067	.00055	.0398
%RSD	2.4494	27.918	1.5285	1.3618	.94936

#1	-.00923	.00381	.70578	-.04067	4.2194
#2	-.00892	.00256	.69069	-.03989	4.1631

OK 9/10/04

Method: 6010B

Sample Name: S4536-08

Operator: DR

Run Time: 09/10/04 16:07:42

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02063	-.01076	.04615	.00138	.00159	33.490	.19944
SDev	.00473	.01872	.00107	.00096	.00602	.277	.00180
%RSD	22.953	173.98	2.3156	69.537	379.41	.82848	.90413

#1	.01728	-.02399	.04690	.00070	-.00267	33.293	.19816
#2	.02397	.00248	.04539	.00206	.00585	33.686	.20071

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00182	.00515	H820.12	.04569	.02480	.09504	56.656
SDev	.00005	.00069	13.32	.00125	.00000	.00013	.914
%RSD	2.9061	13.475	1.6244	2.7370	.00192	.14137	1.6133

#1	.00186	.00466	H810.70	.04481	.02480	.09494	56.009
#2	.00179	.00564	H829.54	.04658	.02480	.09513	57.302

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.5502	155.04	.08773	-.00953	2.2640	.05446	.22417
SDev	.0402	1.79	.00238	.00075	.2627	.00104	.00376
%RSD	1.5771	1.1541	2.7181	7.8672	11.605	1.9075	1.6788

#1	2.5217	153.77	.08941	-.00900	2.4498	.05373	.22151
#2	2.5786	156.30	.08604	-.01006	2.0782	.05520	.22683

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.919	-.00247	.00652	.03122	.05160	-.00071	.00073
SDev	.009	.00641	.00526	.00139	.00091	.00325	.00004
%RSD	.07304	258.96	80.622	4.4501	1.7606	456.22	6.0010

#1	12.926	-.00700	.00280	.03220	.05225	-.00301	.00076
#2	12.912	.00206	.01023	.03024	.05096	.00159	.00070

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00923	.03431	.32289	-.05036	5.2755
SDev	.00044	.00089	.00412	.01408	.0492
%RSD	4.8155	2.5918	1.2758	27.955	.93337

#1	-.00892	.03368	.31998	-.06032	5.2407
#2	-.00955	.03494	.32580	-.04041	5.3104

Cu 9/10/04

Method: 6010B Sample Name: CRI  
 Run Time: 09/10/04 16:15:26  
 Comment: CRI  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02493	.02173	.00594	.01171	.12646	.36278	.43824
SDev	.00319	.00280	.00384	.00248	.00585	.00070	.00026
%RSD	12.794	12.868	64.715	21.206	4.6271	.19416	.05925
#1	.02267	.02371	Q.00866	Q.01347	.13059	.36328	.43806
#2	Q.02718	.01976	Q.00322	.00996	.12232	.36228	.43843
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00926	.00827	9.6800	.02045	.10008	.04871	.18568
SDev	.00015	.00034	.0438	.00042	.00363	.00063	.00001
%RSD	1.6328	4.1641	.45267	2.0601	3.6300	1.2989	.00413
#1	.00915	.00851	9.6490	.02015	.09751	.04826	.18568
#2	.00937	.00803	9.7109	.02074	.10265	.04916	.18567
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03256	10.138	.08285	.01970	8.4720	.10127	.03847
SDev	.00014	.036	.00050	.00069	.0455	.00049	.00000
%RSD	.41845	.35958	.60488	3.4984	.53749	.48732	.00227
#1	.03246	10.112	.08321	.01921	8.4398	.10092	.03847
#2	.03266	10.164	.08250	.02018	8.5042	.10162	.03847
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	8.9637	.12487	.12644	-.00058	.00719	.01331	.00912
SDev	.0454	.00667	.00421	.00381	.00386	.00224	.00260
%RSD	.50701	5.3422	3.3298	653.53	53.670	16.861	28.557
#1	8.9316	.12958	.12941	.00211	.00992	.01489	.01096
#2	8.9959	.12015	.12346	-.00327	.00446	.01172	.00728
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.19340	.19422	.20695	.19287	.20058		
SDev	.00067	.00045	.00086	.00617	.00359		
%RSD	.34572	.23110	.41681	3.2017	1.7876		
#1	.19388	.19454	.20634	.18851	.19805		
#2	.19293	.19390	.20756	.19724	.20312		

04 9/10/04

Method: 6010B Sample Name: ICSA  
 Run Time: 09/10/04 16:20:37  
 Comment: ICSA  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00077	.01378	-.00487	.00037	.00473	441.32	-.00065
SDev	.00716	.02292	.00387	.00977	.00693	.76	.00005
%RSD	926.74	166.26	79.595	2635.9	146.51	.17226	8.0842
#1	-.00429	-.00242	Q-.00761	.00728	-.00017	441.86	-.00061
#2	.00584	Q.02999	-.00213	-.00654	.00963	440.78	-.00069
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00081	.00124	412.75	.01951	.00072	.00563	166.43
SDev	.00010	.00013	3.87	.00141	.00113	.00015	1.25
%RSD	12.279	10.378	.93757	7.2069	157.97	2.7168	.74821
#1	-.00088	.00133	415.49	.02050	-.00008	.00573	167.31
#2	-.00074	.00115	410.02	.01851	.00152	.00552	165.55
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00933	463.28	-.00274	-.01139	-.08051	-.00393	.01112
SDev	.00038	2.13	.00112	.00079	.10367	.00093	.00077
%RSD	4.0704	.46039	40.934	6.9351	128.77	23.764	6.9508
#1	.00960	464.79	-.00195	-.01083	-.00720	-.00459	.01166
#2	.00906	461.77	-.00353	-.01195	-.15381	-.00327	.01057
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06739	.00196	.00709	-.15104	.06631	-.01103	.00446
SDev	.00849	.00627	.00826	.00281	.00441	.01354	.00789
%RSD	12.599	320.71	116.48	1.8621	6.6439	122.75	176.86
#1	.07339	-.00248	.00125	-.15303	.06319	-.00146	.01004
#2	.06138	.00639	.01293	-.14905	.06942	-.02060	-.00112
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.01211	.00601	-.00322	.01461	-.00153		
SDev	.00111	.00179	.00000	.00436	.00051		
%RSD	9.2032	29.857	.00000	29.830	33.506		
#1	-.01290	.00728	-.00322	.01153	-.00189		
#2	-.01132	.00474	-.00322	.01770	-.00117		

049110104

Method: 6010B Sample Name: ICSAB

Operator: DR

Run Time: 09/10/04 16:22:55

Comment: ICSAB

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.09721	.08285	.04532	.04596	.55414	441.67	.47926
SDev	.00462	.00824	.00358	.00580	.00257	.63	.00085
%RSD	4.7480	9.9487	7.8904	12.620	.46364	.14170	.17697

#1	.10047	.08868	.04785	.05006	.55232	442.11	.47986
#2	.09395	.07702	.04279	.04186	.55596	441.23	.47866

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.37189	.81079	412.63	.40047	.42134	.51080	162.67
SDev	.00162	.00254	2.45	.00226	.00182	.00163	.42
%RSD	.43620	.31342	.59412	.56400	.43095	.31885	.25987

#1	.37074	.80899	410.89	.39887	.42005	.51195	162.37
#2	.37304	.81258	414.36	.40206	.42262	.50965	162.97

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.41195	459.94	.81537	.18854	-.09832	.40150	.97026
SDev	.00082	1.04	.00293	.00099	.01260	.00101	.00060
%RSD	.19946	.22541	.35895	.52712	12.810	.25070	.06166

#1	.41137	459.21	.81330	.18784	-.10723	.40079	.97069
#2	.41253	460.67	.81744	.18925	-.08941	.40221	.96984

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05397	.54861	.56202	-.09193	.11194	.03425	.05021
SDev	.00749	.00183	.00405	.00691	.00177	.00340	.00700
%RSD	13.881	.33384	.72006	7.5162	1.5815	9.9250	13.940

#1	.04867	.54731	.55916	-.08704	.11319	.03666	.05516
#2	.05926	.54990	.56488	-.09681	.11069	.03185	.04526

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.01723	.00839	-.00444	.00819	.00753
SDev	.00033	.00067	.00012	.00363	.00615
%RSD	1.9402	8.0212	2.7768	44.346	81.670

#1	-.01699	.00887	-.00452	.00562	.00318
#2	-.01747	.00792	-.00435	.01076	.01187

09/10/04



Method: 6010B Sample Name: CCV  
 Run Time: 09/10/04 16:28:17  
 Comment: CCV  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.9992	5.0343	5.0280	5.1771	5.0431	9.9601	10.076
SDev	.0241	.0669	.0196	.0373	.0027	.0479	.057
%RSD	.48139	1.3285	.39003	.72112	.05311	.48126	.56955
#1	5.0162	5.0816	5.0141	5.1507	5.0450	9.9940	10.116
#2	4.9822	4.9870	5.0418	5.2035	5.0412	9.9262	10.035
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.24931	2.4843	24.588	.98813	2.4893	1.2668	5.0020
SDev	.00046	.0074	.136	.00562	.0025	.0061	.0389
%RSD	.18325	.29962	.55338	.56838	.10027	.48521	.77789
#1	.24899	2.4790	24.492	.98416	2.4910	1.2712	4.9745
#2	.24963	2.4896	24.684	.99210	2.4875	1.2625	5.0295
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.4839	25.270	2.5114	1.2344	24.717	2.4897	2.5087
SDev	.0090	.085	.0079	.0020	.320	.0000	.0130
%RSD	.36247	.33489	.31646	.15923	1.2935	.00047	.51858
#1	2.4775	25.330	2.5170	1.2331	24.943	2.4897	2.4995
#2	2.4902	25.210	2.5058	1.2358	24.491	2.4897	2.5179
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.696	5.0286	5.0690	5.0158	5.0321	5.1687	5.1796
SDev	.505	.0117	.0153	.0123	.0234	.0071	.0594
%RSD	1.9650	.23178	.30192	.24551	.46489	.13713	1.1462
#1	26.053	5.0369	5.0582	5.0071	5.0156	5.1737	5.1376
#2	25.339	5.0204	5.0798	5.0245	5.0487	5.1636	5.2216
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	4.9274	5.0041	5.0063	4.9988	4.8868		
SDev	.0194	.0206	.0026	.0151	.0343		
%RSD	.39352	.41260	.05292	.30157	.70230		
#1	4.9137	4.9895	5.0044	4.9882	4.9111		
#2	4.9411	5.0187	5.0082	5.0095	4.8626		

029110104

Method: 6010B Sample Name: CCB  
 Run Time: 09/10/04 16:34:34  
 Comment: CCB  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00539	.00042	.00139	-.00014	.00439	.00560	-.00009
SDev	.00335	.00596	.00052	.00514	.00052	.00000	.00007
%RSD	62.150	1414.9	37.576	3568.4	11.962	.02048	75.556

#1	.00302	.00464	.00176	.00349	.00402	.00560	-.00004
#2	.00776	-.00380	.00102	-.00378	.00476	.00560	-.00013

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00060	-.00165	.01451	-.00018	-.00057	-.00380	-.00013
SDev	.00020	.00021	.00000	.00014	.00068	.00024	.03114
%RSD	33.449	12.869	.00000	75.902	120.25	6.2553	23161.

#1	-.00075	-.00181	.01451	-.00028	-.00008	-.00397	-.02215
#2	-.00046	-.00150	.01451	-.00009	-.00105	-.00364	.02188

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00026	.01224	.00181	-.00019	-.13463	.00018	-.00657
SDev	.00000	.00130	.00000	.00045	.06588	.00049	.00001
%RSD	.46221	10.637	.03447	238.12	48.936	272.14	.09704

#1	.00026	.01316	.00181	.00013	-.18121	-.00017	-.00656
#2	.00026	.01132	.00181	-.00050	-.08804	.00053	-.00657

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02324	.00213	.00572	-.00948	.00482	.00529	-.00466
SDev	.00000	.00295	.00748	.00052	.00105	.00059	.00741
%RSD	.00000	138.68	130.90	5.5053	21.682	11.119	159.04

#1	.02324	.00421	.00043	-.00985	.00556	.00571	.00058
#2	.02324	.00004	.01101	-.00911	.00408	.00488	-.00990

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01106	.01458	.00105	.00370	.00209
SDev	.01672	.00988	.00012	.00418	.01076
%RSD	151.16	67.715	11.716	113.02	513.87

#1	.02288	.02156	.00096	.00074	.00970
#2	-.00076	.00760	.00114	.00665	-.00551

029/10/04

Method: 6010B Sample Name: S4480-07X10 Operator: DR  
 Run Time: 09/10/04 16:41:18  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00147	.00781	.00144	-.00092	.00071	3.3421	.01892
SDev	.00173	.00274	.00025	.00130	.00101	.0357	.00019
%RSD	117.96	35.056	17.512	142.15	141.53	1.0688	1.0237
#1	.00024	.00587	.00126	.00000	.00143	3.3673	.01906
#2	.00269	.00974	.00162	-.00184	-.00000	3.3168	.01879
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00071	-.00232	138.78	.00562	.00151	.00662	6.7551
SDev	.00005	.00018	.42	.00043	.00092	.00032	.0477
%RSD	7.4512	7.6847	.29946	7.6008	60.885	4.8561	.70618
#1	.00075	-.00220	139.07	.00532	.00215	.00685	6.7888
#2	.00067	-.00245	138.48	.00592	.00086	.00639	6.7213
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.32866	19.482	.01161	-.00182	-.22064	.00643	.01620
SDev	.00152	.119	.00330	.00066	.12512	.00100	.00104
%RSD	.46272	.60828	28.426	36.487	56.706	15.535	6.4107
#1	.32973	19.566	.00927	-.00229	-.30911	.00572	.01547
#2	.32758	19.398	.01394	-.00135	-.13217	.00714	.01693
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.85133	-.00070	.00034	-.01018	.00524	.00307	-.00450
SDev	.00099	.00123	.00550	.00045	.00015	.00092	.00241
%RSD	.11667	176.66	1630.5	4.4239	2.9134	29.836	53.456
#1	.85203	-.00157	.00423	-.01050	.00513	.00242	-.00280
#2	.85062	.00017	-.00355	-.00986	.00535	.00372	-.00621
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00900	-.00137	.05262	-.01222	.81393		
SDev	.00122	.00022	.00000	.00219	.01144		
%RSD	13.590	16.186	.00000	17.950	1.4055		
#1	-.00813	-.00122	.05262	-.01377	.82202		
#2	-.00986	-.00153	.05262	-.01067	.80584		

OK 9/10/04

Method: 6010B Sample Name: S4482-02X10 Operator: DR  
 Run Time: 09/10/04 16:43:12  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00537	.00331	.00111	-.00010	.00006	3.0400	.01292
SDev	.00063	.00240	.00049	.00430	.00514	.0008	.00013
%RSD	11.750	72.572	44.694	4453.2	8258.8	.02508	.99856

#1	.00582	.00161	.00146	-.00313	-.00357	3.0395	.01301
#2	.00493	.00500	.00076	.00294	.00370	3.0405	.01283

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00068	-.00214	117.77	.00459	.00151	.00640	7.8229
SDev	.00000	.00007	.98	.00071	.00046	.00023	.0477
%RSD	.16191	3.3789	.83514	15.457	30.378	3.6766	.60965

#1	.00068	-.00219	118.47	.00509	.00183	.00624	7.8566
#2	.00067	-.00209	117.08	.00408	.00118	.00657	7.7892

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.47789	15.631	.00956	-.00158	-.30366	.00612	.01128
SDev	.00290	.087	.00258	.00025	.10587	.00050	.00024
%RSD	.60718	.55819	27.000	15.745	34.863	8.1218	2.0904

#1	.47994	15.693	.01138	-.00140	-.37852	.00577	.01145
#2	.47584	15.569	.00773	-.00175	-.22880	.00647	.01111

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.77302	-.00009	-.00283	-.00476	.00204	.00299	-.00344
SDev	.01341	.00462	.00620	.00068	.00040	.00815	.00237
%RSD	1.7346	4919.5	219.15	14.372	19.659	272.46	69.045

#1	.78250	-.00336	-.00721	-.00428	.00232	-.00277	-.00511
#2	.76354	.00317	.00155	-.00524	.00176	.00875	-.00176

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00837	-.00357	.03673	-.01028	.92295
SDev	.00011	.00111	.00025	.00421	.00149
%RSD	1.3282	31.099	.67965	40.893	.16167

#1	-.00845	-.00279	.03691	-.01326	.92401
#2	-.00829	-.00436	.03656	-.00731	.92190

09/10/04

Method: 6010B      Sample Name: S4482-05X10      Operator: DR  
 Run Time: 09/10/04 16:45:39  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00669	.00607	.00072	-.00470	.00285	2.8642	.01147
SDev	.00693	.00615	.00010	.00197	.00177	.0061	.00000
%RSD	103.57	101.33	13.295	41.790	62.130	.21251	.00970

#1	.01159	.01042	.00065	-.00609	.00160	2.8685	.01147
#2	.00179	.00172	.00079	-.00331	.00410	2.8599	.01147

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00100	-.00188	128.80	.00455	.00037	.00639	5.7772
SDev	.00025	.00024	.39	.00029	.00114	.00009	.1113
%RSD	25.432	12.831	.30475	6.3211	307.62	1.3592	1.9261

#1	.00082	-.00205	129.07	.00434	.00118	.00645	5.8558
#2	.00118	-.00171	128.52	.00475	-.00044	.00633	5.6985

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.24885	14.615	.01061	-.00173	-.30298	.00639	.01994
SDev	.00166	.073	.00058	.00041	.00866	.00000	.00054
%RSD	.66765	.49896	5.4264	23.468	2.8588	.06148	2.7077

#1	.25002	14.667	.01021	-.00202	-.30911	.00639	.01956
#2	.24767	14.564	.01102	-.00145	-.29686	.00639	.02033

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.65046	.00175	.00186	-.00989	.00402	.00483	-.01116
SDev	.00397	.00339	.00146	.00673	.00321	.00022	.00298
%RSD	.61079	193.75	78.720	68.038	80.059	4.6285	26.668

#1	.64765	-.00065	.00289	-.01464	.00629	.00467	-.01327
#2	.65327	.00414	.00082	-.00513	.00174	.00499	-.00906

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.01081	-.00200	.03245	-.00110	.55860
SDev	.00156	.00067	.00006	.00658	.01641
%RSD	14.402	33.308	.19232	596.09	2.9383

#1	-.01191	-.00247	.03241	-.00576	.54699
#2	-.00971	-.00153	.03250	.00355	.57020

09/10/04

Method: 6010B Sample Name: S4482-16X10 Operator: DR  
 Run Time: 09/10/04 16:47:34  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01510	.01578	.00248	-.00465	.00205	3.9457	.03444
SDev	.00236	.00513	.00134	.00365	.00094	.0061	.00032
%RSD	15.644	32.508	54.123	78.511	45.716	.15404	.94063
#1	.01343	.01215	.00343	-.00724	.00139	3.9414	.03467
#2	.01677	.01941	.00153	-.00207	.00271	3.9500	.03421
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00092	-.00186	133.75	.00649	.00393	.01071	11.184
SDev	.00005	.00059	.54	.00014	.00023	.00016	.032
%RSD	5.3692	31.722	.40394	2.2005	5.8230	1.5039	.28434
#1	.00096	-.00227	134.13	.00659	.00377	.01060	11.161
#2	.00089	-.00144	133.37	.00639	.00409	.01083	11.206
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.39972	10.629	.01547	-.00196	-.33633	.00696	.03314
SDev	.00097	.012	.00029	.00044	.10009	.00050	.00000
%RSD	.24150	.11026	1.8578	22.532	29.760	7.1674	.00885
#1	.40040	10.621	.01568	-.00165	-.26555	.00732	.03314
#2	.39904	10.637	.01527	-.00227	-.40710	.00661	.03314
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.97318	-.00049	.00393	-.00718	.00531	.00079	-.00907
SDev	.00546	.00154	.00026	.00565	.00081	.00241	.00442
%RSD	.56133	315.75	6.6416	78.670	15.159	305.41	48.671
#1	.97704	-.00157	.00411	-.00319	.00474	-.00092	-.01219
#2	.96932	.00060	.00375	-.01118	.00588	.00250	-.00595
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00955	-.00043	.02279	-.00834	.88849		
SDev	.00289	.00111	.00025	.00585	.02139		
%RSD	30.270	258.31	1.0956	70.118	2.4071		
#1	-.00750	-.00122	.02261	-.00421	.90361		
#2	-.01159	.00036	.02296	-.01248	.87336		

OK 9/10/04

Method: 6010B Sample Name: S4482-22X10 Operator: DR  
 Run Time: 09/10/04 16:49:28  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00638	-.00433	-.00174	-.00192	.00024	2.6616	.02751
SDev	.00425	.00580	.00112	.00275	.00297	.0038	.00006
%RSD	66.567	133.97	64.361	143.73	1247.0	.14246	.23327
#1	.00338	-.00023	-.00095	-.00386	.00234	2.6589	.02755
#2	.00939	-.00843	-.00253	.00003	-.00186	2.6643	.02746
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00078	-.00158	145.52	.00506	.00377	.00724	8.6041
SDev	.00015	.00036	.58	.00028	.00092	.00040	.0556
%RSD	19.625	23.030	.39983	5.5741	24.283	5.5463	.64654
#1	.00067	-.00133	145.93	.00526	.00442	.00752	8.6434
#2	.00089	-.00184	145.11	.00486	.00312	.00695	8.5648
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.29583	17.739	.01035	-.00210	-.32816	.00686	.13859
SDev	.00194	.055	.00072	.00002	.04235	.00050	.00152
%RSD	.65421	.30833	6.9368	1.1455	12.904	7.3327	1.0942
#1	.29719	17.777	.00985	-.00208	-.35811	.00721	.13967
#2	.29446	17.700	.01086	-.00212	-.29822	.00650	.13752
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.77618	-.00296	.00344	-.01178	.00127	.00449	-.00681
SDev	.01192	.00553	.00215	.00127	.00104	.00229	.00312
%RSD	1.5356	186.77	62.396	10.795	81.910	51.031	45.847
#1	.78461	.00095	.00192	-.01088	.00201	.00287	-.00902
#2	.76775	-.00687	.00496	-.01268	.00054	.00612	-.00461
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00931	-.00216	.03784	-.01701	.71651		
SDev	.00078	.00044	.00031	.00677	.00696		
%RSD	8.3560	20.589	.82479	39.779	.97183		
#1	-.00876	-.00185	.03806	-.01222	.71158		
#2	-.00986	-.00247	.03761	-.02179	.72143		

09/10/04

Method: 6010B      Sample Name: S4535-13X10      Operator: DR  
 Run Time: 09/10/04 16:51:40  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01225	.00679	.00267	-.00494	.00212	1.7688	.01596
SDev	.00315	.00581	.00373	.00072	.00054	.0046	.00000
%RSD	25.706	85.541	139.39	14.531	25.551	.25747	.00100
#1	.01448	.01089	.00531	-.00443	.00174	1.7656	.01596
#2	.01002	.00268	.00004	-.00545	.00250	1.7720	.01596
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00075	-.00188	136.46	.00516	.00215	.00575	5.3051
SDev	.00000	.00053	.50	.00028	.00046	.00048	.0159
%RSD	.14699	28.208	.36376	5.4898	21.261	8.2812	.29951
#1	.00075	-.00150	136.81	.00536	.00248	.00541	5.3163
#2	.00075	-.00225	136.11	.00496	.00183	.00608	5.2939
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24219	22.042	.00996	-.00202	-.36015	.00460	.03164
SDev	.00083	.020	.00064	.00035	.01059	.00050	.00001
%RSD	.34239	.08863	6.4745	17.238	2.9395	10.887	.01871
#1	.24277	22.028	.01042	-.00178	-.35266	.00496	.03164
#2	.24160	22.056	.00951	-.00227	-.36763	.00425	.03164
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50894	.00296	-.00278	-.00795	.00598	.00180	-.01001
SDev	.00050	.00077	.00008	.00218	.00450	.00034	.00139
%RSD	.09758	25.988	2.9947	27.464	75.249	19.075	13.885
#1	.50859	.00242	-.00283	-.00640	.00916	.00156	-.00903
#2	.50929	.00351	-.00272	-.00949	.00280	.00205	-.01099
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00884	-.00342	.01264	-.00628	.23785		
SDev	.00056	.00133	.00013	.00878	.00647		
%RSD	6.2869	39.035	.98788	139.85	2.7185		
#1	-.00845	-.00436	.01255	-.01248	.23328		
#2	-.00923	-.00247	.01272	-.00007	.24242		

OK 9/10/04



Method: 6010B Sample Name: S4536-09 Operator: DR  
 Run Time: 09/10/04 16:53:31  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00823	-.01014	.01872	.00107	.00206	11.964	.09024
SDev	.00378	.01336	.00550	.00018	.00158	.081	.00019
%RSD	45.957	131.68	29.382	16.792	76.536	.67355	.20956
#1	.00556	-.00070	.02261	.00094	.00094	11.907	.09010
#2	.01091	-.01959	.01483	.00120	.00317	12.021	.09037
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00135	-.00186	253.56	.01663	.01073	.03789	24.503
SDev	.00031	.00062	2.79	.00002	.00023	.00059	.509
%RSD	22.768	33.229	1.0991	.09296	2.1338	1.5502	2.0759
#1	.00156	-.00230	251.59	.01665	.01057	.03747	24.144
#2	.00113	-.00142	255.53	.01662	.01089	.03830	24.863
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.3540	96.751	.02580	-.00387	.94240	.02696	.15360
SDev	.0178	.975	.00008	.00001	.01636	.00102	.00239
%RSD	1.3171	1.0081	.31731	.21450	1.7361	3.7848	1.5566
#1	1.3414	96.061	.02586	-.00387	.93083	.02624	.15191
#2	1.3666	97.440	.02575	-.00388	.95397	.02768	.15529
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.8302	.00174	-.00052	.01555	.01830	-.00417	.00199
SDev	.0065	.00202	.00878	.00190	.00730	.00794	.00384
%RSD	.16855	116.04	1698.7	12.214	39.873	190.55	193.35
#1	3.8257	.00317	-.00673	.01690	.02347	-.00979	.00470
#2	3.8348	.00031	.00569	.01421	.01314	.00145	-.00073
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00813	.00570	.31923	-.02580	5.3251		
SDev	.00000	.00000	.00406	.00530	.0716		
%RSD	.00000	.00000	1.2708	20.553	1.3450		
#1	-.00813	.00570	.31636	-.02955	5.3758		
#2	-.00813	.00570	.32209	-.02205	5.2745		

OK 9/10/04

Method: 6010B      Sample Name: S4536-10      Operator: DR  
 Run Time: 09/10/04 16:55:23  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02278	-.01873	.07411	.00556	.00191	64.218	.78026
SDev	.00064	.00340	.00360	.00518	.00134	.228	.00181
%RSD	2.7913	18.142	4.8543	93.175	70.400	.35506	.23144
#1	.02234	-.01633	.07157	.00190	.00096	64.057	.77899
#2	.02323	-.02113	.07666	.00922	.00286	64.380	.78154
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00380	.00887	239.81	.08566	.05070	.11680	109.83
SDev	.00000	.00094	.77	.00016	.00229	.00020	.65
%RSD	.05647	10.650	.32253	.18840	4.5156	.17194	.59344
#1	.00379	.00954	239.27	.08578	.05232	.11694	109.37
#2	.00380	.00820	240.36	.08555	.04908	.11666	110.29
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0901	69.700	.12591	-.00948	5.7211	.12031	.50951
SDev	.0071	.221	.00109	.00233	.1165	.00097	.00419
%RSD	.33818	.31761	.86460	24.609	2.0355	.80984	.82292
#1	2.0851	69.544	.12668	-.00783	5.6388	.12100	.50655
#2	2.0951	69.857	.12514	-.01113	5.8035	.11962	.51248
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.2283	-.00039	.00331	.06060	.07886	-.01543	.01424
SDev	.0065	.00227	.00052	.00057	.00568	.00750	.00402
%RSD	.06996	579.80	15.768	.94423	7.2019	48.590	28.233
#1	9.2328	-.00200	.00368	.06101	.07485	-.02073	.01139
#2	9.2237	.00122	.00294	.06020	.08288	-.01013	.01708
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00900	.00507	.61730	-.05088	7.7131		
SDev	.00056	.00044	.00306	.00713	.0219		
%RSD	6.1771	8.7669	.49542	14.015	.28373		
#1	-.00939	.00539	.61514	-.05592	7.6977		
#2	-.00861	.00476	.61946	-.04584	7.7286		

09/10/04

Method: 6010B Sample Name: S4553-01 Operator: DR  
 Run Time: 09/10/04 16:57:20  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00758	-.00698	1.8849	.00487	.00394	6.7576	.10861
SDev	.00173	.00683	.0025	.00375	.00524	.0190	.00032
%RSD	22.824	97.830	.13288	77.094	133.08	.28110	.29746

#1	.00636	-.01181	1.8867	.00221	.00023	6.7710	.10884
#2	.00880	-.00215	1.8831	.00752	.00764	6.7441	.10838

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00112	-.00128	22.677	.02332	.01008	.25146	36.109
SDev	.00000	.00007	.002	.00057	.00069	.00008	.056
%RSD	.09716	5.7570	.01018	2.4298	6.8116	.03278	.15410

#1	.00113	-.00133	22.675	.02372	.00960	.25152	36.148
#2	.00112	-.00123	22.678	.02292	.01057	.25141	36.069

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.41102	3.4579	.01594	-.00349	.29385	.02991	.12529
SDev	.00014	.0664	.00036	.00157	.21943	.00050	.00050
%RSD	.03306	1.9206	2.2425	45.019	74.676	1.6608	.39983

#1	.41092	3.4109	.01619	-.00460	.13869	.02956	.12564
#2	.41111	3.5049	.01569	-.00238	.44901	.03026	.12494

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.3103	.00233	.00394	1.8838	1.8834	-.00291	.00716
SDev	.0025	.00523	.00525	.0029	.0052	.00149	.00488
%RSD	.18950	224.14	133.23	.15659	.27757	51.093	68.261

#1	1.3120	-.00137	.00023	1.8817	1.8871	-.00397	.00370
#2	1.3085	.00603	.00766	1.8859	1.8797	-.00186	.01061

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00640	-.00750	.41460	.05992	4.0263
SDev	.00200	.00089	.00013	.00073	.0095
%RSD	31.245	11.850	.03011	1.2206	.23471

#1	-.00782	-.00688	.41468	.06044	4.0330
#2	-.00499	-.00813	.41451	.05940	4.0196

04 9/10/04

Method: 6010B Sample Name: S4553-02 Operator: DR  
 Run Time: 09/10/04 17:00:32  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02826	-.01400	.14915	.00332	.00132	12.654	.08518
SDev	.00992	.00245	.01001	.00247	.00106	.013	.00040
%RSD	35.096	17.488	6.7126	74.454	80.706	.10169	.46678
#1	.03527	-.01573	.15623	.00157	.00207	12.645	.08546
#2	.02124	-.01227	.14207	.00507	.00057	12.663	.08489
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00163	.00132	159.58	.05493	.01542	.14299	50.029
SDev	.00034	.00040	.10	.00471	.00275	.00098	.922
%RSD	21.213	30.655	.06366	8.5820	17.812	.68540	1.8430
#1	.00187	.00160	159.65	.05826	.01736	.14369	49.377
#2	.00138	.00103	159.51	.05159	.01348	.14230	50.681
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.77706	85.996	.04035	-.00137	1.2799	.07861	.26540
SDev	.00169	.040	.00231	.00472	.6978	.00447	.00211
%RSD	.21801	.04694	5.7321	345.57	54.515	5.6887	.79590
#1	.77586	86.024	.04199	.00197	1.7733	.08177	.26391
#2	.77826	85.967	.03872	-.00470	.78656	.07545	.26690
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4273	.00076	-.00077	.13509	.15417	.00004	.00316
SDev	.0248	.00326	.00333	.00158	.01422	.00269	.00236
%RSD	1.0230	429.84	435.25	1.1729	9.2231	6719.0	74.738
#1	2.4449	.00306	-.00312	.13621	.16422	-.00187	.00149
#2	2.4098	-.00154	.00159	.13397	.14411	.00195	.00483
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00491	-.00798	.74519	-.02373	4.8679		
SDev	.00011	.00022	.00580	.00274	.1094		
%RSD	2.2637	2.7873	.77890	11.558	2.2478		
#1	-.00483	-.00782	.74109	-.02567	4.9453		
#2	-.00499	-.00813	.74930	-.02179	4.7905		

09/10/04

Method: 6010B Sample Name: CCV  
 Run Time: 09/10/04 17:02:32  
 Comment: CCV  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.2636	5.2494	5.1272	5.4555	5.1854	10.392	10.369
SDev	.0198	.0833	.0217	.0060	.0115	.019	.035
%RSD	.37705	1.5864	.42273	.10981	.22112	.18433	.33336
#1	5.2776	5.3083	5.1425	5.4598	5.1935	10.405	10.393
#2	5.2495	5.1905	5.1119	5.4513	5.1773	10.378	10.344
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.25719	2.5709	25.720	1.0035	2.5159	1.2470	5.0395
SDev	.00120	.0175	.215	.0063	.0179	.0012	.1193
%RSD	.46691	.67959	.83485	.62293	.70976	.09536	2.3680
#1	.25804	2.5833	25.872	1.0080	2.5285	1.2462	4.9551
#2	.25634	2.5586	25.568	.99911	2.5032	1.2479	5.1239
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.5002	25.630	2.5538	1.3031	25.976	2.4878	2.5926
SDev	.0106	.057	.0093	.0107	.052	.0075	.0161
%RSD	.42507	.22355	.36229	.81818	.20008	.30176	.62109
#1	2.5077	25.671	2.5604	1.3107	26.013	2.4931	2.6040
#2	2.4927	25.590	2.5473	1.2956	25.939	2.4825	2.5812
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	26.352	5.2402	5.0726	5.1112	5.1330	5.4315	5.4657
SDev	.047	.0051	.0243	.0206	.0425	.0229	.0204
%RSD	.17904	.09646	.47920	.40348	.82815	.42085	.37312
#1	26.318	5.2437	5.0898	5.0966	5.1630	5.4154	5.4801
#2	26.385	5.2366	5.0554	5.1258	5.1029	5.4477	5.4513
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	5.1624	5.2178	4.9920	5.0363	5.4932		
SDev	.0166	.0165	.0102	.0108	.0159		
%RSD	.32086	.31532	.20505	.21420	.28974		
#1	5.1742	5.2294	4.9992	5.0440	Q5.5045		
#2	5.1507	5.2061	4.9847	5.0287	5.4820		

09/10/04

Method: 6010B Sample Name: CCB

Operator: DR

Run Time: 09/10/04 17:05:41

Comment: CCB

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00662	.00316	-.00238	-.00028	.00742	.01490	-.00252
SDev	.00472	.00752	.00229	.00228	.00295	.00227	.00058
%RSD	71.315	238.15	96.214	812.40	39.768	15.239	23.106
#1	.00996	.00847	-.00400	.00133	.00534	.01650	-.00293
#2	.00328	-.00216	-.00076	-.00189	.00951	.01329	-.00211
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00087	-.00143	.04714	.00010	-.00060	-.00543	-.02835
SDev	.00005	.00091	.00000	.00028	.00069	.00008	.00793
%RSD	6.2049	63.412	.00000	277.44	115.12	1.4664	27.970
#1	.00091	-.00207	.04714	.00030	-.00011	-.00548	-.03396
#2	.00083	-.00079	.04714	-.00010	-.00108	-.00537	-.02274
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00036	.01408	-.00083	-.00067	-.68680	-.00128	-.00746
SDev	.00028	.00130	.00158	.00000	.01829	.00150	.00025
%RSD	76.106	9.2508	189.60	.51071	2.6625	117.51	3.3920
#1	-.00056	.01316	-.00195	-.00067	-.67387	-.00234	-.00764
#2	-.00017	.01500	.00028	-.00067	-.69974	-.00022	-.00728
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00024	.00738	.00431	-.01570	.00227	.00557	-.00500
SDev	.00447	.00477	.00068	.00213	.00450	.00386	.00149
%RSD	1862.3	64.572	15.775	13.575	198.23	69.401	29.856
#1	.00292	.00401	.00479	-.01419	-.00091	.00830	-.00394
#2	-.00340	.01075	.00383	-.01721	.00545	.00284	-.00606
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00617	.00995	-.00043	.00484	.01734		
SDev	.01112	.00956	.00025	.00439	.00995		
%RSD	180.09	96.125	58.398	90.609	57.380		
#1	.01403	.01671	-.00060	.00174	.02437		
#2	-.00169	.00319	-.00025	.00795	.01030		

09/10/04

Method: 6010B Sample Name: S4553-03 Operator: DR  
 Run Time: 09/10/04 17:07:33  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03961	-.02111	.63476	.01937	.00814	26.901	.38430
SDev	.00366	.00772	.01570	.00132	.00261	.364	.00345
%RSD	9.2322	36.583	2.4728	6.8360	32.036	1.3529	.89844

#1	.03702	-.01565	.62366	.01843	.00629	26.643	.38186
#2	.04220	-.02657	.64585	.02031	.00998	27.158	.38674

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00215	.01512	36.519	.06712	.08081	1.9605	225.77
SDev	.00012	.00107	.776	.00396	.00412	.0154	4.25
%RSD	5.5162	7.0745	2.1243	5.8985	5.0998	.78758	1.8836

#1	.00223	.01588	35.971	.06992	.08373	1.9496	222.76
#2	.00206	.01436	37.068	.06432	.07790	1.9715	228.77

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.4632	12.453	.12242	.01339	1.6624	.10334	.30459
SDev	.0368	.026	.00034	.03666	.8421	.01534	.00515
%RSD	1.4923	.20914	.28196	273.85	50.657	14.842	1.6894

#1	2.4372	12.435	.12218	.03930	2.2579	.11419	.30096
#2	2.4892	12.472	.12267	-.01253	1.0669	.09250	.30823

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.2873	.00508	.01106	.62381	.63822	-.00426	.02947
SDev	.0084	.00296	.01376	.00051	.02379	.00476	.00422
%RSD	.25682	58.401	124.45	.08238	3.7274	111.69	14.323

#1	3.2933	.00717	.00133	.62417	.62140	-.00090	.02649
#2	3.2814	.00298	.02079	.62344	.65504	-.00763	.03246

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00530	-.02040	.80530	.87443	5.6504
SDev	.00111	.00133	.01342	.00841	.0642
%RSD	20.960	6.5404	1.6663	.96185	1.1355

#1	-.00452	-.01945	.79581	.86849	5.6051
#2	-.00609	-.02134	.81479	.88038	5.6958

OK 9/10/04

Method: 6010B Sample Name: S4553-04 Operator: DR  
 Run Time: 09/10/04 17:09:23  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00288	-.00544	.25227	.00244	.00225	12.413	.14316
SDev	.00283	.00414	.00170	.00018	.00058	.056	.00033
%RSD	98.283	76.046	.67326	7.2917	25.853	.44783	.22744
#1	.00488	-.00251	.25107	.00257	.00184	12.374	.14293
#2	.00088	-.00836	.25347	.00232	.00266	12.452	.14339
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00148	-.00358	68.396	.02171	.00830	.05802	22.677
SDev	.00008	.00289	.145	.00341	.00229	.00118	.199
%RSD	5.3597	80.761	.21267	15.719	27.569	2.0377	.87686
#1	.00143	-.00562	68.499	.01930	.00668	.05718	22.817
#2	.00154	-.00154	68.293	.02412	.00992	.05885	22.536
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.64173	16.362	.02356	-.01683	.40682	.03043	.13069
SDev	.00179	.043	.00316	.02124	.17516	.01000	.00029
%RSD	.27844	.26263	13.409	126.18	43.057	32.856	.22065
#1	.64047	16.332	.02132	-.03185	.28296	.02336	.13048
#2	.64299	16.393	.02579	-.00181	.53067	.03750	.13089
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.3220	-.00144	.00644	.24693	.25293	.00007	.00183
SDev	.0258	.00230	.00287	.00104	.00307	.00388	.00167
%RSD	1.1122	159.39	44.532	.42253	1.2127	5539.1	91.409
#1	2.3037	-.00307	.00847	.24767	.25076	.00281	.00065
#2	2.3402	.00018	.00441	.24620	.25510	-.00267	.00301
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00656	-.00263	.64515	-.03356	4.5880		
SDev	.00111	.00022	.00000	.00384	.0328		
%RSD	16.942	8.4494	.00000	11.443	.71549		
#1	-.00578	-.00279	.64515	-.03627	4.5648		
#2	-.00735	-.00247	.64515	-.03084	4.6112		

9/29/04



Method: 6010B Sample Name: S4553-05

Operator: DR

Run Time: 09/10/04 17:11:24

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02813	-.01214	1.6082	.01007	.00193	38.896	.62116
SDev	.00425	.00345	.0236	.00503	.00023	.261	.00258
%RSD	15.094	28.376	1.4674	49.938	11.996	.67003	.41544

#1	.03113	-.01458	1.5915	.00652	.00177	38.712	.61933
#2	.02513	-.00971	1.6248	.01363	.00210	39.081	.62298

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00383	.00669	106.21	.06611	.04083	.85051	102.03
SDev	.00013	.00233	1.19	.00201	.00481	.00037	.85
%RSD	3.4589	34.866	1.1238	3.0435	11.774	.04306	.83363

#1	.00392	.00834	105.37	.06753	.04423	.85025	101.43
#2	.00374	.00504	107.06	.06469	.03743	.85077	102.63

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0294	15.326	.08150	.00551	1.7073	.12137	.82886
SDev	.0133	.057	.00174	.01947	.4052	.00897	.00669
%RSD	.65487	.37386	2.1325	353.40	23.732	7.3906	.80693

#1	2.0200	15.286	.08273	.01928	1.9938	.12772	.82413
#2	2.0388	15.367	.08027	-.00826	1.4208	.11503	.83359

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.6183	-.00275	.00812	1.6111	1.6047	-.00644	.01662
SDev	.1122	.00196	.00324	.0096	.0306	.00098	.00817
%RSD	1.3023	71.279	39.835	.59470	1.9067	15.176	49.168

#1	8.6977	-.00414	.01041	1.6043	1.5831	-.00575	.01084
#2	8.5389	-.00137	.00583	1.6179	1.6263	-.00713	.02240

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00892	.00429	1.7212	-.02063	14.182
SDev	.00189	.00111	.0123	.00201	.113
%RSD	21.177	25.937	.71433	9.7507	.79964

#1	.01026	.00350	1.7125	-.01920	14.101
#2	.00759	.00507	1.7299	-.02205	14.262

09/10/04

Method: 6010B Sample Name: S4553-06 Operator: DR  
 Run Time: 09/10/04 17:13:22  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05046	-.02048	.89292	.00756	.00490	58.911	.77527
SDev	.00379	.00306	.00402	.00273	.00402	.012	.00014
%RSD	7.5067	14.941	.45072	36.066	82.001	.02059	.01736
#1	.05314	-.01832	.89576	.00949	.00774	58.902	.77517
#2	.04778	-.02265	.89007	.00563	.00206	58.919	.77536
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00343	.00811	119.43	.17048	.06462	.37550	124.47
SDev	.00006	.00071	.61	.00254	.00046	.00098	.52
%RSD	1.7027	8.7640	.51228	1.4901	.70919	.26245	.41503
#1	.00339	.00862	119.87	.17227	.06495	.37619	124.83
#2	.00348	.00761	119.00	.16868	.06430	.37480	124.10
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.1503	22.253	.11659	-.00575	2.0449	.17019	.92117
SDev	.0113	.082	.00195	.00661	.3609	.00352	.00216
%RSD	.52754	.36867	1.6694	115.06	17.650	2.0715	.23416
#1	2.1583	22.311	.11521	-.00107	2.3001	.17269	.92270
#2	2.1422	22.195	.11797	-.01042	1.7897	.16770	.91965
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	15.693	.00301	.00549	.87233	.90110	-.00257	.01083
SDev	.084	.00365	.00475	.00637	.00907	.01105	.00143
%RSD	.53481	121.32	86.647	.73075	1.0071	429.36	13.190
#1	15.753	.00559	.00885	.86782	.90751	.00524	.00982
#2	15.634	.00043	.00212	.87684	.89468	-.01039	.01184
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00098	.00413	4.6406	-.26679	6.7502		
SDev	.00100	.00133	.0145	.00201	.0199		
%RSD	102.05	32.309	.31337	.75387	.29473		
#1	-.00169	.00507	4.6509	-.26821	6.7643		
#2	-.00027	.00319	4.6303	-.26537	6.7361		

09/10/04

Method: 6010B

Sample Name: PB00854BL

Operator: DR

Run Time: 09/10/04 17:15:33

Comment: PBW

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00006	.00316	-.00399	-.00390	.00453	.03371	-.00357
SDev	.00252	.00752	.00026	.00383	.00137	.01216	.00026
%RSD	4525.7	238.08	6.4825	98.028	30.373	36.074	7.2444
#1	-.00184	-.00216	-.00381	-.00120	.00355	.04231	-.00339
#2	.00173	.00847	-.00418	-.00661	.00550	.02511	-.00376
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00098	-.00239	.04224	.00010	-.00044	-.00554	.01099
SDev	.00000	.00000	.02078	.00057	.00000	.00008	.00000
%RSD	.00024	.00001	49.190	560.67	.08562	1.4361	.01616
#1	.00098	-.00239	.05694	-.00030	-.00044	-.00548	.01099
#2	.00098	-.00239	.02755	.00050	-.00044	-.00559	.01098
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00026	.01039	.00160	-.00138	-.64597	-.00092	-.00747
SDev	.00014	.00391	.00186	.00011	.11645	.00000	.00026
%RSD	52.292	37.587	116.44	8.2742	18.028	.11222	3.4310
#1	-.00017	.01316	.00028	-.00146	-.72832	-.00092	-.00765
#2	-.00036	.00763	.00292	-.00130	-.56363	-.00092	-.00729
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01007	.00531	-.00025	-.01327	-.00136	.00316	-.00913
SDev	.00745	.00399	.00387	.00335	.00128	.01046	.00037
%RSD	73.956	75.174	1531.4	25.217	94.178	331.01	4.0962
#1	-.01534	.00249	.00249	-.01091	-.00227	.01055	-.00886
#2	-.00481	.00814	-.00299	-.01564	-.00045	-.00424	-.00939
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.01065	-.00719	-.00038	-.00537	.01909		
SDev	.00089	.00222	.00081	.00201	.00149		
%RSD	8.3513	30.920	211.64	37.448	7.8143		
#1	-.01002	-.00562	.00019	-.00395	.02015		
#2	-.01128	-.00876	-.00096	-.00679	.01804		

09/10/04

Method: 6010B

Sample Name: PB00854BS

Operator: DR

Run Time: 09/10/04 17:17:51

Comment: LCSW

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.77372	1.9375	.95046	1.7308	.79147	1.8589	2.3146
SDev	.00379	.0082	.00739	.0207	.00218	.0069	.0103
%RSD	.48928	.42256	.77705	1.1982	.27515	.36944	.44462
#1	.77104	1.9317	.94524	1.7162	.78993	1.8541	2.3074
#2	.77640	1.9433	.95568	1.7455	.79301	1.8638	2.3219
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.18474	.20357	5.1359	.41672	.19536	.30481	3.0912
SDev	.00162	.00193	.0716	.00398	.00183	.00008	.0397
%RSD	.87626	.95017	1.3936	.95391	.93671	.02723	1.2844
#1	.18359	.20220	5.0853	.41391	.19406	.30475	3.0631
#2	.18588	.20493	5.1866	.41954	.19665	.30487	3.1193
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.21226	2.0049	.50649	.07740	2.8009	.30545	.23479
SDev	.00235	.0143	.00853	.00047	.1713	.00201	.00382
%RSD	1.1066	.71449	1.6846	.61095	6.1162	.65769	1.6273
#1	.21060	1.9947	.50046	.07707	2.6798	.30403	.23209
#2	.21392	2.0150	.51253	.07774	2.9221	.30687	.23749
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.4622	.80255	.76607	.96329	.94206	1.7266	1.7312
SDev	.0303	.00048	.00750	.00367	.00924	.0135	.0242
%RSD	.32015	.05957	.97870	.38073	.98102	.78351	1.3976
#1	9.4836	.80289	.76077	.96070	.93552	1.7170	1.7141
#2	9.4407	.80222	.77137	.96588	.94859	1.7361	1.7483
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.41218	.27814	.20792	.67869	Q.92999		
SDev	.00656	.00156	.00144	.00951	.00249		
%RSD	1.5913	.55952	.69040	1.4009	.26741		
#1	.40754	.27704	.20691	.67197	Q.93174		
#2	.41682	.27924	.20894	.68541	Q.92823		

OK 9/10/04

Method: 6010B

Sample Name: PB00854BSD

Operator: DR

Run Time: 09/10/04 17:19:48

Comment: LCSWD

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.78063	1.9143	.96096	1.7539	.79898	1.8649	2.3212
SDev	.01417	.0075	.00098	.0134	.00228	.0061	.0091
%RSD	1.8155	.39280	.10190	.76637	.28500	.32632	.39039

#1	.79065	1.9089	.96026	1.7444	.79737	1.8606	2.3148
#2	.77061	1.9196	.96165	1.7634	.80059	1.8692	2.3276

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.18581	.20436	5.1947	.42175	.19795	.30554	3.0799
SDev	.00020	.00219	.0115	.00170	.00000	.00223	.0079
%RSD	.10979	1.0722	.22223	.40419	.00013	.72887	.25803

#1	.18595	.20282	5.2029	.42295	.19795	.30397	3.0743
#2	.18566	.20591	5.1866	.42054	.19795	.30712	3.0855

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.21353	2.0104	.51090	.07780	2.7628	.30793	.23569
SDev	.00055	.0039	.00129	.00102	.0404	.00050	.00000
%RSD	.25872	.19432	.25260	1.3144	1.4631	.16147	.00038

#1	.21392	2.0076	.50999	.07852	2.7342	.30758	.23569
#2	.21314	2.0132	.51182	.07708	2.7914	.30828	.23569

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.5071	.81058	.77253	.96134	.95876	1.7439	1.7573
SDev	.0432	.00354	.00026	.00559	.00426	.0009	.0197
%RSD	.45446	.43690	.03304	.58174	.44435	.05219	1.1209

#1	9.4765	.80808	.77272	.96530	.95575	1.7432	1.7434
#2	9.5377	.81308	.77235	.95739	.96178	1.7445	1.7712

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.41761	.28097	.20911	.67960	Q.93350
SDev	.00044	.00422	.00013	.01042	.00547
%RSD	.10649	1.5034	.05969	1.5335	.58608

#1	.41792	.28396	.20903	.68697	Q.92963
#2	.41729	.27799	.20920	.67223	Q.93737

OK 9/10/04

Method: 6010B Sample Name: S4366-02 Operator: DR  
 Run Time: 09/10/04 17:22:02  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00431	.00123	.00422	-.00196	.00255	-.18827	.04139
SDev	.00079	.01093	.00206	.00296	.00032	.00227	.00006
%RSD	18.261	890.50	48.775	151.20	12.471	1.2077	.15598
#1	.00486	.00896	.00568	.00014	.00278	-.18988	.04144
#2	.00375	-.00650	.00277	-.00405	.00233	-.18666	.04135
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00105	-.00185	26.729	-.00047	-.00076	.00725	2.2815
SDev	.00000	.00054	.025	.00043	.00046	.00016	.0159
%RSD	.10491	28.992	.09502	90.968	60.365	2.2105	.69651
#1	.00105	-.00223	26.711	-.00077	-.00044	.00736	2.2928
#2	.00105	-.00147	26.747	-.00017	-.00108	.00714	2.2703
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.35884	2.2931	.00161	-.00135	1.4385	-.00048	.04104
SDev	.00028	.0026	.00222	.00035	.1347	.00050	.00077
%RSD	.07713	.11358	138.40	25.919	9.3666	104.60	1.8803
#1	.35904	2.2912	.00003	-.00110	1.5338	-.00012	.04050
#2	.35865	2.2949	.00318	-.00159	1.3432	-.00083	.04159
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.9126	.00183	.00078	.00104	.00381	-.00007	-.00460
SDev	.0214	.00108	.00120	.00202	.00410	.00159	.00350
%RSD	.36117	58.755	153.27	194.53	107.48	2262.0	76.076
#1	5.8975	.00259	-.00007	-.00039	.00671	.00106	-.00212
#2	5.9277	.00107	.00163	.00247	.00091	-.00120	-.00707
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00971	.03431	.00068	-.01028	2.8629		
SDev	.00067	.00044	.00031	.00457	.0085		
%RSD	6.8722	1.2959	46.176	44.449	.29534		
#1	-.01018	.03463	.00090	-.00705	2.8689		
#2	-.00923	.03400	.00046	-.01352	2.8569		

04/10/04

Method: 6010B Sample Name: S4414-01

Operator: DR

Run Time: 09/10/04 17:24:59

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00818	.00526	~.00250	-.00166	.00094	-.21569	.01057
SDev	.00441	.01196	.00131	.00443	.00014	.00304	.00006
%RSD	53.878	227.45	52.363	266.38	14.654	1.4108	.61475
#1	.00507	-.00320	-.00343	.00147	.00084	-.21353	.01061
#2	.01130	.01372	-.00158	-.00479	.00104	-.21784	.01052
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00094	-.00247	24.830	-.00030	-.00173	-.00373	.08404
SDev	.00005	.00066	.023	.00000	.00046	.00024	.02385
%RSD	5.2747	26.810	.09299	.20344	26.454	6.4340	28.379
#1	.00098	-.00200	24.846	-.00030	-.00205	-.00390	.06718
#2	.00091	-.00294	24.814	-.00030	-.00141	-.00356	.10091
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02659	6.9533	-.00124	-.00088	17.140	-.00057	.02118
SDev	.00000	.0013	.00115	.00010	.042	.00050	.00052
%RSD	.00341	.01873	92.500	11.792	.24707	88.251	2.4394
#1	.02659	6.9524	-.00205	-.00080	17.110	-.00021	.02154
#2	.02659	6.9542	-.00043	-.00095	17.170	-.00092	.02081
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0072	.00172	-.00384	~.00995	-.00078	.00259	-.00558
SDev	.0010	.00323	.00688	.00250	.00321	.00807	.00261
%RSD	.09861	187.24	179.16	25.149	411.76	311.58	46.719
#1	1.0065	.00401	-.00871	-.00818	-.00305	.00830	-.00374
#2	1.0079	-.00056	.00102	-.01172	.00149	-.00312	-.00743
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	~.00664	.07927	-.00043	-.03407	.93245		
SDev	.00167	.00044	.00000	.00165	.01094		
%RSD	25.113	.56091	.00000	4.8296	1.1735		
#1	-.00546	.07959	-.00043	-.03291	.94019		
#2	-.00782	.07896	-.00043	-.03524	.92471		

by 9/10/04

Method: 6010B      Sample Name: S4414-02      Operator: DR  
 Run Time: 09/10/04 17:26:56  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00217	.00483	.00046	-.00000	.00368	-.20655	.06458
SDev	.00315	.00855	.00259	.00032	.00002	.00381	.00006
%RSD	144.96	177.01	565.23	6589.8	.61009	1.8450	.10011
#1	-.00005	-.00121	-.00137	-.00023	.00369	-.20385	.06453
#2	.00440	.01087	.00229	.00022	.00366	-.20924	.06462
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00116	-.00339	143.49	.00030	-.00157	-.00239	.01660
SDev	.00015	.00022	1.22	.00085	.00023	.00056	.00796
%RSD	12.981	6.4246	.85278	282.30	14.578	23.288	47.985
#1	.00126	-.00354	142.63	.00090	-.00141	-.00200	.01096
#2	.00105	-.00323	144.36	-.00030	-.00173	-.00278	.02223
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00764	17.243	.00104	-.00057	24.195	-.00021	.01619
SDev	.00000	.005	.00136	.00057	.484	.00100	.00051
%RSD	.00562	.03021	130.61	98.674	2.0008	468.89	3.1519
#1	.00764	17.240	.00201	-.00017	24.537	.00049	.01583
#2	.00764	17.247	.00008	-.00098	23.853	-.00092	.01655
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.5919	.00270	.00243	-.00746	.00241	.00460	-.00410
SDev	.0045	.00153	.00301	.00053	.00362	.00296	.00099
%RSD	.28077	56.744	123.78	7.1267	149.91	64.216	24.222
#1	1.5951	.00379	.00030	-.00783	-.00014	.00251	-.00340
#2	1.5888	.00162	.00455	-.00708	.00497	.00669	-.00481
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00861	.11826	-.00171	-.11384	3.5747		
SDev	.00089	.00089	.00019	.00037	.0124		
%RSD	10.335	.75198	10.967	.32122	.34784		
#1	-.00923	.11763	-.00157	-.11358	3.5659		
#2	-.00798	.11889	-.00184	-.11410	3.5835		

09/10/04



Method: 6010B Sample Name: CCV  
 Run Time: 09/10/04 17:28:51  
 Comment: CCV  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.2623	5.2986	5.0857	5.4584	5.1900	10.289	10.362
SDev	.0052	.0721	.0136	.0593	.0228	.012	.003
%RSD	.09865	1.3604	.26730	1.0871	.43863	.11904	.02811
#1	5.2586	5.3495	5.0761	5.4164	5.1739	10.297	10.364
#2	5.2660	5.2476	5.0953	Q5.5003	5.2061	10.280	10.360
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.25700	2.5747	25.507	.99420	2.4953	1.2308	4.8600
SDev	.00003	.0047	.030	.00241	.0007	.0016	.0078
%RSD	.01118	.18243	.11767	.24263	.02755	.12923	.16073
#1	.25702	2.5781	25.529	.99591	2.4948	1.2319	4.8656
#2	.25698	2.5714	25.486	.99250	2.4958	1.2296	4.8545
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.4761	25.436	2.5556	1.3023	26.029	2.4634	2.5797
SDev	.0011	.027	.0042	.0001	.114	.0100	.0089
%RSD	.04461	.10751	.16273	.00853	.43631	.40616	.34682
#1	2.4769	25.455	2.5586	1.3023	26.109	2.4704	2.5861
#2	2.4753	25.416	2.5527	1.3024	25.949	2.4563	2.5734
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	26.187	5.2742	5.0181	5.0691	5.0918	5.4501	5.4607
SDev	.132	.0059	.0566	.0080	.0245	.0159	.0810
%RSD	.50445	.11092	1.1288	.15730	.48123	.29199	1.4837
#1	26.280	5.2701	4.9780	5.0747	5.0745	5.4388	5.4034
#2	26.093	5.2784	5.0581	5.0635	5.1092	5.4613	5.5180
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	5.1801	5.2183	4.9305	4.9841	Q5.6005		
SDev	.0097	.0127	.0061	.0335	.0154		
%RSD	.18671	.24284	.12279	.67133	.27530		
#1	5.1732	5.2093	4.9348	5.0078	Q5.5896		
#2	5.1869	5.2272	4.9262	4.9604	Q5.6114		

OK 9/10/04

Method: 6010B Sample Name: CCB  
 Run Time: 09/10/04 17:31:05  
 Comment: CCB  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00673	.00366	.00138	-.00121	.00387	.02565	-.00316
SDev	.00331	.01163	.00251	.00403	.00123	.00076	.00006
%RSD	49.102	317.98	181.59	334.34	31.766	2.9640	2.0497

#1	.00907	Q.01188	-.00039	.00165	.00300	.02618	-.00321
#2	.00440	-.00457	.00316	-.00406	.00473	.02511	-.00312

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00119	-.00170	.02265	-.00070	-.00173	-.00571	-.01711
SDev	.00000	.00034	.00231	.00000	.00000	.00032	.00795
%RSD	.00006	20.198	10.193	.03401	.02818	5.5805	46.446

#1	.00119	-.00146	.02428	-.00070	-.00173	-.00548	-.01149
#2	.00119	-.00194	.02102	-.00070	-.00173	-.00593	-.02273

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00056	.00671	.00120	-.00075	-.60514	-.00092	-.00837
SDev	.00000	.00130	.00244	.00012	.06641	.00000	.00000
%RSD	.04555	19.406	203.86	15.756	10.974	.03437	.02128

#1	-.00056	.00763	-.00053	-.00066	-.55818	-.00092	-.00837
#2	-.00056	.00579	.00292	-.00083	-.65210	-.00092	-.00837

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00094	.00423	-.00007	.00072	-.00029	.00227	-.00464
SDev	.00546	.00031	.00430	.00159	.00297	.00034	.00574
%RSD	579.71	7.2566	6117.9	219.81	1039.5	15.020	123.55

#1	.00292	.00445	-.00311	-.00040	-.00239	.00251	-.00059
#2	-.00481	.00401	.00297	.00185	.00182	.00203	-.00870

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00412	-.00295	-.00082	-.00666	.02367
SDev	.00278	.00289	.00019	.00201	.00100
%RSD	67.379	98.118	22.704	30.183	4.2032

#1	-.00216	-.00090	-.00069	-.00524	.02296
#2	-.00609	-.00499	-.00096	-.00809	.02437

*OK 9/10/04*

Method: 6010B Sample Name: S4414-03

Operator: DR

Run Time: 09/10/04 17:34:59

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00095	.00285	.00322	-.00061	.00346	-.21031	.01972
SDev	.00866	.00444	.00028	.00149	.00212	.00151	.00019
%RSD	911.28	156.01	8.6707	243.58	61.352	.71970	.98595
#1	.00707	.00599	.00342	-.00167	.00196	-.21138	.01986
#2	-.00517	-.00029	.00302	.00044	.00496	-.20924	.01958
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00126	-.00224	6.8567	.00049	-.00173	-.00338	.35381
SDev	.00000	.00031	.0762	.00085	.00046	.00008	.02385
%RSD	.08716	13.787	1.1112	173.09	26.463	2.3179	6.7419
#1	.00126	-.00246	6.9106	.00110	-.00141	-.00333	.33694
#2	.00126	-.00202	6.8028	-.00011	-.00205	-.00344	.37068
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03373	6.6577	-.00074	-.00124	19.403	-.00055	.01585
SDev	.00069	.1328	.00029	.00010	.569	.00050	.00025
%RSD	2.0441	1.9951	38.921	8.2882	2.9315	90.483	1.6001
#1	.03422	6.7516	-.00054	-.00117	19.805	-.00020	.01567
#2	.03324	6.5638	-.00094	-.00132	19.000	-.00091	.01603
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.1007	.00562	-.00408	.00427	.00070	.00751	-.00636
SDev	.0238	.00292	.00051	.00213	.00064	.00000	.00238
%RSD	2.1658	51.994	12.571	49.808	92.360	.02293	37.356
#1	1.1175	.00355	-.00445	.00578	.00024	.00750	-.00805
#2	1.0838	.00769	-.00372	.00277	.00115	.00751	-.00468
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00538	.08808	-.00047	-.02528	.16434		
SDev	.00033	.00044	.00031	.00347	.00497		
%RSD	6.1961	.50484	66.167	13.741	3.0264		
#1	-.00562	.08839	-.00025	-.02282	.16786		
#2	-.00515	.08776	-.00069	-.02774	.16083		

ok 9/10/04

Method: 6010B Sample Name: S4414-04

Operator: DR

Run Time: 09/10/04 17:37:18

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00373	-.00047	.00349	-.00345	.00317	-.22266	.05780
SDev	.00315	.00172	.00033	.00059	.00008	.00077	.00006
%RSD	84.381	362.90	9.4633	17.249	2.4174	.34532	.11170
#1	.00150	-.00169	.00325	-.00387	.00323	-.22211	.05776
#2	.00596	.00074	.00372	-.00303	.00312	-.22320	.05785
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00123	-.00301	106.31	.00050	.00151	-.00295	.01098
SDev	.00005	.00044	.11	.00085	.00183	.00072	.01590
%RSD	4.1338	14.672	.10424	169.55	121.51	24.269	144.86
#1	.00126	-.00270	106.23	.00111	.00280	-.00244	-.00027
#2	.00119	-.00332	106.39	-.00010	.00021	-.00346	.02222
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00286	12.796	.00145	-.00098	19.868	-.00021	.01621
SDev	.00014	.026	.00065	.00091	.451	.00000	.00000
%RSD	4.8010	.20354	44.561	92.592	2.2719	.42916	.01387
#1	.00296	12.814	.00191	-.00034	20.187	-.00021	.01621
#2	.00276	12.777	.00099	-.00162	19.549	-.00021	.01621
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.7100	.00216	.00200	.00422	.00112	.00469	-.00931
SDev	.0134	.00046	.00069	.00163	.00032	.00102	.00038
%RSD	.49478	21.237	34.375	38.713	28.659	21.857	4.0841
#1	2.7195	.00248	.00152	.00307	.00135	.00396	-.00957
#2	2.7005	.00184	.00249	.00538	.00089	.00541	-.00904
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00853	.06292	-.00180	-.04972	4.7420		
SDev	.00011	.00178	.00031	.00293	.0099		
%RSD	1.3038	2.8266	17.379	5.8843	.20977		
#1	-.00845	.06418	-.00157	-.05179	4.7350		
#2	-.00861	.06167	-.00202	-.04765	4.7490		

029/10/04

Method: 6010B      Sample Name: S4414-05      Operator: DR  
 Run Time: 09/10/04 17:39:34  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00173	-.00312	.00438	-.00195	-.00055	-.22321	.07547
SDev	.00157	.00342	.00194	.00336	.00192	.00152	.00006
%RSD	91.223	109.58	44.289	172.26	348.28	.68256	.08587
#1	.00284	-.00554	.00301	-.00433	.00081	-.22213	.07551
#2	.00061	-.00070	.00576	.00043	-.00191	-.22428	.07542
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00119	-.00306	125.65	-.00010	-.00157	-.00256	.01660
SDev	.00000	.00006	.23	.00028	.00069	.00000	.00795
%RSD	.00016	1.9980	.18559	284.27	43.817	.00253	47.882
#1	.00119	-.00310	125.49	-.00030	-.00108	-.00256	.01098
#2	.00119	-.00301	125.82	.00010	-.00205	-.00256	.02222
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00237	14.835	-.00073	-.00138	13.302	-.00021	.01784
SDev	.00000	.007	.00158	.00011	.015	.00000	.00026
%RSD	.01340	.04389	215.66	8.0167	.11577	.38942	1.4429
#1	.00237	14.840	-.00185	-.00130	13.291	-.00021	.01802
#2	.00237	14.831	.00038	-.00146	13.313	-.00021	.01766
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.1979	-.00197	-.00092	.00762	.00077	.00107	-.00516
SDev	.0233	.00108	.00361	.00583	.00000	.00432	.00275
%RSD	1.9485	54.740	393.67	76.551	.04522	404.22	53.200
#1	1.1814	-.00121	.00164	.00349	.00077	-.00199	-.00710
#2	1.2144	-.00273	-.00347	.01174	.00077	.00412	-.00322
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00963	.04893	-.00171	-.05515	4.1251		
SDev	.00189	.00067	.00006	.00000	.0040		
%RSD	19.630	1.3630	3.6556	.00000	.09646		
#1	-.01096	.04940	-.00166	-.05515	4.1223		
#2	-.00829	.04846	-.00175	-.05515	4.1280		

OK 9/10/04

Method: 6010B Sample Name: S4414-06

Operator: DR

Run Time: 09/10/04 17:41:29

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00519	-.00233	.00503	-.00179	.00077	.28528	.06214
SDev	.00236	.00787	.00199	.00179	.00056	.00304	.00026
%RSD	45.522	338.02	39.624	99.478	72.401	1.0658	.41666
#1	.00686	-.00789	.00644	-.00053	.00117	.28743	.06232
#2	.00352	.00323	.00362	-.00306	.00038	.28313	.06196
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00119	-.00346	84.294	.00097	.00086	-.00294	1.1350
SDev	.00000	.00063	.113	.00043	.00000	.00000	.0000
%RSD	.00015	18.123	.13421	43.873	.01334	.00001	.00011
#1	.00119	-.00301	84.374	.00127	.00086	-.00294	1.1350
#2	.00119	-.00390	84.214	.00067	.00086	-.00294	1.1350
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.15620	12.984	.00148	-.00160	12.743	.00054	.01253
SDev	.00014	.018	.00057	.00011	.028	.00000	.00051
%RSD	.08841	.14042	38.834	7.1308	.21903	.14372	4.0783
#1	.15630	12.971	.00188	-.00152	12.763	.00054	.01299
#2	.15610	12.997	.00107	-.00168	12.723	.00054	.01217
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.6709	.00102	-.00292	.00649	.00231	.00501	-.00699
SDev	.0139	.00200	.00232	.00318	.00458	.00261	.00137
%RSD	.83218	196.70	79.522	49.056	198.40	52.186	19.614
#1	1.6808	.00243	-.00456	.00424	.00555	.00686	-.00602
#2	1.6611	-.00040	-.00128	.00874	-.00093	.00316	-.00796
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00853	.04044	.00178	-.03485	3.6117		
SDev	.00011	.00067	.00025	.00786	.0080		
%RSD	1.3038	1.6491	14.032	22.561	.22034		
#1	-.00845	.04092	.00196	-.04041	3.6173		
#2	-.00861	.03997	.00160	-.02929	3.6060		

029/10/04

Method: 6010B Sample Name: S4414-07

Operator: DR

Run Time: 09/10/04 17:43:37

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00607	-.00096	.00471	-.00272	.00206	-.22483	.00553
SDev	.00220	.01539	.00076	.00328	.00082	.00380	.00019
%RSD	36.315	1608.1	16.115	120.58	39.734	1.6899	3.5069
#1	-.00451	.00992	.00524	-.00040	.00148	-.22214	.00567
#2	-.00762	-.01184	.00417	-.00504	.00264	-.22752	.00540
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00119	-.00258	3.8413	-.00041	-.00157	-.00322	.16836
SDev	.00010	.00060	.0185	.00071	.00069	.00111	.01590
%RSD	8.4080	23.220	.48085	175.23	43.783	34.498	9.4471
#1	.00112	-.00300	3.8544	-.00091	-.00108	-.00401	.17960
#2	.00126	-.00215	3.8282	.00010	-.00205	-.00244	.15711
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00892	9.8907	-.00139	-.00172	9.7928	-.00127	.01978
SDev	.00014	.0586	.00136	.00091	.6852	.00050	.00103
%RSD	1.5577	.59248	97.739	52.747	6.9975	39.440	5.1896
#1	.00902	9.8493	-.00043	-.00236	9.3082	-.00162	.01905
#2	.00882	9.9321	-.00236	-.00108	10.277	-.00092	.02050
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.95562	.00129	.00041	.00922	.00045	.00164	-.00669
SDev	.01639	.00415	.00585	.00260	.00016	.00034	.00474
%RSD	1.7149	322.58	1411.2	28.167	35.206	20.877	70.877
#1	.94403	-.00165	.00455	.01105	.00034	.00188	-.00334
#2	.96721	.00422	-.00372	.00738	.00057	.00140	-.01004
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00923	.03871	.00050	-.00434	.24910		
SDev	.00044	.00089	.00019	.00786	.00647		
%RSD	4.8155	2.2971	37.501	181.30	2.5956		
#1	-.00892	.03809	.00063	-.00990	.25368		
#2	-.00955	.03934	.00037	.00122	.24453		

029/10/04

Method: 6010B Sample Name: S4414-08

Operator: DR

Run Time: 09/10/04 17:45:30

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00217	.00235	.00278	-.00257	.00351	-.20332	.06343
SDev	.00142	.00376	.00099	.00414	.00120	.00684	.00013
%RSD	65.309	159.98	35.715	160.89	34.288	3.3626	.20320
#1	-.00117	-.00031	.00348	.00035	.00266	-.20815	.06352
#2	-.00317	.00501	.00208	-.00550	.00436	-.19848	.06334
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00130	-.00330	145.75	-.00020	-.00011	-.00295	-.00588
SDev	.00005	.00036	1.50	.00042	.00000	.00056	.05563
%RSD	3.9884	10.795	1.0281	212.66	.14096	18.972	946.33
#1	.00126	-.00355	146.80	.00010	-.00011	-.00256	.03346
#2	.00134	-.00304	144.69	-.00050	-.00011	-.00335	-.04521
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03039	16.686	.00185	-.00108	9.9772	-.00057	.02009
SDev	.00014	.061	.00079	.00060	.0972	.00050	.00001
%RSD	.46127	.36679	42.463	55.119	.97426	88.416	.05959
#1	.03049	16.730	.00241	-.00066	9.9085	-.00021	.02009
#2	.03029	16.643	.00130	-.00150	10.046	-.00092	.02010
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.4855	.00260	.00212	.00191	.00122	.00668	-.00879
SDev	.0079	.00077	.00206	.00073	.00112	.00864	.00189
%RSD	.53489	29.749	97.176	38.430	92.243	129.34	21.506
#1	1.4911	.00205	.00066	.00243	.00201	.01279	-.00746
#2	1.4799	.00314	.00358	.00139	.00042	.00057	-.01013
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.01018	.09861	-.00157	-.09432	4.0914		
SDev	.00111	.00022	.00000	.00311	.0169		
%RSD	10.923	.22546	.00000	3.2954	.41332		
#1	-.00939	.09877	-.00157	-.09212	4.1033		
#2	-.01096	.09845	-.00157	-.09652	4.0794		

019/10/04



Method: 6010B      Sample Name: S4414-08D      Operator: DR  
 Run Time: 09/10/04 17:47:20  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00462	.00236	.00411	-.00294	.00057	-.20332	.06329
SDev	.00283	.00718	.00103	.00019	.00389	.00381	.00006
%RSD	61.367	304.60	25.077	6.3666	687.83	1.8747	.10250

#1	.00662	-.00272	.00338	-.00281	.00332	-.20602	.06325
#2	.00261	.00743	.00484	-.00307	-.00219	-.20063	.06334

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00130	-.00239	144.60	-.00050	-.00108	-.00334	.01098
SDev	.00015	.00063	.15	.00028	.00137	.00016	.01590
%RSD	11.625	26.342	.10060	56.587	126.86	4.7588	144.78

#1	.00119	-.00284	144.70	-.00030	-.00205	-.00323	.02223
#2	.00141	-.00195	144.49	-.00070	-.00011	-.00346	-.00026

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02971	16.586	.00185	-.00123	9.8983	-.00057	.02009
SDev	.00000	.013	.00136	.00011	.0087	.00050	.00052
%RSD	.00203	.07851	73.445	8.6679	.08750	87.706	2.5626

#1	.02971	16.577	.00282	-.00131	9.9044	-.00092	.01973
#2	.02971	16.595	.00089	-.00116	9.8921	-.00022	.02046

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.4767	-.00175	.00200	.00487	.00173	.00307	-.00764
SDev	.0094	.00292	.00585	.00229	.00040	.00466	.00275
%RSD	.63896	166.86	292.35	46.977	23.285	151.96	35.975

#1	1.4701	.00031	.00614	.00325	.00144	-.00023	-.00570
#2	1.4834	-.00381	-.00213	.00649	.00201	.00636	-.00958

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.01057	.09720	-.00166	-.08592	4.1026
SDev	.00056	.00267	.00012	.00293	.0010
%RSD	5.2584	2.7449	7.5051	3.4050	.02424

#1	-.01096	.09531	-.00157	-.08799	4.1033
#2	-.01018	.09908	-.00175	-.08385	4.1019

09/10/04

Method: 6010B      Sample Name: S4414-08LX5      Operator: DR  
 Run Time: 09/10/04 17:49:23  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00239	.01427	-.00034	-.00450	.00232	-.22374	.00938
SDev	.00409	.00206	.00180	.00174	.00001	.00533	.00006
%RSD	171.07	14.401	529.48	38.545	.58539	2.3831	.68759
#1	-.00050	.01282	-.00161	-.00328	.00233	-.21997	.00942
#2	.00529	.01573	.00093	-.00573	.00231	-.22751	.00933
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00119	-.00298	29.984	-.00060	-.00044	-.00509	-.01712
SDev	.00010	.00041	.002	.00071	.00137	.00008	.02384
%RSD	8.4186	13.812	.00770	118.04	315.44	1.6068	139.25
#1	.00126	-.00327	29.982	-.00010	.00054	-.00503	-.00026
#2	.00112	-.00269	29.986	-.00110	-.00141	-.00515	-.03397
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00559	3.3750	.00079	-.00099	1.0030	-.00057	-.00242
SDev	.00014	.0117	.00258	.00001	.1020	.00050	.00025
%RSD	2.4856	.34726	326.55	1.0745	10.172	88.101	10.337
#1	.00569	3.3667	.00262	-.00098	.93083	-.00021	-.00225
#2	.00549	3.3833	-.00103	-.00100	1.0751	-.00093	-.00260
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.21678	.00271	-.00165	-.00144	-.00179	.00508	-.01099
SDev	.00546	.00093	.00190	.00218	.00161	.00591	.00049
%RSD	2.5200	34.188	114.89	150.66	89.884	116.29	4.4542
#1	.22064	.00205	-.00031	-.00298	-.00292	.00926	-.01134
#2	.21291	.00336	-.00299	.00009	-.00065	.00090	-.01065
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.01033	.01435	-.00157	-.01985	.85472		
SDev	.00111	.00067	.00012	.00421	.00249		
%RSD	10.757	4.6488	7.9257	21.185	.29096		
#1	-.00955	.01388	-.00166	-.01688	.85648		
#2	-.01112	.01482	-.00149	-.02282	.85296		

*OK 9/10/04*

Method: 6010B Sample Name: S4414-09

Operator: DR

Run Time: 09/10/04 17:51:17

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.77640	1.9824	.95501	1.9400	.76168	1.7575	2.1133
SDev	.01276	.0496	.00177	.0041	.00584	.0114	.0046
%RSD	1.6435	2.5009	.18573	.21354	.76674	.65074	.21753
#1	.76738	1.9473	.95375	1.9429	.76581	1.7494	2.1165
#2	.78542	2.0174	.95626	1.9371	.75755	1.7656	2.1100
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.17446	.18974	151.76	.35971	.18096	.27867	2.4624
SDev	.00136	.00104	1.03	.00369	.00069	.00470	.1192
%RSD	.78061	.54877	.68006	1.0254	.37916	1.6863	4.8393
#1	.17349	.18900	151.03	.35710	.18047	.27535	2.3782
#2	.17542	.19047	152.49	.36232	.18144	.28200	2.5467
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.21195	18.747	.46620	.05857	13.349	.26536	.22661
SDev	.00249	.176	.00373	.00028	.027	.00351	.00073
%RSD	1.1745	.93774	.79930	.47885	.20187	1.3233	.32290
#1	.21019	18.623	.46356	.05837	13.330	.26288	.22609
#2	.21371	18.871	.46883	.05877	13.368	.26785	.22713
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.618	.77161	.73858	.95149	.95466	1.9338	1.9413
SDev	.009	.00709	.00333	.00220	.00362	.0185	.0030
%RSD	.07478	.91893	.45159	.23140	.37890	.95781	.15639
#1	12.612	.77662	.74094	.95305	.95210	1.9468	1.9392
#2	12.625	.76659	.73622	.94994	.95722	1.9207	1.9434
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.36777	.38520	.17857	.57707	4.8313		
SDev	.00556	.00667	.00237	.01316	.1035		
%RSD	1.5114	1.7315	1.3281	2.2813	2.1413		
#1	.36384	.38048	.17690	.56776	4.9045		
#2	.37170	.38992	.18025	.58638	4.7582		

OK 9/10/04

Method: 6010B      Sample Name: S4414-10      Operator: DR  
 Run Time: 09/10/04 17:53:03  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.76894	1.9611	.95430	1.9462	.76106	1.7639	2.1093
SDev	.00283	.0031	.00158	.0023	.00044	.0008	.0008
%RSD	.36846	.15709	.16586	.11915	.05745	.04315	.03988

#1	.77095	1.9589	.95318	1.9445	.76137	1.7645	2.1087
#2	.76694	1.9633	.95542	1.9478	.76075	1.7634	2.1099

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.17521	.18771	152.10	.36071	.18096	.28098	2.5130
SDev	.00000	.00085	.02	.00028	.00114	.00096	.0159
%RSD	.00063	.45227	.01062	.07859	.63162	.33971	.63227

#1	.17521	.18831	152.09	.36051	.18176	.28031	2.5018
#2	.17521	.18711	152.11	.36091	.18015	.28166	2.5242

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.21351	18.827	.46878	.05827	13.450	.26749	.22714
SDev	.00000	.003	.00911	.00045	.102	.00050	.00102
%RSD	.00021	.01383	1.9427	.77068	.75849	.18737	.44886

#1	.21351	18.829	.47522	.05859	13.522	.26714	.22642
#2	.21351	18.825	.46234	.05795	13.378	.26784	.22786

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.616	.76986	.74024	.94946	.95472	1.9491	1.9429
SDev	.066	.00246	.00362	.00121	.00177	.0030	.0020
%RSD	.51961	.31969	.48859	.12776	.18512	.15168	.10297

#1	12.570	.77160	.73768	.94860	.95347	1.9470	1.9415
#2	12.662	.76812	.74279	.95031	.95597	1.9512	1.9443

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.37296	.38835	.17902	.57824	4.7557
SDev	.00245	.00044	.00013	.00421	.0045
%RSD	.65575	.11450	.06973	.72728	.09413

#1	.37123	.38866	.17910	.58121	4.7526
#2	.37469	.38803	.17893	.57526	4.7589

ok 9/10/04

Method: 6010B Sample Name: CCV  
 Run Time: 09/10/04 17:56:07  
 Comment: CCV  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.1986	5.2579	4.9787	5.3840	5.0958	10.272	10.175
SDev	.0153	.0507	.0147	.0225	.0053	.003	.003
%RSD	.29363	.96368	.29578	.41701	.10315	.03097	.02799
#1	5.1878	5.2220	4.9683	5.3681	5.0921	10.274	10.173
#2	5.2094	5.2937	4.9892	5.3999	5.0995	10.270	10.177
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25262	2.5341	25.013	.97483	2.4506	1.2097	4.7652
SDev	.00048	.0092	.074	.00369	.0071	.0033	.0157
%RSD	.19035	.36329	.29538	.37851	.28959	.26907	.33011
#1	.25296	2.5406	25.065	.97744	2.4557	1.2074	4.7763
#2	.25228	2.5276	24.961	.97222	2.4456	1.2120	4.7541
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4261	24.925	2.5175	1.2747	27.077	2.4145	2.5316
SDev	.0072	.055	.0042	.0024	.127	.0120	.0025
%RSD	.29601	.21944	.16519	.18816	.46750	.49733	.09996
#1	2.4312	24.963	2.5204	1.2764	27.167	2.4230	2.5334
#2	2.4210	24.886	2.5146	1.2731	26.988	2.4060	2.5299
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.033	5.1945	4.8949	4.9709	4.9807	5.3852	5.3815
SDev	.039	.0178	.0515	.0041	.0241	.0040	.0356
%RSD	.15070	.34298	1.0515	.08153	.48390	.07383	.66238
#1	26.061	5.2071	4.8585	4.9738	4.9636	5.3881	5.3563
#2	26.006	5.1819	4.9313	4.9680	4.9977	5.3824	5.4067
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	5.0889	5.1437	4.8419	4.9006	Q5.5179		
SDev	.0379	.0193	.0051	.0115	.0109		
%RSD	.74492	.37604	.10441	.23505	.19831		
#1	5.0621	5.1301	4.8455	4.8924	Q5.5101		
#2	5.1157	5.1574	4.8384	4.9087	Q5.5256		

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Method: 6010B Sample Name: CCB  
 Run Time: 09/10/04 17:59:32  
 Comment: CCB  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00941	.00679	.00057	.00222	.00366	-.01071	-.00202
SDev	.00236	.00513	.00282	.00002	.00385	.00593	.00065
%RSD	25.112	75.512	495.18	.84927	105.17	55.356	32.083
#1	.00774	.00317	-.00143	.00223	.00639	-.00652	-.00247
#2	Q.01108	Q.01042	.00257	.00220	.00094	-.01490	-.00156
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00134	-.00185	.02755	-.00060	.00021	-.00588	-.03959
SDev	.00010	.00062	.00000	.00014	.00046	.00008	.00793
%RSD	7.7572	33.803	.00000	23.592	216.00	1.3496	20.041
#1	.00141	-.00229	.02755	-.00070	.00054	-.00582	-.04520
#2	.00126	-.00141	.02755	-.00050	-.00011	-.00593	-.03398
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00036	.00579	.00115	-.00092	-.68389	-.00092	-.00855
SDev	.00000	.00000	.00194	.00057	.03345	.00100	.00026
%RSD	.09165	.00000	168.96	62.503	4.8918	108.23	3.0112
#1	-.00036	.00579	-.00022	-.00132	-.66023	-.00163	-.00836
#2	-.00036	.00579	.00251	-.00051	-.70755	-.00022	-.00873
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00011	.00217	.00346	-.00011	-.00109	.01361	-.00527
SDev	.00199	.00200	.00757	.00037	.00442	.00318	.00162
%RSD	1787.0	92.271	218.77	343.36	405.11	23.397	30.697
#1	-.00129	.00358	.00881	.00015	-.00421	.01135	-.00413
#2	.00152	.00075	-.00189	-.00037	.00203	.01586	-.00641
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00381	.00287	-.00047	-.00020	.02824		
SDev	.00189	.00356	.00006	.00091	.00348		
%RSD	49.599	123.90	13.233	458.89	12.329		
#1	-.00247	.00539	-.00052	-.00085	.03070		
#2	-.00515	.00036	-.00043	.00045	.02578		

OK 9/10/04

Method: 6010B Sample Name: S4414-08A Operator: DR  
 Run Time: 09/10/04 18:02:58  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.76782	1.9676	.94307	1.9443	.76241	1.9223	2.1153
SDev	.00725	.0144	.00113	.0014	.00129	.0007	.0000
%RSD	.94405	.73075	.12004	.07012	.16888	.03617	.00002

#1	.77295	1.9574	.94387	1.9433	.76332	1.9218	2.1153
#2	.76270	1.9778	.94227	1.9453	.76150	1.9228	2.1153

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.17439	.18866	151.26	.35780	.18176	.27924	2.4343
SDev	.00126	.00234	1.36	.00355	.00229	.00120	.0476
%RSD	.72213	1.2403	.89756	.99173	1.2587	.42868	1.9564

#1	.17528	.19031	152.22	.36031	.18338	.28008	2.4680
#2	.17349	.18700	150.30	.35529	.18015	.27839	2.4007

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.21204	18.738	.46868	.05953	12.680	.26571	.22933
SDev	.00180	.163	.00810	.00116	.079	.00401	.00254
%RSD	.84734	.86871	1.7286	1.9505	.62038	1.5086	1.1082

#1	.21331	18.853	.47441	.06035	12.735	.26855	.23113
#2	.21077	18.623	.46295	.05870	12.624	.26288	.22753

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.669	.77705	.72988	.94752	.93885	1.9558	1.9368
SDev	.043	.00398	.00411	.00207	.00273	.0001	.0021
%RSD	.33710	.51228	.56267	.21843	.29084	.00592	.10851

#1	12.700	.77987	.72698	.94606	.94078	1.9559	1.9353
#2	12.639	.77424	.73279	.94898	.93692	1.9557	1.9383

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.36738	.38960	.17791	.56750	4.8549
SDev	.00367	.00044	.00156	.00768	.0284
%RSD	.99859	.11412	.87701	1.3532	.58394

#1	.36478	.38929	.17902	.57293	4.8349
#2	.36997	.38992	.17681	.56207	4.8750

09/10/04

Method: 6010B      Sample Name: S4414-11      Operator: DR  
 Run Time: 09/10/04 18:04:56  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00284	.01228	.00313	-.00157	.00485	.00817	.05588
SDev	.00032	.02667	.00194	.00567	.00304	.00446	.00188
%RSD	11.118	217.09	62.224	361.66	62.720	54.527	3.3594
#1	.00306	.03114	.00450	.00244	.00700	.01132	.05721
#2	.00262	-.00657	.00175	-.00558	.00270	.00502	.05455
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00159	-.00281	121.49	.00050	-.00027	-.00273	.01098
SDev	.00025	.00065	.07	.00057	.00114	.00040	.01590
%RSD	15.979	23.287	.06082	113.03	418.45	14.577	144.73
#1	.00177	-.00327	121.54	.00091	.00054	-.00244	-.00026
#2	.00141	-.00235	121.43	.00010	-.00108	-.00301	.02223
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02415	13.986	.00125	-.00115	7.5228	-.00092	.01812
SDev	.00014	.038	.00093	.00024	.1058	.00000	.00026
%RSD	.56892	.27001	74.831	20.468	1.4062	.04333	1.4250
#1	.02424	14.013	.00191	-.00132	7.5976	-.00092	.01831
#2	.02405	13.960	.00059	-.00098	7.4480	-.00092	.01794
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.2590	.00586	-.00037	.00406	.00066	.00363	-.00596
SDev	.0184	.00323	.00267	.00117	.00233	.00068	.00884
%RSD	1.4595	55.104	712.22	28.852	353.48	18.810	148.31
#1	1.2720	.00814	.00151	.00489	.00231	.00315	.00029
#2	1.2460	.00357	-.00226	.00323	-.00099	.00411	-.01222
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00664	.08619	-.00100	-.07260	3.5174		
SDev	.00167	.00178	.00006	.00859	.0040		
%RSD	25.113	2.0636	6.2337	11.837	.11313		
#1	-.00546	.08745	-.00105	-.07868	3.5202		
#2	-.00782	.08493	-.00096	-.06652	3.5146		

OK 9/10/04



Method: 6010B      Sample Name: S4414-12      Operator: DR  
 Run Time: 09/10/04 18:06:46  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	.00804	.00195	.00056	.00354	-.00914	.01683
SDev	.00252	.00718	.00123	.00024	.00052	.00519	.00026
%RSD	4926.0	89.391	62.885	43.800	14.785	56.836	1.5389
#1	-.00183	.00296	.00108	.00073	.00391	-.00546	.01702
#2	.00173	.01311	.00282	.00039	.00317	-.01281	.01665
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00141	-.00140	16.318	-.00001	-.00076	-.00393	.48307
SDev	.00010	.00028	.129	.00043	.00092	.00024	.01589
%RSD	7.2882	19.918	.79237	3189.8	120.66	6.0732	3.2890
#1	.00148	-.00160	16.409	-.00031	-.00011	-.00410	.47184
#2	.00133	-.00120	16.226	.00029	-.00141	-.00377	.49431
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07855	8.4183	.00058	-.00113	6.4417	-.00055	.02290
SDev	.00028	.0573	.00057	.00046	.4412	.00050	.00026
%RSD	.35234	.68063	99.269	41.125	6.8498	91.331	1.1362
#1	.07835	8.3778	.00017	-.00145	6.1297	-.00090	.02308
#2	.07875	8.4588	.00098	-.00080	6.7537	-.00019	.02271
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0575	.00214	.00316	.00482	-.00148	.00372	-.00272
SDev	.0035	.00046	.00249	.00095	.00136	.00602	.00250
%RSD	.32874	21.453	78.960	19.715	92.028	162.05	91.973
#1	1.0599	.00181	.00492	.00415	-.00245	.00798	-.00448
#2	1.0550	.00246	.00139	.00549	-.00052	-.00054	-.00095
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00153	.04846	-.00078	-.01701	.68063		
SDev	.00356	.00089	.00012	.00311	.01791		
%RSD	232.41	1.8351	15.992	18.277	2.6307		
#1	.00098	.04909	-.00087	-.01481	.69330		
#2	-.00405	.04783	-.00069	-.01920	.66797		

029/10/04

Method: 6010B Sample Name: S4414-13 Operator: DR  
 Run Time: 09/10/04 18:08:35  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00697	.00335	.00187	-.00280	.00538	.18443	.04315
SDev	.00551	.00309	.00005	.00158	.00055	.00298	.00045
%RSD	79.141	92.261	2.6685	56.356	10.221	1.6185	1.0502
#1	.01086	.00116	.00191	-.00391	.00499	.18654	.04347
#2	.00307	.00553	.00184	-.00168	.00577	.18232	.04283
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00148	-.00283	95.680	.00089	.00054	.00001	.65728
SDev	.00000	.00044	.663	.00142	.00183	.00072	.00796
%RSD	.14935	15.441	.69256	160.47	341.76	5710.3	1.2119
#1	.00147	-.00314	96.148	.00189	.00183	.00052	.65165
#2	.00148	-.00252	95.211	-.00012	-.00076	-.00049	.66292
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.19104	13.416	.00144	-.00086	10.284	.00052	.01648
SDev	.00166	.134	.00065	.00102	.679	.00100	.00001
%RSD	.86713	.99980	44.951	118.37	6.6032	192.65	.02964
#1	.19221	13.510	.00189	-.00014	10.764	.00123	.01648
#2	.18986	13.321	.00098	-.00159	9.8034	-.00019	.01648
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.5726	.00473	.00347	.00435	-.00136	.00649	-.00903
SDev	.0149	.00323	.00482	.00323	.00169	.00273	.00100
%RSD	.94737	68.281	139.15	74.261	124.16	42.030	11.077
#1	1.5831	.00245	.00688	.00206	-.00017	.00456	-.00974
#2	1.5621	.00702	.00006	.00663	-.00255	.00842	-.00833
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00923	.07754	-.00069	-.05127	3.0310		
SDev	.00000	.00067	.00025	.00512	.0234		
%RSD	.00000	.86011	36.061	9.9858	.77124		
#1	-.00923	.07802	-.00052	-.04765	3.0475		
#2	-.00923	.07707	-.00087	-.05489	3.0145		

09/10/04

Method: 6010B      Sample Name: S4414-15      Operator: DR  
 Run Time: 09/10/04 18:10:33  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00395	-.00965	.00528	-.00153	.00095	-.01753	-.00060
SDev	.00567	.00992	.00336	.00034	.00003	.00074	.00006
%RSD	143.43	102.80	63.670	22.502	2.6151	4.2316	10.807

#1	-.00006	-.00263	.00766	-.00129	.00097	-.01701	-.00055
#2	.00796	-.01666	.00290	-.00178	.00093	-.01805	-.00064

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00144	-.00305	1.5997	.00010	-.00044	-.00363	.01099
SDev	.00015	.00019	.0670	.00028	.00000	.00008	.00000
%RSD	10.540	6.1524	4.1855	280.34	.00330	2.1934	.00807

#1	.00155	-.00319	1.6471	-.00010	-.00044	-.00368	.01099
#2	.00134	-.00292	1.5524	.00030	-.00044	-.00357	.01099

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00022	.34096	-.00017	-.00098	.86653	-.00092	.01025
SDev	.00000	.00521	.00007	.00023	.03436	.00000	.00026
%RSD	.00712	1.5277	41.314	23.365	3.9651	.05611	2.4957

#1	.00022	.34465	-.00012	-.00114	.89083	-.00092	.01043
#2	.00022	.33728	-.00022	-.00081	.84224	-.00092	.01007

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06262	.00053	-.00141	.00449	.00368	.00461	-.00640
SDev	.00497	.00031	.00069	.00318	.00346	.00546	.00324
%RSD	7.9309	57.683	48.859	70.793	93.928	118.46	50.672

#1	.06613	.00031	-.00092	.00674	.00612	.00075	-.00410
#2	.05911	.00075	-.00190	.00224	.00124	.00846	-.00869

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00806	.01136	-.00043	-.00653	.09295
SDev	.00211	.00089	.00000	.00622	.00448
%RSD	26.222	7.8282	.00000	95.137	4.8159

#1	-.00955	.01199	-.00043	-.00214	.09612
#2	-.00656	.01073	-.00043	-.01093	.08979

*OK 9/10/04*

Method: 6010B Sample Name: S4435-01 Operator: DR  
 Run Time: 09/10/04 18:12:28  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01832	.00178	.00156	.00149	.00335	.06865	.00901
SDev	.00205	.00069	.00189	.00265	.00072	.00073	.00006
%RSD	11.169	38.423	121.43	178.15	21.485	1.0644	.71653
#1	.01977	.00227	.00290	.00336	.00386	.06916	.00906
#2	.01688	.00130	.00022	-.00039	.00284	.06813	.00897
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00167	-.00204	22.277	.00492	.01251	-.00164	.14572
SDev	.00010	.00047	.009	.00028	.00046	.00032	.01592
%RSD	5.8692	22.868	.04145	5.7820	3.6602	19.301	10.922
#1	.00160	-.00171	22.270	.00471	.01283	-.00187	.15698
#2	.00174	-.00237	22.283	.00512	.01219	-.00142	.13447
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.12462	102.09	.03760	-.00082	1347.8	.00935	.02225
SDev	.00000	.10	.00029	.00001	1.2	.00150	.00102
%RSD	.00056	.09822	.76203	.87576	.09265	16.048	4.5852
#1	.12462	102.16	.03780	-.00081	1346.9	.00829	.02297
#2	.12462	102.02	.03740	-.00082	1348.6	.01041	.02153
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	H272.25	.00279	.00127	-.00034	.00051	.00906	-.00409
SDev	.67	.00138	.00061	.00472	.00048	.00204	.00499
%RSD	.24570	49.618	48.227	1393.3	95.097	22.566	121.92
#1	H272.72	.00377	.00083	.00300	.00085	.00762	-.00056
#2	H271.78	.00181	.00170	-.00367	.00017	.01051	-.00762
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.01026	2.8112	.00279	-.04881	13.886		
SDev	.00033	.0049	.00019	.00018	.110		
%RSD	3.2517	.17398	6.7010	.37459	.79160		
#1	-.01002	2.8078	.00266	-.04868	13.808		
#2	-.01049	2.8147	.00293	-.04894	13.963		

OK 9/10/04

Method: 6010B

Sample Name: PB00982BL

Operator: DR

Run Time: 09/10/04 18:15:14

Comment: PBW

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00339	-.00404	.00000	-.00288	.00098	-.01492	-.00426
SDev	.00268	.00069	.00041	.00200	.00078	.00445	.00006
%RSD	78.873	17.035	44769.	69.332	79.526	29.852	1.5250

#1	.00529	-.00453	-.00029	-.00430	.00043	-.01177	-.00421
#2	.00150	-.00356	.00029	-.00147	.00153	-.01807	-.00431

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00094	-.00298	.01286	-.00110	-.00238	-.00582	-.01711
SDev	.00005	.00085	.00693	.00000	.00046	.00000	.02384
%RSD	5.3871	28.515	53.875	.06487	19.256	.01985	139.35

#1	.00098	-.00238	.01775	-.00110	-.00205	-.00582	-.03397
#2	.00091	-.00358	.00796	-.00110	-.00270	-.00582	-.00025

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00095	.01131	-.00240	-.00099	-.53236	-.00092	-.00891
SDev	.00000	.00521	.00050	.00067	.09403	.00000	.00077
%RSD	.10052	46.037	20.900	68.155	17.664	.10301	8.6660

#1	-.00095	.00763	-.00205	-.00051	-.46587	-.00093	-.00836
#2	-.00095	.01500	-.00276	-.00146	-.59886	-.00092	-.00946

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03066	.00021	-.00068	-.00113	-.00143	.00975	-.01099
SDev	.00248	.00046	.00327	.00042	.00040	.00500	.00549
%RSD	8.0982	219.13	481.72	37.097	27.967	51.289	49.990

#1	.02891	.00054	-.00299	-.00143	-.00172	.01328	-.01487
#2	.03242	-.00012	.00163	-.00084	-.00115	.00621	-.00710

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.01065	-.00483	-.00127	-.00149	.02824
SDev	.00044	.00067	.00006	.00347	.00348
%RSD	4.1756	13.803	4.9299	232.82	12.329

#1	-.01033	-.00436	-.00131	-.00395	.03070
#2	-.01096	-.00530	-.00122	.00096	.02578

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Method: 6010B

Sample Name: PB00982BS

Operator: DR

Run Time: 09/10/04 18:19:03

Comment: LCSW

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.74384	1.8487	.90978	1.6918	.76286	1.9356	2.2449
SDev	.00568	.0268	.00560	.0073	.00548	.0149	.0143
%RSD	.76296	1.4477	.61598	.42982	.71890	.76779	.63721
#1	.73983	1.8298	.90581	1.6866	.75899	1.9251	2.2348
#2	.74785	1.8676	.91374	1.6969	.76674	1.9461	2.2550
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.17476	.19335	4.7849	.39092	.18516	.29771	2.8835
SDev	.00147	.00166	.0462	.00440	.00160	.00342	.0000
%RSD	.83921	.85866	.96504	1.1262	.86505	1.1489	.00137
#1	.17372	.19218	4.7523	.38781	.18403	.29529	2.8836
#2	.17580	.19453	4.8176	.39404	.18630	.30013	2.8835
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.19927	1.9561	.47785	.07409	2.5640	.29054	.22077
SDev	.00221	.0234	.00459	.00023	.0389	.00201	.00178
%RSD	1.1084	1.1983	.96038	.30634	1.5164	.69117	.80654
#1	.19771	1.9395	.47460	.07393	2.5365	.28912	.21952
#2	.20083	1.9726	.48109	.07425	2.5915	.29196	.22203
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.3793	.77669	.73197	.92439	.90048	1.6734	1.6993
SDev	.0502	.00521	.00604	.01119	.00281	.0114	.0166
%RSD	.53478	.67073	.82444	1.2105	.31265	.67930	.97553
#1	9.3438	.77300	.72771	.91648	.89849	1.6815	1.6876
#2	9.4147	.78037	.73624	.93231	.90247	1.6654	1.7111
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.38868	.27123	.19936	.64469	Q.89693		
SDev	.00378	.00289	.00169	.00384	.00149		
%RSD	.97245	1.0656	.84528	.59558	.16635		
#1	.38601	.26918	.19817	.64197	Q.89798		
#2	.39135	.27327	.20055	.64740	Q.89587		

09/10/04

Method: 6010B Sample Name: S4436-01

Operator: DR

Run Time: 09/10/04 18:20:59

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00028	-.00129	.00261	-.00134	.00227	.00398	.06297
SDev	.00299	.01785	.00016	.00606	.00164	.00594	.00259
%RSD	1074.1	1383.7	6.3037	452.32	72.183	149.04	4.1111

#1	-.00184	.01133	.00249	.00295	.00111	.00818	.06480
#2	.00239	-.01391	.00272	-.00563	.00343	-.00021	.06114

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00101	-.00282	119.78	-.00020	.00037	-.00283	.07842
SDev	.00015	.00022	3.15	.00014	.00114	.00008	.01590
%RSD	15.137	7.8753	2.6293	70.105	305.79	2.7483	20.277

#1	.00112	-.00298	122.00	-.00010	.00118	-.00289	.08967
#2	.00090	-.00267	117.55	-.00030	-.00043	-.00278	.06718

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05061	12.878	.00053	-.00105	17.586	-.00057	.01186
SDev	.00166	.272	.00251	.00012	.423	.00050	.00076
%RSD	3.2754	2.1134	469.10	11.438	2.4063	88.254	6.3918

#1	.05178	13.070	.00231	-.00097	17.885	-.00092	.01240
#2	.04944	12.685	-.00124	-.00114	17.286	-.00021	.01133

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.2123	.00281	-.00202	.00136	.00123	.01399	-.01079
SDev	.0030	.00323	.00155	.00063	.00056	.00671	.00574
%RSD	.24578	114.86	76.712	46.662	45.775	47.930	53.171

#1	1.2144	.00053	-.00092	.00181	.00083	.01873	-.00674
#2	1.2102	.00509	-.00311	.00091	.00163	.00925	-.01485

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00837	.05569	-.00149	-.05579	3.9155
SDev	.00322	.00133	.00000	.00128	.0836
%RSD	38.519	2.3952	.00000	2.2940	2.1340

#1	-.00609	.05664	-.00149	-.05489	3.9746
#2	-.01065	.05475	-.00149	-.05670	3.8564

09/10/04

Method: 6010B      Sample Name: S4436-02      Operator: DR  
 Run Time: 09/10/04 18:22:50  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00306	-.01819	.00234	-.00262	.00148	.42518	.04686
SDev	.00142	.00343	.00125	.00501	.00407	.00519	.00013
%RSD	46.388	18.879	53.329	191.53	274.80	1.2213	.27627
#1	-.00205	-.01577	.00146	-.00616	.00436	.42885	.04695
#2	-.00406	-.02062	.00322	.00093	-.00140	.42151	.04677
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00101	-.00234	99.716	.00018	-.00076	-.00213	.64043
SDev	.00005	.00013	.423	.00014	.00092	.00008	.00001
%RSD	4.9084	5.3569	.42373	77.703	120.67	3.7663	.00107
#1	.00105	-.00225	99.417	.00028	-.00141	-.00218	.64042
#2	.00098	-.00243	100.01	.00008	-.00011	-.00207	.64043
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03110	14.352	.00057	-.00152	13.460	.00016	.03407
SDev	.00000	.008	.00086	.00046	.078	.00050	.00051
%RSD	.00005	.05444	149.80	30.108	.57769	303.64	1.5015
#1	.03110	14.358	.00118	-.00119	13.405	.00052	.03371
#2	.03110	14.346	-.00003	-.00184	13.515	-.00019	.03443
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.4484	.00126	-.00128	.00219	.00042	.00142	-.00643
SDev	.0457	.00292	.00637	.00069	.00153	.00682	.00411
%RSD	1.8661	231.72	497.34	31.798	362.99	481.80	63.959
#1	2.4807	.00332	.00322	.00170	-.00066	-.00341	-.00934
#2	2.4161	-.00080	-.00579	.00268	.00150	.00624	-.00352
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00971	.04547	.00032	-.03524	4.2036		
SDev	.00044	.00067	.00006	.00658	.0184		
%RSD	4.5815	1.4667	19.338	18.680	.43779		
#1	-.00939	.04500	.00028	-.03989	4.2166		
#2	-.01002	.04595	.00037	-.03058	4.1906		

OK 9/10/04



Method: 6010B

Sample Name: CCV

Operator: DR

Run Time: 09/10/04 18:24:46

Comment: CCV

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0502	5.1428	4.8021	5.3131	4.9456	9.9477	9.9181
SDev	.0354	.0785	.0300	.0211	.0061	.0618	.0464
%RSD	.70168	1.5265	.62536	.39699	.12341	.62111	.46792

#1	5.0252	5.0873	4.7808	5.2981	4.9412	9.9040	9.8853
#2	5.0753	5.1983	4.8233	5.3280	4.9499	9.9914	9.9509

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.24145	2.4199	23.702	.92234	2.3356	1.1821	4.5082
SDev	.00169	.0112	.164	.00752	.0174	.0061	.0316
%RSD	.70060	.46315	.69162	.81569	.74496	.51231	.70040

#1	.24025	2.4120	23.586	.91702	2.3232	1.1778	Q4.4859
#2	.24265	2.4279	23.818	.92766	2.3479	1.1863	4.5305

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.3092	24.286	2.4070	1.2278	26.524	2.3069	2.4269
SDev	.0162	.141	.0079	.0066	.342	.0150	.0199
%RSD	.69961	.57911	.32767	.53926	1.2886	.65089	.81937

#1	2.2978	24.186	2.4014	1.2232	26.282	2.2963	2.4128
#2	2.3207	24.385	2.4125	1.2325	26.765	2.3176	2.4409

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.691	5.0420	4.7491	4.7807	4.8107	5.3010	5.3174
SDev	.107	.0036	.0255	.0132	.0384	.0114	.0258
%RSD	.41560	.07072	.53632	.27681	.79855	.21433	.48536

#1	25.616	5.0446	4.7311	4.7714	4.7836	5.2929	5.2991
#2	25.767	5.0395	4.7671	4.7901	4.8379	5.3090	5.3356

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	4.8764	4.9496	4.6618	4.6786	5.3652
SDev	.0389	.0414	.0263	.0512	.0338
%RSD	.79790	.83547	.56497	1.0942	.63038

#1	4.8489	4.9203	4.6432	4.6424	5.3413
#2	4.9039	4.9788	4.6805	4.7148	5.3891

OK 11/10/04

Method: 6010B Sample Name: CCB

Operator: DR

Run Time: 09/10/04 18:26:46

Comment: CCB

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00306	-.00575	-.00107	.00349	.00561	.00030	-.00325
SDev	.00189	.01545	.00202	.00158	.00094	.00667	.00071
%RSD	61.742	268.71	190.08	45.120	16.823	2219.3	21.897
#1	.00440	.00517	.00037	.00461	.00628	.00502	-.00275
#2	.00172	Q-.01667	-.00250	.00238	.00494	-.00442	-.00376
Elem	Re3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00112	-.00207	.02918	-.00060	-.00173	-.00588	-.03398
SDev	.00010	.00032	.00693	.00014	.00046	.00040	.03179
%RSD	9.1548	15.430	23.735	23.831	26.445	6.7363	93.550
#1	.00119	-.00185	.03408	-.00050	-.00141	-.00560	-.05645
#2	.00105	-.00230	.02428	-.00070	-.00205	-.00616	-.01150
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00056	.00671	-.00169	-.00108	-.53940	-.00057	-.00873
SDev	.00000	.00130	.00208	.00010	.06962	.00050	.00052
%RSD	.24176	19.406	122.81	9.2639	12.907	87.781	5.9321
#1	-.00056	.00763	-.00022	-.00101	-.49017	-.00093	-.00836
#2	-.00056	.00579	-.00316	-.00115	-.58863	-.00022	-.00909
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02188	.00369	.00626	-.00263	-.00228	.01144	-.00227
SDev	.01093	.00108	.00499	.00382	.00113	.00398	.00435
%RSD	49.927	29.147	79.683	145.13	49.391	34.807	191.66
#1	.02961	.00293	.00979	.00007	-.00148	.00862	.00081
#2	.01416	.00445	.00273	-.00534	-.00308	.01425	-.00535
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00161	.00712	-.00096	.00484	.02261		
SDev	.01023	.00823	.00025	.00146	.00945		
%RSD	633.82	115.61	26.084	30.203	41.793		
#1	.00885	.01293	-.00078	.00381	.02929		
#2	-.00562	.00130	-.00113	.00588	.01593		

029/10/04

Method: 6010B Sample Name: S4436-03

Operator: DR

Run Time: 09/10/04 18:28:42

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00640	-.00639	.00284	-.00532	.00164	-.00966	.03396
SDev	.00315	.00447	.00051	.00077	.00243	.00295	.00013
%RSD	49.174	69.933	18.012	14.438	148.03	30.501	.38006
#1	.00418	-.00956	.00248	-.00586	-.00008	-.01174	.03405
#2	.00863	-.00323	.00320	-.00478	.00337	-.00757	.03387
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00123	-.00190	81.835	.00000	-.00044	-.00233	.00536
SDev	.00005	.00012	.723	.00042	.00275	.00032	.03973
%RSD	4.3137	6.1702	.88308	45905.	631.14	13.809	741.61
#1	.00119	-.00182	82.346	.00030	.00151	-.00210	.03345
#2	.00126	-.00198	81.324	-.00030	-.00238	-.00256	-.02273
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05226	9.3520	.00064	-.00125	8.6596	-.00021	.02074
SDev	.00069	.0182	.00050	.00104	.0099	.00100	.00050
%RSD	1.3239	.19494	78.573	83.701	.11485	467.23	2.4161
#1	.05275	9.3649	.00099	-.00051	8.6666	.00049	.02109
#2	.05178	9.3391	.00028	-.00199	8.6525	-.00092	.02038
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0237	.00205	-.00238	.00056	.00198	.00724	-.01329
SDev	.0025	.00185	.00361	.00329	.00241	.00761	.00251
%RSD	.24255	90.002	151.71	584.06	121.69	105.22	18.870
#1	1.0255	.00075	-.00493	.00289	.00028	.00185	-.01152
#2	1.0220	.00336	.00017	-.00176	.00369	.01262	-.01506
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00806	.03085	-.00113	-.02244	3.3873		
SDev	.00078	.00267	.00025	.00201	.0090		
%RSD	9.6607	8.6469	22.022	8.9641	.26431		
#1	-.00750	.03274	-.00096	-.02101	3.3936		
#2	-.00861	.02897	-.00131	-.02386	3.3810		

09/10/04

Method: 6010B      Sample Name: S4436-04      Operator: DR  
 Run Time: 09/10/04 18:30:34  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00329	-.01802	.00119	-.00766	-.00177	.25208	.03322
SDev	.00094	.00789	.00049	.00376	.00185	.00669	.00013
%RSD	28.709	43.804	41.147	49.115	104.52	2.6523	.38872
#1	.00262	-.01244	.00084	-.01032	-.00307	.25681	.03331
#2	.00396	-.02360	.00154	-.00500	-.00046	.24736	.03313
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00126	-.00193	78.315	-.00001	.00005	-.00253	.46059
SDev	.00000	.00090	.012	.00014	.00114	.00016	.03179
%RSD	.08732	46.823	.01474	1113.1	2268.3	6.1840	6.9010
#1	.00126	-.00129	78.324	.00009	.00086	-.00264	.48307
#2	.00126	-.00256	78.307	-.00011	-.00076	-.00242	.43812
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05131	10.399	.00012	-.00088	8.2740	-.00055	.02644
SDev	.00014	.025	.00222	.00058	.1194	.00050	.00052
%RSD	.26659	.23793	1827.6	66.387	1.4425	91.203	1.9572
#1	.05121	10.416	-.00145	-.00047	8.3584	-.00020	.02607
#2	.05140	10.381	.00169	-.00129	8.1896	-.00090	.02680
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.3187	-.00145	-.00560	.00094	-.00069	.00373	-.01514
SDev	.0084	.00123	.00800	.00308	.00081	.01307	.00088
%RSD	.64020	84.813	142.72	327.96	117.49	350.66	5.8416
#1	1.3247	-.00058	-.01126	-.00124	-.00012	-.00551	-.01452
#2	1.3128	-.00232	.00005	.00312	-.00125	.01297	-.01577
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00986	.02771	.00072	-.01274	3.8195		
SDev	.00067	.00044	.00013	.00585	.0104		
%RSD	6.7627	1.6047	17.338	45.925	.27346		
#1	-.01033	.02740	.00081	-.01688	3.8121		
#2	-.00939	.02802	.00063	-.00860	3.8269		

09/10/04

Method: 6010B      Sample Name: S4436-05      Operator: DR  
 Run Time: 09/10/04 18:32:26  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00251	-.01874	.00121	-.00331	.00454	.01920	.04892
SDev	.00299	.01717	.00119	.00008	.00069	.00371	.00006
%RSD	119.19	91.603	98.467	2.3122	15.111	19.332	.13264

#1	.00039	-.03088	.00205	-.00326	.00503	.02182	.04896
#2	.00462	-.00660	.00037	-.00336	.00406	.01657	.04887

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00144	-.00284	92.109	-.00052	.00086	-.00270	.49432
SDev	.00005	.00025	.328	.00085	.00137	.00024	.01589
%RSD	3.5914	8.7075	.35594	165.32	159.74	8.8438	3.2150

#1	.00148	-.00302	91.877	.00009	.00183	-.00253	.48308
#2	.00141	-.00267	92.341	-.00112	-.00011	-.00286	.50555

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.21036	11.168	.00078	-.00095	6.0919	-.00055	.08717
SDev	.00028	.052	.00115	.00035	.1148	.00050	.00076
%RSD	.13161	.46641	147.10	36.887	1.8850	90.830	.87577

#1	.21017	11.131	.00159	-.00119	6.1731	-.00090	.08663
#2	.21056	11.205	-.00003	-.00070	6.0107	-.00020	.08771

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.2064	.00388	.00267	.00549	-.00293	.01001	-.01166
SDev	.0074	.00107	.00009	.00711	.00177	.00227	.00088
%RSD	.61751	27.678	3.3313	129.66	60.384	22.698	7.5348

#1	1.2011	.00464	.00261	.01052	-.00417	.01162	-.01228
#2	1.2116	.00312	.00273	.00046	-.00168	.00841	-.01104

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00900	.03966	-.00052	-.02593	3.9057
SDev	.00011	.00000	.00000	.00073	.0189
%RSD	1.2354	.00000	.00000	2.8208	.48391

#1	-.00892	.03966	-.00052	-.02644	3.9190
#2	-.00908	.03966	-.00052	-.02541	3.8923

09/10/04

Method: 6010B

Sample Name: S4436-06

Operator: DR

Run Time: 09/10/04 18:34:20

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00328	-.01815	.00034	-.00348	.00504	.03230	.04755
SDev	.00220	.00892	.00276	.00239	.00067	.00148	.00019
%RSD	67.114	49.134	801.82	68.816	13.197	4.5764	.40771
#1	.00484	-.01185	-.00161	-.00179	.00551	.03126	.04741
#2	.00173	-.02446	.00229	-.00517	.00457	.03335	.04769
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00130	-.00227	104.25	-.00060	-.00092	-.00194	.05594
SDev	.00015	.00018	.14	.00014	.00206	.00024	.03179
%RSD	11.625	8.0121	.13732	23.375	223.82	12.356	56.816
#1	.00119	-.00239	104.14	-.00070	.00054	-.00211	.03347
#2	.00141	-.00214	104.35	-.00050	-.00238	-.00177	.07842
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00872	12.199	-.00088	-.00072	5.8688	-.00057	.01383
SDev	.00014	.000	.00021	.00036	.0850	.00050	.00025
%RSD	1.5976	.00000	24.254	49.607	1.4482	88.428	1.7992
#1	.00862	12.199	-.00104	-.00097	5.8087	-.00092	.01365
#2	.00882	12.199	-.00073	-.00047	5.9289	-.00021	.01400
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.1639	.00651	-.00110	.00284	-.00290	.00420	-.00911
SDev	.0060	.00139	.00078	.00298	.00562	.00103	.00410
%RSD	.51204	21.285	70.499	104.98	193.75	24.384	45.002
#1	1.1596	.00749	-.00165	.00495	-.00688	.00348	-.00621
#2	1.1681	.00553	-.00055	.00073	.00107	.00493	-.01201
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.01033	.07126	-.00175	-.04429	3.6834		
SDev	.00111	.00067	.00012	.00073	.0298		
%RSD	10.757	.93602	7.1269	1.6514	.81018		
#1	-.00955	.07173	-.00166	-.04377	3.6623		
#2	-.01112	.07078	-.00184	-.04480	3.7045		

09/10/04

Method: 6010B      Sample Name: S4436-07      Operator: DR  
 Run Time: 09/10/04 18:36:21  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00317	-.01424	.00247	-.00648	-.00162	.03807	.02750
SDev	.00173	.00378	.00492	.00407	.00024	.00222	.00019
%RSD	54.621	26.540	199.27	62.847	14.604	5.8426	.70489

#1	.00195	-.01691	.00594	-.00936	-.00179	.03650	.02764
#2	.00440	-.01156	-.00101	-.00360	-.00146	.03965	.02737

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00151	-.00356	62.811	-.00081	-.00060	-.00356	.11215
SDev	.00005	.00013	.323	.00071	.00114	.00016	.03180
%RSD	3.4214	3.6958	.51463	88.252	191.70	4.5361	28.357

#1	.00155	-.00366	63.039	-.00131	.00021	-.00345	.13463
#2	.00148	-.00347	62.582	-.00030	-.00141	-.00368	.08966

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07883	8.0564	.00033	-.00129	9.8552	-.00057	.01193
SDev	.00042	.0195	.00021	.00021	.0823	.00050	.00050
%RSD	.52709	.24246	64.710	16.546	.83490	88.456	4.2201

#1	.07912	8.0426	.00048	-.00144	9.9133	-.00092	.01229
#2	.07853	8.0702	.00018	-.00114	9.7970	-.00021	.01158

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.1337	-.00306	-.00195	.00544	-.00101	.00578	-.01440
SDev	.0040	.00046	.00164	.00334	.00570	.00102	.00560
%RSD	.35045	15.119	83.799	61.435	562.31	17.656	38.858

#1	1.1309	-.00273	-.00311	.00780	.00302	.00506	-.01836
#2	1.1365	-.00338	-.00080	.00308	-.00505	.00651	-.01045

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00978	.07330	-.00100	-.04933	2.7718
SDev	.00078	.00044	.00006	.00786	.0099
%RSD	7.9532	.60661	6.2337	15.938	.35888

#1	-.00923	.07361	-.00105	-.05489	2.7788
#2	-.01033	.07299	-.00096	-.04377	2.7648

*OK 9/10/04*

Method: 6010B Sample Name: S4436-08

Operator: DR

Run Time: 09/10/04 18:38:12

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00830	-.01306	.00128	-.00157	.00315	.00294	.05629
SDev	.00268	.00172	.00106	.00155	.00755	.00446	.00039
%RSD	32.266	13.188	82.619	98.880	239.70	151.90	.69049
#1	.00640	-.01428	.00053	-.00047	.00849	.00609	.05656
#2	.01019	-.01184	.00203	-.00266	-.00219	-.00022	.05601
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00144	-.00361	120.96	-.00041	.00054	-.00322	.23578
SDev	.00005	.00085	.43	.00014	.00046	.00000	.03181
%RSD	3.3648	23.609	.35884	35.021	85.367	.05077	13.489
#1	.00148	-.00301	120.66	-.00031	.00086	-.00322	.21329
#2	.00141	-.00421	121.27	-.00051	.00021	-.00322	.25827
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.17237	16.102	-.00033	-.00112	17.564	-.00021	.01917
SDev	.00041	.042	.00057	.00021	.018	.00100	.00103
%RSD	.23958	.25880	173.93	18.999	.10296	484.81	5.3644
#1	.17266	16.131	.00008	-.00097	17.577	.00050	.01989
#2	.17208	16.072	-.00074	-.00128	17.551	-.00091	.01844
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.5227	.00085	.00456	.00245	-.00130	.00463	-.00646
SDev	.0189	.00968	.00328	.00181	.00249	.00057	.00261
%RSD	1.2393	1142.3	71.864	73.848	191.25	12.327	40.355
#1	1.5361	.00770	.00687	.00373	-.00306	.00422	-.00461
#2	1.5094	-.00600	.00224	.00117	.00046	.00503	-.00830
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00994	.08509	-.00166	-.08062	3.7341		
SDev	.00078	.00111	.00012	.00238	.0099		
%RSD	7.8274	1.3064	7.5051	2.9484	.26640		
#1	-.00939	.08430	-.00175	-.07894	3.7411		
#2	-.01049	.08588	-.00157	-.08230	3.7270		

02/11/04



Method: 6010B      Sample Name: S4436-09      Operator: DR  
 Run Time: 09/10/04 18:40:00  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00863	-.00624	-.00022	-.00518	.00235	-.00335	.02407
SDev	.00440	.00618	.00353	.00257	.00190	.00152	.00000
%RSD	50.984	99.136	1589.4	49.585	80.918	45.382	.00099

#1	.00552	-.01061	.00227	-.00337	.00369	-.00227	.02407
#2	.01174	-.00186	-.00272	-.00700	.00101	-.00442	.02407

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00158	-.00197	412.07	.00311	-.00092	-.00166	-.00592
SDev	.00015	.00078	2.45	.00398	.00160	.00112	.02379
%RSD	9.2065	39.588	.59505	127.66	173.89	67.259	401.87

#1	.00168	-.00142	410.34	.00593	.00021	-.00087	.01090
#2	.00148	-.00252	413.80	.00030	-.00205	-.00245	-.02274

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.40269	158.68	.00175	-.00087	184.68	.00191	.01512
SDev	.00221	.33	.00394	.00184	.18	.00301	.00000
%RSD	.54845	.20763	224.88	211.95	.09987	157.33	.01742

#1	.40113	158.44	.00454	.00043	184.55	.00404	.01512
#2	.40425	158.91	-.00103	-.00217	184.81	-.00022	.01511

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.297	.00128	.00128	-.00035	-.00216	.01054	-.01473
SDev	.867	.00198	.00174	.00271	.00394	.00773	.00013
%RSD	1.7230	154.68	135.31	774.39	182.59	73.327	.91237

#1	50.909	.00268	.00251	.00156	.00063	.01601	-.01464
#2	49.684	-.00012	.00006	-.00226	-.00494	.00508	-.01483

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00200	1.0654	-.00343	L-1.0222	7.8605
SDev	.00044	.0100	.00000	.0084	.0542
%RSD	22.208	.93902	.00000	.82278	.68969

#1	-.00232	1.0584	-.00343	L-1.0282	7.8222
#2	-.00169	1.0725	-.00343	L-1.0163	7.8988

*OK 9/10/04*

Method: 6010B      Sample Name: S4436-12      Operator: DR  
 Run Time: 09/10/04 18:41:54  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00184	-.02110	.00257	-.00166	.00254	-.01019	.05638
SDev	.00425	.00481	.00542	.00069	.00434	.00074	.00000
%RSD	231.57	22.789	211.35	41.834	170.50	7.2910	.00043
#1	-.00117	-.02450	.00640	-.00117	.00561	-.00966	.05638
#2	.00484	-.01770	-.00127	-.00215	-.00052	-.01071	.05638
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00155	-.00211	122.08	-.00060	-.00092	-.00413	.02785
SDev	.00000	.00004	.36	.00014	.00023	.00016	.02384
%RSD	.00018	1.7140	.29503	23.467	24.849	3.8188	85.620
#1	.00155	-.00208	122.34	-.00070	-.00076	-.00402	.01099
#2	.00155	-.00213	121.83	-.00050	-.00108	-.00424	.04471
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01975	16.775	-.00134	-.00122	10.048	-.00092	.01669
SDev	.00028	.020	.00100	.00056	.024	.00000	.00128
%RSD	1.3931	.11644	74.947	45.830	.23398	.13135	7.6858
#1	.01995	16.788	-.00063	-.00083	10.064	-.00092	.01760
#2	.01956	16.761	-.00205	-.00162	10.031	-.00092	.01578
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0532	.00195	.00054	.00150	.00110	.00709	-.00763
SDev	.0134	.00753	.00206	.00743	.00442	.00239	.00223
%RSD	1.2731	387.15	383.76	493.91	403.23	33.688	29.287
#1	1.0438	.00727	-.00092	.00676	.00422	.00540	-.00605
#2	1.0627	-.00338	.00200	-.00375	-.00203	.00878	-.00921
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00868	.14923	-.00193	-.06678	4.4920		
SDev	.00211	.00156	.00000	.00731	.0184		
%RSD	24.323	1.0429	.00000	10.951	.40968		
#1	-.01018	.15033	-.00193	-.07195	4.5050		
#2	-.00719	.14813	-.00193	-.06161	4.4789		

09/10/04

Method: 6010B      Sample Name: S4436-13      Operator: DR  
 Run Time: 09/10/04 18:43:47  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00674	-.01679	.00251	-.00156	.00425	-.00284	.04210
SDev	.00488	.00069	.00337	.00002	.00036	.00075	.00013
%RSD	72.458	4.0949	134.20	1.3814	8.4025	26.246	.30691

#1	.01019	-.01631	.00013	-.00158	.00400	-.00337	.04219
#2	.00328	-.01728	.00490	-.00155	.00451	-.00232	.04201

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00148	-.00317	95.170	-.00101	-.00108	-.00041	.25265
SDev	.00000	.00060	.455	.00014	.00000	.00016	.02385
%RSD	.07428	18.928	.47793	14.113	.01193	39.495	9.4404

#1	.00148	-.00359	95.492	-.00111	-.00108	-.00029	.26952
#2	.00148	-.00275	94.849	-.00091	-.00108	-.00052	.23579

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04437	11.143	-.00140	-.00137	10.075	-.00056	.01583
SDev	.00028	.033	.00065	.00069	.106	.00050	.00076
%RSD	.62456	.29216	46.287	50.578	1.0500	89.156	4.8112

#1	.04456	11.120	-.00185	-.00088	10.150	-.00091	.01637
#2	.04417	11.166	-.00094	-.00187	10.000	-.00021	.01529

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.3584	.00281	.00395	.00459	-.00052	.00950	-.00879
SDev	.0050	.00015	.00138	.00176	.00418	.00330	.00175
%RSD	.36559	5.4552	34.950	38.230	796.44	34.668	19.963

#1	1.3619	.00291	.00297	.00335	-.00348	.00717	-.00755
#2	1.3549	.00270	.00492	.00583	.00243	.01183	-.01003

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.01057	.08210	-.00193	-.05566	4.4596
SDev	.00056	.00133	.00000	.00110	.0015
%RSD	5.2584	1.6247	.00000	1.9708	.03346

#1	-.01018	.08305	-.00193	-.05644	4.4607
#2	-.01096	.08116	-.00193	-.05489	4.4585

9/10/04

Method: 6010B Sample Name: S4436-14

Operator: DR

Run Time: 09/10/04 18:45:40

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00184	-.01434	.00119	-.00649	.00309	.01237	.06458
SDev	.00331	.00789	.00142	.00080	.00042	.00147	.00006
%RSD	179.98	55.022	118.69	12.370	13.452	11.884	.10011
#1	-.00050	-.00876	.00219	-.00706	.00338	.01133	.06453
#2	.00417	-.01992	.00019	-.00593	.00279	.01341	.06462
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00155	-.00302	96.571	-.00010	-.00011	-.00357	.03908
SDev	.00000	.00069	.196	.00028	.00183	.00016	.00796
%RSD	.07097	22.901	.20321	282.94	1646.0	4.4408	20.355
#1	.00155	-.00253	96.710	.00010	.00118	-.00368	.03346
#2	.00155	-.00350	96.432	-.00030	-.00141	-.00346	.04471
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.11144	14.528	-.00058	-.00118	13.004	-.00057	.02865
SDev	.00014	.027	.00108	.00022	.060	.00050	.00077
%RSD	.12365	.18824	185.55	18.995	.45891	88.231	2.6743
#1	.11153	14.547	.00018	-.00102	13.046	-.00021	.02811
#2	.11134	14.509	-.00134	-.00134	12.962	-.00092	.02920
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.5480	.00097	.00413	.00192	-.00117	.00336	-.01321
SDev	.0030	.00092	.00060	.00441	.00008	.00034	.00137
%RSD	.19248	95.481	14.514	229.66	6.9054	10.148	10.403
#1	1.5501	.00162	.00371	.00504	-.00123	.00360	-.01418
#2	1.5459	.00031	.00455	-.00120	-.00111	.00311	-.01224
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.01049	.04988	-.00171	-.03937	4.4237		
SDev	.00333	.00111	.00031	.00110	.0174		
%RSD	31.787	2.2288	18.278	2.7863	.39352		
#1	-.00813	.04909	-.00149	-.03860	4.4360		
#2	-.01285	.05066	-.00193	-.04015	4.4114		

OK 9/10/04

Method: G010B

Sample Name: CCV

Operator: DR

Run Time: 09/10/04 18:47:33

Comment: CCV

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.0554	5.0661	4.8183	5.2812	4.9408	9.7578	9.9478
SDev	.0115	.0342	.0114	.0132	.0032	.0054	.0069
%RSD	.22726	.67458	.23705	.25044	.06553	.05511	.06940

#1	5.0636	5.0419	4.8103	5.2718	4.9431	9.7616	9.9527
#2	5.0473	5.0902	4.8264	5.2905	4.9385	9.7540	9.9429

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24306	2.4462	24.124	.94119	2.3576	1.1718	4.5623
SDev	.00037	.0046	.076	.00102	.0009	.0026	.0581
%RSD	.15248	.18608	.31452	.10854	.04008	.22308	1.2745

#1	.24280	2.4494	24.070	.94047	2.3583	1.1736	4.5212
#2	.24332	2.4429	24.177	.94192	2.3569	1.1699	4.6034

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3385	24.288	2.4277	1.2456	24.250	2.3265	2.4435
SDev	.0020	.012	.0034	.0015	.012	.0036	.0010
%RSD	.08537	.04943	.13903	.12321	.05135	.15486	.04215

#1	2.3370	24.296	2.4253	1.2446	24.242	2.3290	2.4428
#2	2.3399	24.279	2.4301	1.2467	24.259	2.3239	2.4443

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.170	5.0315	4.7559	4.7981	4.8264	5.2694	5.2854
SDev	.138	.0268	.0439	.0120	.0237	.0286	.0342
%RSD	.54902	.53217	.92326	.25008	.49063	.54240	.64782

#1	25.267	5.0504	4.7249	4.8066	4.8097	5.2896	5.2612
#2	25.072	5.0125	4.7870	4.7897	4.8432	5.2492	5.3096

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	4.9204	4.9758	4.6818	4.7211	5.3971
SDev	.0157	.0038	.0014	.0273	.0039
%RSD	.31932	.07723	.03018	.57883	.07308

#1	4.9093	4.9731	4.6828	4.7018	5.3943
#2	4.9315	4.9785	4.6808	4.7404	5.3999

09/10/04

Method: 6010B Sample Name: CCB  
 Run Time: 09/10/04 18:50:55  
 Comment: CCB  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00980	-.00545	.00365	.00222	.00552	.00320	-.00178
SDev	.00000	.00871	.00148	.00571	.00376	.00382	.00210
%RSD	.00254	159.91	40.551	257.65	68.106	119.56	118.21

#1	.00980	.00071	.00470	.00626	.00818	.00590	-.00029
#2	.00980	Q-.01161	.00261	-.00182	.00286	.00049	-.00327

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00158	-.00186	.04757	-.00076	-.00004	-.00649	-.04163
SDev	.00010	.00045	.00948	.00029	.00118	.00033	.02490
%RSD	6.5666	24.325	19.936	38.741	2651.5	5.0255	59.825

#1	.00165	-.00154	.05428	-.00055	.00079	-.00626	-.05924
#2	.00150	-.00218	.04087	-.00096	-.00088	-.00672	-.02402

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00037	.01272	-.00035	-.00096	-.67758	-.00105	-.00845
SDev	.00043	.00267	.00066	.00013	.00287	.00000	.00026
%RSD	114.82	20.977	186.46	13.236	.42410	.04419	3.1369

#1	-.00007	.01460	-.00082	-.00105	-.67555	-.00105	-.00826
#2	-.00067	.01083	.00011	-.00087	-.67961	-.00105	-.00864

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01746	.00278	.00782	-.00449	.00572	.01202	-.00448
SDev	.00706	.00047	.01036	.00099	.00173	.00567	.01140
%RSD	40.438	16.820	132.45	22.015	30.211	47.189	254.62

#1	.01247	.00311	.01515	-.00379	.00694	.00801	.00358
#2	.02245	.00245	.00050	-.00519	.00450	.01603	-.01253

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.00665	.00809	-.00030	-.00240	.03118
SDev	.01492	.00972	.00096	.00716	.00789
%RSD	224.32	120.15	319.23	298.94	25.296

#1	.01720	.01496	.00038	.00267	.03676
#2	-.00390	.00122	-.00098	-.00746	.02561

OK 9/11/04

Method: 6010B      Sample Name: S4436-15      Operator: DR  
 Run Time: 09/10/04 18:53:29  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00428	-.01578	-.00010	-.00190	-.00029	-.02267	.02420
SDev	.00175	.00698	.00098	.00089	.00018	.00074	.00020
%RSD	40.974	44.254	1035.0	46.491	60.218	3.2493	.81625

#1	.00304	-.02072	-.00079	-.00253	-.00017	-.02319	.02434
#2	.00552	-.01084	.00060	-.00128	-.00042	-.02215	.02406

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00132	-.00233	238.05	.00182	.00195	-.00271	.26942
SDev	.00015	.00045	.05	.00278	.00165	.00155	.03324
%RSD	11.459	19.498	.02092	152.83	84.520	57.196	12.337

#1	.00142	-.00201	238.02	.00378	.00312	-.00162	.24592
#2	.00121	-.00265	238.09	-.00015	.00079	-.00381	.29292

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.89881	37.437	.01749	-.00054	69.874	.00116	.02671
SDev	.00028	.228	.00051	.00138	1.046	.00206	.00078
%RSD	.03150	.60932	2.9408	253.73	1.4970	178.71	2.9230

#1	.89901	37.598	.01786	.00043	70.613	.00262	.02616
#2	.89861	37.275	.01713	-.00152	69.134	-.00030	.02726

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.3047	-.00176	-.00056	-.00175	-.00127	.00757	-.00833
SDev	.0424	.00030	.00008	.00001	.00148	.00197	.00217
%RSD	.98413	17.178	13.791	.70531	116.71	25.961	26.006

#1	4.3347	-.00155	-.00061	-.00174	-.00232	.00896	-.00987
#2	4.2747	-.00197	-.00050	-.00176	-.00022	.00618	-.00680

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00973	.40672	-.00253	-.37300	4.2564
SDev	.00124	.00113	.00000	.00961	.0049
%RSD	12.774	.27788	.00000	2.5768	.11583

#1	-.01061	.40752	-.00253	-.37980	4.2599
#2	-.00885	.40592	-.00253	-.36620	4.2529

09/10/04

Method: 6010B      Sample Name: S4436-16      Operator: DR  
 Run Time: 09/10/04 18:55:21  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00382	-.01242	-.00404	-.00326	.00401	-.01889	.02886
SDev	.00718	.01323	.00254	.00195	.00048	.00158	.00020
%RSD	187.74	106.50	62.990	59.860	11.906	8.3736	.68381
#1	-.00125	-.00307	-.00224	-.00188	.00367	-.01777	.02900
#2	.00890	-.02178	-.00583	-.00463	.00435	-.02001	.02872
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00117	-.00209	461.60	.00275	.00062	-.00117	-.02994
SDev	.00025	.00147	.89	.00497	.00307	.00147	.00838
%RSD	21.308	70.483	.19365	180.26	492.63	125.68	27.975
#1	.00134	-.00105	462.23	.00627	.00279	-.00013	-.03586
#2	.00099	-.00313	460.97	-.00076	-.00155	-.00221	-.02402
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.43215	183.44	.00115	-.00069	228.71	.00224	.01570
SDev	.00128	.90	.00191	.00197	2.50	.00465	.00104
%RSD	.29639	.49231	165.83	287.00	1.0923	207.58	6.6459
#1	.43305	184.08	.00250	.00071	230.48	.00552	.01644
#2	.43124	182.80	-.00020	-.00208	226.95	-.00105	.01496
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	59.209	.00309	.00264	-.00990	-.00311	.01274	-.01304
SDev	1.753	.00064	.00015	.00026	.00394	.00023	.00304
%RSD	2.9608	20.721	5.6785	2.6579	126.98	1.8250	23.297
#1	60.449	.00264	.00254	-.01009	-.00032	.01257	-.01089
#2	57.970	.00355	.00275	-.00972	-.00589	.01290	-.01519
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00014	1.2318	-.00371	L-1.2058	8.6225		
SDev	.00124	.0007	.00000	.0011	.0296		
%RSD	873.84	.05505	.00000	.09378	.34307		
#1	.00074	1.2323	-.00371	L-1.2066	8.6434		
#2	-.00102	1.2313	-.00371	L-1.2050	8.6016		

OK 9/10/04



Method: 6010B      Sample Name: S4436-16D      Operator: DR  
 Run Time: 09/10/04 18:57:11  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00743	-.01539	-.00334	-.00874	.00208	-.01892	.02872
SDev	.00048	.00349	.00124	.00174	.00036	.00610	.00000
%RSD	6.4445	22.653	37.174	19.880	17.499	32.260	.00029

#1	.00709	-.01293	-.00246	-.00997	.00182	-.02324	.02872
#2	.00777	-.01786	-.00421	-.00751	.00234	-.01461	.02872

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00103	-.00306	468.15	-.00045	.00012	-.00204	-.02989
SDev	.00005	.00150	1.20	.00015	.00094	.00008	.00831
%RSD	5.1518	49.035	.25527	32.742	772.40	4.0610	27.792

#1	.00099	-.00412	468.99	-.00034	-.00055	-.00210	-.03577
#2	.00107	-.00200	467.30	-.00055	.00079	-.00198	-.02402

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.43869	184.57	.00042	-.00176	227.91	-.00068	.01586
SDev	.00028	.22	.00015	.00000	1.58	.00052	.00026
%RSD	.06484	.11997	34.562	.22101	.69178	75.496	1.6464

#1	.43889	184.41	.00032	-.00176	226.80	-.00032	.01567
#2	.43849	184.73	.00053	-.00175	229.03	-.00105	.01604

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	58.108	.00167	-.00032	-.00768	-.00317	.00668	-.01824
SDev	.359	.00109	.00327	.00126	.00123	.00139	.00330
%RSD	.61709	65.056	1037.6	16.356	38.896	20.776	18.083

#1	57.855	.00244	-.00263	-.00679	-.00230	.00766	-.02057
#2	58.362	.00090	.00200	-.00856	-.00404	.00570	-.01591

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00118	1.2452	-.00371	L-1.2162	8.6710
SDev	.00158	.0066	.00013	.0008	.0232
%RSD	133.96	.52642	3.4643	.06199	.26724

#1	-.00006	1.2406	-.00362	L-1.2167	8.6546
#2	-.00230	1.2498	-.00380	L-1.2156	8.6874

09/10/04

Method: 6010B Sample Name: S4436-16LX5 Operator: DR  
 Run Time: 09/10/04 18:59:05  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00325	-.00006	.00100	-.00690	.00384	-.03458	.00287
SDev	.00128	.00977	.00057	.00282	.00117	.00230	.00000
%RSD	39.248	15126.	56.652	40.939	30.373	6.6435	.00579
#1	.00415	-.00697	.00140	-.00490	.00302	-.03295	.00287
#2	.00235	.00684	.00060	-.00889	.00467	-.03620	.00287
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00110	-.00310	110.04	-.00179	-.00004	-.00563	-.04749
SDev	.00005	.00016	.31	.00088	.00071	.00025	.01661
%RSD	4.5968	5.2591	.28012	48.977	1596.2	4.3706	34.967
#1	.00114	-.00299	109.82	-.00241	.00046	-.00580	-.05923
#2	.00107	-.00322	110.26	-.00117	-.00055	-.00545	-.03575
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09568	40.765	-.00113	-.00126	33.548	-.00141	-.00473
SDev	.00014	.079	.00029	.00046	.178	.00051	.00027
%RSD	.14946	.19307	25.956	36.231	.53107	36.274	5.6239
#1	.09558	40.709	-.00092	-.00094	33.422	-.00105	-.00454
#2	.09578	40.820	-.00134	-.00158	33.674	-.00178	-.00491
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.0324	.00476	-.00120	-.00152	.00026	.00969	-.01688
SDev	.0419	.00171	.00009	.00088	.00041	.00544	.00709
%RSD	.46344	35.866	7.1533	57.614	157.96	56.150	42.014
#1	9.0028	.00355	-.00126	-.00090	.00055	.00584	-.01186
#2	9.0620	.00597	-.00114	-.00214	-.00003	.01353	-.02189
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00710	.24369	-.00203	-.24147	1.7941		
SDev	.00136	.00339	.00006	.00565	.0044		
%RSD	19.115	1.3914	3.1677	2.3414	.24732		
#1	-.00806	.24608	-.00198	-.23747	1.7973		
#2	-.00614	.24129	-.00207	-.24547	1.7910		

09/10/04

Method: 6010B

Sample Name: S4436-10

Operator: DR

Run Time: 09/10/04 19:04:03

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.68072	1.7940	.82904	1.8235	.71448	1.9849	1.7218
SDev	.01951	.0386	.02487	.0008	.01673	.0283	.0289
%RSD	2.8659	2.1523	3.0004	.04644	2.3421	1.4266	1.6801

#1	.69452	1.8213	.84663	1.8229	.72631	2.0049	1.7422
#2	.66693	1.7667	.81145	1.8241	.70265	1.9649	1.7013

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.13827	.14845	486.48	.28681	.15044	.24881	2.1734
SDev	.00486	.00484	23.66	.01270	.00496	.00140	.1078
%RSD	3.5116	3.2593	4.8637	4.4296	3.2939	.56256	4.9593

#1	.14170	.15187	503.21	.29579	.15395	.24980	2.2496
#2	.13484	.14503	469.74	.27782	.14694	.24782	2.0971

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.55441	187.72	.38104	.08039	234.30	.21490	.19089
SDev	.02350	3.70	.00910	.00131	2.20	.00673	.00775
%RSD	4.2382	1.9692	2.3881	1.6345	.93988	3.1299	4.0576

#1	.57102	190.33	.38747	.08132	235.86	.21965	.19636
#2	.53779	185.10	.37460	.07946	232.74	.21014	.18541

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	70.860	.71833	.70356	.80442	.83952	1.8168	1.8252
SDev	.227	.00897	.03228	.00983	.03238	.0072	.0023
%RSD	.32099	1.2492	4.5879	1.2224	3.8574	.39510	.12679

#1	71.021	.72468	.72638	.81138	.86242	1.8117	1.8269
#2	70.699	.71199	.68073	.79747	.81663	1.8219	1.8236

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.34531	1.5016	.15499	-.53212	9.5690
SDev	.00577	.0301	.00571	.02054	.2569
%RSD	1.6695	2.0021	3.6874	3.8605	2.6843

#1	.34938	1.5228	.15903	-.51759	9.7506
#2	.34123	1.4803	.15095	-.54664	9.3874

OK 9/10/04

Method: 6010B      Sample Name: S4436-11      Operator: DR  
 Run Time: 09/10/04 19:05:58  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.65632	1.7536	.80521	1.8211	.70039	1.9465	1.6859
SDev	.01438	.0031	.00021	.0001	.00684	.0092	.0015
%RSD	2.1906	.17941	.02648	.00466	.97698	.47046	.08966

#1	.64615	1.7559	.80505	1.8212	.70523	1.9401	1.6848
#2	.66648	1.7514	.80536	1.8211	.69555	1.9530	1.6870

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.13491	.14670	473.24	.28061	.14844	.24430	2.0854
SDev	.00093	.00089	3.67	.00102	.00071	.00107	.0498
%RSD	.69044	.60345	.77560	.36383	.47729	.43625	2.3878

#1	.13425	.14608	470.64	.27989	.14894	.24354	2.0502
#2	.13557	.14733	475.83	.28133	.14794	.24505	2.1206

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.53930	184.83	.37310	.07954	228.99	.21051	.18670
SDev	.00385	.78	.00154	.00014	.05	.00052	.00128
%RSD	.71315	.42222	.41288	.17172	.02217	.24660	.68787

#1	.53658	184.27	.37201	.07944	229.03	.21014	.18580
#2	.54202	185.38	.37419	.07963	228.96	.21088	.18761

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	69.121	.70967	.67861	.79317	.80941	1.8068	1.8267
SDev	.035	.01106	.00160	.00067	.00066	.0030	.0016
%RSD	.05034	1.5580	.23538	.08489	.08102	.16660	.08923

#1	69.097	.71749	.67748	.79365	.80895	1.8047	1.8279
#2	69.146	.70185	.67974	.79270	.80988	1.8089	1.8256

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.33316	1.4810	.15091	-.56010	9.3407
SDev	.00192	.0050	.00071	.00283	.0148
%RSD	.57678	.33579	.46809	.50472	.15835

#1	.33180	1.4775	.15041	-.56210	9.3511
#2	.33452	1.4845	.15140	-.55810	9.3302

09/10/04

Method: 6010B Sample Name: S4436-16A

Operator: DR

Run Time: 09/10/04 19:08:02

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.67259	1.7775	.81877	1.8233	.69255	1.9703	1.7037
SDev	.00416	.0104	.00575	.0041	.00214	.0046	.0051
%RSD	.61876	.58635	.70195	.22513	.30926	.23427	.30100

#1	.66965	1.7702	.81470	1.8204	.69103	1.9671	1.7001
#2	.67553	1.7849	.82283	1.8262	.69406	1.9736	1.7073

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.13743	.14952	481.44	.28650	.15111	.24754	2.1264
SDev	.00212	.00080	8.31	.00526	.00212	.00074	.0082
%RSD	1.5408	.53349	1.7262	1.8353	1.4049	.29806	.38771

#1	.13593	.14896	475.57	.28278	.14961	.24702	2.1206
#2	.13893	.15008	487.32	.29022	.15261	.24806	2.1322

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.54837	186.55	.38010	.08086	230.81	.21380	.18962
SDev	.00897	1.48	.00822	.00128	.75	.00310	.00494
%RSD	1.6358	.79374	2.1628	1.5787	.32371	1.4507	2.6047

#1	.54202	185.50	.37429	.07996	231.33	.21161	.18613
#2	.55471	187.60	.38592	.08177	230.28	.21599	.19312

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	69.696	.69996	.67449	.81038	.82115	1.8306	1.8180
SDev	.516	.00294	.00055	.01694	.00016	.0103	.0010
%RSD	.74026	.41956	.08146	2.0909	.01915	.56243	.05577

#1	70.060	.69788	.67410	.79840	.82104	1.8233	1.8173
#2	69.331	.70204	.67488	.82236	.82127	1.8379	1.8187

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.34515	1.5033	.15354	-.56090	9.4648
SDev	.00667	.0086	.00161	.00358	.0414
%RSD	1.9322	.57137	1.0456	.63839	.43755

#1	.34043	1.4973	.15240	-.55837	9.4355
#2	.34986	1.5094	.15467	-.56343	9.4941

CA 9/10/04

Method: 6010B      Sample Name: S4436-19      Operator: DR  
 Run Time: 09/10/04 19:09:55  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00217	.00112	.00501	.00117	.00167	-.01354	.07051
SDev	.00320	.01708	.00181	.01117	.00088	.00307	.00020
%RSD	147.55	1524.3	36.204	955.89	52.827	22.700	.27938
#1	-.00443	.01320	.00629	.00907	.00105	-.01572	.07065
#2	.00009	-.01096	.00373	-.00673	.00230	-.01137	.07037
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00125	-.00310	188.01	-.00118	.00029	-.00209	.16969
SDev	.00015	.00010	2.00	.00146	.00071	.00049	.02493
%RSD	12.057	3.2538	1.0656	124.32	244.67	23.474	14.693
#1	.00114	-.00317	189.43	-.00221	-.00021	-.00243	.18732
#2	.00136	-.00303	186.60	-.00014	.00079	-.00174	.15206
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.27963	23.443	-.00031	-.00167	44.918	-.00250	.01288
SDev	.00256	.104	.00162	.00057	.271	.00206	.00103
%RSD	.91693	.44383	527.27	34.210	.60349	82.592	8.0190
#1	.28144	23.370	-.00145	-.00207	44.726	-.00396	.01361
#2	.27781	23.517	.00084	-.00126	45.110	-.00104	.01215
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0983	.00123	-.00064	-.00162	.00632	.01249	-.00628
SDev	.3445	.00326	.00389	.00246	.00395	.00509	.01420
%RSD	16.416	266.02	607.80	152.00	62.446	40.777	226.09
#1	1.8547	-.00108	.00211	-.00335	.00911	.01609	.00376
#2	2.3419	.00354	-.00339	.00012	.00353	.00889	-.01632
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00933	.27741	-.00239	-.20855	4.5611		
SDev	.00136	.00316	.00019	.00584	.0306		
%RSD	14.532	1.1407	8.0589	2.8014	.67017		
#1	-.00837	.27965	-.00225	-.21269	4.5827		
#2	-.01029	.27517	-.00253	-.20442	4.5395		

029110104

Method: 6010B Sample Name: S4436-20

Operator: DR

Run Time: 09/10/04 19:11:44

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00224	-.00917	-.00101	-.00048	.00272	-.02379	.00277
SDev	.00208	.00488	.00048	.00164	.00031	.00381	.00013
%RSD	92.870	53.270	47.757	343.60	11.432	16.020	4.7381
#1	.00077	-.00572	-.00136	-.00164	.00294	-.02110	.00287
#2	.00371	-.01262	-.00067	.00068	.00250	-.02649	.00268
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00132	-.00191	7.1346	-.00159	-.00138	-.00492	.20490
SDev	.00005	.00071	.0640	.00117	.00071	.00123	.00830
%RSD	3.9154	36.915	.89730	73.530	51.330	24.940	4.0528
#1	.00129	-.00241	7.0893	-.00242	-.00188	-.00579	.21077
#2	.00136	-.00141	7.1798	-.00076	-.00088	-.00405	.19903
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01343	8.8964	-.00062	-.00217	5.6323	-.00177	.01292
SDev	.00028	.1174	.00044	.00127	.9148	.00000	.00078
%RSD	2.1158	1.3195	71.182	58.589	16.241	.10153	6.0759
#1	.01323	8.8134	-.00031	-.00307	4.9855	-.00177	.01237
#2	.01363	8.9794	-.00093	-.00127	6.2791	-.00177	.01348
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.98211	.00145	.00206	.00326	-.00515	.01023	-.00752
SDev	.00756	.00046	.00186	.00332	.00238	.00035	.00215
%RSD	.77028	31.993	90.375	101.71	46.281	3.3880	28.594
#1	.97676	.00112	.00337	.00561	-.00683	.00998	-.00904
#2	.98746	.00177	.00074	.00092	-.00346	.01047	-.00600
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00885	.05364	-.00153	.00320	.43349		
SDev	.00023	.00090	.00000	.01357	.01085		
%RSD	2.5532	1.6855	.00000	423.85	2.5021		
#1	-.00869	.05428	-.00153	-.00639	.44116		
#2	-.00901	.05300	-.00153	.01280	.42582		

11/9/10/04

Method: 6010B      Sample Name: S4436-21      Operator: DR  
 Run Time: 09/10/04 19:13:31  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00081	-.02171	.00387	-.00436	.00187	-.01463	-.00067
SDev	.00255	.01220	.00086	.00104	.00268	.00001	.00013
%RSD	314.50	56.184	22.334	23.752	143.19	.06987	19.721

#1	.00099	-.03034	.00326	-.00510	-.00002	-.01463	-.00057
#2	-.00262	-.01309	.00449	-.00363	.00377	-.01462	-.00076

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00147	-.00246	2.0260	-.00096	-.00272	-.00210	.03468
SDev	.00005	.00025	.0047	.00088	.00118	.00016	.03321
%RSD	3.6044	10.112	.23407	90.932	43.471	7.7433	95.762

#1	.00151	-.00229	2.0226	-.00159	-.00355	-.00221	.05817
#2	.00143	-.00264	2.0293	-.00034	-.00188	-.00198	.01120

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00064	.37116	-.00139	-.00159	.41154	-.00141	.01171
SDev	.00014	.13607	.00022	.00013	.19828	.00052	.00001
%RSD	22.534	36.660	15.849	8.2556	48.180	36.576	.06039

#1	.00074	.27495	-.00155	-.00149	.27134	-.00177	.01170
#2	.00054	.46737	-.00124	-.00168	.55175	-.00104	.01171

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04706	.00299	-.00358	.00621	.00071	.00171	-.00920
SDev	.02875	.00327	.00151	.00119	.00189	.00034	.00138
%RSD	61.086	109.12	42.184	19.149	265.59	20.144	15.021

#1	.02673	.00068	-.00464	.00705	-.00063	.00147	-.01017
#2	.06739	.00530	-.00251	.00537	.00205	.00196	-.00822

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00893	.00889	.00006	-.00373	.15947
SDev	.00147	.00000	.00006	.00942	.00099
%RSD	16.447	.00000	104.38	252.75	.61830

#1	-.00997	.00889	.00011	-.01039	.16017
#2	-.00790	.00889	.00002	.00293	.15878

0.191101



Method: 6010B Sample Name: CCV  
 Run Time: 09/10/04 19:15:23  
 Comment: CCV  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.0709	5.1335	4.8482	5.2744	4.9594	9.7683	9.9910
SDev	.0128	.0397	.0016	.0530	.0129	.0075	.0101
%RSD	.25180	.77318	.03286	1.0047	.26053	.07628	.10134
#1	5.0619	5.1615	4.8493	5.2369	4.9503	9.7630	9.9838
#2	5.0800	5.1054	4.8470	5.3118	4.9686	9.7736	9.9982
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24554	2.4647	24.526	.95317	2.3778	1.1687	4.5913
SDev	.00059	.0040	.100	.00540	.0068	.0002	.0168
%RSD	.23843	.16359	.40604	.56676	.28790	.02073	.36658
#1	.24596	2.4676	24.596	.95699	2.3826	1.1686	4.5794
#2	.24513	2.4619	24.456	.94935	2.3730	1.1689	4.6032
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3603	24.239	2.4508	1.2567	24.426	2.3473	2.4729
SDev	.0050	.043	.0023	.0029	.301	.0165	.0118
%RSD	.21111	.17610	.09286	.23022	1.2314	.70285	.47579
#1	2.3638	24.270	2.4524	1.2587	24.638	2.3590	2.4812
#2	2.3568	24.209	2.4492	1.2546	24.213	2.3356	2.4646
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.104	5.0524	4.7700	4.8209	4.8600	5.2543	5.2828
SDev	.021	.0017	.0353	.0244	.0098	.0071	.0759
%RSD	.08438	.03428	.74072	.50588	.20138	.13441	1.4372
#1	25.119	5.0512	4.7450	4.8381	4.8531	5.2493	5.2291
#2	25.089	5.0537	4.7949	4.8037	4.8669	5.2593	5.3365
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	4.9601	4.9983	4.6964	4.7468	5.4776		
SDev	.0253	.0194	.0053	.0177	.0182		
%RSD	.51047	.38892	.11212	.37321	.33302		
#1	4.9422	4.9846	4.7001	4.7594	5.4647		
#2	4.9780	5.0121	4.6927	4.7343	5.4905		

01 9/10/04

Method: 6010B

Sample Name: CCB

Operator: DR

Run Time: 09/10/04 19:17:26

Comment: CCB

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00483	-.00150	.00321	-.00045	.00659	.00912	-.00225
SDev	.00671	.00873	.00393	.00363	.00032	.00306	.00184
%RSD	138.77	581.95	122.57	806.83	4.9273	33.586	81.993

#1	.00958	-.00767	Q.00599	.00212	.00636	.01129	-.00094
#2	.00009	.00467	.00043	-.00302	.00681	.00696	-.00355

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00176	-.00137	.08111	-.00065	-.00071	-.00649	-.02988
SDev	.00005	.00045	.01423	.00044	.00354	.00066	.00831
%RSD	3.0046	32.900	17.541	67.085	497.15	10.116	27.795

#1	.00180	-.00168	.09116	-.00034	.00179	-.00603	-.02401
#2	.00172	-.00105	.07105	-.00096	-.00322	-.00696	-.03576

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00047	.02498	-.00035	-.00079	-.63085	-.00141	-.00882
SDev	.00057	.00133	.00095	.00011	.03448	.00051	.00026
%RSD	120.89	5.3400	269.30	14.189	5.4662	36.425	2.9210

#1	-.00007	.02404	.00032	-.00087	-.60646	-.00178	-.00864
#2	-.00087	.02592	-.00103	-.00071	-.65523	-.00105	-.00900

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00926	.00531	.00594	-.00338	.00450	.00957	-.00725
SDev	.02269	.00062	.00222	.00028	.00576	.00151	.00469
%RSD	245.13	11.692	37.308	8.3429	127.95	15.729	64.723

#1	.02531	.00575	.00438	-.00318	.00857	.01063	-.00393
#2	-.00679	.00487	.00751	-.00358	.00043	.00850	-.01057

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00721	.00793	-.00067	-.00053	.02874		
SDev	.01684	.01175	.00071	.00528	.00641		
%RSD	233.56	148.23	106.22	995.74	22.298		

#1	.01912	.01624	-.00017	.00320	.03328		
#2	-.00470	-.00038	-.00116	-.00426	.02421		

09/10/04

XXXXXXXXXX 54505AJP 54506AJP 54537AJP 54536AJP 54550CLP 54553AJP  
 CHEMTECH 54361AJP 4 Sheffield Street Mountainside, NJ 07092  
 54362LY 54414AJP ICP-1 ANALYSIS RUN LOG 54366LY

6010  
 METHOD: 200.7 9110109 PROJECT No: 54552CLP 54557AJP 54557AJP

54422NJ 54542AJP 54543AJP 54544AJP 54545AJP 54546AJP 54547AJP 54548AJP

RUN ID: P1091004 DATE: 09/10/04 ANALYST: De Rogen SUPERVISOR REVIEW J. to K.

QC/SAMPLE ID	ANALYSIS TIME	STD. REF. No from Stock Log	LBP #	STD. REF. No. from Prep. Log	LBP #	PREP DATE	DATE OPENED	COMMENT
STD-S0	07:35							
STD-S1	07:37							
STD-S2	07:40							
STD-S	07:54							
IMS	07:57							
IMS/700	08:00							
ICV	08:12							
ICB	08:15							
CRI	08:18							
ICSA	08:23							
ICSAB	08:27							
CGV/CLL	08:30							
CCV	08:33							
CCB	08:36							

11/04  
 ok  
 06  
 9/10/04

QC/SAMPLE ID	CLIENT ID	ANALYSIS TIME	DILUTION FACTOR	COMMENTS
PB00992BL	PBS	08:38		
PB 00992BS	LCSS	08:41		
54161-01		08:42		
-02		08:44		
-03		08:46		
-04		08:48		
-05		08:52		
-08		08:54		
-05L		08:56	5	
-07		08:58		
CCV		09:00		
CCB		09:04		
PB00931BL	PBS	09:08		
PB00931BS	LCSS	09:10		
54422-01		09:18		

# ICP-1 ANALYSIS RUN LOG

METHOD: G010B

PROJECT No: \_\_\_\_\_

RUN ID: P1091004 DATE: 09/10/04 ANALYST: D. De Luca

QC/SAMPLE ID	CLIENT ID	ANALYSIS TIME	DILUTION FACTOR	COMMENTS
S4422-03		09:20		
-03D		09:22		
-03L		09:25		
-03S		09:27		
-03SD		09:29		
-03A		09:30		
-04		09:33		
CCV		09:35		
CCB		09:37		
S4422-05		09:39		
-06		09:41		
-07		09:43		
-08		09:46		
-09		09:48		
-10		09:50		
<i>OK 9/10/04</i> S4533-01	S4542-01	09:52		
S4543-01		09:54		
S4544-01		09:56		
-02		09:58		
CCV		10:01		
CCB		10:05		
S4545-01		10:08		
-02		10:10		
S4546-01		10:12		

# ICP-1 ANALYSIS RUN LOG

METHOD: 6010B

PROJECT No: \_\_\_\_\_

RUN ID: P1091004 DATE: 09/10/04 ANALYST: [Signature]

QC/SAMPLE ID	CLIENT ID	ANALYSIS TIME	DILUTION FACTOR	COMMENTS
S4546-02		10:14		
S4547-01		10:17		
-02		10:29		
EXTBLK(9/17/04)	FLUID*1	10:37		TRIP
S4552-01		10:39		↓
-01D		10:41		
-01L		10:43	5	
CCV		10:45		
CCB		10:47		
S4552-01S		10:54		TRIP
-01SD		10:56		↓
-01A		10:57		
PB00992 BL	PBLW	04 10:11:00 9/10/04		↓
PB00992 BS	LCSW	11:02		
PB00661 BL	PBS	11:09		
PB00661 BS	LCSB	11:11		
S4167-01		11:13		
-02		11:15		
-03		11:17		
CCV		11:21		
CCB		11:23		
S4167-04		11:25		
-05		11:30		
-06		11:34		

# ICP-1 ANALYSIS RUN LOG

METHOD: 6010B

PROJECT No: \_\_\_\_\_

RUN ID: P091004 DATE: 09/10/04 ANALYST: D. L. R...

QC/SAMPLE ID	CLIENT ID	ANALYSIS TIME	DILUTION FACTOR	COMMENTS
S4167-06D		11:37		
-06L		11:39	5	
-07		11:41		
-08		11:43		
-06A		11:47		
-09		11:52		
-10		11:57		
CCV		12:05		
CCB		12:08		
S4167-11		12:11		
-12		12:13		
-13		12:15		
-14		12:17		
-15		12:19		
-16		12:25		
-17		12:27		
-18		12:29		
-19		12:31		
PB00987BL	PBS	12:33		
CCV		12:37		
CCB		12:39		
PB00987BLS	LCSS	12:42		
S4550-01		12:44		
-02		12:46		

# ICP-1 ANALYSIS RUN LOG

METHOD: 6010B

PROJECT No: \_\_\_\_\_

RUN ID: P1091004 DATE: 09/10/04 ANALYST: Deborah Knight

QC/SAMPLE ID	CLIENT ID	ANALYSIS TIME	DILUTION FACTOR	COMMENTS
S4550-03		12:48		
-04		12:51		
-05		12:53		
-05D		12:55		
-06		12:57		
-07		12:59		
S4161-05A		13:03		
CCV		13:05		
CCB		13:07		
S4550-05L		13:11		
-05A		13:12		
PB00888BL	PBS	13:15		
PB00888BS	LCSS	13:17		
S4259-01		13:20		
-02		13:22		
-03		13:23		
-03D		13:25		
-03L		13:29	5	
<del>0191101A</del> 017		13:31		
CCV		13:33		
CCB		13:35		
S4259-18		13:37		
-03A		13:40	OK 9/10/04	
-04		13:42		

**ICP-2 ANALYSIS RUN LOG**

*JLP-1*

METHOD: 6010B

PROJECT No: \_\_\_\_\_

RUN ID: P1091004 DATE: 09 / 10 / 04 ANALYST: *[Signature]*

QC/SAMPLE ID	CLIENT ID	ANALYSIS TIME	DILUTION FACTOR	COMMENTS
S4259-05		13:45		
-06		13:47		
-07		<del>13</del> 14:06		
-08		14:08		
-09		14:11		<i>typo!</i> ↓
-10		14:13		
-11		14:15		
CCV		14:19		
CCB		14:21		
S4259-12		14:25		
-13		14:27		
-14		14:28		
-15		14:30		
-16		14:32		
PB00986 BL	PBS	14:35		
PB00986 BS	LCSS	14:38		
S4477-07		14:41		
-07D		14:44		
-07L		14:45		
CCV		14:51		
CCB		14:53		
S4477-07S		14:55		
-07SD		14:57		
-07A		14:59		



METHOD: 6010B

PROJECT No: \_\_\_\_\_

RUN ID: P1091004    DATE: 09/10/04    ANALYST: D. K.

QC/SAMPLE ID	CLIENT ID	ANALYSIS TIME	DILUTION FACTOR	COMMENTS
S4480-02		15:01		
-03		15:03		
-07		15:05		Ca high
-11		15:07		
S4482-02		15:09		Ca high
-05		15:11		Ca high
-10		15:13		
CCV		15:15		
CCB		15:18		
S4482-11		15:23		
-14		15:26		
-16		15:27		Ca high
-18		15:29		
-22		15:32		Ca high
-25		15:34		
S4505-01		15:36		
-02		15:38		
-03		15:40		
-04		15:43		
CCV		15:45		
CCB		15:50		
S4506-01		15:54		
S4535-01		15:56		
-09		15:58		

# ICP-2 ANALYSIS RUN LOG

METHOD: 6010B

PROJECT No: \_\_\_\_\_

RUN ID: 11091004 DATE: 09/10/04 ANALYST: D. K. Roper

QC/SAMPLE ID	CLIENT ID	ANALYSIS TIME	DILUTION FACTOR	COMMENTS
S4535-13		16:01		Ca high
S4536-03		16:03		
-05		16:05		
-08		16:07		
CRI		16:15		
ICSA		16:20		
ICSA B		16:22		
CCV		16:28		
CCB		16:34		
S4480-07		16:41	10	Ca only
S4482-02		16:43	10	↓
-05		16:45	10	↓
-16		16:47	10	Ca only
-22		16:49	10	↓
<del>S45</del> S4535-13		16:51	10	↓
S4536-09		16:53		
-10		16:55		
S4553-01		16:57		
-02		0491004 17:00		
CCV		17:02		
CCB		17:05		
S4553-03		17:07		
-04		17:09		
-05		17:11		

0491004

## ICP-1 ANALYSIS RUN LOG

METHOD: 6010B

PROJECT No: \_\_\_\_\_

RUN ID: P1091004 DATE: 09/10/04 ANALYST: B. K.

QC/SAMPLE ID	CLIENT ID	ANALYSIS TIME	DILUTION FACTOR	COMMENTS
S4553-06		17:13		
PB00854BL	PBW	17:15		
PB00854BS	LCSW	17:17		
PB00854BS0	LCSWD	17:19		
S4366-02		17:22		
S4414-01		17:24		
-02		17:26		
CCV		17:28		
CCB		17:31		
S4414-03		17:34		
-04		17:37		
-05		17:39		
-06		17:41		
-07		17:43		
-08		17:45		
-08D		17:47		
-08L		17:49	5	
-09		17:51		
-10		17:53		
CCV		17:56		
CCB		17:59		
S4414-08A		18:02		
-11		18:04		
-12		18:06		

# ICP-1 ANALYSIS RUN LOG

METHOD: G010B

PROJECT No: \_\_\_\_\_

RUN ID: P1091004 DATE: 09/10/04 ANALYST: J. to [signature]

QC/SAMPLE ID	CLIENT ID	ANALYSIS TIME	DILUTION FACTOR	COMMENTS
S4414-13		18:08		
-15		18:10		
S4435-01		18:12	0.9	10/04
PB00982BL	PBW	18:18	18:15	
PB00982BS	LCSW	18:19		
S4436-01		18:20		
-02		18:22		
CCV		18:24		
CCB		18:26		
S4436-03		18:28		
-04		18:30		
-05		0.9/10/04 18:36	18:32	
-06		18:34		
-07		18:36		
-08		18:38		
-09		18:40		
-12		18:41		
-13		18:43		
-14		18:45		
CCV		18:47		
CCB		18:50		
S4436-15		18:53		
-16		18:55		
-16D		18:57		



**WATER SAMPLE PREPARATION WORKSHEET**

SDG No \_\_\_\_\_

Batch #: PB00854

Matrix: WaterICP Digest Date: 9, 3, 04Method: 3010Sample Received By: [Signature]Initial Vol: 100 mlFinal Vol: 100 mlAnalyst Signature: Jaya NairHot Plate Temp: 2, 3,Supervisor Signature: [Signature]95°C

STANDARD NAME	MLS USED	STD REF. # FROM LOG
Spike Sol 1		
Spike Sol 2	1.0 mL	MI 4450
Spike Sol 3	1.0 mL	MI 4451
Spike Sol 4		
Spike Sol 5	1.0 mL	MI 4452

JN  
9/1/03

CHEMICAL USED	LOT #
CONC: HNO3	MR 167
1:1 HCL	MT 4611
1:1 HNO3	
CONC: HCL	

JN  
9/1/03

Date/Time	Received By	Relinquished By	Location
9/1/03 12:00	<u>[Signature]</u>	<u>Jaya Nair</u>	ICP-Lab.

LAB SAMPLE ID	CLIENT SAMPLE ID	COLOR BEFORE	COLOR AFTER	CLARITY BEFORE	CLARITY AFTER	pH	COMMENTS
PB00854BL	PBW	C	C	CL	CL	<2	
S4366-02	AG9010	Y	C	CL	CL	<2	
S4414-02	TR2156	C	C	CL	CL	<2	
S4414-04	TR2149	C	C	CL	CL	<2	
S4414-06	TR2151	C	C	CL	CL	<2	
S4414-08	TR2159	C	C	CL	CL	<2	
S4414-09	TR2159MS	C	C	CL	CL	<2	Spike Sol. 2, 3, 5
S4414-08DUP	TR 2159	C	C	CL	CL	<2	
PB00854BS	LCSW	C	C	CL	CL	<2	Spike Sol. 2, 3, 5
S4414-01	TR2154	C	C	CL	CL	<2	
S4414-03	TR2155	C	C	CL	CL	<2	
S4414-05	TR2153	C	C	CL	CL	<2	
S4414-07	TR2152	C	C	CL	CL	<2	
S4414-10	TR2159MSD	C	C	CL	CL	<2	Spike Sol. 2, 3, 5
S4414-11	TR2160	C	C	CL	CL	<2	
S4414-12	TR2158	C	C	CL	CL	<2	
S4414-13	TR2157	C	C	CL	CL	<2	
S4414-15	TR0057	C	C	CL	CL	<2	
S4435-01	TL-1	O	C	CL	CL	<2	
S4462-01	FISHSYSTEM	GR	GR	CD	CL	<2	
S4462-02	INVERTERBRATESYSTEM	BU	GR	CD	CL	<2	
PB00854BSF	LCSW	C	C	CL	CL	<2.0	Spike sol. 2, 3, 5

\* BL=Blank BS=Blank Spike TB=TCLP Blank

\* COLOR: R=Red BU=Blue Y=Yellow GR=Green O=Orange V=Violet W=White C=Colorless BR=Brown GY=Grey BL=Black

\* CLARITY: CL=Clear CD=Cloudy O=Opaque

## WATER SAMPLE PREPARATION WORKSHEET

SDG No \_\_\_\_\_



Batch #: PB0085

Matrix: Water

ICP Digest Date: 9/3/04

Method: 3010

Sample Received By: [Signature]

Initial Vol: 100 ml

Final Vol: 100 ml

Analyst Signature: Jaya Nain

Hot Plate Temp: 1 2, 3,  
95°C

Supervisor Signature: [Signature]

STANDARD NAME	MLS USED	STD REF. # FROM LOG
Spike Sol 2	1.0mL	MI4450
Spike Sol 3	1.0mL	MI4451
Spike Sol 5	1.0mL	MI4452

JN  
9/3/04

CHEMICAL USED	LOT #
CONC: HNO3	MR167
1:1 HCL	MI4611

JN  
9/3/04



Batch #: PB00854

LAB SAMPLE ID	CLIENT SAMPLE ID	COLOR BEFORE	COLOR AFTER	CLARITY BEFORE	CLARITY AFTER	pH	COMMENTS
S4414-08DUP	TR 2159	Colorless	Colorless	Clear	Clear	<2	
PB00854BL	PBW	Colorless	Colorless	Clear	Clear	<2	
PB00854BS	LCGW	Colorless	Colorless	Clear	Clear	<2	Spike Sol. 2, 3, 5
S4366-02	AG9010	Yellow	Colorless	Clear	Clear	<2	
S4414-01	TR2154	Colorless	Colorless	Clear	Clear	<2	
S4414-02	TR2156	Colorless	Colorless	Clear	Clear	<2	
S4414-03	TR2155	Colorless	Colorless	Clear	Clear	<2	
S4414-04	TR2149	Colorless	Colorless	Clear	Clear	<2	
S4414-05	TR2153	Colorless	Colorless	Clear	Clear	<2	
S4414-06	TR2151	Colorless	Colorless	Clear	Clear	<2	
S4414-07	TR2152	Colorless	Colorless	Clear	Clear	<2	
S4414-08	TR2159	Colorless	Colorless	Clear	Clear	<2	
S4414-09	TR2159MS	Colorless	Colorless	Clear	Clear	<2	Spike Sol. 2, 3, 5
S4414-10	TR2159MSD	Colorless	Colorless	Clear	Clear	<2	Spike Sol. 2, 3, 5
S4414-11	TR2160	Colorless	Colorless	Clear	Clear	<2	
S4414-12	TR2158	Colorless	Colorless	Clear	Clear	<2	
S4414-13	TR2157	Colorless	Colorless	Clear	Clear	<2	
S4414-15	TR0057	Colorless	Colorless	Clear	Clear	<2	
S4435-01	TL-1	Orange	Colorless	Clear	Clear	<2	
S4462-01	FISHSYSTEM	Green	Green	Cloudy	Clear	<2	
S4462-02	INVERTERBRATESYSTEM	Blue	Green	Cloudy	Clear	<2	

PB00854BSD LCGW

Colorless colorless clear clear <2 spike sol. 2, 3, 5  
 Back To Main

\* BL=Blank BS=Blank Spike TB=TCLP Blank

\* COLOR: R=Red BU=Blue Y=Yellow GR=Green O=Orange V=Violet W=White C=Colorless BR=Brown GY=Grey BL=Black

\* CLARITY: CL=Clear CD=Cloudy O=Opaque

MISCELLANEOUS  
DATA



**METALS CONFORMANCE/NON-CONFORMANCE SUMMARY**

CHEMTECH PROJECT NUMBER: S4414

MATRIX: Water

METHOD: 6010

	NA	NO	YES
1. Calibration Summary met criteria.			✓
2. ICP Interference Check Sample Results Summary Submitted.			✓
3. Serial Dilution Summary (if applicable) Submitted. The Serial Dilution met the acceptable requirements except for Sodium.		✓	
4. Laboratory Control Sample Summary (if applicable) Submitted.			✓
5. Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
6. Matrix Spike/Matrix Spike Duplicate Recoveries Met Criteria If not met, list those compounds and their recoveries which fall outside the acceptable range.		✓	
7. Sample Duplicate Analysis Met QC Criteria If not met, list those compounds and their recoveries which fall outside the acceptable range.			✓
8. Digestion Holding Time Met If not met, list number of days exceeded for each sample:			✓
9. Analysis Holding Time Met If not met, list those compounds and their recoveries which fall outside the acceptable range.			✓

*Raytheahey Keelpan*  
QA REVIEW

9/19/04  
Date

**CHEMTECH**

**SHIPPING AND  
RECEIVING  
DOCUMENTATION**



CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092  
(908) 789-8900 Fax (908) 789-8922  
www.chemtech.net

CHEMTECH PROJECT NO. 56664

COC Number 52403

CLIENT INFORMATION		PROJECT INFORMATION		BILLING INFORMATION		
COMPANY: <u>Parsons</u>	REPORT TO BE SENT TO:	PROJECT NAME: <u>Ash Landfill</u>	PO#:	BILL TO:		
ADDRESS: <u>100 Summer St 8th Floor</u>		PROJECT NO.: <u>743155</u>	LOCATION: <u>Seneca</u>	ADDRESS: <u>SAME as Client</u>		
CITY: <u>Boston</u>	STATE: <u>MA</u> ZIP: <u>02110</u>	PROJECT MANAGER: <u>J. Rossmann</u>		CITY:	STATE: ZIP:	
ATTENTION: <u>Jennifer Rossmann</u>		E-mail: <u>jennifer.rossmann@parsons.com</u>		ATTENTION:	PHONE:	
PHONE: <u>617-457-7900</u>	FAX: <u>617-457-7979</u>	PHONE: <u>617-457-7900</u>	FAX: <u>617-457-7979</u>	ANALYSIS		
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		PRESERVATIVES		
FAX: _____	DAYS * _____	<input type="checkbox"/> RESULTS ONLY	<input checked="" type="checkbox"/> USEPA CLP	1	2	
HARD COPY: _____	DAYS * _____	<input type="checkbox"/> RESULTS + OC	<input checked="" type="checkbox"/> New York State ASP "B"	3	4	
EDD: _____	DAYS * _____	<input type="checkbox"/> New Jersey REDUCED	<input checked="" type="checkbox"/> New York State ASP "A"	5	6	
* TO BE APPROVED BY CHEMTECH STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS		<input type="checkbox"/> New Jersey CLP	<input type="checkbox"/> Other _____	7	8	
		<input checked="" type="checkbox"/> EDD FORMAT		9	9	
CHEMTECH SAMPLE ID	PROJECT IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE	SAMPLE COLLECTION DATE	TIME	COMMENTS
1.	TR 2154	W	X	8-26-04	0925	
2.	TR 2150	W	X	8-26-04	1400	
3.	TR 2155	W	X	8-26-04	1140	
4.	TR 2149	W	X	8-25-04	1445	
5.	TR 2153	W	X	8-26-04	0845	
6.	TR 2151	W	X	8-26-04	1545	
7.	TR 2152	W	X	8-26-04	1625	
8.	TR 2159	W	X	8-27-04	1045	
9.	TR 2159 MS	W	X	8-27-04	1045	
10.	TR 2159 MSD	W	X	8-27-04	1045	
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY						
REQUISITIONED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:	RECEIVED BY:
1. <u>[Signature]</u>	8/21/04 1300	1. <u>[Signature]</u>	8/21/04 1300	2. <u>[Signature]</u>	8/21/04 1300	3. <u>[Signature]</u>
2. <u>[Signature]</u>		2. <u>[Signature]</u>		3. <u>[Signature]</u>		
3. <u>[Signature]</u>		3. <u>[Signature]</u>				
Comments: MeOH extraction requires an additional 4 oz jar for percent solid.						
Conditions of bottles or coolers at receipt: <input type="checkbox"/> Compliant <input type="checkbox"/> Non Compliant <input checked="" type="checkbox"/> Cooler Temp. <u>A/C</u>						
SHIPPED VIA: CLIENT: <input type="checkbox"/> HAND DELIVERED <input checked="" type="checkbox"/> OVERNIGHT <input type="checkbox"/> OVERNIGHT <input type="checkbox"/> PICKED UP <input type="checkbox"/> NC						
Page <u>1</u> of <u>2</u>						

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

# CHEMTECH

## CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092  
 (908) 789-8900 Fax (908) 789-8922  
 www.chemtech.net

CHEMTECH PROJECT NO. 5444  
 COC Number 52404

CLIENT INFORMATION		PROJECT INFORMATION		BILLING INFORMATION													
REPORT TO BE SENT TO: COMPANY: <u>Parsippany</u>		PROJECT NAME: <u>Ash landfill</u>		BILL TO:													
ADDRESS: <u>100 Summer St 8th Floor</u>		PROJECT NO.: <u>743155</u> LOCATION: <u>Seneca</u>		ADDRESS:													
CITY: <u>Brooklyn</u> STATE: <u>MA</u> ZIP: <u>02110</u>		PROJECT MANAGER: <u>J Rossman</u>		CITY: <u>SAME AS CLIENT</u> STATE: <u>MA</u> ZIP: <u></u>													
ATTENTION: <u>Jennifer Rossman</u>		e-mail: <u>jennifer.rossman@parsippany.com</u>		ATTENTION: <u></u> PHONE: <u></u>													
PHONE: <u>617-457-7900</u> FAX: <u>617-457-7979</u>		PHONE: <u>617-457-7900</u> FAX: <u>617-457-7979</u>		ANALYSIS													
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		PRESERVATIVES													
FAX: _____	DAYS: _____	<input type="checkbox"/> RESULTS ONLY	<input checked="" type="checkbox"/> USEPA CLP	← Specify Preservatives													
HARD COPY: _____	DAYS: _____	<input type="checkbox"/> RESULTS + OC	<input checked="" type="checkbox"/> New Jersey State ASP "B"	A-HCl	B-HNO <sub>3</sub>												
EDD: _____	DAYS: _____	<input type="checkbox"/> New Jersey REDUCED	<input checked="" type="checkbox"/> New Jersey State ASP "A"	C-H <sub>2</sub> SO <sub>4</sub>	D-NaOH												
* TO BE APPROVED BY CHEMTECH		<input type="checkbox"/> New Jersey CLP	<input type="checkbox"/> Other	E-ICE	F-Other												
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS		<input checked="" type="checkbox"/> EDD FORMAT															
CHEMTECH SAMPLE ID	PROJECT IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE	SAMPLE COLLECTION DATE	TIME	OR BOTTLES	1	2	3	4	5	6	7	8	9	COMMENTS	
1.	TR2110	W	X	8-27-04	1015	9	A	A	B								
2.	TR2158	W	X	8-27-04	1015	7											
3.	TR2157	W	X	8-27-04	0930	7											
4.	TR0055	W	X	8-27-04		2											
5.	TR0057	W	X	8-27-04	1230	7											Trip Blank
6.																	
7.																	
8.																	
9.																	
10.																	
RELINQUISHED BY: <u>[Signature]</u>		DATE/TIME: <u>8/27/04 1300</u>		RECEIVED BY: _____		SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY		Conditions of bottles or coolers at receipt:		Cooler Temp. <u>4°C</u>							
RELINQUISHED BY: _____		DATE/TIME: _____		RECEIVED BY: _____		MeOH extraction requires an additional 4 oz jar for percent solid.		Comments:		Non Compliant <input type="checkbox"/> Compliant <input type="checkbox"/>							
RELINQUISHED BY: <u>FED cck</u>		DATE/TIME: <u>08/28/04 4pm</u>		RECEIVED FOR LAB BY: <u>[Signature]</u>		SHIPPED VIA: CLIENT: <input type="checkbox"/> HAND DELIVERED <input type="checkbox"/> OVERNIGHT <input type="checkbox"/>		CHEMTECH: <input type="checkbox"/> PICKED UP <input type="checkbox"/> OVERNIGHT <input type="checkbox"/>		PINK - SAMPLER COPY <u>DDA</u> YELLOW - CHEMTECH COPY <u>DDA</u> WHITE - CHEMTECH COPY FOR RETURN TO CLIENT <u>DDA</u>							

**CHEMTECH**

284 Sheffield Street Mountainside NJ 07092  
Tel. 908-789-8900

**END OF ANALYTICAL RESULTS**



**DATA PACKAGE FOR  
VOLATILE ORGANICS**

**PROJECT NAME: Seneca Ash Landfill Quarterly Monitoring**

**PARSONS ENGINEERING  
100 SUMMER STREET  
SUITE 800  
BOSTON, MA 02110  
6174577900**

**CHEMTECH PROJECT NO.  
ATTENTION:**

**S4414  
Jennifer Rossmann**

# CHEMTECH

## CASE NARRATIVE

### Parsons Engineering

Project Name: Seneca Ash Landfill Quarterly Monitoring

Project # 743155

Chemtech Project # S4414

### A. Number of Samples and Date of Receipt:

15 Water samples were received on 8/28/04.

### B. Parameters

According to the Chain of Custody document, the following analyses were requested: Gases methane, ethane, ethene, Metals Group3, and Volatiles Method 524.2 + 15. This data package contains results for Gases methane, ethane, ethene

### C. Analytical Techniques:

The analysis performed on instrument GCVOA3 were done using GC column UPLOT, which is 30 meters, 0.32 mm, ID, Cat. # 19724. The Trap was supplied by Supelco, VOCARB 3000, Tekmar 3000.

### D. QA/ QC Samples:

The Holding Times were met for all analysis.

The MS recoveries met the requirements for all compounds.

The MSD recoveries met the acceptable requirements.

The RPD recoveries met for all samples criteria.

The Blank Spike met requirements for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The calibration met the requirements.

### D. Additional Comments:

Samples TR2154, TR2155, TR2151, TR2152, TR2158 and TR215 were diluted due to high concentrations.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature Krupa Dubey Name: Krupa Dubey  
Date: 09/23/04 Title: QA/QC

## COVER PAGE

OrderID: S4414      ProjectID: Seneca Ash Landfill Quarterl  
CustomerName: Parsons Engineering

LAB SAMPLE NO.	CLIENT SAMPLE NO
S4414-01	TR2154
S4414-02	TR2156
S4414-03	TR2155
S4414-04	TR2149
S4414-05	TR2153
S4414-06	TR2151
S4414-07	TR2152
S4414-08	TR2159
S4414-09	TR2159MS
S4414-10	TR2159MSD
S4414-11	TR2160
S4414-12	TR2158
S4414-13	TR2157
S4414-14	TR0055
S4414-15	TR0057

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature: Krupa Dubey Name: Krupa Dubey  
Date: 09/23/04 Title: QA/QC

## DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following " Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
J	Indicates an estimated value. This flag is used: <ol style="list-style-type: none"><li>(1) When estimating a concentration for a tentatively identified compound (library search hits; where a 1:1 response is assumed.)</li><li>(2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.</li></ol>
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.

CHEMTECH

GC  
DATA

CHEMTECH

GC  
QC DATA

SAMPLE ID: VBC0908G1  
FILENAME: F:\DATA3\ID090809.RAW

ANALYST: PHM  
DATE: 9/8/04

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	<0.5	U	0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL - Method Detection Limit

U - Undetected below MDL

COMMENTS:

---

---

## GASES

## QC Spike 200 PPMV STD

Filename: F:\DATA3\ID090832.RAW

Date: 9/8/04  
Batch: QCCGAS042

CAS #	Analyte	Spike Added	Sample	% Rec	Lower	Upper	Flag
		PPB	Conc		Limits	Limits	
74-82-8	METHANE	200	201	101	70	130	
74-85-1	ETHYLENE	200	227	113	70	130	
74-84-0	ETHANE	200	181	90	70	130	

\* Denotes analyte outside criteria



GASES

QC MS/MSD 200 PPMV Spike

Sample Filename: F:\DATA3\ID090817.RAW  
 MS Filename: F:\DATA3\ID090830.RAW  
 MSD Filename: F:\DATA3\ID090831.RAW  
 Sample spiked: S4414-08

Date : 9/8/04

CAS #	Analyte	Spike Added	MS Conc		MSD Conc		MSD		RPD		Upper Limits	RPD
			Conc (ppmv)	% Rec	ppmv	% Rec	Flag	Rec	Flag	Rec		
74-82-8	METHANE	200	0	96	197	98			3		70	130 <20%
74-85-1	ETHYLENE	200	0	109	227	113			4		70	130 <20%
74-84-0	ETHANE	200	0	96	198	99			3		70	130 <20%

\* Denotes analyte outside control limits

CHEMTECH

GC  
ANALYTICAL  
RESULTS

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: TR2154  
LAB ID: S4414-01  
FILENAME: F:\DATA3\090813.RAW  
AB PROJECT: S4414

MATRIX: AQUEOUS  
DATE ANALYZED: 9/8/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	1090	E	0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

.....  
.....

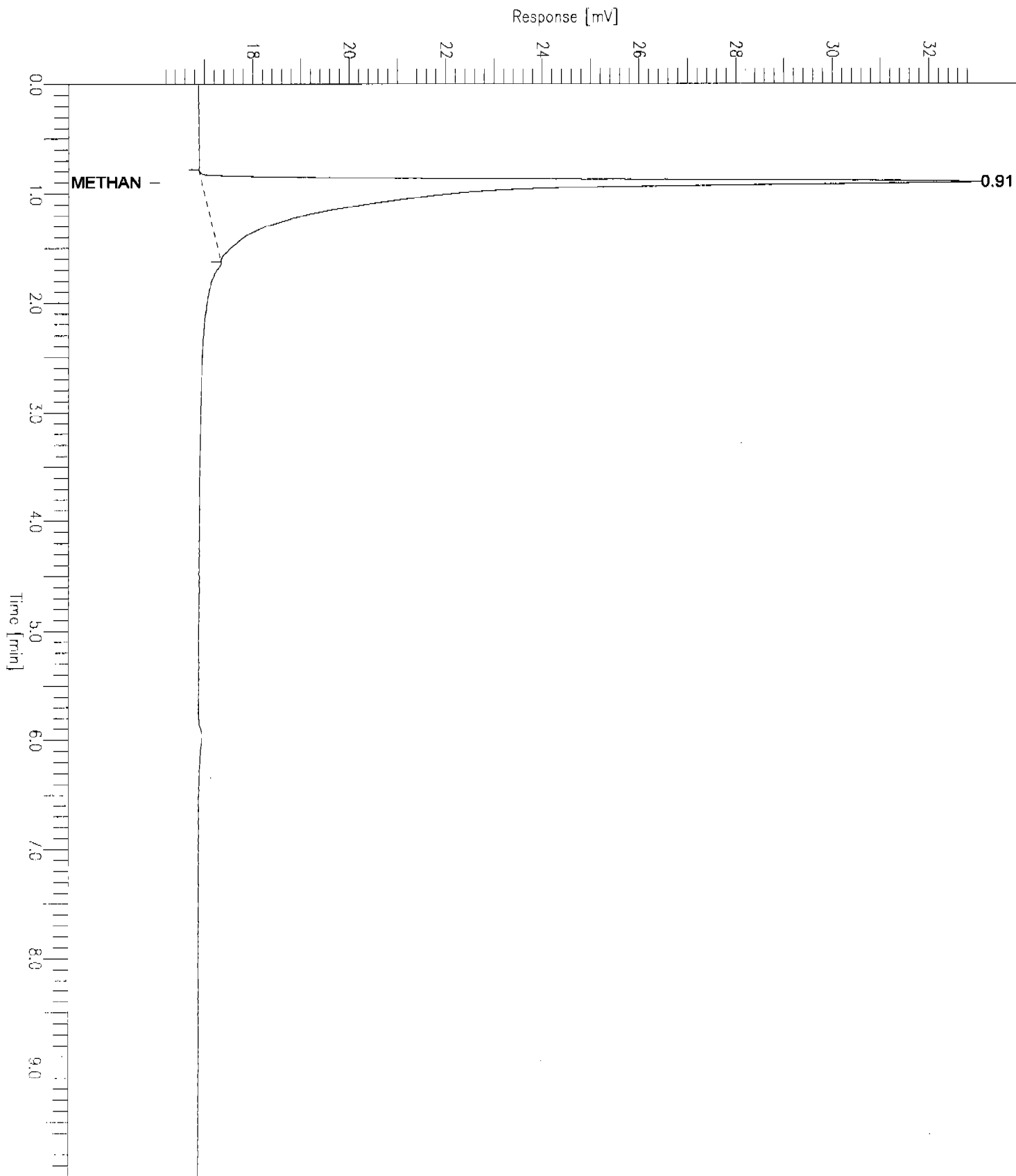
# Chromatogram

Sample Name : S4414-01  
FileName : F:\DATA3\D090813.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 16 mV

Sample #: 34  
Date : 9/21/04 09:36 AM  
Time of Injection: 9/8/04 03:36 PM  
Low Point : 16.08 mV  
Plot Scale: 16.8 mV  
High Point : 32.88 mV

Page 1 of 1



Software Version: 4.1<2F12>

Date: 9/21/04 09:36 AM

Sample Name : S4414-01

Data File : F:\DATA3\D090813.RAW Date: 9/8/04 03:36 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 13 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

*pg 9-21*

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.91	138930.03	16088.79	18817.119	18817.119
			138930.03	16088.79	18817.119	18817.119

Report stored in ASCII file: .\d090813.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: TR2154  
LAB ID: S4414-01 100X  
FILENAME: F:\DATA3\ID090814.RAW  
LAB PROJECT: S4414

MATRIX: AQUEOUS  
DATE ANALYZED: 9/8/04  
ANALYST: PHM  
DILUTION: 100

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	843	D	50	58
74-85-1	ETHYLENE	<50	UD	50	110
74-84-0	ETHANE	<50	UD	50	101

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

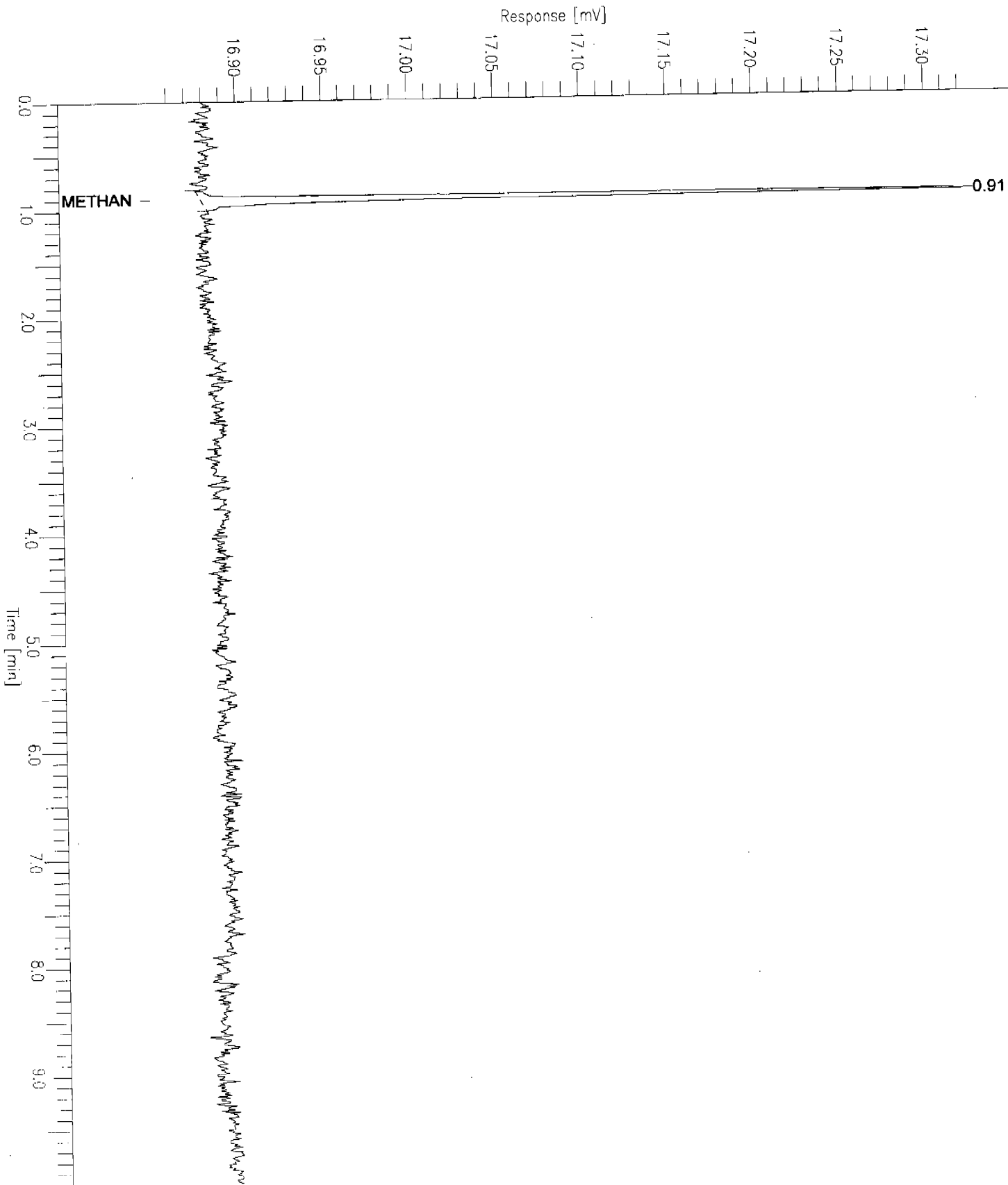
.....  
.....

# Chromatogram

Sample Name : S4414-01 100X  
FileName : F:\DATA3\D090814.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Page 1 of 1  
Sample #: 34  
Date : 9/21/04 09:37 AM  
Time of Injection: 9/8/04 03:54 PM  
Low Point : 16.85 mV  
High Point : 17.32 mV  
Plot Scale: 0.5 mV



Software Version: 4.1<2F12>

Date: 9/21/04 09:37 AM

Sample Name : S4414-01 100X

Data File : F:\DATA3\D090814.RAW Date: 9/8/04 03:54 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 14 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 100.00

99.21

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.91	1071.62	463.44	145.143	145.143
			1071.62	463.44	145.143	145.143

Report stored in ASCII file: .\d090814.TX0



CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: TR2156  
LAB ID: S4414-02  
FILENAME: F:\DATA3\ID090810.RAW  
LAB PROJECT: S4414

MATRIX: AQUEOUS  
DATE ANALYZED: 9/8/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	<0.5	U	0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

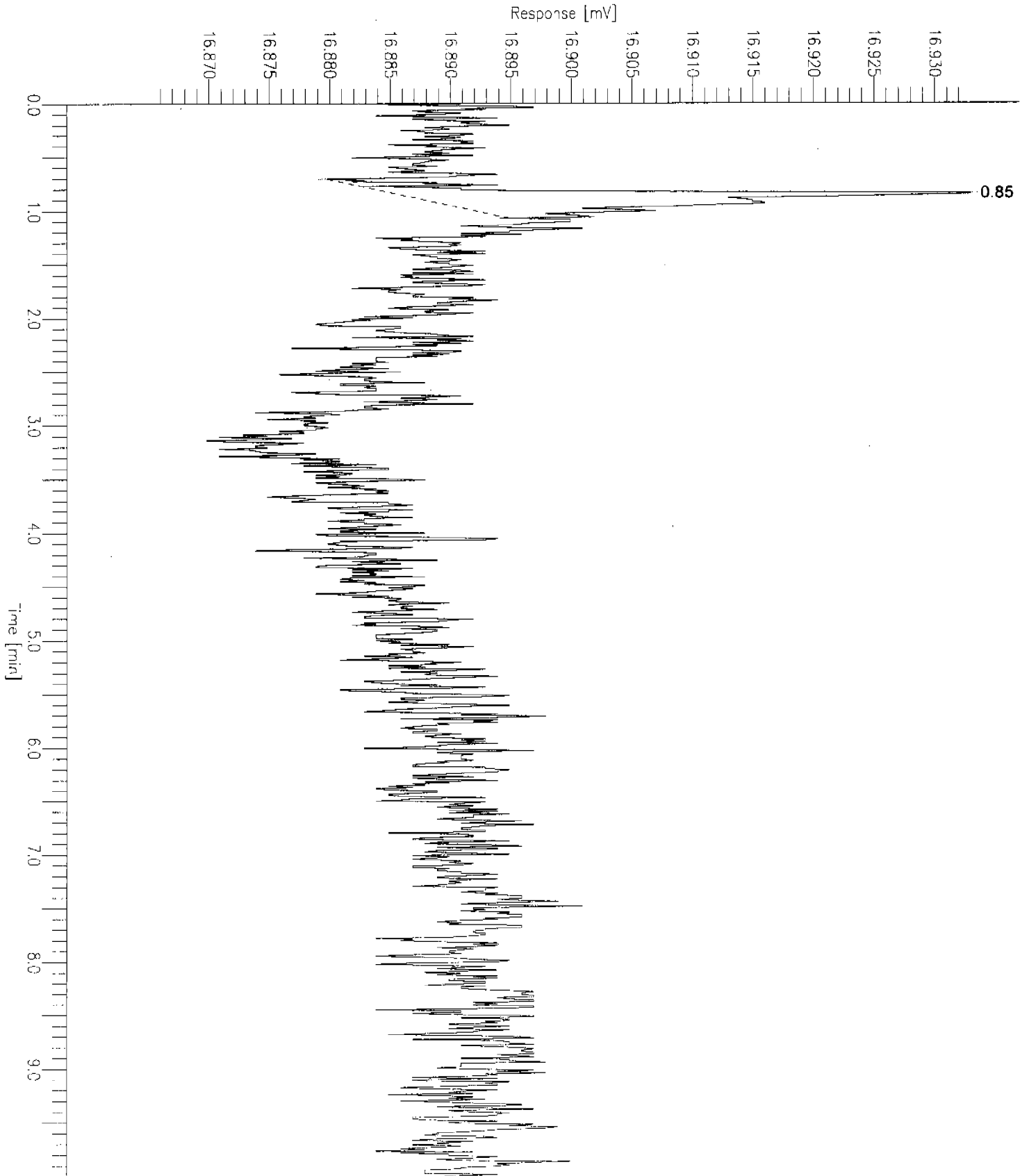
.....  
.....

# Chromatogram

Sample Name : S4414-02  
FileName : F:\DATA3\DO90810.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 34  
Date : 9/21/04 09:35 AM  
Time of Injection: 9/8/04 02:38 PM  
Low Point : 16.87 mV  
Plot Scale: 0.1 mV  
High Point : 16.93 mV



Software Version: 4.1<2F12>

Date: 9/21/04 09:35 AM

Sample Name : S4414-02

Data File : F:\DATA3\D090810.RAW Date: 9/8/04 02:38 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 10 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

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### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		0.85	363.37	51.19	0.000	0.000
			363.37	51.19	0.000	0.000

Report stored in ASCII file: .\d090810.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: TR2155  
LAB ID: S4414-03 2X  
FILENAME: F:\DATA\ID090815.RAW  
LAB PROJECT: S4414

MATRIX: AQUEOUS  
DATE ANALYZED: 9/8/04  
ANALYST: PHM  
DILUTION: 2

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	2010	E	1.0	1.2
74-85-1	ETHYLENE	<1.0	U	1.0	2.2
74-84-0	ETHANE	<1.0	U	1.0	2.02

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

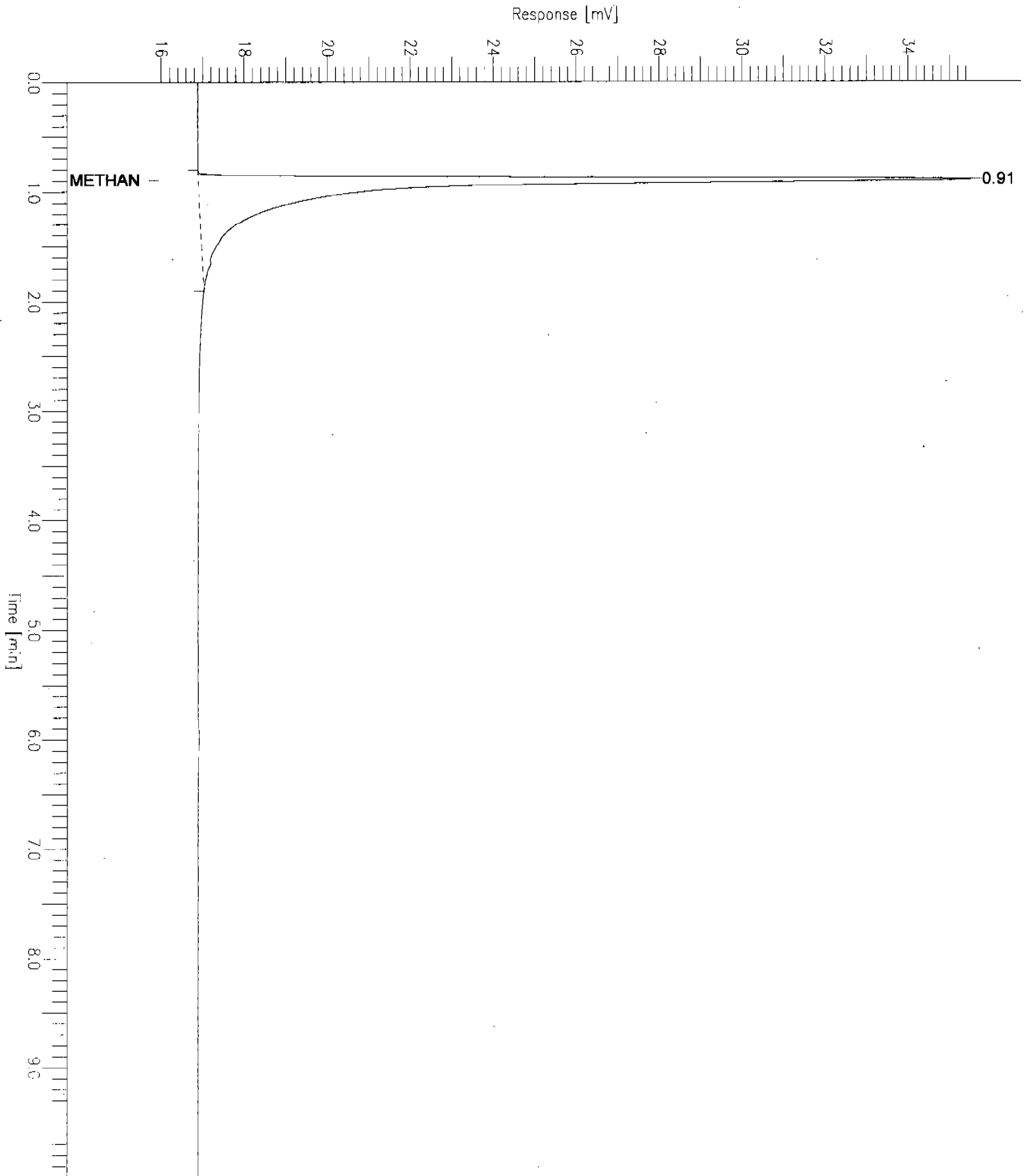
# Chromatogram

Sample Name : S4414-03 2X  
FileName : F:\DATA3\D090815.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 16 mV

Sample #: 34  
Date : 9/21/04 09:37 AM  
Time of Injection: 9/8/04 04:10 PM  
Low Point : 15.94 mV  
Plot Scale: 19.6 mV  
High Point : 35.54 mV

Page 1 of 1



Software Version: 4.1<2F12>

Date: 9/21/04 09:37 AM

Sample Name : S4414-03 2X

Data File : F:\DATA3\D090815.RAW Date: 9/8/04 04:10 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 15 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 2.00

*pg 2-1*

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.91	127657.43	19148.86	17290.322	17290.322
			127657.43	19148.86	17290.322	17290.322

Report stored in ASCII file: .\d090815.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: TR2155  
LAB ID: S4414-03 250X  
FILENAME: F:\DATA3\090816.RAW  
LAB PROJECT: S4414

MATRIX: AQUEOUS  
DATE ANALYZED: 9/8/04  
ANALYST: PHM  
DILUTION: 250

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	2720	D	130	145
74-85-1	ETHYLENE	<130	UD	130	275
74-84-0	ETHANE	<130	UD	130	253

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

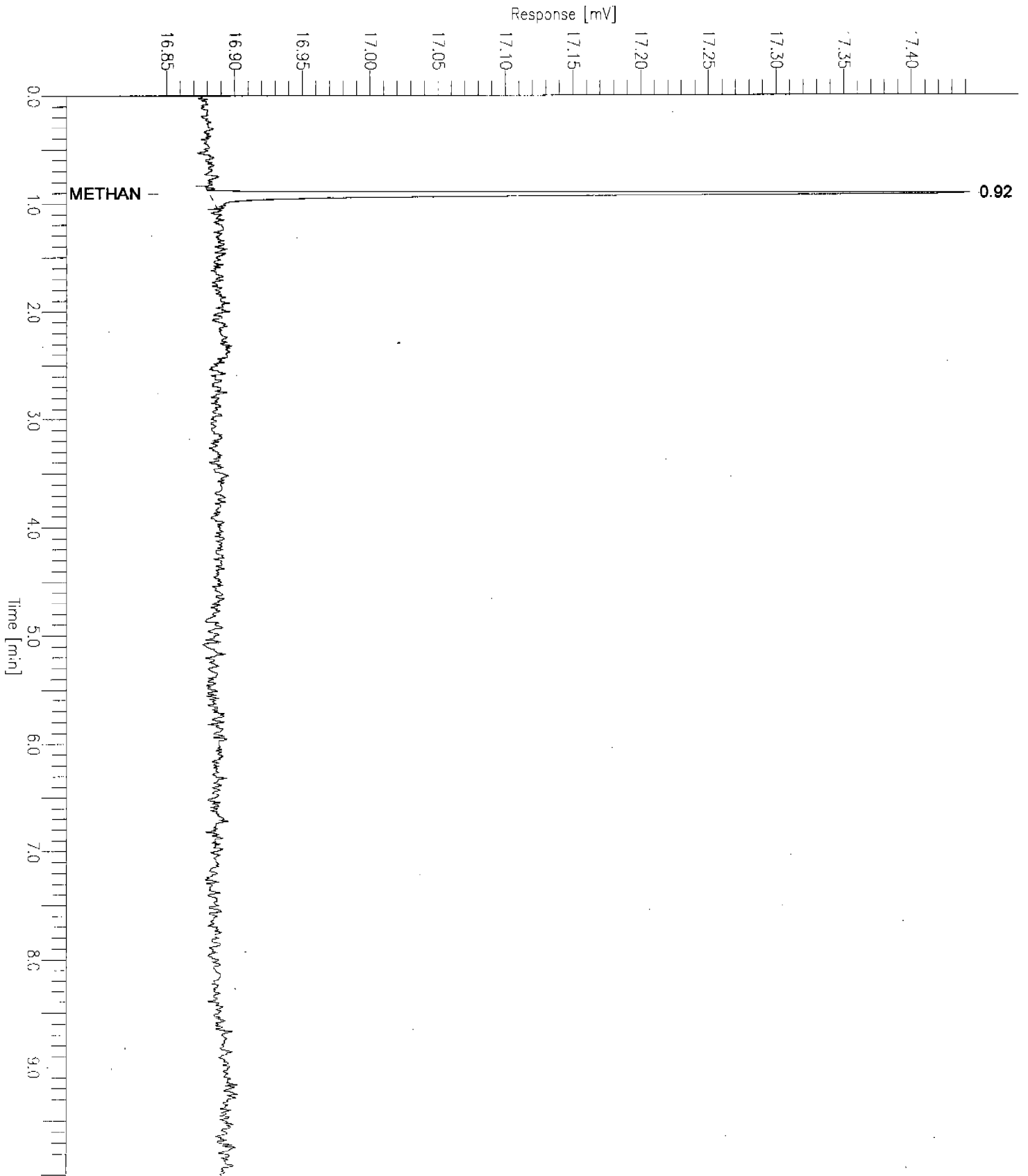
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.....  
.....

# Chromatogram

Sample Name : S4414-03 250X  
FileName : F:\DATA3\DO90816.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 34  
Date : 9/21/04 09:38 AM  
Time of Injection: 9/8/04 04:29 PM  
Low Point : 16.84 mV  
Plot Scale: 0.6 mV  
Page 1 of 1  
High Point : 17.44 mV





Software Version: 4.1<2F12>

Date: 9/21/04 09:38 AM

Sample Name : S4414-03 250X

Data File : F:\DATA3\D090816.RAW Date: 9/8/04 04:29 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 16 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 250.00

199.21

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.92	1383.83	590.49	187.430	187.430
			1383.83	590.49	187.430	187.430

Report stored in ASCII file: .\d090816.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: TR2149  
LAB ID: S4414-04  
FILENAME: F:\DATA3\ID090811.RAW  
LAB PROJECT: S4414

MATRIX: AQUEOUS  
DATE ANALYZED: 9/8/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	<0.5	U	0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

....  
....

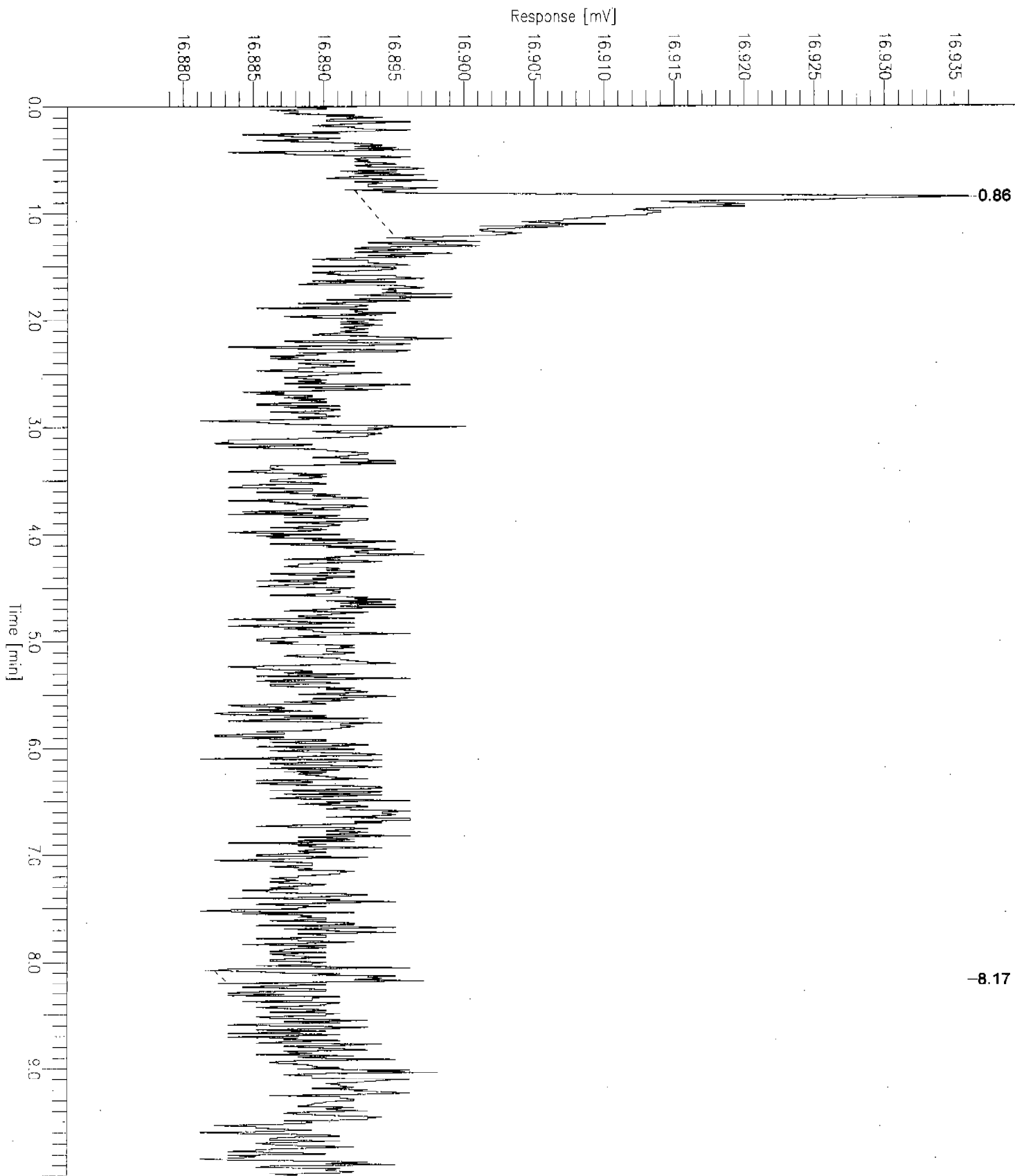
# Chromatogram

Sample Name : S4414-04  
FileName : F:\DATA3\DO90611.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 34  
Date : 9/21/04 09:35 AM  
Time of Injection: 9/8/04 02:57 PM  
Low Point : 16.88 mV  
High Point : 16.94 mV  
Plot Scale: 0.1 mV

Page 1 of 1



Software Version: 4.1<2F12>

Date: 9/21/04 09:35 AM

Sample Name : S4414-04

Data File : F:\DATA3\D090811.RAW Date: 9/8/04 02:57 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 11 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

199-21

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		0.86	453.14	43.79	0.000	0.000
2		8.17	58.42	14.23	5.842e-05	5.842e-05
			511.55	58.02	0.001	0.001

Report stored in ASCII file: .\d090811.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: TR2153  
LAB ID: S4414-05  
FILENAME: F:\DATA3\ID090812.RAW  
LAB PROJECT: S4414

MATRIX: AQUEOUS  
DATE ANALYZED: 9/8/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	<0.5	U	0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

....  
.....

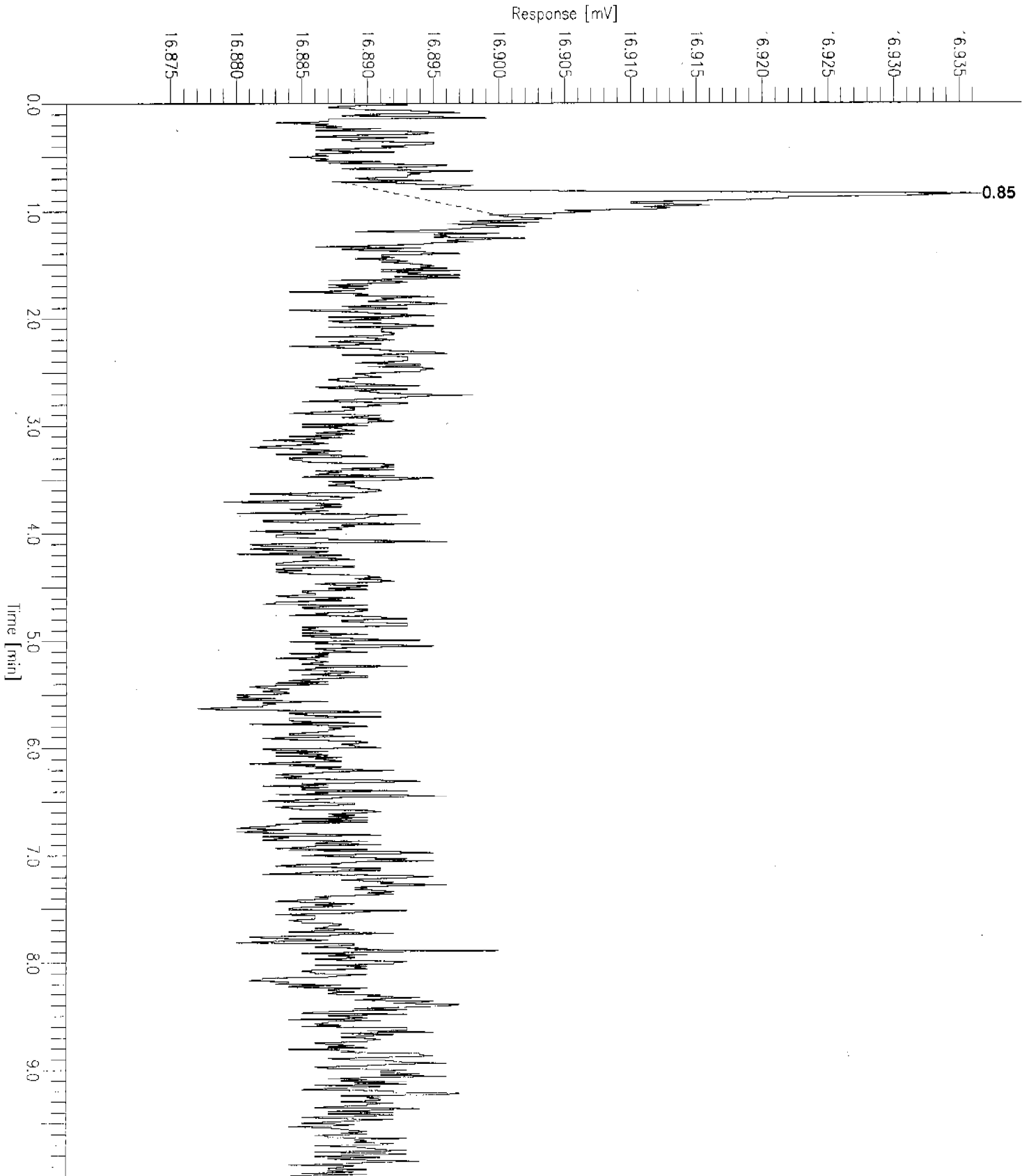
# Chromatogram

Sample Name : S4414-05  
FileName : F:\DATA3\D090812.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 34  
Date : 9/21/04 09:36 AM  
Time of Injection: 9/8/04 03:20 PM  
Low Point : 16.87 mV  
Plot Scale: 0.1 mV  
High Point : 16.94 mV

Page 1 of 1



Software Version: 4.1<2F12>

Date: 9/21/04 09:36 AM

Sample Name : S4414-05

Data File : F:\DATA3\D090812.RAW Date: 9/8/04 03:20 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 12 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000

Dilution Factor : 1.00

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### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		0.85	302.31	44.26	0.000	0.000
			302.31	44.26	0.000	0.000

Report stored in ASCII file: .\d090812.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: TR2151  
LAB ID: S4414-06 2X  
FILENAME: F:\DATA3\ID090828.RAW  
LAB PROJECT: S4414

MATRIX: AQUEOUS  
DATE ANALYZED: 9/8/04  
ANALYST: PHM  
DILUTION: 2

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	315	E	1.0	1.2
74-85-1	ETHYLENE	<1.0	U	1.0	2.2
74-84-0	ETHANE	<1.0	U	1.0	2.02

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

....  
.....



# Chromatogram

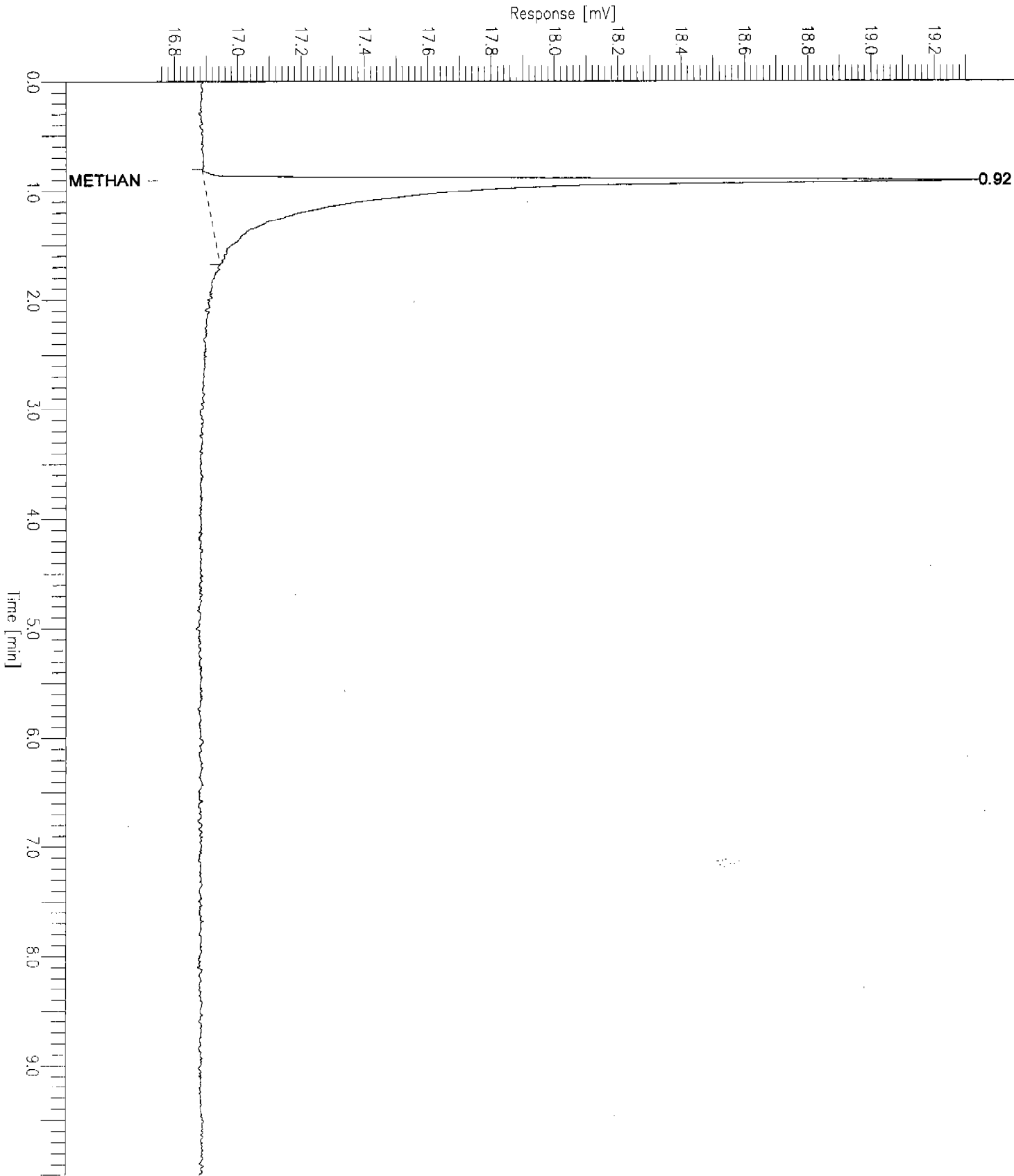
Sample Name : S4414-06 2X  
FileName : F:\DATA3\D090826.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 35  
Date : 9/21/04 09:45 AM  
Time of Injection: 9/8/04 07:46 PM  
Low Point : 16.75 mV  
Plot Scale: 2.6 mV

Page 1 of 1

High Point : 19.31 mV



Software Version: 4.1<2F12>

Date: 9/21/04 09:45 AM

Sample Name : S4414-06 2X

Data File : F:\DATA3\D090828.RAW Date: 9/8/04 07:46 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 25 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000

Dilution Factor : 2.00

199-21

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.92	20034.65	2446.86	2713.556	2713.556
			20034.65	2446.86	2713.556	2713.556

Report stored in ASCII file: .\d090828.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: TR2151  
LAB ID: S4414-06 100X  
FILENAME: F:\DATA3\090829.RAW  
LAB PROJECT: S4414

MATRIX: AQUEOUS  
DATE ANALYZED: 9/8/04  
ANALYST: PHM  
DILUTION: 100

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	408	D	50	58
74-85-1	ETHYLENE	<50	UD	50	110
74-84-0	ETHANE	<50	UD	50	101

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

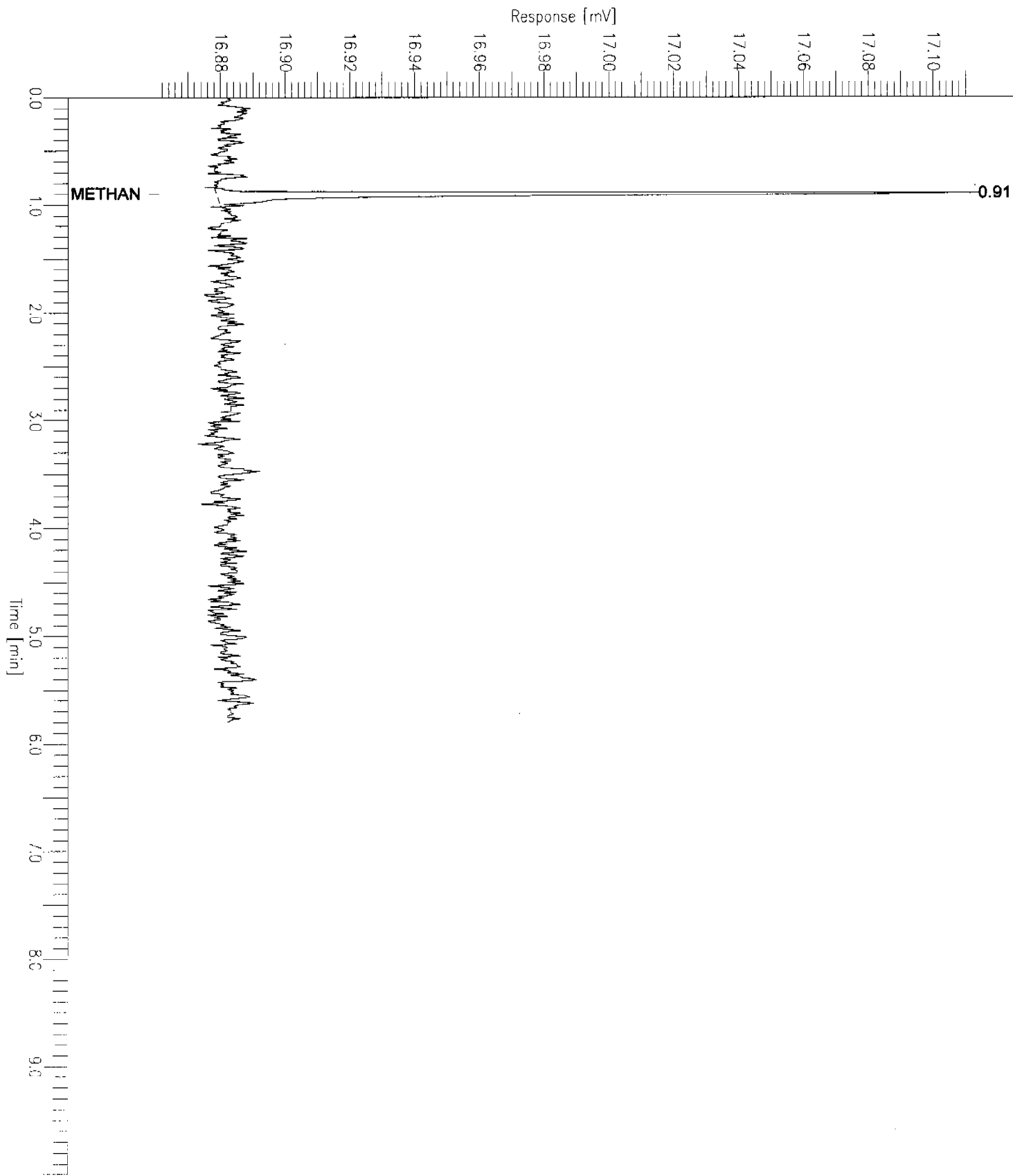
.....  
.....

# Chromatogram

Sample Name : S4414-06 100X  
FileName : F:\DATA3\D090829.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 35  
Date : 9/21/04 09:45 AM  
Time of Injection: 9/8/04 08:01 PM  
Low Point : 16.86 mV  
High Point : 17.11 mV  
Plot Scale: 0.2 mV



Software Version: 4.1<2F12>

Date: 9/21/04 09:45 AM

Sample Name : S4414-06 100X

Data File : F:\DATA3\D090829.RAW Date: 9/8/04 08:01 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 25 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 100.00

*pg 9.21*

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.91	518.81	241.12	70.270	70.270
			518.81	241.12	70.270	70.270

Report stored in ASCII file: .\d090829.TX0

CLIENT: PARSONS ENGINEERING  
 PROJECT: Seneca Ash Landfill Quarterly Monitoring  
 SAMPLE ID: TR2152  
 LAB ID: S4414-07  
 FILENAME: F:\DATA3\ID090818.RAW  
 LAB PROJECT: S4414

MATRIX: AQUEOUS  
 DATE ANALYZED: 9/8/04  
 ANALYST: PHM  
 DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	2290	E	0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL = METHOD DETECTION LIMIT  
 U = UNDETECTED BELOW MDL  
 B = PRESENT IN THE ASSOCIATED BLANK  
 E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
 D = DILUTION

....  
 .....  
 .....

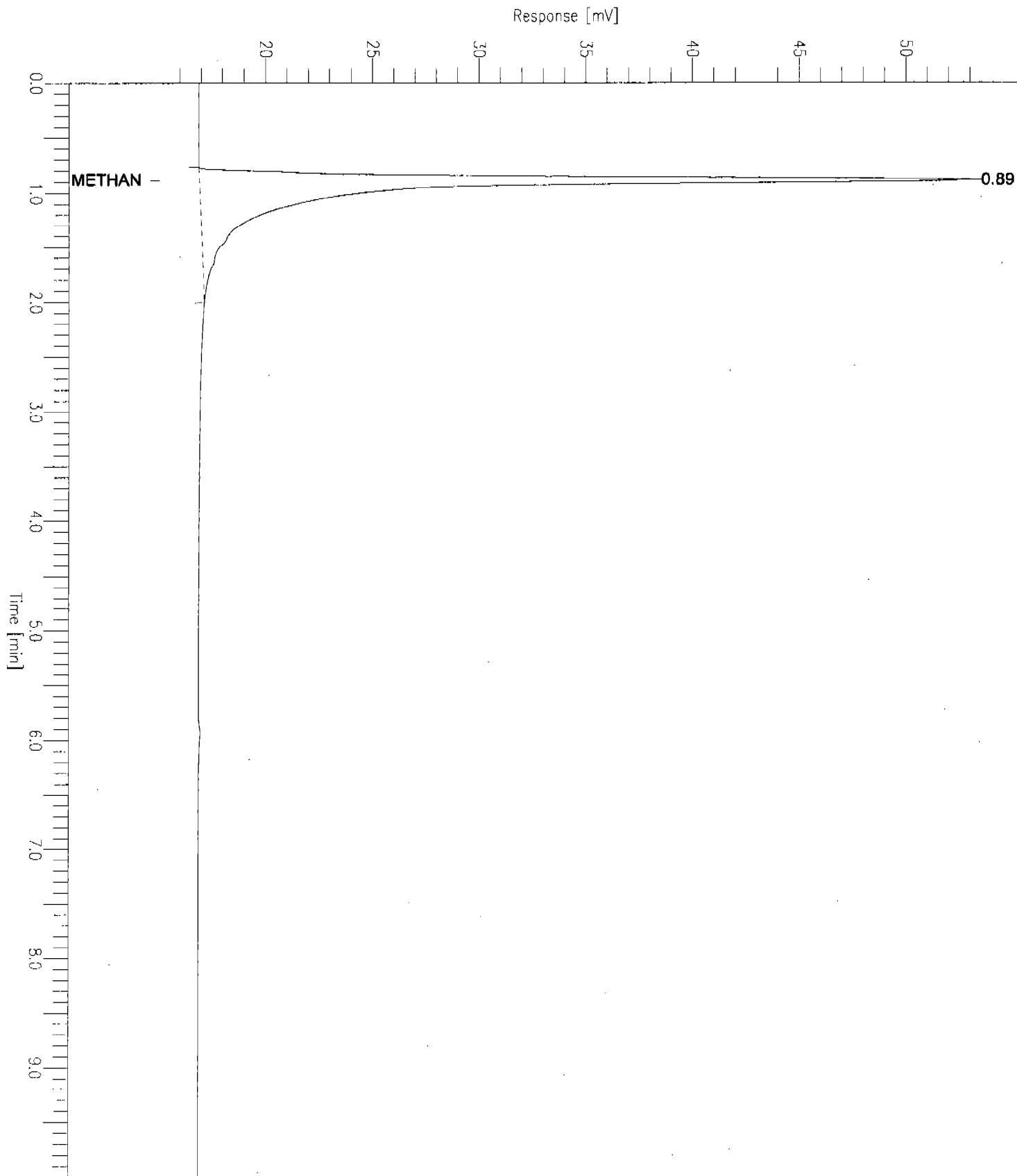
# Chromatogram

Sample Name : S4414-07  
FileName : F:\DATA3\D090818.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 15 mV

Sample #: 34  
Date : 9/21/04 09:39 AM  
Time of Injection: 9/8/04 05:02 PM  
Low Point : 15.07 mV  
Plot Scale: 38.0 mV  
High Point : 53.06 mV

Page 1 of 1



Software Version: 4.1<2F12>

Date: 9/21/04 09:39 AM

Sample Name : S4414-07

Data File : F:\DATA3\D090818.RAW Date: 9/8/04 05:02 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 18 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

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CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.89	290820.13	36317.42	39389.590	39389.590
			290820.13	36317.42	39389.590	39389.590

Report stored in ASCII file: .\d090818.TX0



CLIENT: PARSONS ENGINEERING  
 PROJECT: Seneca Ash Landfill Quarterly Monitoring  
 SAMPLE ID: TR2152  
 LAB ID: S4414-07 100X  
 FILENAME: F:\DATA3\ID090819.RAW  
 LAB PROJECT: S4414

MATRIX: AQUEOUS  
 DATE ANALYZED: 9/8/04  
 ANALYST: PHM  
 DILUTION: 100

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	1640	D	50	58
74-85-1	ETHYLENE	<50	UD	50	110
74-84-0	ETHANE	<50	UD	50	101

MDL = METHOD DETECTION LIMIT  
 U = UNDETECTED BELOW MDL  
 B = PRESENT IN THE ASSOCIATED BLANK  
 E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
 D = DILUTION

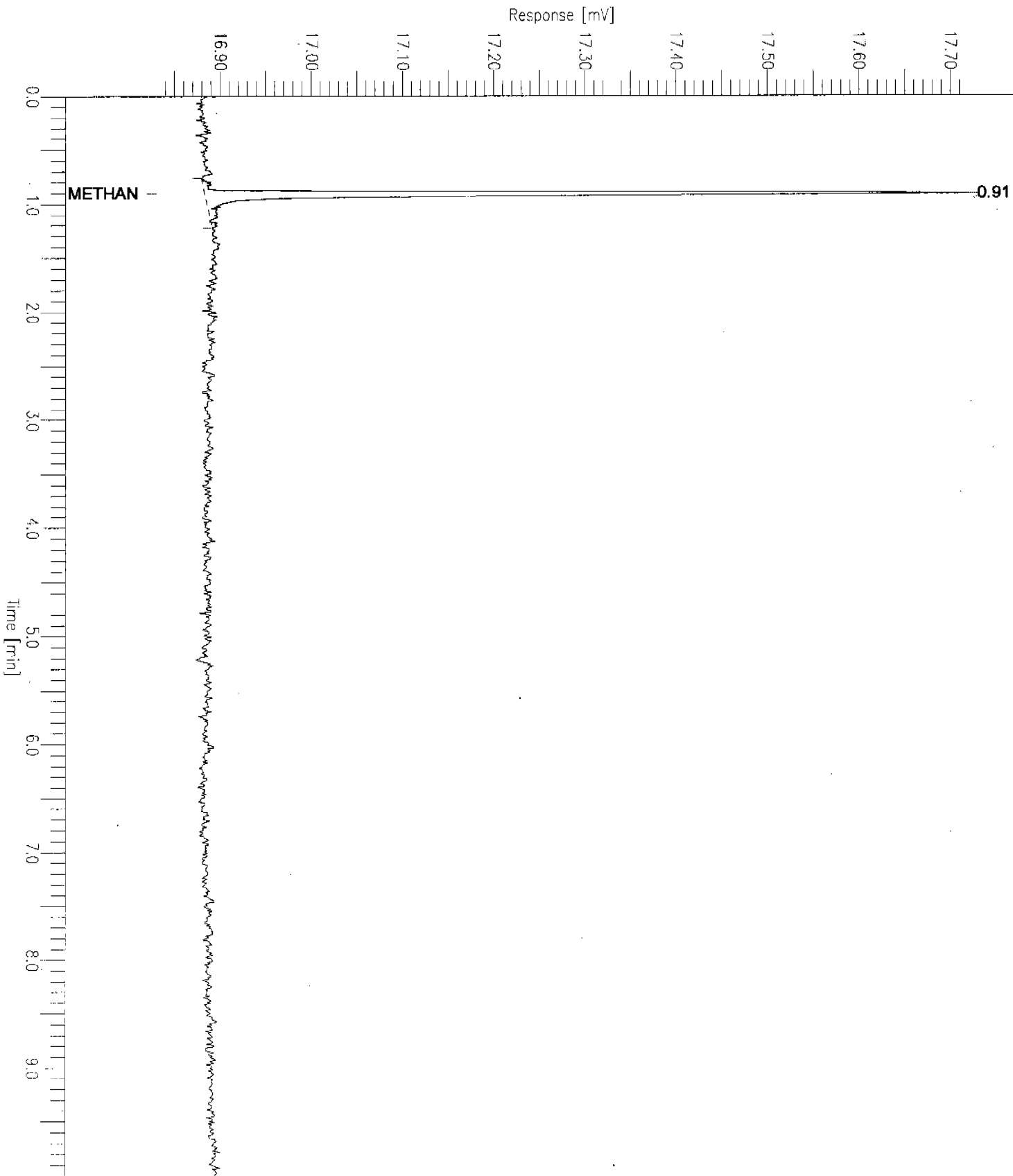
....  
 ....  
 ....

# Chromatogram

Sample Name : S4414-07 100X  
FileName : F:\DATA3\D090819.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 34  
Date : 9/21/04 09:40 AM  
Time of Injection: 9/8/04 05:19 PM  
Low Point : 16.83 mV  
High Point : 17.72 mV  
Plot Scale: 0.9 mV



Software Version: 4.1<2F12>

Date: 9/21/04 09:40 AM

Sample Name : S4414-07 100X

Data File : F:\DATA3\D090819.RAW Date: 9/8/04 05:19 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 19 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 100.00

199-21

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.91	2088.45	841.86	282.866	282.866
			2088.45	841.86	282.866	282.866

Report stored in ASCII file: .\d090819.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: TR2159  
LAB ID: S4414-08  
FILENAME: F:\DATA3\ID090817.RAW  
LAB PROJECT: S4414

MATRIX: AQUEOUS  
DATE ANALYZED: 9/8/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	<0.5	U	0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

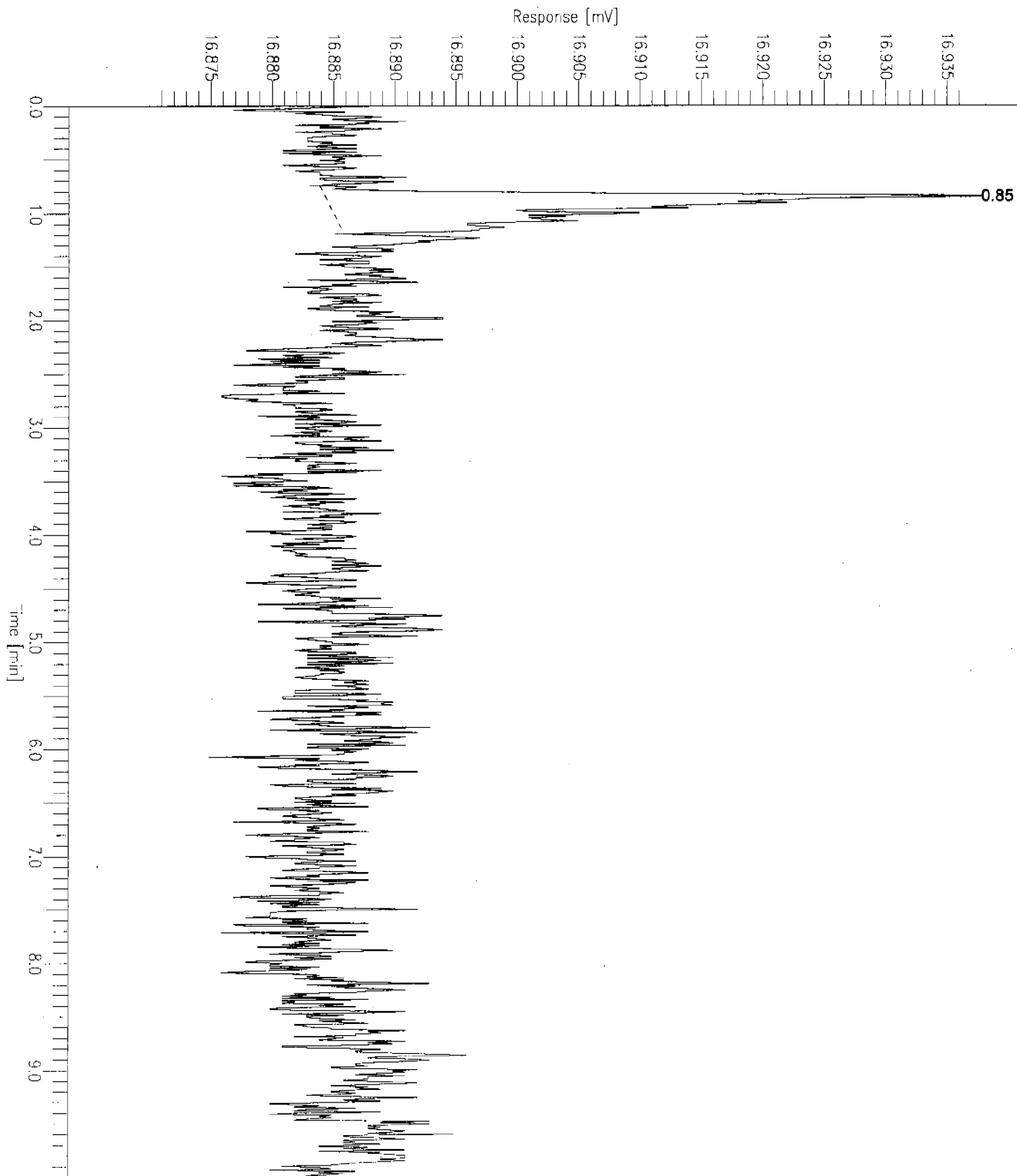
....  
....  
....

# Chromatogram

Sample Name : S4414-08  
FileName : F:\DATA3\DC90817.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 34  
Date : 9/21/04 09:38 AM  
Time of Injection: 9/8/04 04:45 PM  
Low Point : 16.87 mV  
High Point : 16.94 mV  
Plot Scale: 0.1 mV



Software Version: 4.1<2F12>

Date: 9/21/04 09:38 AM

Sample Name : S4414-08

Data File : F:\DATA3\D090817.RAW Date: 9/8/04 04:45 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 17 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

199-21

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		0.85	539.93	54.94	0.001	0.001
			539.93	54.94	0.001	0.001

Report stored in ASCII file: .\d090817.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: TR2180  
LAB ID: S4414-11  
FILENAME: F:\DATA3\ID090823.RAW  
LAB PROJECT: S4414

MATRIX: AQUEOUS  
DATE ANALYZED: 9/8/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	<0.5	U	0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

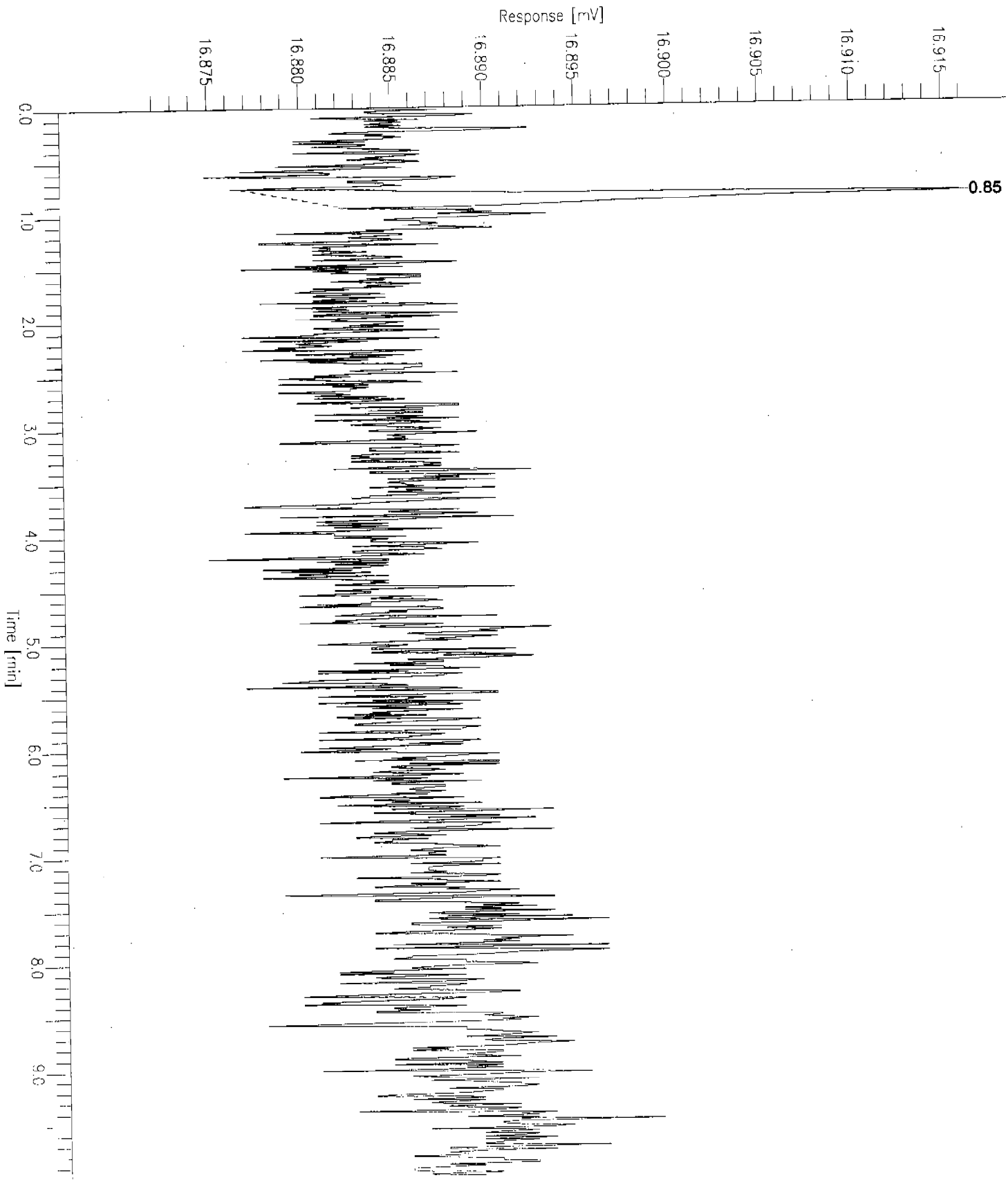
....

# Chromatogram

Sample Name : S4414-11  
FileName : F:\DATA3\D090823.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 34  
Date : 9/21/04 09:42 AM  
Time of Injection: 9/8/04 06:25 PM  
Low Point : 16.87 mV  
Plot Scale: 0.0 mV  
High Point : 16.92 mV





Software Version: 4.1<2F12>

Date: 9/21/04 09:42 AM

Sample Name : S4414-11

Data File : F:\DATA3\D090823.RAW Date: 9/8/04 06:25 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 23 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

191-21

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		0.85	194.72	37.72	0.000	0.000
			194.72	37.72	0.000	0.000

Report stored in ASCII file: .\d090823.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: TR2158  
LAB ID: S4414-12  
FILENAME: F:\DATA3\ID090824.RAW  
LAB PROJECT: S4414

MATRIX: AQUEOUS  
DATE ANALYZED: 9/8/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	2840	E	0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

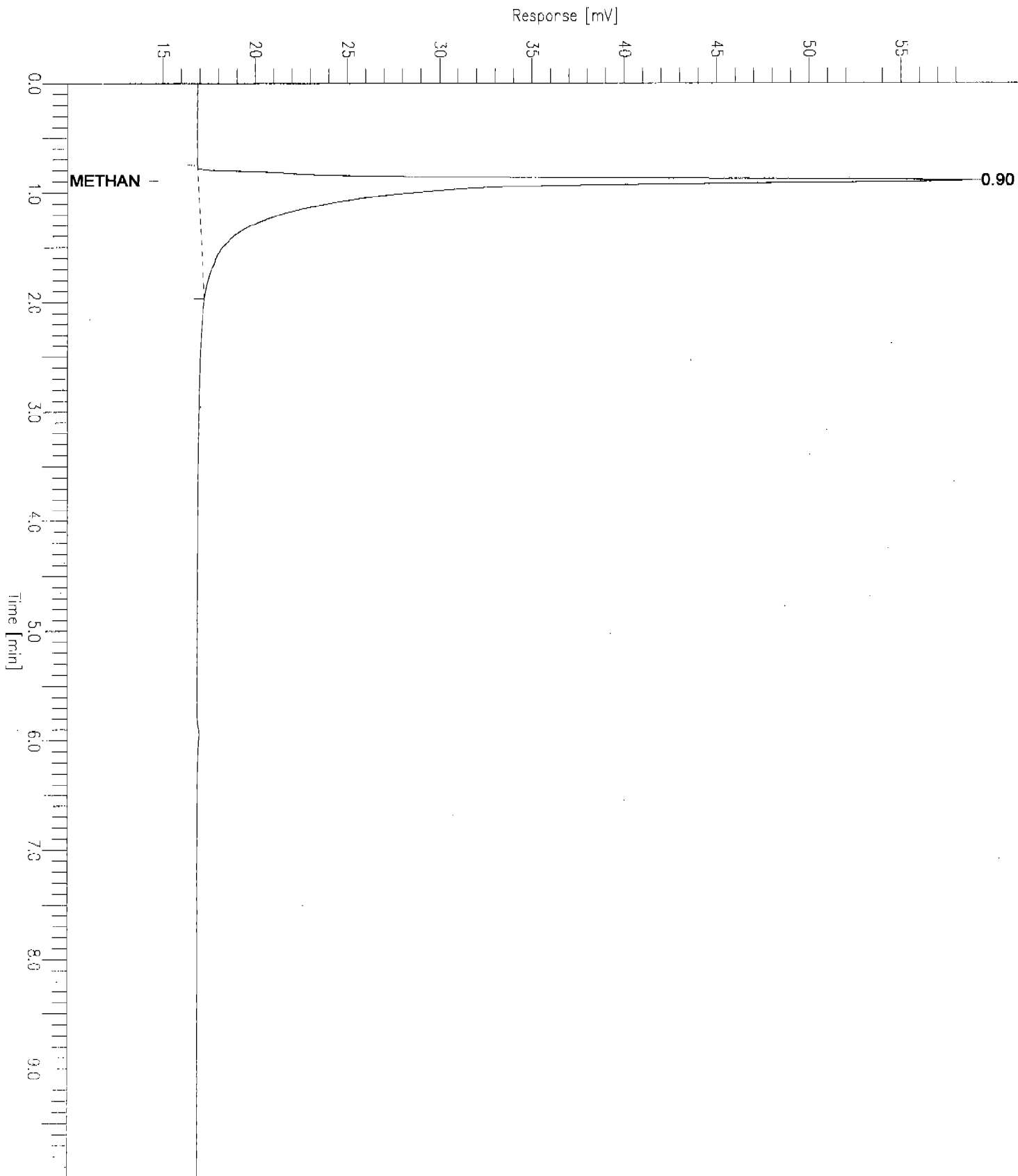
# Chromatogram

Sample Name : S4414-12  
FileName : F:\DATA3\D090824.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 15 mV

Sample #: 34  
Date : 9/21/04 09:42 AM  
Time of Injection: 9/8/04 06:42 PM  
Low Point : 14.77 mV  
Plot Scale: 44.1 mV  
High Point : 58.83 mV

Page 1 of 1



Software Version: 4.1<2F12>

Date: 9/21/04 09:42 AM

Sample Name : S4414-12

Data File : F:\DATA3\D090824.RAW Date: 9/8/04 06:42 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 24 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

99-21

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.90	360896.37	41989.94	48880.935	48880.935
			360896.37	41989.94	48880.935	48880.935

Report stored in ASCII file: .\d090824.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: TR2158  
LAB ID: S4414-12 200X  
FILENAME: F:\DATA3\090826.RAW  
LAB PROJECT: S4414

MATRIX: AQUEOUS  
DATE ANALYZED: 9/8/04  
ANALYST: PHM  
DILUTION: 200

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	2400	D	100	116
74-85-1	ETHYLENE	<100	UD	100	220
74-84-0	ETHANE	<100	UD	100	202

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

....  
.....  
.....

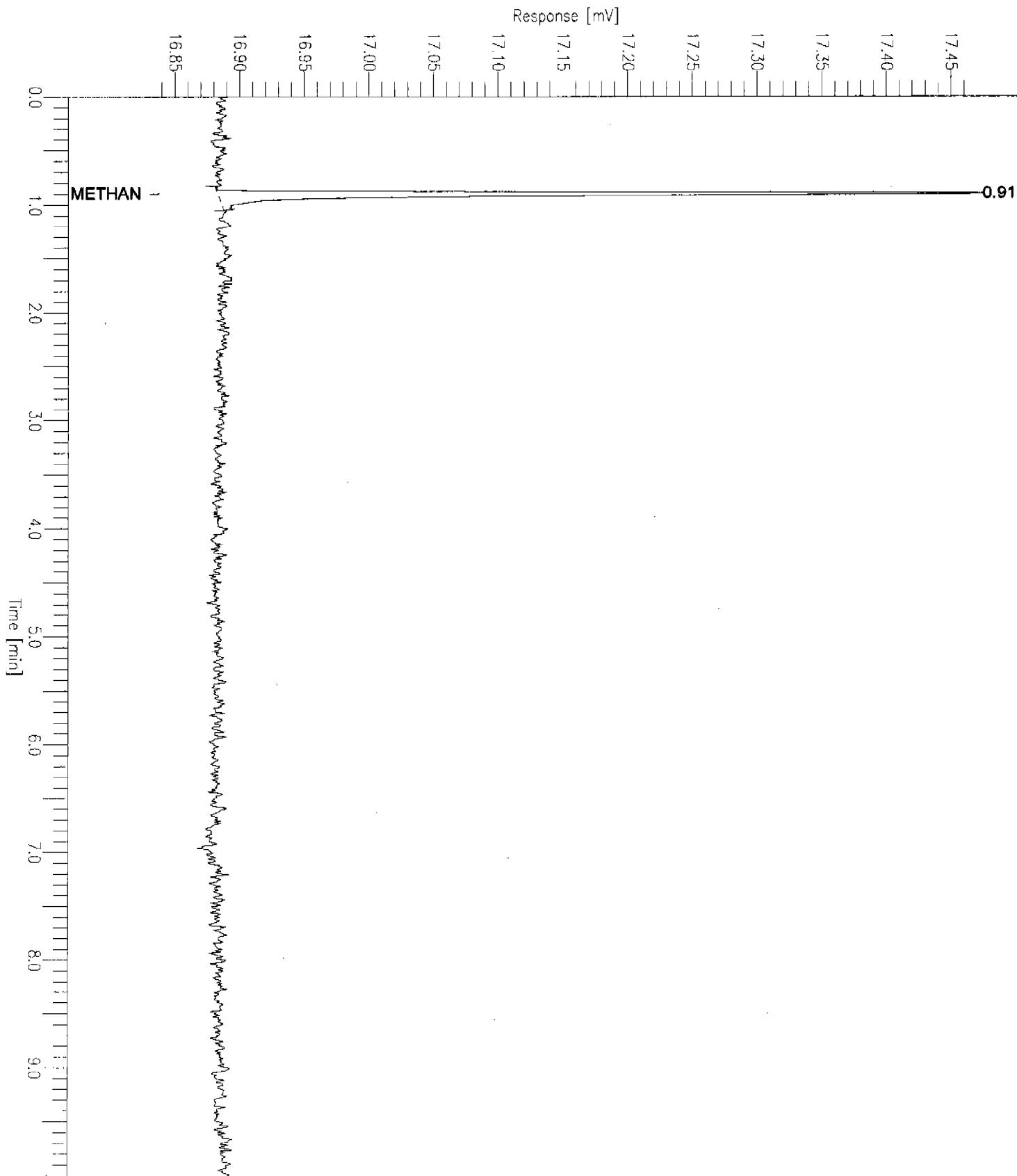
# Chromatogram

Sample Name : S4414-12 200X  
FileName : F:\DATA3\D090826.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 35  
Date : 9/21/04 11:47 AM  
Time of Injection: 9/8/04 07:15 PM  
Low Point : 16.84 mV  
Plot Scale: 0.6 mV

Page 1 of 1



Software Version: 4.1<2F12>

Date: 9/21/04 11:47 AM

Sample Name : S4414-12 200X

Data File : F:\DATA3\D090826.RAW Date: 9/8/04 07:15 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 25 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 200.00

99-21

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.91	1524.09	622.23	206.428	206.428
			1524.09	622.23	206.428	206.428

Report stored in ASCII file: .\d090826.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: TR2157  
LAB ID: S4414-13  
FILENAME: F:\DATA3\ID090821.RAW  
LAB PROJECT: S4414

MATRIX: AQUEOUS  
DATE ANALYZED: 9/8/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	94	E	0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION



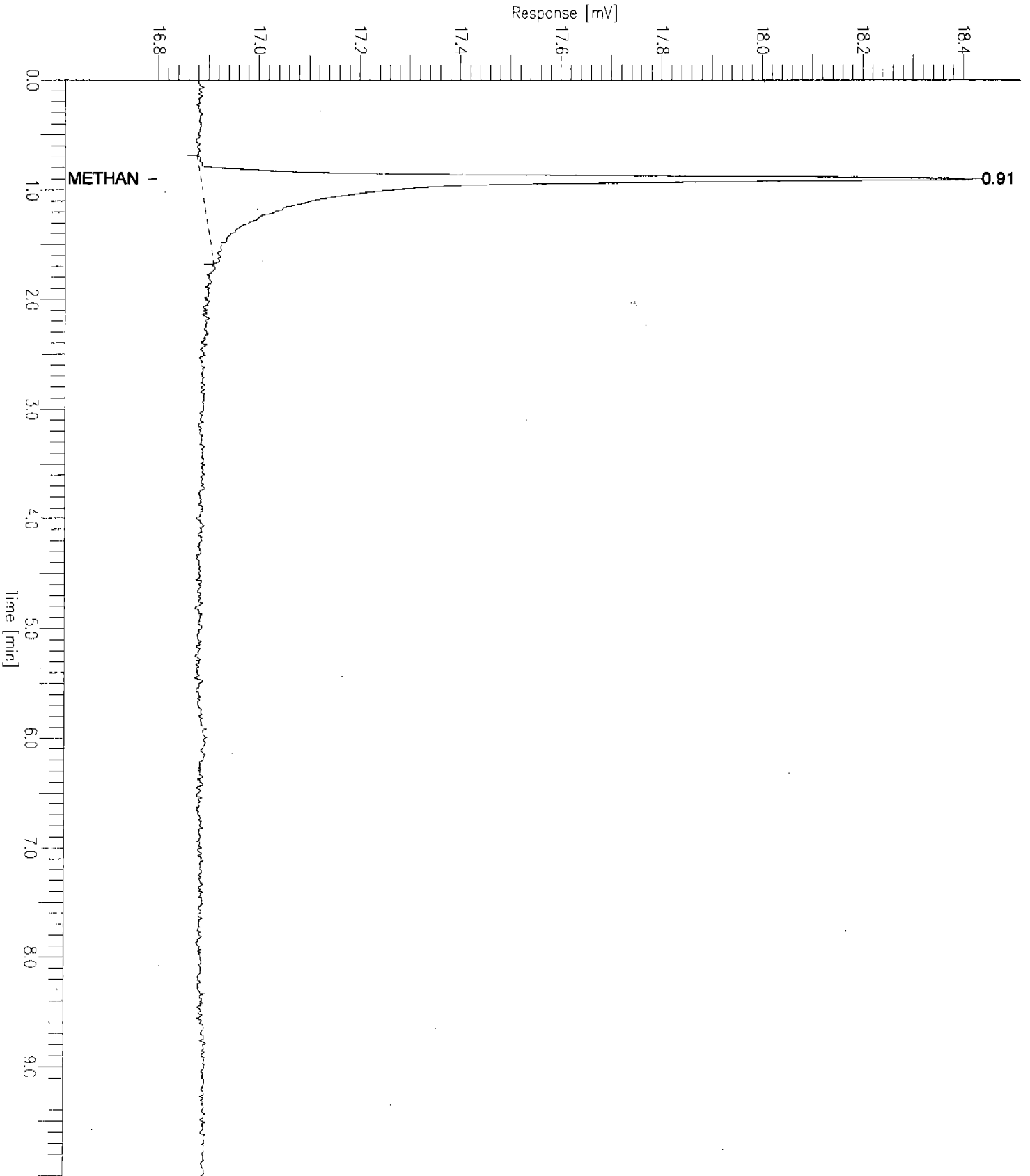
# Chromatogram

Sample Name : S4414-13  
FileName : F:\DATA3\090821.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 34  
Date : 9/21/04 09:41 AM  
Time of Injection: 9/8/04 05:52 PM  
Low Point : 16.80 mV  
High Point : 18.42 mV  
Plot Scale: 1.6 mV

Page 1 of 1



Software Version: 4.1<2F12>

Date: 9/21/04 09:41 AM

Sample Name : S4414-13

Data File : F:\DATA3\D090821.RAW Date: 9/8/04 05:52 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 21 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

*pg 21*

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.91	11997.36	1548.01	1624.960	1624.960
			11997.36	1548.01	1624.960	1624.960

Report stored in ASCII file: .\d090821.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: TR2157  
LAB ID: S4414-13 5X  
FILENAME: F:\DATA3\ID090822.RAW  
LAB PROJECT: S4414

MATRIX: AQUEOUS  
DATE ANALYZED: 9/8/04  
ANALYST: PHM  
DILUTION: 5

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	102	D	2.5	2.9
74-85-1	ETHYLENE	<2.5	UD	2.5	5.5
74-84-0	ETHANE	<2.5	UD	2.5	5.1

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

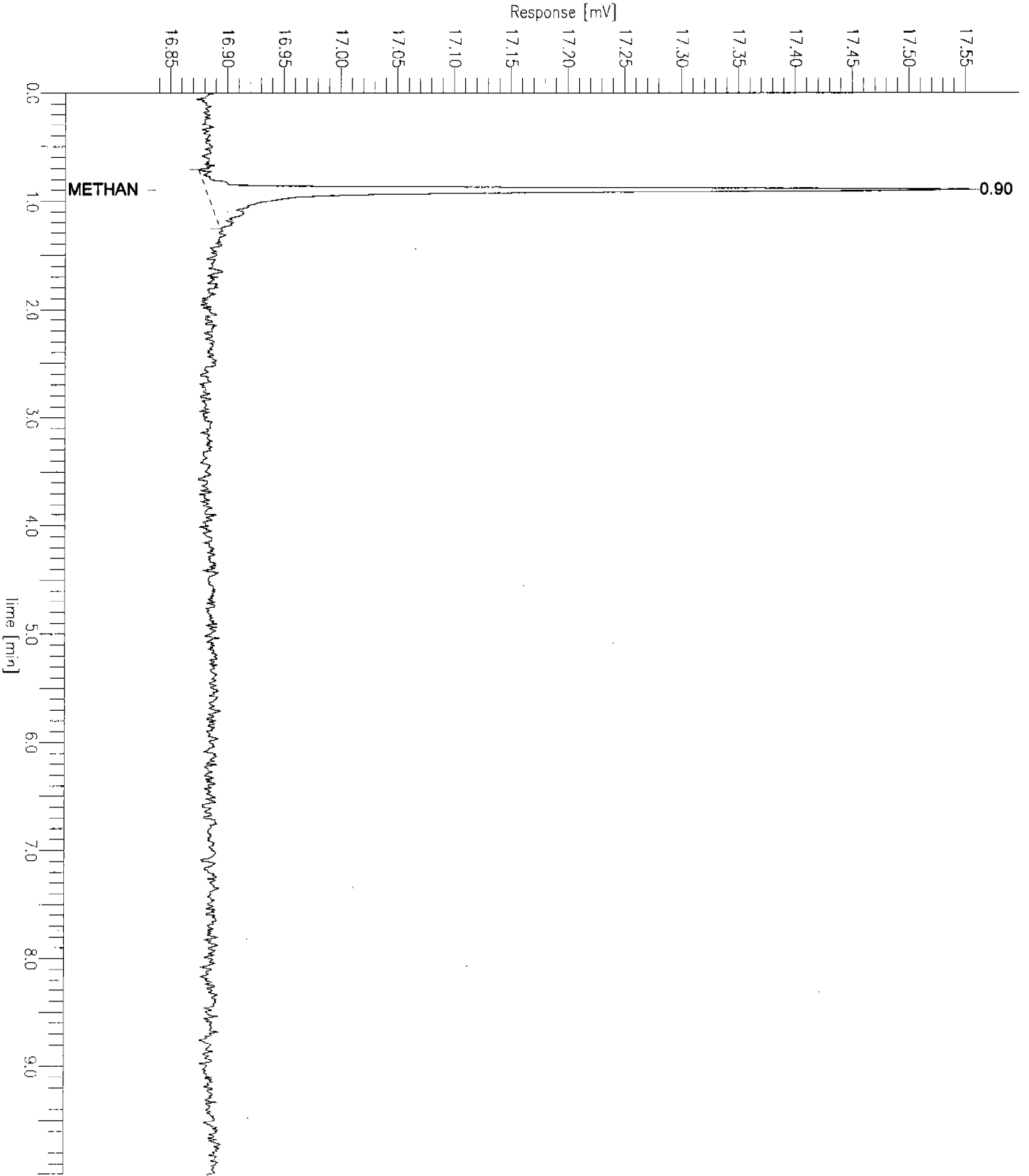
# Chromatogram

Sample Name : S4414-13 5X  
FileName : F:\DATA3\VD090822.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 34  
Date : 9/21/04 11:46 AM  
Time of Injection: 9/8/04 06:09 PM  
Low Point : 16.84 mV  
Plot Scale: 0.7 mV

Page 1 of 1  
High Point : 17.55 mV



Software Version: 4.1<2F12>

Date: 9/21/04 11:46 AM

Sample Name : S4414-13 5X

Data File : F:\DATA3\D090822.RAW Date: 9/8/04 06:09 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 22 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000

Dilution Factor : 5.00

199-21

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.90	2601.32	675.57	352.331	352.331
			2601.32	675.57	352.331	352.331

Report stored in ASCII file: .\d090822.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: TR0057  
LAB ID: S4414-15  
FILENAME: F:\DATA3\ID090820.RAW  
LAB PROJECT: S4414

MATRIX: AQUEOUS  
DATE ANALYZED: 9/8/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	<0.5	U	0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

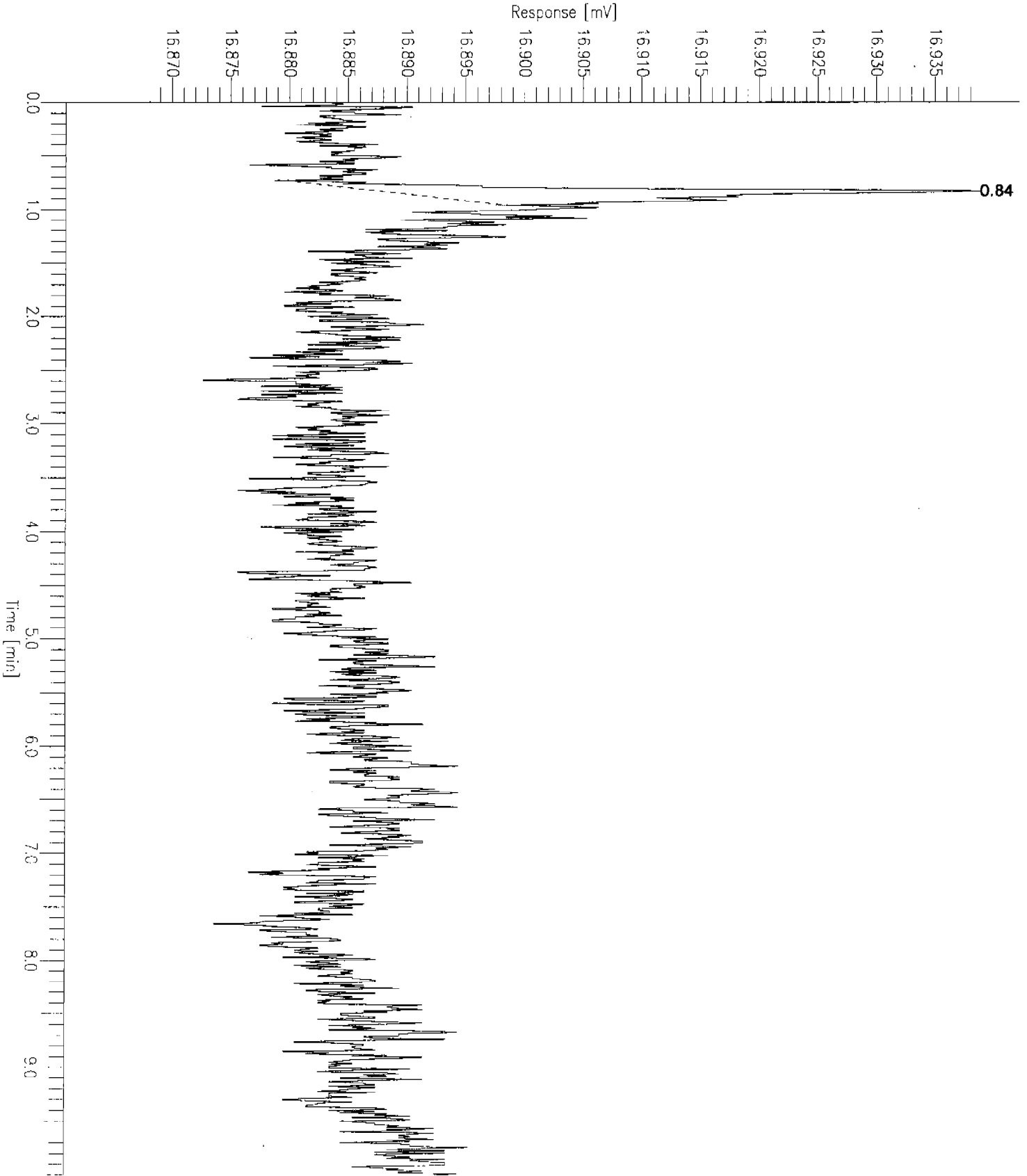
....  
.....  
.....

# Chromatogram

Sample Name : S4414-15  
FileName : F:\DATA3\D090820.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 34  
Date : 9/21/04 11:45 AM  
Time of Injection: 9/8/04 05:35 PM  
Low Point : 16.87 mV  
High Point : 16.94 mV  
Plot Scale: 0.1 mV



Software Version: 4.1<2F12>

Date: 9/21/04 11:45 AM

Sample Name : S4414-15

Data File : F:\DATA3\D090820.RAW Date: 9/8/04 05:35 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 20 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

*pg 2-1*

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		0.84	284.82	51.64	0.000	0.000
			284.82	51.64	0.000	0.000

Report stored in ASCII file: .\d090820.TX0



CHEMTECH

GC  
CALIBRATION  
SUMMARY

Date Analyzed		9/8/04										
Analyte	50 ppm	100 ppm	200 ppm	500 ppm	1000 ppm	Std					CORR	
	Cal Fac 1	Cal Fac 2	Cal Fac 3	Cal Fac 4	Cal Fac 5	Ave CF	Std Dev	% RSD	Flag	COEFF	COEFF	
METHANE	7	9	6	7	8	7	1.2	16		0.99786		
ETHYLENE	6	7	6	5	5	6	1	14		0.99948		
ETHANE	9	9	8	10	12	10	2	16		0.99663		

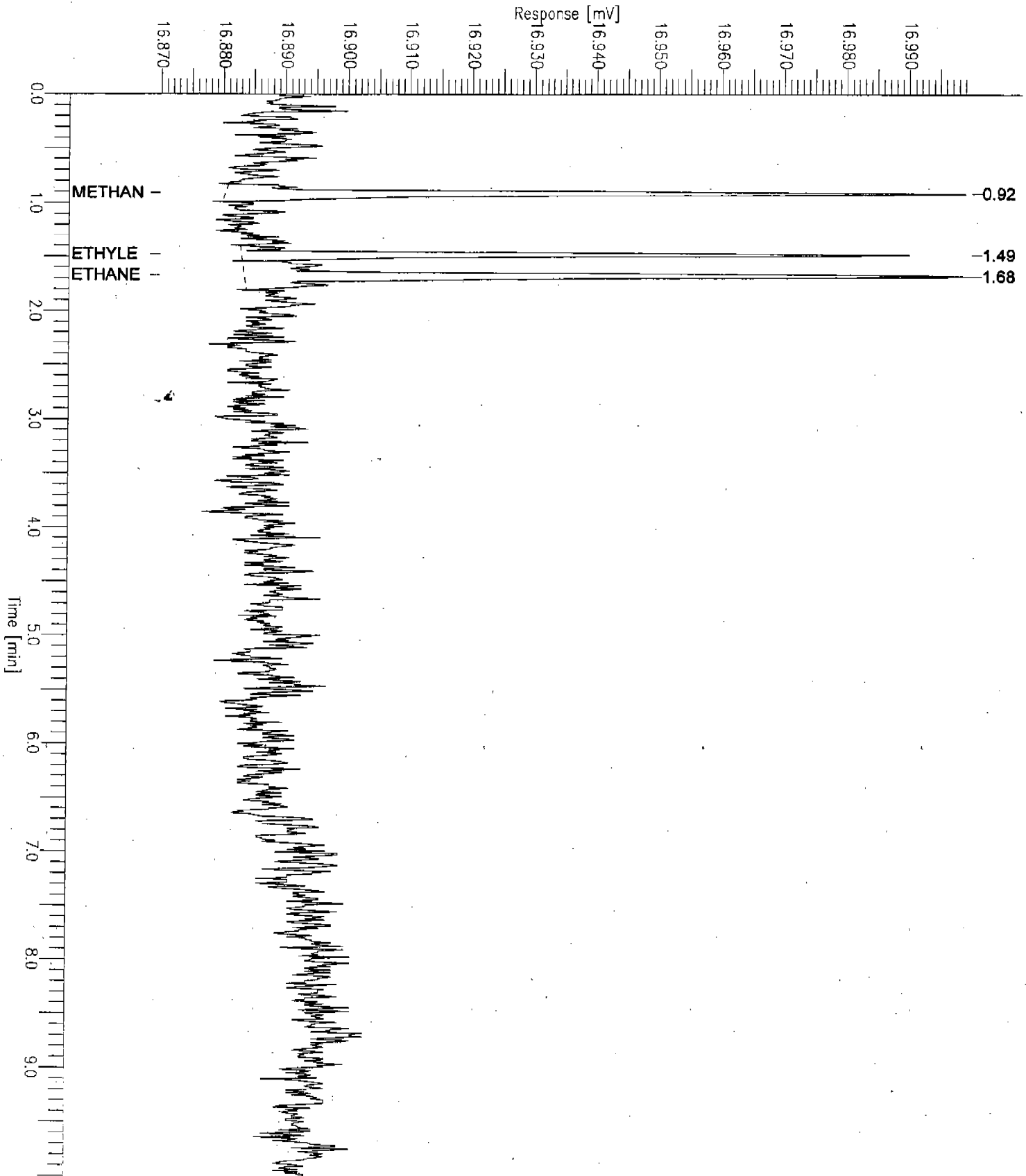
Std	Filename
50	F:\DATA3\090807.RAW
100	F:\DATA3\090806.RAW
200	F:\DATA3\090805.RAW
500	F:\DATA3\090804.RAW
1000	F:\DATA3\090803.RAW

\* Denotes outside control criteria: 10% RSD for initial calibration 16% drift for continuing calibration  
(When calibration factor fails correlation coefficient is used as per EPA 802)

Sample Name : 50 PPM ICC  
FileName : F:\DATA3\090807.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 34  
Date : 9/21/04 09:33 AM  
Time of Injection: 9/8/04 01:49 PM  
Low Point : 16.87 mV  
High Point : 17.00 mV  
Plot Scale: 0.1 mV



Software Version: 4.1<2F12>

Date: 9/21/04 09:33 AM

Sample Name : 50 PPM ICC

Data File : F:\DATA3\D090807.RAW Date: 9/8/04 01:49 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 7 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

*plg-21*

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.92	352.81	120.15	47.785	47.785
2	ETHYLENE	1.49	285.62	107.39	51.805	51.805
3	ETHANE	1.68	437.48	118.24	44.656	44.656
			1075.91	345.78	144.246	144.246

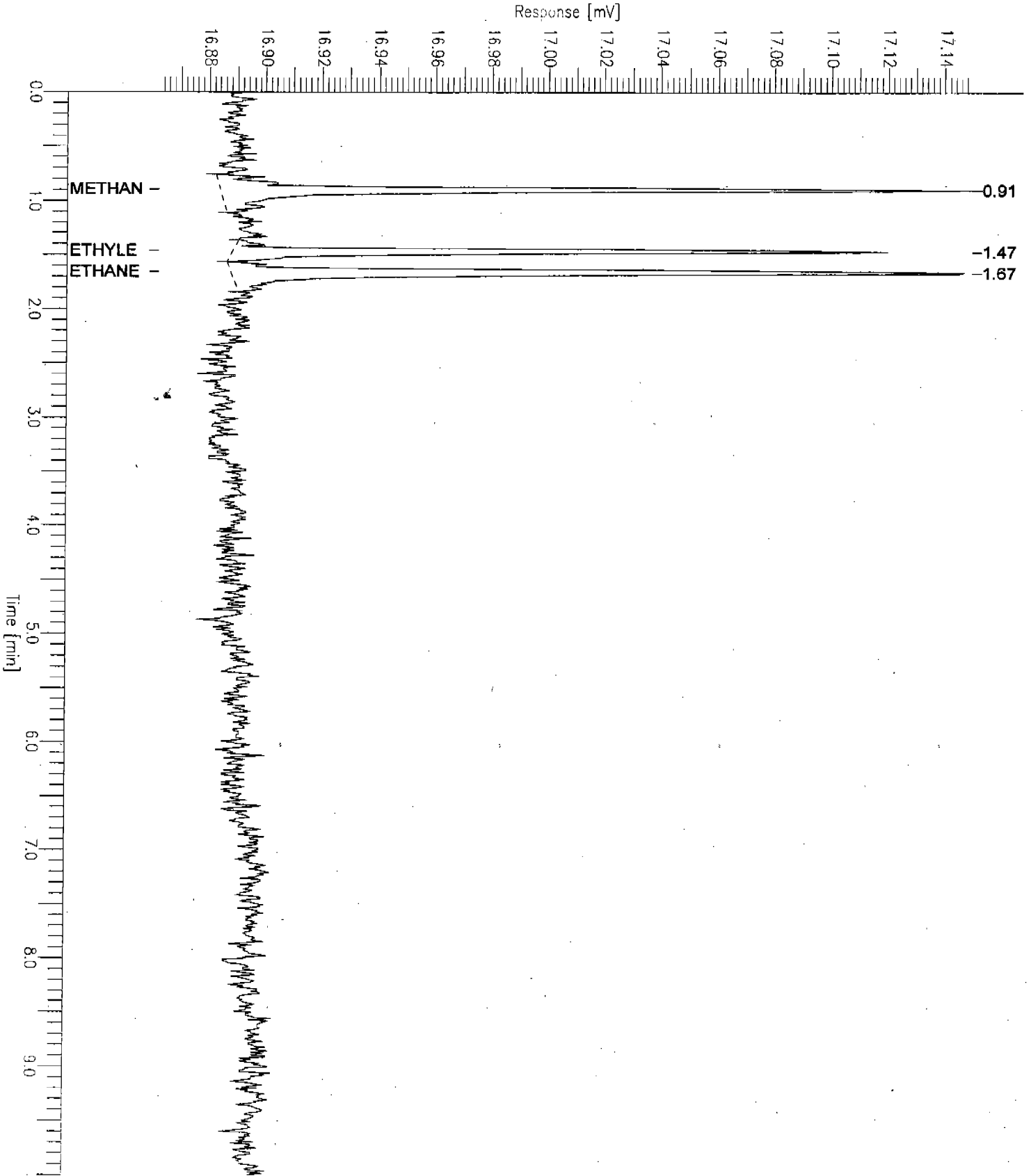
Report stored in ASCII file: .\d090807.TX0

Chromatogram

Sample Name : 100 PPM ICC  
FileName : F:\DATA3\D090806.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 34  
Date : 9/21/04 09:32 AM  
Time of Injection: 9/8/04 01:27 PM  
Low Point : 16.86 mV  
Plot Scale: 0.3 mV  
High Point : 17.15 mV



Software Version: 4.1<2F12>

Date: 9/21/04 09:32 AM

Sample Name : 100 PPM ICC

Data File : F:\DATA3\D090806.RAW Date: 9/8/04 01:27 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 6 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

99-21

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.90	912.87	270.47	123.642	123.642
2	ETHYLENE	1.47	668.65	231.12	121.276	121.276
3	ETHANE	1.67	933.33	266.92	95.270	95.270
			2514.85	768.51	340.189	340.189

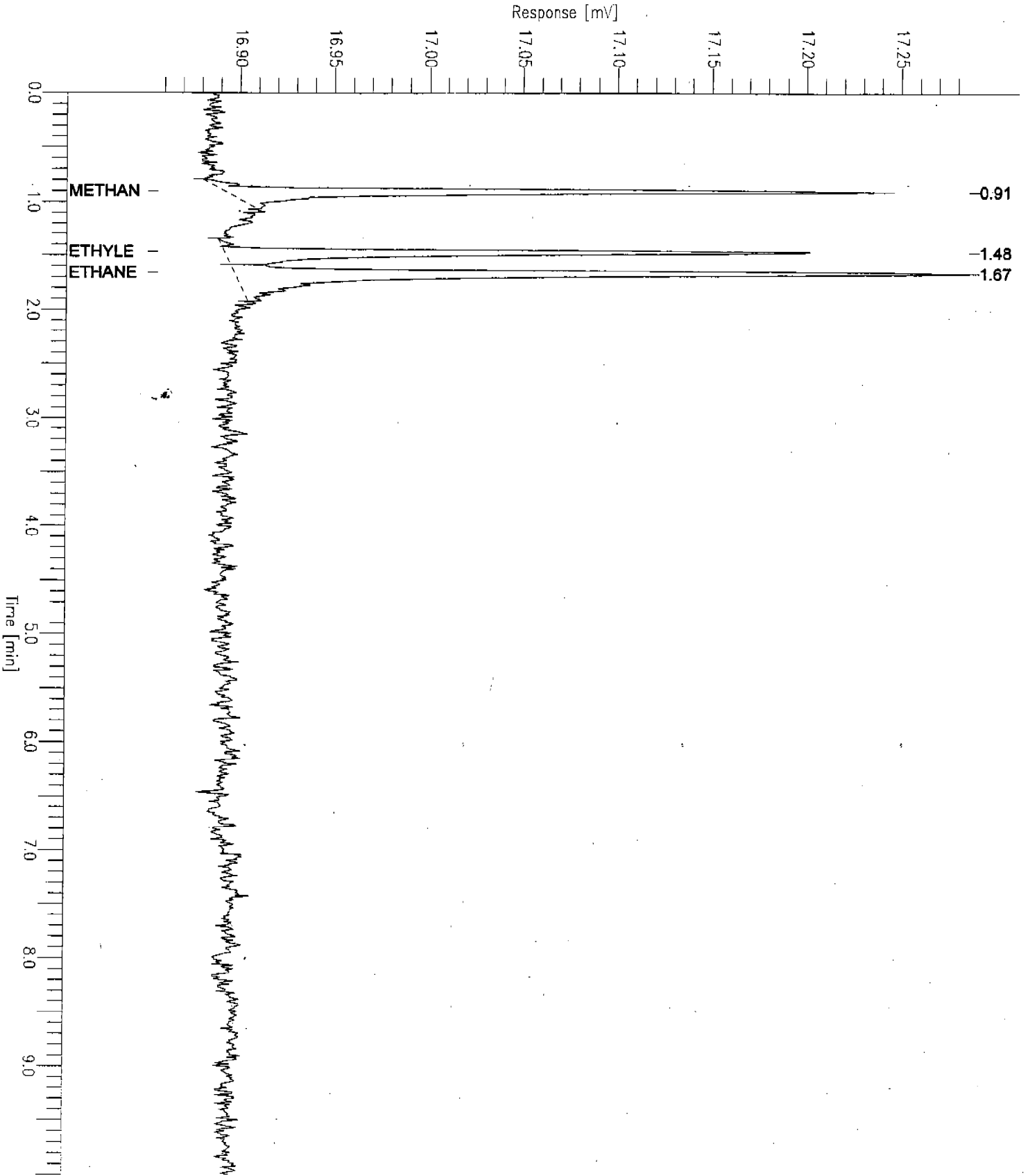
Report stored in ASCII file: .\d090806.TX0

Chromatogram

Sample Name : 200 FPM ICC  
FileName : F:\DATA3\D090805.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 34  
Date : 9/21/04 09:32 AM  
Time of Injection: 9/8/04 01:10 PM  
Low Point : 16.86 mV  
Plot Scale: 0.4 mV  
Page 1 of 1  
High Point : 17.29 mV



Software Version: 4.1<2F12>

Date: 9/21/04 09:32 AM

Sample Name : 200 PPM ICC

Data File : F:\DATA3\D090805.RAW Date: 9/8/04 01:10 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 5 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

199-21

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.91	1173.93	354.50	159.000	159.000
2	ETHYLENE	1.48	1104.91	320.28	200.404	200.404
3	ETHANE	1.67	1680.57	389.26	171.544	171.544
			3959.41	1064.04	530.949	530.949

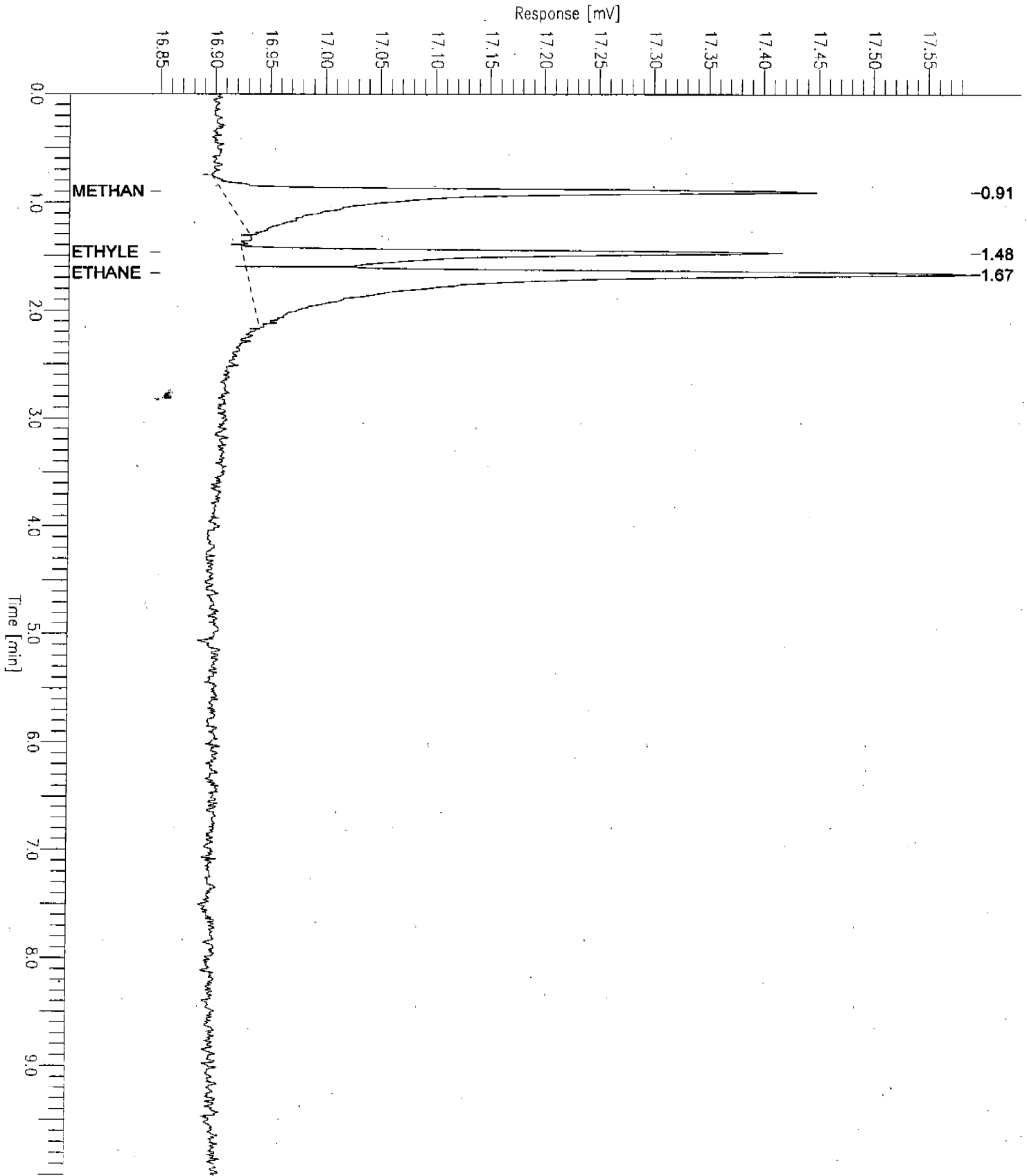
Report stored in ASCII file: .\d090805.TX0



Sample Name : 500 PPM ICC  
FileName : F:\DATA3\D090804.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 34  
Date : 9/21/04 09:31 AM  
Time of Injection: 9/8/04 12:48 PM  
Low Point : 16.85 mV  
High Point : 17.59 mV  
Plot Scale: 0.7 mV



Software Version: 4.1<2F12>

Date: 9/21/04 09:31 AM

Sample Name : 500 PPM ICC

Data File : F:\DATA3\D090804.RAW Date: 9/8/04 12:48 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 4 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

199-21

CHEMTECH COMPOUND LISTINGS & RESULTS

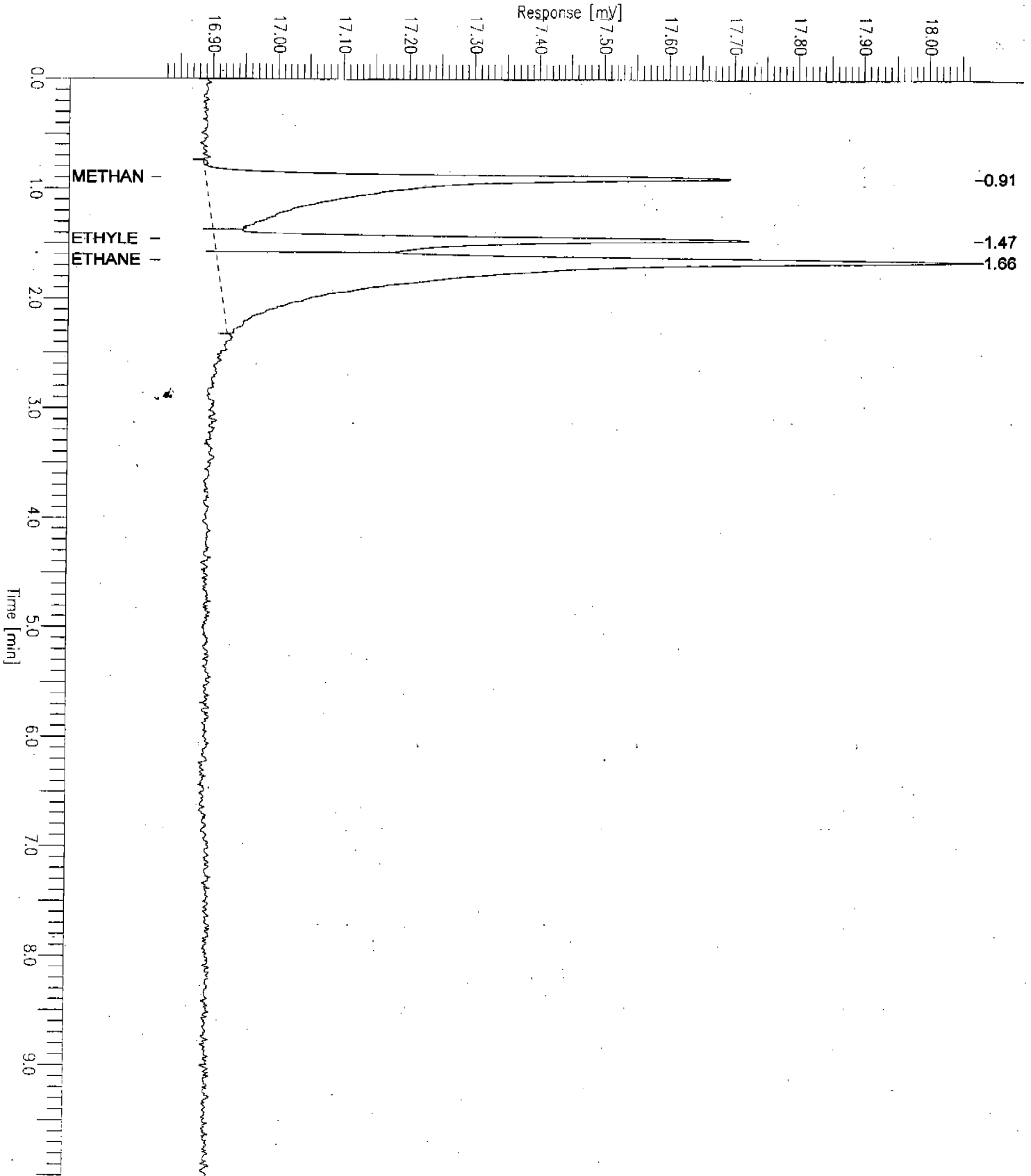
Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.91	3605.94	543.64	488.400	488.400
2	ETHYLENE	1.48	2449.94	494.69	444.359	444.359
3	ETHANE	1.67	5136.86	664.04	524.347	524.347
			11192.74	1702.37	1457.106	1457.106

Report stored in ASCII file: .\d090804.TX0

Sample Name : 1000 PPM ICC  
FileName : F:\DATA3\DC90803.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 34  
Date : 9/21/04 09:30 AM  
Time of Injection: 9/8/04 12:31 PM  
Low Point : 16.82 mV  
High Point : 18.07 mV  
Plot Scale: 1.2 mV



Software Version: 4.1<2F12>

Date: 9/21/04 09:30 AM

Sample Name : 1000 PPM ICC

Data File : F:\DATA3\D090803.RAW Date: 9/8/04 12:31 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 3 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

199-21

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.91	7649.53	823.59	1036.076	1036.076
2	ETHYLENE	1.47	4743.76	826.79	860.403	860.403
3	ETHANE	1.66	12223.87	1160.60	1247.757	1247.757
			24617.16	2810.98	3144.236	3144.236

Report stored in ASCII file: .\d090803.TX0

Analysis Date		Filename: F:\DATA3\D090825.RAW									
Analyte	Cal Fac	9/8/04	% Drift	Flag	Conc ug/L	% Rec	Lower Limits	Upper Limits	Flag		
METHANE	8		7		213	107	70	130			
ETHYLENE	6		14		228	114	70	130			
ETHANE	9		12		177	88	70	130			

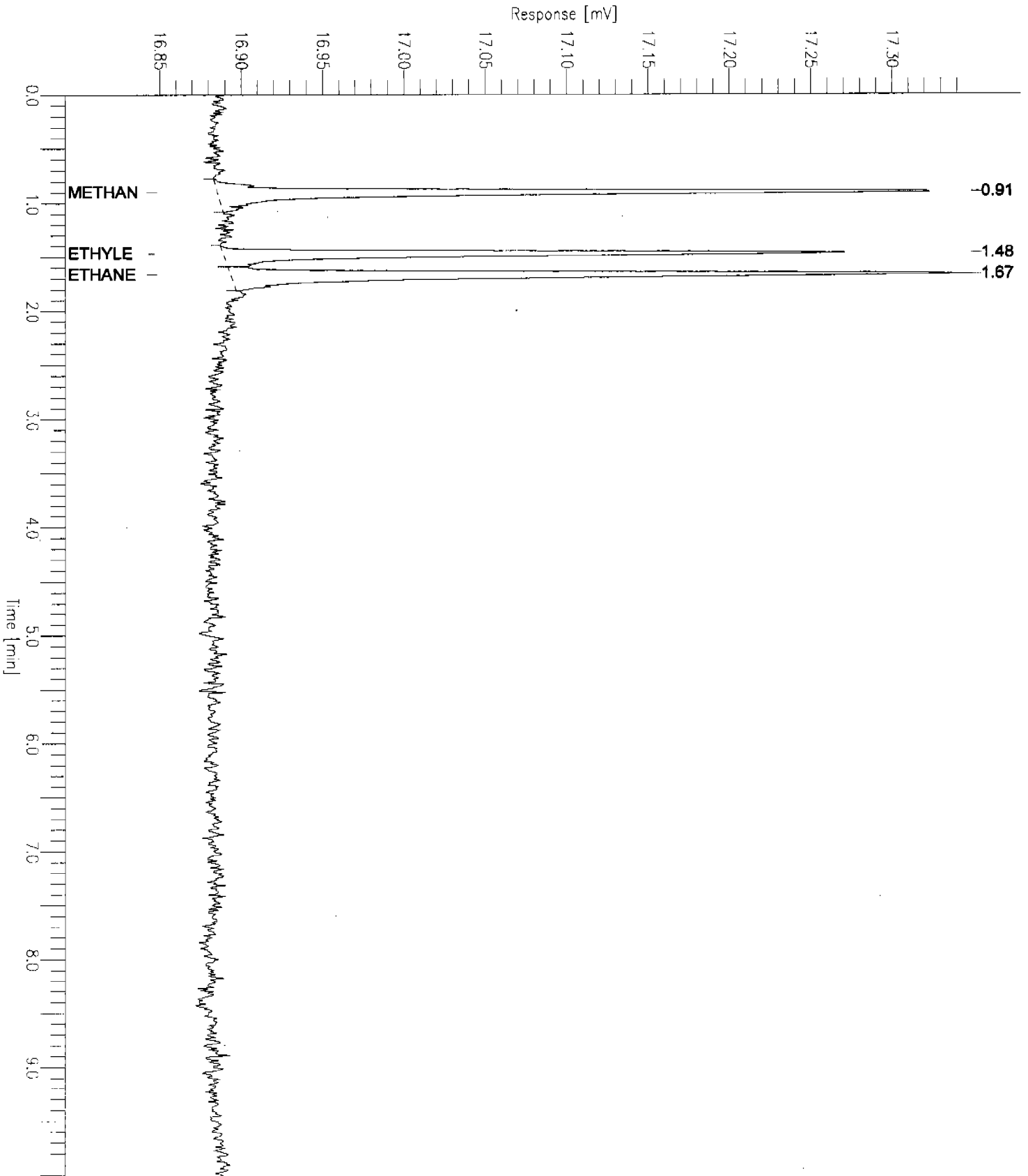
\* Denotes outside control criteria: 10% RSD for initial calibration 16% drift for continuing calibration  
(When calibration factor fails correlation coefficient is used as per EPA 802)

# Chromatogram

Sample Name : 200 PPM CCC  
FileName : F:\DATA3\D090825.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Page 1 of 1  
Sample #: 34  
Date : 9/21/04 09:43 AM  
Time of Injection: 9/8/04 06:58 PM  
Low Point : 16.85 mV  
High Point : 17.35 mV  
Plot Scale: 0.5 mV



Software Version: 4.1<2F12>

Date: 9/21/04 09:43 AM

Sample Name : 200 PPM CCC

Data File : F:\DATA3\D090825.RAW Date: 9/8/04 06:58 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 25 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

99-21

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.91	1575.58	449.55	213.401	213.401
2	ETHYLENE	1.48	1255.03	384.76	227.632	227.632
3	ETHANE	1.67	1733.75	456.74	176.973	176.973
			4564.36	1291.05	618.006	618.006

Report stored in ASCII file: .\d090825.TX0

Analysis Date		9/8/04		Filename: F:\DATA3\ID090833.RAW					
Analyte	Cal Fac	% Drift	Flag	Conc ug/L	% Rec	Lower Limits	Upper Limits	Flag	
METHANE	7	3		97	97	70	130		
ETHYLENE	6	8		108	108	70	130		
ETHANE	9	12		88	88	70	130		

\* Denotes outside control criteria: 10% RSD for initial calibration 15% drift for continuing calibration  
(When calibration factor fails correlation coefficient is used as per EPA 802)

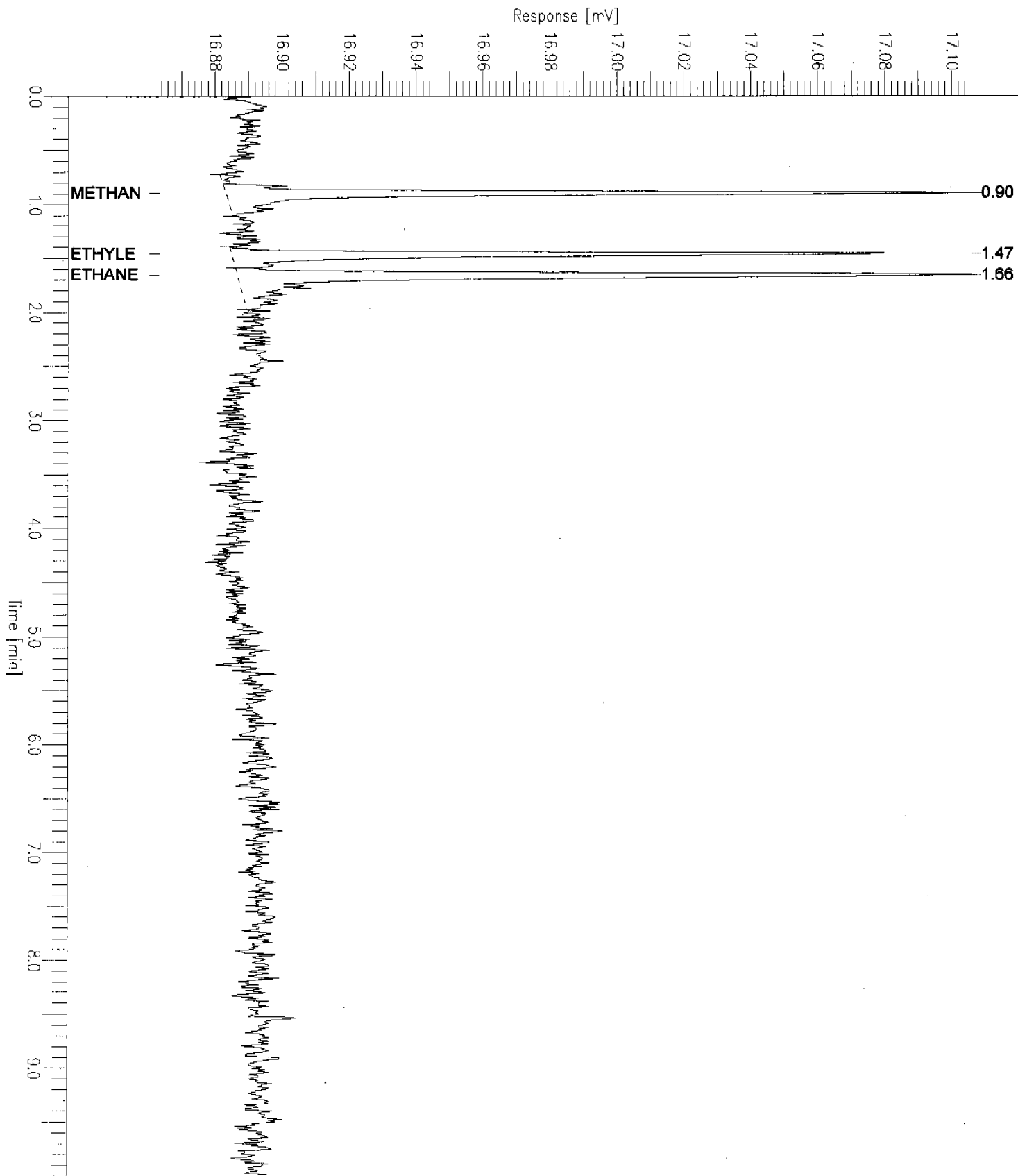


# Chromatogram

Sample Name : 100 PPM CCC  
FileName : F:\DATA3\D090833.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 35  
Date : 9/21/04 09:48 AM  
Time of Injection: 9/8/04 09:08 PM  
Low Point : 16.86 mV  
High Point : 17.11 mV  
Plot Scale: 0.2 mV



Software Version: 4.1<2F12>

Date: 9/21/04 09:47 AM

Sample Name : 100 PPM CCC

Data File : F:\DATA3\D090833.RAW Date: 9/8/04 09:08 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 25 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

*ppm-21*

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.90	718.15	224.61	97.269	97.269
2	ETHYLENE	1.47	597.83	201.37	108.432	108.432
3	ETHANE	1.66	857.28	220.07	87.508	87.508
			2173.27	646.05	293.209	293.209

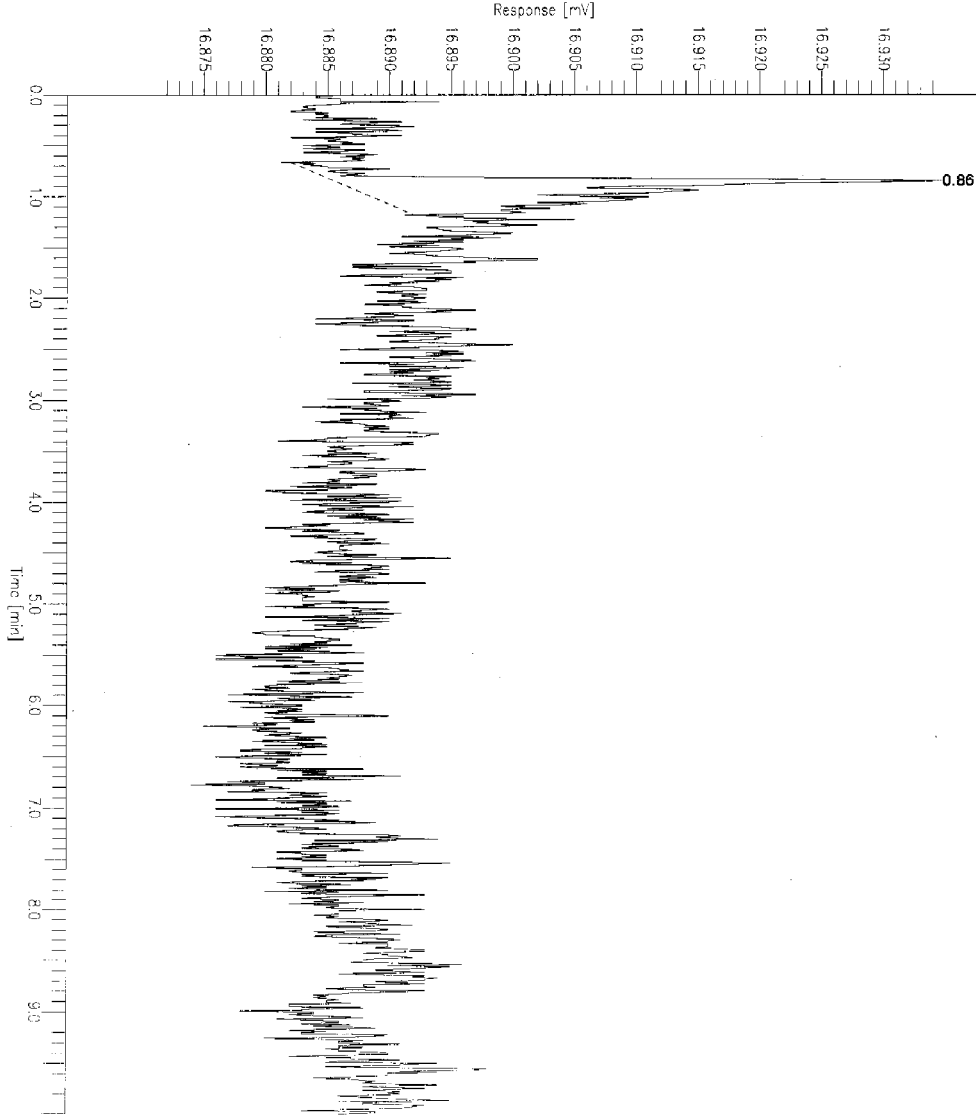
Report stored in ASCII file: .\d090833.TX0

CHEMTECH

GC  
RAW DATA

# Chromatogram

Sample Name : VBC0908G1 Sample #: 34 Page 1 of 1  
 FileName : F:\DATA3\090809.raw Date : 9/21/04 09:34 AM  
 Method : CGAS Time of Injection: 9/8/04 02:23 PM  
 Start Time : 0.00 min End Time : 10.00 min Low Point : 16.87 mV High Point : 16.93 mV  
 Scale Factor : 1.0 Plot Offset: 17 mV Plot Scale: 0.1 mV



## CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		0.86	479.21	48.41	0.000	0.000
			479.21	48.41	0.000	0.000

Report stored in ASCII file: .\d090809.TX0

Software Version: 4.1<2F12>

Date: 9/21/04 09:34 AM

Sample Name : VBC0908G1

Data File : F:\DATA3\D090809.RAW Date: 9/8/04 02:23 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 9 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

199-21

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		0.86	479.21	48.41	0.000	0.000
			479.21	48.41	0.000	0.000

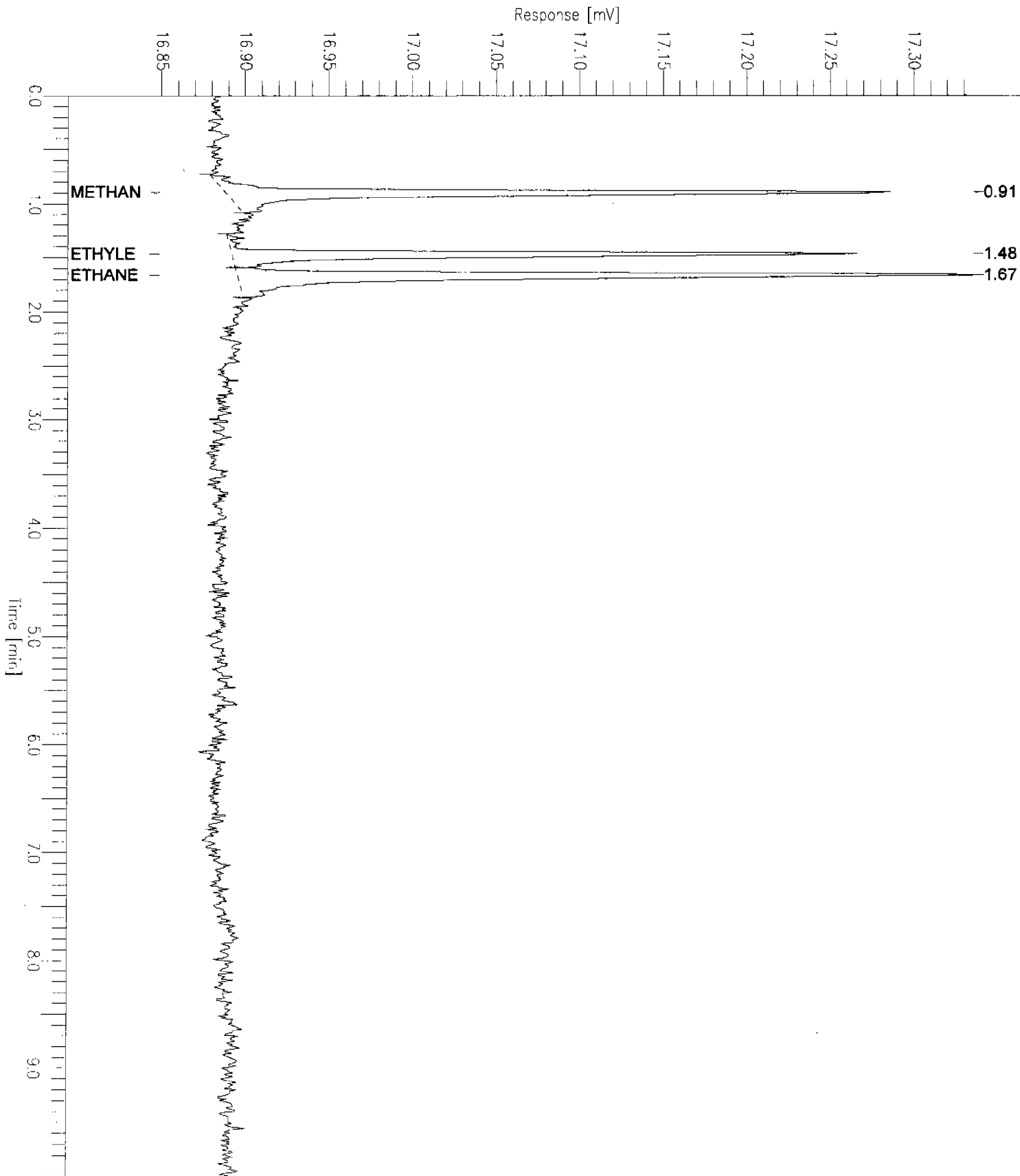
Report stored in ASCII file: .\d090809.TX0

# Chromatogram

Sample Name : BSC0908G1  
FileName : F:\DATA3\DO90832.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 35  
Date : 9/21/04 09:47 AM  
Time of Injection: 9/8/04 08:51 PM  
Low Point : 16.85 mV  
High Point : 17.34 mV  
Plot Scale: 0.5 mV



Software Version: 4.1<2F12>

Date: 9/21/04 09:47 AM

Sample Name : BSC0908G1

Data File : F:\DATA3\D090832.RAW Date: 9/8/04 08:51 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 25 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

199-21

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.91	1484.49	405.56	201.064	201.064
2	ETHYLENE	1.48	1250.85	375.45	226.874	226.874
3	ETHANE	1.67	1770.93	445.31	180.769	180.769
			4506.27	1226.32	608.706	608.706

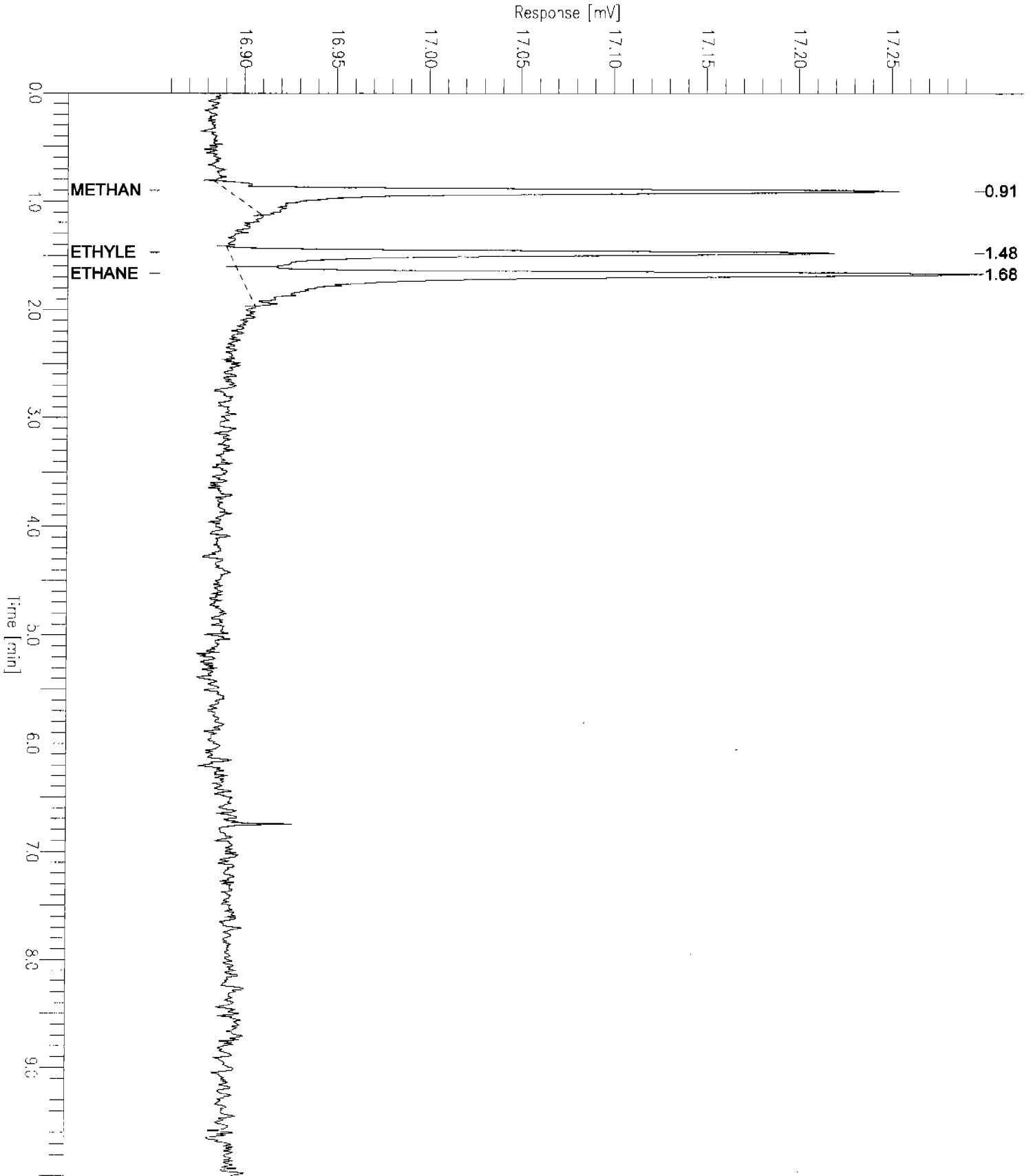
Report stored in ASCII file: .\d090832.TX0

# Chromatogram

Sample Name : S4414-09MS  
FileName : F:\DATA3\D090830.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 35  
Date : 9/21/04 09:46 AM  
Time of Injection: 9/8/04 08:17 PM  
Low Point : 16.85 mV  
High Point : 17.30 mV  
Plot Scale: 0.4 mV





Software Version: 4.1<2F12>

Date: 9/21/04 09:46 AM

Sample Name : S4414-09MS

Data File : F:\DATA3\D090830.RAW Date: 9/8/04 08:17 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 25 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00 *pg-21*

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.91	1414.85	365.29	191.632	191.632
2	ETHYLENE	1.48	1203.14	334.44	218.221	218.221
3	ETHANE	1.68	1883.33	400.92	192.241	192.241
			4501.32	1100.65	602.094	602.094

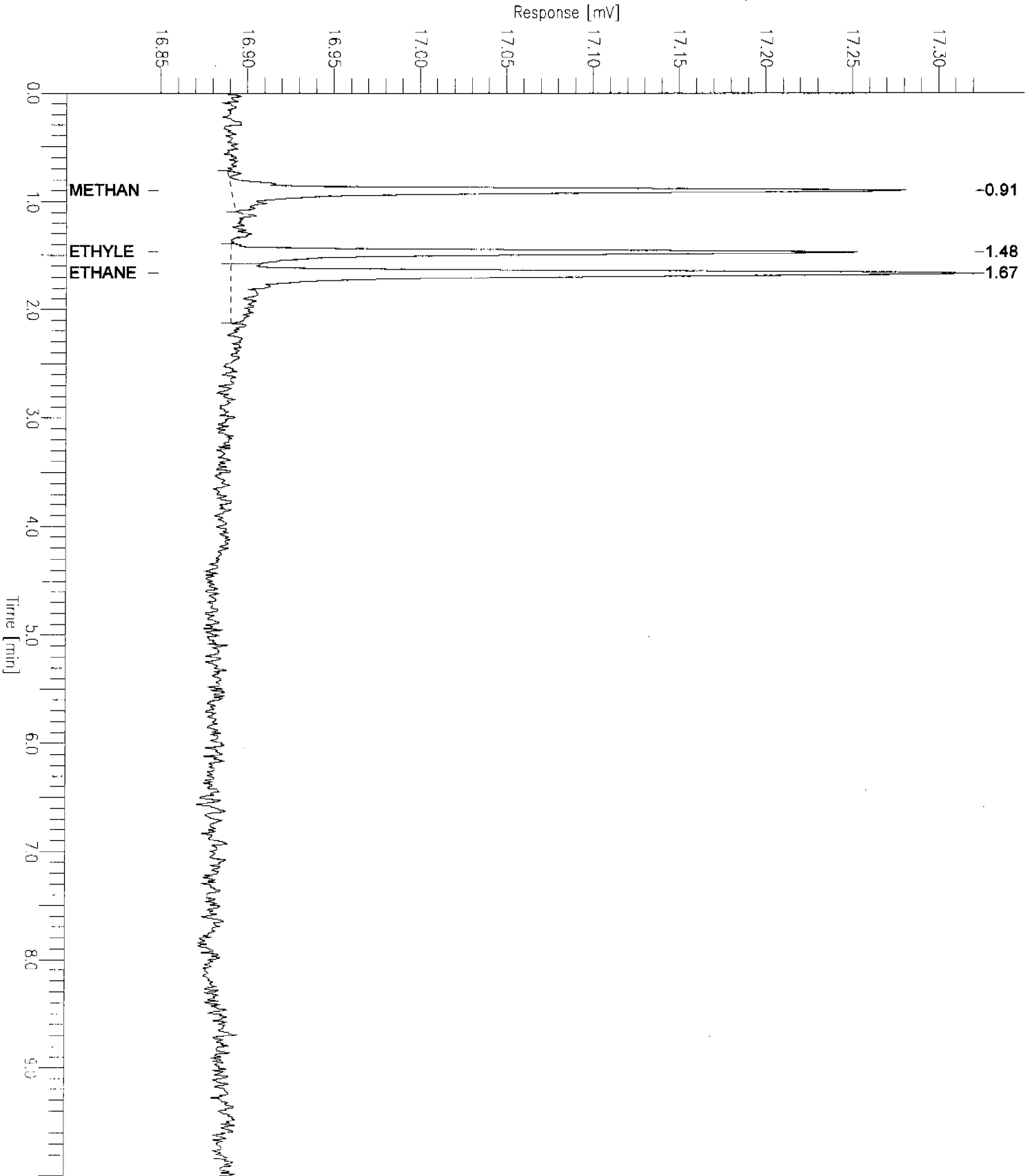
Report stored in ASCII file: .\d090830.TX0

# Chromatogram

Sample Name : S4414-10MSD  
FileName : F:\DATA3\0090831.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 35  
Date : 9/21/04 09:46 AM  
Time of Injection: 9/8/04 08:35 PM  
Low Point : 16.85 mV  
High Point : 17.32 mV  
Plot Scale: 0.5 mV



Software Version: 4.1<2F12>

Date: 9/21/04 09:46 AM

Sample Name : S4414-10MSD

Data File : F:\DATA3\D090831.RAW Date: 9/8/04 08:35 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 25 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

199-21

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.90	1453.47	393.74	196.862	196.862
2	ETHYLENE	1.48	1249.50	363.53	226.630	226.630
3	ETHANE	1.67	1943.89	433.29	198.424	198.424
			4646.86	1190.56	621.916	621.916

Report stored in ASCII file: .\d090831.TX0

CHEMTECH

GC  
MISCELLANEOUS  
DATA

**CHEMTECH** 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#: 20012: NEW YORK LAB ID#: 11376

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: S4414

MATRIX: Water

METHOD: RSK175

- |  | NA | NO | YES |
|--|----|----|-----|
| 1. Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)   |    |    | ✓   |
| 2. GC/MS Tuning Specifications<br>BFB Meet Criteria (NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY<br>ASP CLP, CLP AND NJ)   |    |    | ✓   |
| 3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for<br>8000 Series.   |    |    | ✓   |
| 4. GC/MS Calibration - Initial Calibration performed before sample analysis and<br>continuing calibration performed within 24 hours of sample analysis for 600 series and<br>12 hours for 8000 series. |    |    | ✓   |
| 5. GC/MS Calibration Requirements.   |    |    | ✓   |
| a. Calibration Check Compounds for 8260 and CLP.   |    |    | ✓   |
| b. System Performance Check Compounds for 8260 and CLP   |    |    | ✓   |

**8260 CALIBRATION CRITERIA**

<u>SPCC Compounds</u>	<u>MIN RF</u>	<u>CCC Compounds</u>
Chloromethane	0.1	1,1-Dichloroethene
1,1-Dichloroethane	0.1	Chloroform
Bromoform	0.1	1,2-Dichloropropane
Chlorobenzene	0.3	Toluene
1,1,2,2-Tetrachloroethane	0.3	Ethylbenzene
Vinyl chloride		

For CCC compounds Initial Calibration Criteria – RSD less than or equal to 30%  
For CCC compounds Continuing Calibration Criteria - %D less than or equal to 20%

- |   |  |  |   |
|---|--|--|---|
| 6. Blank Contamination - If yes, list compounds and concentrations in each blank: |  |  | ✓ |
| 7. Surrogate Recoveries Meet Criteria   |  |  | ✓ |
- If not met, list those compounds and their recoveries which fall outside the acceptable ranges.

**CHEMTECH** 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#: 20012; NEW YORK LAB ID#: 11376

**GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)**

8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria ✓

If not met, list those compounds and their recoveries which fall outside the acceptable range.

9. Internal Standard Area/Retention Time Shift Meet Criteria ✓

Comments:

10. Analysis Holding Time Met ✓

If not met, list number of days exceeded for each sample:

Devgantheetha, Kalpana  
QA REVIEW

9/23/04  
Date

**Daily Analysis Runlog For GC/MS #: GCVOA 3**

Start Date: 9/08/04 End Date: 9/08/04 Analyst: [Signature] Review By: [Signature]

STD. NAME	STD REF. #:	STD NAME	STD REF. #:
	MSV1-	Initial Calibration Stds.	MSV1- <sup>MSV0-363</sup> <sup>MSV0-364</sup> <sup>MSV0-367</sup>
CCC	MSV1- <sup>MSV0-363</sup> <sup>MSV0-364</sup> <sup>MSV0-367</sup>	Spike Std.	MSV1- <sup>MSV0-363</sup> <sup>MSV0-364</sup> <sup>MSV0-367</sup>
QC Check Std.	MSV1-	Processing Method	<u>Do908qbs m82</u>
Surrogate Std.	MSV1- <u>N/A</u>	QC Batch Number	

SR. #:	Sample ID	Data File Name	Method #:	pH	Run Info.	Comment
1	<del>1000</del>	<del>100000</del>	<u>Calcs</u>		<u>500ul</u>	<u>OK</u>
2	<del>1000</del>	<del>100000</del>				<u>OK</u>
3	<del>1000</del>	<del>100000</del>				<u>OK</u>
4	<del>1000</del>	<del>100000</del>				<u>OK</u>
5	<del>1000</del>	<del>100000</del>				<u>OK</u>
6	<u>10</u>	<u>8</u>				<u>X</u>
7	<del>1000</del>	<del>100000</del>	<u>1</u>		<u>500ul</u>	<u>OK</u>
8	<del>1000</del>	<del>100000</del>		<u>&lt;2</u>		<u>OK</u>
9	<del>1000</del>	<del>100000</del>		<u>&lt;2</u>		<u>OK</u>
10	<del>1000</del>	<del>100000</del>		<u>&lt;2</u>		<u>OK</u>
11	<del>1000</del>	<del>100000</del>		<u>&lt;2</u>		<u>OK 100x</u>
12	<del>1000</del>	<del>100000</del>		<u>&lt;2</u>	<u>100x</u>	<u>OK</u>
13	<del>1000</del>	<del>100000</del>		<u>&lt;2</u>	<u>2x</u>	<u>W250x</u>
14	<del>1000</del>	<del>100000</del>		<u>&lt;2</u>	<u>50x</u>	<u>OK</u>
15	<del>1000</del>	<del>100000</del>		<u>&lt;2</u>	<u>500ul</u>	<u>OK</u>
16	<del>1000</del>	<del>100000</del>		<u>&lt;2</u>	<u>↓</u>	<u>W100x</u>
17	<del>1000</del>	<del>100000</del>		<u>&lt;2</u>	<u>100x</u>	<u>OK</u>
18	<del>1000</del>	<del>100000</del>		<u>&lt;2</u>	<u>500ul</u>	<u>OK</u>
19	<del>1000</del>	<del>100000</del>		<u>&lt;2</u>	<u>↓</u>	<u>W50x</u>
20	<del>1000</del>	<del>100000</del>		<u>&lt;2</u>	<u>7x</u>	<u>OK</u>

**Daily Analysis Runlog For GC/MS #: GCVOA 3**

Start Date: 9/08/04 End Date: 9/08/04 Analyst: [Signature] Review By: VR

<u>STD. NAME</u>	<u>STD REF. #:</u>	<u>STD NAME</u>	<u>STD REF. #:</u>
	MSV1-	Initial Calibration Stds.	MSV1-
CCC	MSV1-	Spike Std.	MSV1-
QC Check Std.	MSV1-	Processing Method	
Surrogate Std.	MSV1-	QC Batch Number	

<u>SR. #:</u>	<u>Sample ID</u>	<u>Data File Name</u>	<u>Method #:</u>	<u>pH</u>	<u>Run Info.</u>	<u>Comment</u>
1	<del>Sample 11C</del>	<del>D0908 23</del>	<del>0020</del>	<2	500ul	ok
2	<del>Sample 11E</del>	<del>24</del>		<2	↓	rr/100x
3	<del>Sample 11C</del>	<del>25</del>			500ul	ok
4	<del>Sample 12C</del>	<del>26</del>		<2	100x	ok
5	↓ -06B	27		<2	50x	rr inj 12.
6	↓ -06B	28		<2	250ul (2x)	rr/100x
7	↓ -06B	29		<2	100x	ok
8	↓ -06B	30		<2	500ul	ok
9	↓ -1016SD	31		<2	↓	ok
10	<del>Sample 11C</del>	<del>32</del>			500ul	ok
11	<del>Sample 11C</del>	<del>33</del>			↓	ok
12						
13						
14						
15						
16						
17						
18						
19						
20						



**CHEMTECH**

**SHIPPING AND  
RECEIVING  
DOCUMENTATION**



284 Sheffield Street, Mountainside, NJ 07092  
 (908) 789-8900 Fax (908) 789-8922  
 www.chemtech.net

CHEMTECH PROJECT NO. *S4664*  
 COC Number 52403

CLIENT INFORMATION		PROJECT INFORMATION		BILLING INFORMATION					
REPORT TO BE SENT TO: COMPANY: <i>Parson's</i>		PROJECT NAME: <i>Ash handbil</i>		BILL TO:					
ADDRESS: <i>100 Summer St 8th floor</i>		PROJECT NO.: <i>74355</i> LOCATION: <i>Seneca</i>		ADDRESS: <i>SAME as client</i>					
CITY: <i>Boston</i> STATE: <i>MA</i> ZIP: <i>02110</i>		PROJECT MANAGER: <i>J. Rossmann</i>		CITY:					
ATTENTION: <i>Jennifer Rossmann</i>		e-mail: <i>jennifer.rossmann@parsons.com</i>		ATTENTION:					
PHONE: <i>617-457-7900</i> FAX: <i>617-457-7979</i>		PHONE: <i>617-457-7900</i> FAX: <i>617-457-7979</i>		PHONE:					
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		ANALYSIS					
FAX: _____ DAYS* _____		<input type="checkbox"/> RESULTS ONLY		1 2 3 4 5 6 7 8 9					
HARD COPY: _____ DAYS* _____		<input checked="" type="checkbox"/> USEPA CLP							
EDD: _____ DAYS* _____		<input checked="" type="checkbox"/> RESULTS + QC							
* TO BE APPROVED BY CHEMTECH		<input checked="" type="checkbox"/> New York State ASP "B"							
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS		<input checked="" type="checkbox"/> New Jersey REDUCED							
		<input type="checkbox"/> New Jersey CLP							
		<input checked="" type="checkbox"/> EDD FORMAT							
CHEMTECH SAMPLE ID	PROJECT IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE	SAMPLE COLLECTION DATE	TIME	# OF BOTTLES	PRESERVATIVES	COMMENTS	
1.	<i>TR2154</i>	<i>W</i>	<i>X</i>	<i>8-26-04</i>	<i>0925</i>	<i>9</i>	<i>A B</i>		
2.	<i>TR2150</i>	<i>W</i>	<i>X</i>	<i>8-26-04</i>	<i>1400</i>	<i>9</i>	<i>1 2 3 4 5 6 7 8 9</i>		
3.	<i>TR2155</i>	<i>W</i>	<i>X</i>	<i>8-26-04</i>	<i>1140</i>	<i>9</i>			
4.	<i>TR2149</i>	<i>W</i>	<i>X</i>	<i>8-25-04</i>	<i>1445</i>	<i>7</i>			
5.	<i>TR2153</i>	<i>W</i>	<i>X</i>	<i>8-26-04</i>	<i>0845</i>	<i>9</i>			
6.	<i>TR2151</i>	<i>W</i>	<i>X</i>	<i>8-26-04</i>	<i>1545</i>	<i>9</i>			
7.	<i>TR2152</i>	<i>W</i>	<i>X</i>	<i>8-26-04</i>	<i>1635</i>	<i>9</i>			
8.	<i>TR2159</i>	<i>W</i>	<i>X</i>	<i>8-27-04</i>	<i>1045</i>	<i>9</i>			
9.	<i>TR2159 ms</i>	<i>W</i>	<i>X</i>	<i>8-27-04</i>	<i>1045</i>	<i>9</i>			
10.	<i>TR2159 msD</i>	<i>W</i>	<i>X</i>	<i>8-27-04</i>	<i>1045</i>	<i>9</i>			
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY									
RECEIVED BY SAMPLER:		DATE/TIME:		RECEIVED BY:		DATE/TIME:		RECEIVED FOR LAB BY:	
<i>[Signature]</i>		<i>8/21/04 1300</i>		<i>[Signature]</i>		<i>8/21/04 1300</i>		<i>[Signature]</i>	
RECEIVED BY:		DATE/TIME:		RECEIVED BY:		DATE/TIME:		RECEIVED FOR LAB BY:	
<i>[Signature]</i>		<i>08/28/04 0900</i>		<i>[Signature]</i>		<i>08/28/04 0900</i>		<i>[Signature]</i>	
Comments: _____									
Conditions of bottles or coolers at receipt: <input type="checkbox"/> Compliant <input type="checkbox"/> Non Compliant <input type="checkbox"/> Cooler Temp. <i>4°C</i>									
MeOH extraction requires an additional 4 oz jar for percent solid.									
Comments: _____									
SHIPPED VIA: CLIENT: <input type="checkbox"/> HAND DELIVERED <input checked="" type="checkbox"/> OVERNIGHT <input type="checkbox"/> PICKED UP <input type="checkbox"/> OVERNIGHT <input type="checkbox"/> YES <input type="checkbox"/> NO									
Page <i>1</i> of <i>2</i>									

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY



284 Sheffield Street, Mountainside, NJ 07092  
 (908) 789-8900 Fax (908) 789-8922  
 www.chemtech.net

CHEMTECH PROJECT NO. 52404  
 SH 14

CHAIN OF CUSTODY RECORD

CLIENT INFORMATION		PROJECT INFORMATION		BILLING INFORMATION					
REPORT TO BE SENT TO:									
COMPANY: <u>Ransom's</u>		PROJECT NAME: <u>Ash Knoll</u>		BILL TO: _____ PO#: _____					
ADDRESS: <u>100 Summer St 8th Floor</u>		PROJECT NO.: <u>74255</u> LOCATION: <u>Seneca</u>		ADDRESS: _____					
CITY: <u>Boston</u> STATE: <u>MA</u> ZIP: <u>02110</u>		PROJECT MANAGER: <u>J Rossman</u>		CITY: <u>SAME AS CLIENT</u> STATE: _____ ZIP: _____					
ATTENTION: <u>Jennifer Rossman</u>		e-mail: <u>jennifer.rossman@rands.com</u>		ATTENTION: _____ PHONE: _____					
PHONE: <u>617-457-7900</u> FAX: <u>617-457-7911</u>		PHONE: <u>617-457-7900</u> FAX: <u>617-457-7911</u>		ANALYSIS: _____					
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		PRESERVATIVES					
FAX: _____ DAYS* _____		<input checked="" type="checkbox"/> RESULTS ONLY		← Specify Preservatives					
HARD COPY: _____ DAYS* _____		<input checked="" type="checkbox"/> RESULTS + QC		A-HCl B-HNO <sub>3</sub>					
EDD: _____ DAYS* _____		<input checked="" type="checkbox"/> New Jersey REDUCED		C-H <sub>2</sub> SO <sub>4</sub> D-NaOH					
* TO BE APPROVED BY CHEMTECH		<input type="checkbox"/> New Jersey CLP		E-ICE F-Other					
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS		<input checked="" type="checkbox"/> EDD FORMAT							
CHEMTECH SAMPLE ID	PROJECT IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE	GRAB	SAMPLE COLLECTION DATE	TIME	# OF BOTTLES	PRESERVATIVES	COMMENTS
1. <u>TR2110</u>		<u>W</u>	<u>X</u>	<u>0-27-04</u>	<u>1015</u>		<u>9</u>	<u>A A B</u>	
2. <u>TR2158</u>		<u>W</u>	<u>X</u>	<u>8-27-04</u>	<u>1015</u>		<u>9</u>	<u>1 2 3 4 5 6 7 8 9</u>	
3. <u>TR2157</u>		<u>W</u>	<u>X</u>	<u>8-27-04</u>	<u>0930</u>		<u>9</u>		
4. <u>TR0055</u>		<u>W</u>	<u>X</u>	<u>8-27-04</u>			<u>2</u>		
5. <u>TR0057</u>		<u>W</u>	<u>X</u>	<u>8-27-04</u>	<u>1230</u>		<u>7</u>		<u>Trip Blank</u>
6.									
7.									
8.									
9.									
10.									
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY									
RELINQUISHED BY SAMPLER:		RECEIVED BY:		DATE/TIME:		DATE/TIME:		DATE/TIME:	
1. <u>[Signature]</u>		1. <u>[Signature]</u>		<u>8/27/04 1300</u>		<u>[Signature]</u>		<u>[Signature]</u>	
RELINQUISHED BY:		RECEIVED BY:		DATE/TIME:		DATE/TIME:		DATE/TIME:	
2. _____		2. _____		_____		_____		_____	
RELINQUISHED BY:		RECEIVED FOR LAB BY:		DATE/TIME:		DATE/TIME:		DATE/TIME:	
3. <u>FED SK</u>		3. <u>[Signature]</u>		<u>08/28/04 4am</u>		<u>[Signature]</u>		<u>[Signature]</u>	

Conditions of bottles or coolers at receipt:  Compliant  Non-Compliant  Cooler Temp. 4°C  
 MeOH extraction requires an additional 4 oz jar for percent solid.  
 Comments:

SHIPPED VIA: CLIENT:  HAND DELIVERED  OVERNIGHT  PICKED UP  OVERNIGHT  YES  NO  
 CHEMTECH:  YES  NO

Page 2 of 2

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**CHEMTECH**

284 Sheffield Street Mountainside NJ 07092  
Tel: 908-789-8900

**END OF ANALYTICAL RESULTS**

**DATA PACKAGE FOR  
VOLATILE ORGANICS**

**PROJECT NAME: Seneca Ash Landfill Quarterly Monitoring**

**PARSONS ENGINEERING  
100 SUMMER STREET  
SUITE 800  
BOSTON, MA 02110  
6174577900**

**CHEMTECH PROJECT NO.  
ATTENTION:**

**S4436  
Jennifer Rossmann**

# CHEMTECH

## CASE NARRATIVE

### **Parsons Engineering**

**Project Name: Seneca Ash Landfill Quarterly Monitoring**

**Project # 743155**

**Chemtech Project # S4436**

### **A. Number of Samples and Date of Receipt:**

21 Water samples were received on 8/31/04.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: Gases methane, ethane, ethene, Metals Group3, TCL Volatiles + 10, and Volatiles Method 524.2 + 15. This data package contains results for Volatiles Method 524.2 + 15

### **C. Analytical Techniques:**

The analysis performed on instrument MSVOA F were done using GC column RTX624, which is 75 meters, 0.53 ID, 3.0 df, Restek Cat. #10974. The Trap was supplied by Supelco, VOCARB 3000, Tekmar 2000 Concentrator.

### **D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The surrogate recoveries met the acceptable criteria except for ARD2252.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The MS recoveries met the requirements for all compounds except for Acetone, Methylene Chloride, Bromomethane, tert-Butyl Alcohol and 4-Methyl-2-Pentanone.

The MSD recoveries met the acceptable requirements.

The RPD recoveries met for all samples criteria.

The Blank Spike met requirements for all samples.

The Blank analysis indicated presence of Acetone and Methylene Chloride due to possible lab contamination.

The calibration met the requirements.

The Tuning criteria met requirements.

### **D. Additional Comments:**

Sample ARD225 was diluted due to high concentrations.

# CHEMTECH

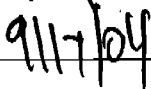
I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature



Name: Krupa Dubey

Date:



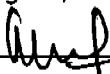
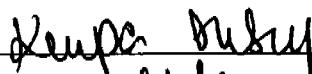
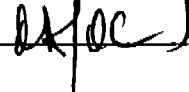
Title: QA/QC

**COVER PAGE**

**OrderID:** S4436      **ProjectID:** Seneca Ash Landfill Quarterl  
**CustomerName:** Parsons Engineering

LAB SAMPLE NO.	CLIENT SAMPLE NO
S4436-01	ARD2254
S4436-02	ARD2255
S4436-03	ARD2259
S4436-04	ARD2256
S4436-05	ARD2245
S4436-06	ARD2257
S4436-07	ARD2252
S4436-08	ARD2248
S4436-09	ARD2253
S4436-10	ARD2246MS
S4436-11	ARD2246MSD
S4436-12	ARD2247
S4436-13	ARD2249
S4436-14	ARD2258
S4436-15	ARD2250
S4436-16	ARD2246
S4436-17	TR0056
S4436-18	ARD0046
S4436-19	ARD2251
S4436-20	TR2150
S4436-21	ARD0049

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature:  Name:   
Date: 9/17/04 Title: 



**DATA REPORTING QUALIFIERS- ORGANIC**

For reporting results, the following " Results Qualifiers" are used:

<b>Value</b>	If the result is a value greater than or equal to the detection limit, report the value
<b>U</b>	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
<b>J</b>	Indicates an estimated value. This flag is used: <ol style="list-style-type: none"><li>(1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.)</li><li>(2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.</li></ol>
<b>B</b>	Indicates the analyte was found in the blank as well as the sample report as "12 B".
<b>E</b>	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
<b>D</b>	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
<b>P</b>	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
<b>N</b>	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
<b>A</b>	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.

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VOLATILES

DATA

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VOLATILES

QC

DATA

Surrogate Summary  
SW-846

SDG No.: S4436

Client: Parsons Engineering

Analytical Method: EPA SW846 524

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits	
							Low	High
LFB01	VLCS01	1,2-Dichlorobenzene-d4	1	1.06	106		80.00	120.00
		4-Bromofluorobenzene	1	1.01	101		80.00	120.00
LFB02	VLCS02	1,2-Dichlorobenzene-d4	1	1.06	106		80.00	120.00
		4-Bromofluorobenzene	1	1.01	101		80.00	120.00
OC/KNOWN	OC/KNOWN	1,2-Dichlorobenzene-d4	1	1.05	105		80.00	120.00
		4-Bromofluorobenzene	1	0.99	99		80.00	120.00
S4436-07	ARD2252	1,2-Dichlorobenzene-d4	1	1.24	124	*	80.00	120.00
		4-Bromofluorobenzene	1	1.11	111		80.00	120.00
S4436-07DL	ARD2252DL	1,2-Dichlorobenzene-d4	1	1.02	102		80.00	120.00
		4-Bromofluorobenzene	1	0.96	96		80.00	120.00
S4436-17	TR0056	1,2-Dichlorobenzene-d4	1	1.03	103		80.00	120.00
		4-Bromofluorobenzene	1	0.97	97		80.00	120.00
S4436-20	TR2150	1,2-Dichlorobenzene-d4	1	0.99	99		80.00	120.00
		4-Bromofluorobenzene	1	0.97	97		80.00	120.00
VBF0816W2	VBLK01	1,2-Dichlorobenzene-d4	1	1.04	104		80.00	120.00
		4-Bromofluorobenzene	1	0.98	98		80.00	120.00
VBF0904W2	VBLK02	1,2-Dichlorobenzene-d4	1	1.02	102		80.00	120.00
		4-Bromofluorobenzene	1	0.96	96		80.00	120.00
VBF0907W4	VBLK03	1,2-Dichlorobenzene-d4	1	1.03	103		80.00	120.00
		4-Bromofluorobenzene	1	0.95	95		80.00	120.00

## Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: S4436

Client: Parsons Engineering

Analytical Method: EPA SW846 524

Lab Sample ID	Parameter	Spike	Result	Rec	RPD	Qual	Limits	
							Low	High
LFB02	Chloromethane	2.0	2.1	105			70	130
	Vinyl Chloride	2.0	1.9	95			70	130
	Bromomethane	2.0	2.7	135		*	70	130
	Chloroethane	2.0	2.2	110			70	130
	Trichlorofluoromethane	2.0	2.0	100			70	130
	1,1-Dichloroethene	2.0	2.0	100			70	130
	Iodomethane	2.0	2.0	100			70	130
	Allyl Chloride	2.0	2.0	100			70	130
	Acrylonitrile	4.0	4.9	122			70	130
	Acetone	10	16	160		*	70	130
	Carbon disulfide	2.0	1.9	95			70	130
	Methylene Chloride	2.0	3.1	155		*	70	130
	trans-1,2-Dichloroethene	2.0	2.1	105			70	130
	1,1-Dichloroethane	2.0	2.2	110			70	130
	2-Butanone	10	13	130			70	130
	2,2-Dichloropropane	2.0	1.8	90			70	130
	cis-1,2-Dichloroethene	2.0	2.3	115			70	130
	Diethyl Ether	2.0	2.4	120			70	130
	tert-Butyl Alcohol	20	31	155		*	70	130
	Methyl tert-butyl Ether	2.0	2.5	125			70	130
	Chloroform	2.0	2.3	115			70	130
	1,1,1-Trichloroethane	2.0	2.1	105			70	130
	1,1-Dichloropropene	2.0	2.1	105			70	130
	Carbon Tetrachloride	2.0	2.0	100			70	130
	Isopropyl Ether	2.0	2.4	120			70	130
	Propionitrile	20	25	125			70	130
	Benzene	2.0	2.2	110			70	130
	1,2-Dichloroethane	2.0	2.5	125			70	130
	Trichloroethene	2.0	2.1	105			70	130
	1,2-Dichloropropane	2.0	2.3	115			70	130
	Methacrylonitrile	2.0	2.6	130			70	130
	Methyl acrylate	2.0	2.5	125			70	130
	Tetrahydrofuran	4.0	5.2	130			70	130
	1-Chlorobutane	2.0	2.1	105			70	130
	Dibromomethane	2.0	2.4	120			70	130
	Bromodichloromethane	2.0	2.3	115			70	130
	4-Methyl-2-Pentanone	10	14	140		*	70	130
	t-1,4-Dichloro-2-butene	4.0	4.8	120			70	130
	Methyl methacrylate	4.0	4.9	122			70	130
	Ethyl methacrylate	2.0	2.5	125			70	130
	Toluene	2.0	2.2	110			70	130
	t-1,3-Dichloropropene	2.0	2.2	110			70	130

**Laboratory Control Sample/Laboratory Control Sample Duplicate Summary**

SW-846

SDG No.: S4436

Client: Parsons Engineering

Analytical Method: EPA SW846 524

Lab Sample ID	Parameter	Spike	Result	Rec	RPD	Qual	Low	Limits	
								High	RPD
LFB02	cis-1,3-Dichloropropene	2.0	2.3	115			70	130	
	1,1,2-Trichloroethane	2.0	2.6	130			70	130	
	1,3-Dichloropropane	2.0	2.4	120			70	130	
	2-Hexanone	10	13	130			70	130	
	Dibromochloromethane	2.0	2.3	115			70	130	
	1,2-Dibromoethane	2.0	2.5	125			70	130	
	Tetrachloroethene	2.0	2.1	105			70	130	
	Chlorobenzene	2.0	2.3	115			70	130	
	1,1,1,2-Tetrachloroethane	2.0	2.4	120			70	130	
	Hexachloroethane	2.0	2.2	110			70	130	
	Ethyl Benzene	2.0	2.3	115			70	130	
	m/p-Xylenes	4.0	4.5	112			70	130	
	o-Xylene	2.0	2.3	115			70	130	
	Styrene	2.0	2.3	115			70	130	
	Bromoform	2.0	2.3	115			70	130	
	Isopropylbenzene	2.0	2.3	115			70	130	
	1,1,2,2-Tetrachloroethane	2.0	2.6	130			70	130	
	1,2,3-Trichloropropane	2.0	2.3	115			70	130	
	Bromobenzene	2.0	2.3	115			70	130	
	N-propylbenzene	2.0	2.2	110			70	130	
	2-Chlorotoluene	2.0	2.3	115			70	130	
	1,3,5-Trimethylbenzene	2.0	2.3	115			70	130	
	4-Chlorotoluene	2.0	2.3	115			70	130	
	tert-Butylbenzene	2.0	2.3	115			70	130	
	1,2,4-Trimethylbenzene	2.0	2.3	115			70	130	
	Sec-butylbenzene	2.0	2.3	115			70	130	
	p-Isopropyltoluene	2.0	2.3	115			70	130	
	1,3-Dichlorobenzene	2.0	2.3	115			70	130	
	1,4-Dichlorobenzene	2.0	2.4	120			70	130	
	n-Butylbenzene	2.0	2.2	110			70	130	
1,2-Dichlorobenzene	2.0	2.4	120			70	130		
1,2-Dibromo-3-Chloropropane	2.0	2.4	120			70	130		
1,2,4-Trichlorobenzene	2.0	2.2	110			70	130		
Hexachlorobutadiene	2.0	2.1	105			70	130		
Naphthalene	2.0	2.1	105			70	130		
1,2,3-Trichlorobenzene	2.0	2.2	110			70	130		
LFB01	Dichlorodifluoromethane	2.0	1.8	90			70	130	
	Chloromethane	2.0	1.6	80			70	130	
	Vinyl Chloride	2.0	1.7	85			70	130	
	Bromomethane	2.0	2.0	100			70	130	
	Chloroethane	2.0	2.1	105			70	130	
	Trichlorofluoromethane	2.0	1.8	90			70	130	

## Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: S4436

Client: Parsons Engineering

Analytical Method: EPA SW846 524

Lab Sample ID	Parameter	Spike	Result	Rec	RPD	Qual	Low	Limits	
								High	RPD
LFB01	tert-Butyl Alcohol	20	24	120			70	130	
	Diethyl Ether	2.0	2.2	110			70	130	
	1,1-Dichloroethene	2.0	2.1	105			70	130	
	Iodomethane	2.0	1.6	80			70	130	
	Allyl Chloride	2.0	2.0	100			70	130	
	Acrylonitrile	4.0	4.5	112			70	130	
	Acetone	10	21	210		*	70	130	
	Carbon disulfide	2.0	2.0	100			70	130	
	Methyl tert-butyl Ether	2.0	2.3	115			70	130	
	Methyl acrylate	2.0	2.3	115			70	130	
	Methylene Chloride	2.0	2.8	140		*	70	130	
	trans-1,2-Dichloroethene	2.0	2.1	105			70	130	
	1,1-Dichloroethane	2.0	2.1	105			70	130	
	2-Butanone	10	13	130			70	130	
	Carbon Tetrachloride	2.0	2.0	100			70	130	
	2,2-Dichloropropane	2.0	1.8	90			70	130	
	cis-1,2-Dichloroethene	2.0	2.1	105			70	130	
	Chloroform	2.0	2.1	105			70	130	
	1,1,1-Trichloroethane	2.0	2.0	100			70	130	
	t-1,4-Dichloro-2-butene	4.0	4.3	108			70	130	
	1,1-Dichloropropene	2.0	2.1	105			70	130	
	Isopropyl Ether	2.0	2.2	110			70	130	
	Propionitrile	20	23	115			70	130	
	Benzene	2.0	2.1	105			70	130	
	1,2-Dichloroethane	2.0	2.2	110			70	130	
	Trichloroethene	2.0	2.1	105			70	130	
	1,2-Dichloropropane	2.0	2.2	110			70	130	
	Methacrylonitrile	2.0	2.4	120			70	130	
	Tetrahydrofuran	4.0	4.8	120			70	130	
	1-Chlorobutane	2.0	2.1	105			70	130	
	Dibromomethane	2.0	2.2	110			70	130	
	Bromodichloromethane	2.0	2.1	105			70	130	
	4-Methyl-2-Pentanone	10	11	110			70	130	
	Methyl methacrylate	4.0	4.7	118			70	130	
	Ethyl methacrylate	2.0	2.2	110			70	130	
	Toluene	2.0	2.1	105			70	130	
	t-1,3-Dichloropropene	2.0	2.1	105			70	130	
	cis-1,3-Dichloropropene	2.0	2.1	105			70	130	
	1,1,2-Trichloroethane	2.0	2.3	115			70	130	
	1,3-Dichloropropane	2.0	2.2	110			70	130	
	2-Hexanone	10	12	120			70	130	
	Dibromochloromethane	2.0	2.2	110			70	130	

**Laboratory Control Sample/Laboratory Control Sample Duplicate Summary**

SW-846

SDG No.: S4436

Client: Parsons Engineering

Analytical Method: EPA SW846 524

Lab Sample ID	Parameter	Spike	Result	Rec	RPD	Qual	Low	Limits	
								High	RPD
LFB01	1,2-Dibromoethane	2.0	2.3	115			70	130	
	Tetrachloroethene	2.0	2.1	105			70	130	
	Chlorobenzene	2.0	2.2	110			70	130	
	1,1,1,2-Tetrachloroethane	2.0	2.2	110			70	130	
	Hexachloroethane	2.0	2.1	105			70	130	
	Ethyl Benzene	2.0	2.2	110			70	130	
	m/p-Xylenes	4.0	4.3	108			70	130	
	o-Xylene	2.0	2.2	110			70	130	
	Styrene	2.0	2.2	110			70	130	
	Bromoforn	2.0	2.1	105			70	130	
	Bromobenzene	2.0	2.2	110			70	130	
	Isopropylbenzene	2.0	2.2	110			70	130	
	1,1,2,2-Tetrachloroethane	2.0	2.4	120			70	130	
	1,2,3-Trichloropropane	2.0	2.2	110			70	130	
	N-propylbenzene	2.0	2.2	110			70	130	
	2-Chlorotoluene	2.0	2.2	110			70	130	
	1,3,5-Trimethylbenzene	2.0	2.2	110			70	130	
	4-Chlorotoluene	2.0	2.2	110			70	130	
	tert-Butylbenzene	2.0	2.2	110			70	130	
	1,2,4-Trimethylbenzene	2.0	2.2	110			70	130	
	Sec-butylbenzene	2.0	2.2	110			70	130	
	p-Isopropyltoluene	2.0	2.2	110			70	130	
	1,3-Dichlorobenzene	2.0	2.2	110			70	130	
	1,4-Dichlorobenzene	2.0	2.2	110			70	130	
	n-Butylbenzene	2.0	2.2	110			70	130	
	1,2-Dichlorobenzene	2.0	2.3	115			70	130	
	1,2-Dibromo-3-Chloropropane	2.0	2.3	115			70	130	
	1,2,4-Trichlorobenzene	2.0	2.3	115			70	130	
	Hexachlorobutadiene	2.0	2.1	105			70	130	
	Naphthalene	2.0	2.5	125			70	130	
	1,2,3-Trichlorobenzene	2.0	2.4	120			70	130	
LFB02	Dichlorodifluoromethane	2.0	2.3	115			70	130	



4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK01

Lab Name: Chemtech

Contract: PARS04

Lab Code: CTECH Case No.: S4436

SAS No.: S4436 SDG NO.: S4436

Lab File ID: VF081611.D

Lab Sample ID: VPF0816W2

Date Analyzed: 8/16/2004

Time Analyzed: 15:40

GC Column: RTX624 ID: 0.53 (mm)

Heated Purge: (Y/N) N

Instrument ID: MSVOAF

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
QC/KNOWN	QC/KNOWN	VF081612.D	16:19
VLCS01	LFB01	VF081617.D	19:34

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_

4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK02

Lab Name: Chemtech

Contract: PARS04

Lab Code: CTECH Case No.: S4436

SAS No.: S4436 SDG NO.: S4436

Lab File ID: VF090404.D

Lab Sample ID: VPF0904W2

Date Analyzed: 9/3/2004

Time Analyzed: 23:42

GC Column: RTX624 ID: 0.53 (mm)

Heated Purge: (Y/N) N

Instrument ID: MSVOAF

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
TR0056	S4436-17	VF090406.D	01:01
ARD2252	S4436-07	VF090415.D	06:50

COMMENTS:

\_\_\_\_\_

4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK03

Lab Name: Chemtech Contract: PARS04  
Lab Code: CTECH Case No.: S4436 SAS No.: S4436 SDG NO.: S4436  
Lab File ID: VF090714.D Lab Sample ID: VBF0907W4  
Date Analyzed: 9/7/2004 Time Analyzed: 20:18  
GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) N  
Instrument ID: MSVOAF

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
TR2150	S4436-20	VF090717.D	22:15
ARD2252DL	S4436-07DL	VF090718.D	22:54
VLCS02	LFB02	VF090725.D	03:29

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4436 SAS No.: S4436 SDG NO.: S4436  
 Lab File ID: VF081601.D BFB Injection Date: 8/16/2004  
 Instrument ID: MSVOAF BFB Injection Time: 09:16  
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.8
75	30.0 - 60.0% of mass 95	42.8
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 ( 0.0 1
174	50.0 - 100.0% of mass 95	60.4
175	5.0 - 9.0% of mass 174	4.2 ( 6.9 1
176	95.0 - 101.0% of mass 174	57.6 ( 95.2 1
177	5.0 - 9.0% of mass 176	3.6 ( 6.3 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTD001	1 PPB ICC	VF081602.D	8/16/2004	09:49
VSTD002	2 PPB ICC	VF081603.D	8/16/2004	10:27
VSTD010	10 PPB ICC	VF081604.D	8/16/2004	11:06
VSTD020	20 PPB ICC	VF081605.D	8/16/2004	11:45
VSTD040	40 PPB ICC	VF081606.D	8/16/2004	12:24
VBLK01	VBF0816W2	VF081611.D	8/16/2004	15:40
QC/KNOWN	QC/KNOWN	VF081612.D	8/16/2004	16:19
VLCS01	LFB01	VF081617.D	8/16/2004	19:34

5A  
 VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
 BROMOFLUOROBENZENE (BFB)

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4436 SAS No.: S4436 SDG NO.: S4436  
 Lab File ID: VF090401.D BFB Injection Date: 9/3/2004  
 Instrument ID: MSVOAF BFB Injection Time: 21:52  
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.6
75	30.0 - 60.0% of mass 95	43.8
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 ( 0.0 1
174	50.0 - 100.0% of mass 95	58.7
175	5.0 - 9.0% of mass 174	4.1 ( 7.0 1
176	95.0 - 101.0% of mass 174	56.5 ( 96.2 1
177	5.0 - 9.0% of mass 176	3.4 ( 6.0 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTD010	10 PPB CCC	VF090402.D	9/3/2004	22:24
VBLK02	VBF0904W2	VF090404.D	9/3/2004	23:42
TR0056	S4436-17	VF090406.D	9/4/2004	01:01
ARD2252	S4436-07	VF090415.D	9/4/2004	06:50

5A  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: Chentech Contract: PARS04  
 Lab Code: CTECH Case No.: S4436 SAS No.: S4436 SDG NO.: S4436  
 Lab File ID: VF090711.D BFB Injection Date: 9/7/2004  
 Instrument ID: MSVOAF BFB Injection Time: 18:27  
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.0
75	30.0 - 60.0% of mass 95	43.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.0 ( 0.0 1
174	50.0 - 100.0% of mass 95	60.1
175	5.0 - 9.0% of mass 174	4.3 ( 7.2 1
176	95.0 - 101.0% of mass 174	57.1 ( 95.0 1
177	5.0 - 9.0% of mass 176	3.9 ( 6.8 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTD010	10 PPB CCC	VF090712.D	9/7/2004	19:00
VBLK03	VBF0907W4	VF090714.D	9/7/2004	20:18
TR2150	S4436-20	VF090717.D	9/7/2004	22:15
ARD2252DL	S4436-07DL	VF090718.D	9/7/2004	22:54
VLCS02	LFB02	VF090725.D	9/8/2004	03:29

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Chemtech Contract PARS04  
 Lab Code: CTECH Case No.: S4436 SAS No.: S4436 SDG No.: S4436  
 Lab File ID: VF081604.D Date Analyzed: 8/16/2004  
 Instrument ID: MSVOAF Time Analyzed: 11:06  
 GC Column: RTX624 ID: 0.5 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT#	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	228488	8.85	0	0.00	0	0.00
UPPER LIMIT	456976	9.35	0	0.00	0	0.00
LOWER LIMIT	114244	8.35	0	0.00	0	0.00
SAMPLE NO.						
VBLK01	226075	8.85	0	0.00	0	0.00
QC/KNOWN	237826	8.85	0	0.00	0	0.00
VLCS01	220016	8.86	0	0.00	0	0.00

IS1 = Fluorobenzene  
 IS2 =  
 IS3 =

AREA UPPER LIMIT = +100% of internal standard area  
 AREA LOWER LIMIT = -50% of internal standard area  
 RT UPPER LIMIT = +0.50 minutes of internal standard RT  
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Chamtech Contract PARS04  
 Lab Code: CTECH Case No.: S4436 SAS No.: S4436 SDG No.: S4436  
 Lab File ID: VF090402.D Date Analyzed: 9/3/2004  
 Instrument ID: MSVOAF Time Analyzed: 22:24  
 GC Column: RTX624 ID: 0.5 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT#	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	264017	8.84	0	0.00	0	0.00
UPPER LIMIT	528034	9.34	0	0.00	0	0.00
LOWER LIMIT	132009	8.34	0	0.00	0	0.00
SAMPLE NO.						
VBLK02	237391	8.85	0	0.00	0	0.00
TR0056	230084	8.86	0	0.00	0	0.00
ARD2252	182837	8.85	0	0.00	0	0.00

IS1 = Fluorobenzene  
 IS2 =  
 IS3 =

AREA UPPER LIMIT = +100% of internal standard area  
 AREA LOWER LIMIT = -50% of internal standard area  
 RT UPPER LIMIT = +0.50 minutes of internal standard RT  
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.



## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Chemtech Contract PARS04  
 Lab Code: CTECH Case No.: S4436 SAS No.: S4436 SDG No.: S4436  
 Lab File ID: VF090712.D Date Analyzed: 9/7/2004  
 Instrument ID: MSVOAF Time Analyzed: 19:00  
 GC Column: RTX624 ID: 0.5 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT#	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	265073	8.86	0	0.00	0	0.00
UPPER LIMIT	530146	9.36	0	0.00	0	0.00
LOWER LIMIT	132537	8.36	0	0.00	0	0.00
SAMPLE NO.						
VBLK03	240105	8.86	0	0.00	0	0.00
TR2150	246703	8.85	0	0.00	0	0.00
ARD2252DL	222502	8.86	0	0.00	0	0.00
VLCS02	238192	8.87	0	0.00	0	0.00

IS1 = Fluorobenzene

IS2 =

IS3 =

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

\* Values outside of QC limits.

CHEMTECH

VOLATILES  
SAMPLE  
DATA



## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/28/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/31/2004
Client Sample ID:	ARD2252	SDG No.:	S4436
Lab Sample ID:	S4436-07	Matrix:	WATER
Analytical Method:	524	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090415.D	1		9/4/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	0.09	U	1.0	0.09	ug/L
74-87-3	Chloromethane	0.11	U	1.0	0.11	ug/L
75-01-4	Vinyl Chloride	0.14	U	1.0	0.14	ug/L
74-83-9	Bromomethane	0.22	U	1.0	0.22	ug/L
75-00-3	Chloroethane	0.19	U	1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	0.09	U	1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	2.2	U	10	2.2	ug/L
60-29-7	Diethyl Ether	0.21	U	1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	0.16	U	1.0	0.16	ug/L
74-88-4	Iodomethane	0.14	U	1.0	0.14	ug/L
107-5-1	Allyl Chloride	0.18	U	1.0	0.18	ug/L
107-13-1	Acrylonitrile	0.94	U	2.0	0.94	ug/L
67-64-1	Acetone	3.7	JB	5.8	1.5	ug/L
75-15-0	Carbon disulfide	1.1		1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	0.37	U	1.0	0.37	ug/L
79-20-9	Methyl acrylate	0.17	U	1.0	0.17	ug/L
75-09-2	Methylene Chloride	0.3	JB	1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	0.4	J	1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	0.6	J	1.0	0.21	ug/L
78-93-3	2-Butanone	0.94	U	5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	0.22	U	1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	0.20	U	1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	59	E	1.0	0.24	ug/L
67-66-3	Chloroform	0.22	U	1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	1.4	U	2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L
108-20-3	Isopropyl Ether	0.21	U	1.0	0.21	ug/L
107-12-0	Propionitrile	3.3	U	10	3.3	ug/L
71-43-2	Benzene	0.24	U	1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	3.4		1.0	0.24	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/28/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/31/2004
Client Sample ID:	ARD2252	SDG No.:	S4436
Lab Sample ID:	S4436-07	Matrix:	WATER
Analytical Method:	524	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090415.D	1		9/4/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	0.21	U	1.0	0.21	ug/L
126-98-7	Methacrylonitrile	0.33	U	1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	0.78	U	2.4	0.78	ug/L
109-69-3	1-Chlorobutane	0.22	U	1.0	0.22	ug/L
74-95-3	Dibromomethane	0.24	U	1.0	0.24	ug/L
75-27-4	Bromodichloromethane	0.20	U	1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	1.0	U	5.0	1.0	ug/L
80-62-6	Methyl methacrylate	0.53	U	2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	0.25	U	1.0	0.25	ug/L
108-88-3	Toluene	0.22	U	1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L
591-78-6	2-Hexanone	1.1	U	5.0	1.1	ug/L
124-48-1	Dibromochloromethane	0.17	U	1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L
127-18-4	Tetrachloroethene	0.34	U	1.0	0.34	ug/L
108-90-7	Chlorobenzene	0.21	U	1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L
67-72-1	Hexachloroethane	0.20	U	1.0	0.20	ug/L
100-41-4	Ethyl Benzene	0.21	U	1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	0.43	U	1.0	0.43	ug/L
95-47-6	o-Xylene	0.21	U	1.0	0.21	ug/L
100-42-5	Styrene	0.19	U	1.0	0.19	ug/L
75-25-2	Bromoform	0.22	U	1.0	0.22	ug/L
108-86-1	Bromobenzene	0.21	U	1.0	0.21	ug/L
98-82-8	Isopropylbenzene	0.20	U	1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	0.28	U	1.0	0.28	ug/L
103-61-5	N-propylbenzene	0.24	U	1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	0.50	U	1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.22	U	1.0	0.22	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/28/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/31/2004
Client Sample ID:	ARD2252	SDG No.:	S4436
Lab Sample ID:	S4436-07	Matrix:	WATER
Analytical Method:	524	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	nL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090415.D	1		9/4/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	0.22	U	1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	0.18	U	1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	0.20	U	1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	0.22	U	1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
104-51-8	n-Butylbenzene	0.20	U	1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.20	U	1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L
91-20-3	Naphthalene	0.17	U	1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.18	U	1.0	0.18	ug/L

## SURROGATES

2199-69-1	1,2-Dichlorobenzene-d4	1.24	124 %	80 - 120	SPK: 1
460-00-4	4-Bromofluorobenzene	1.11	111 %	80 - 120	SPK: 1

## INTERNAL STANDARDS

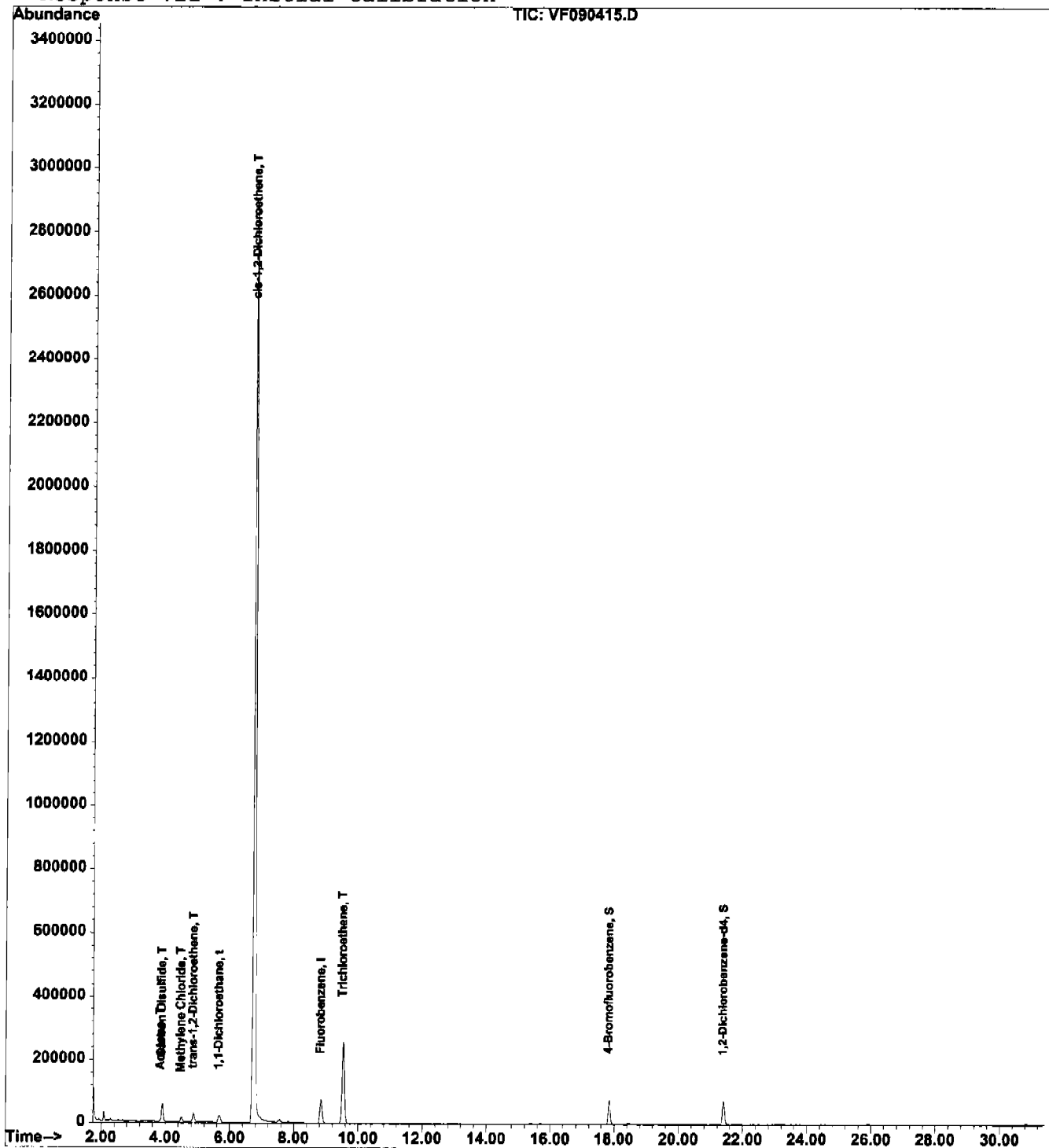
462-06-6	Fluorobenzene	182837	8.85		
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U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

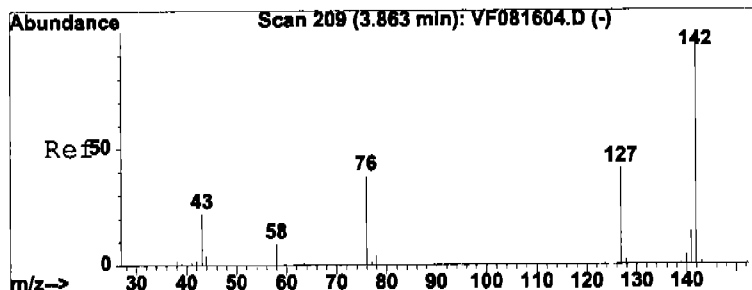
J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090415.D Vial: 15  
Acq On : 4 Sep 2004 6:50 am Operator: SAM  
Sample : S4436-07 Inst : VOA F  
Misc : 25mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Sep 7 11:46 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration

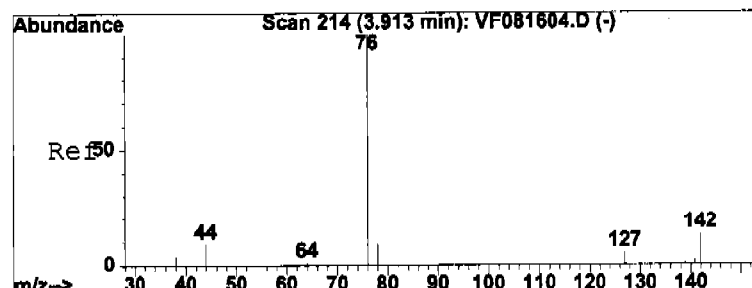
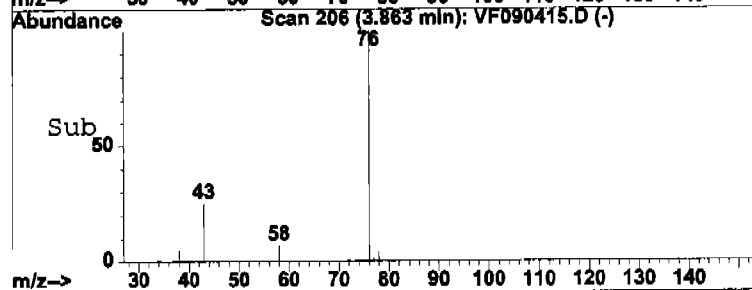
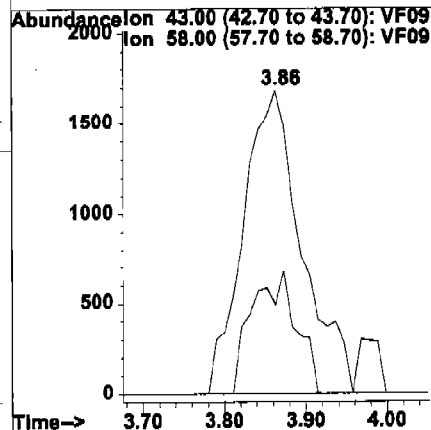
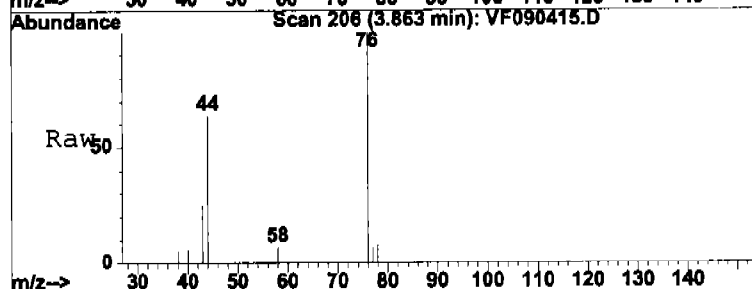






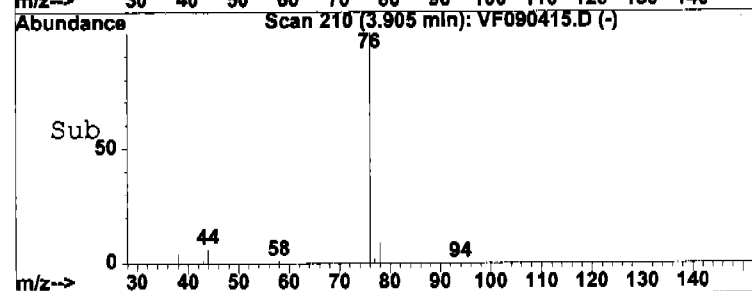
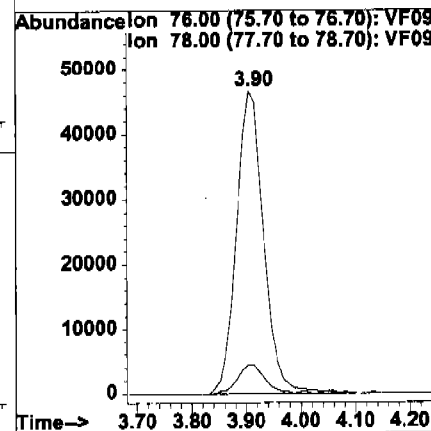
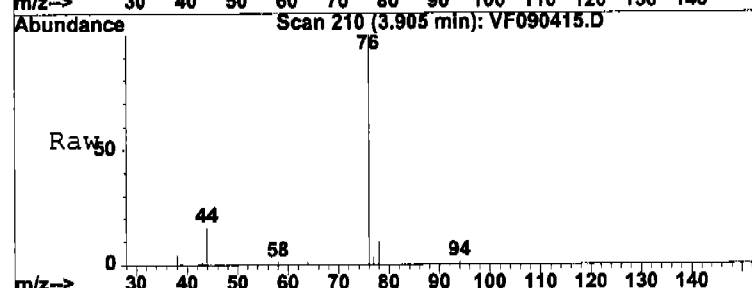
#12  
 Acetone  
 Concen: 3.69 ug/l  
 RT: 3.86 min Scan# 206  
 Delta R.T. 0.01 min  
 Lab File: VF090415.D  
 Acq: 4 Sep 2004 6:50 am

Tgt Ion: 43 Resp: 8383  
 Ion Ratio Lower Upper  
 43 100  
 58 29.0 31.4 47.2#

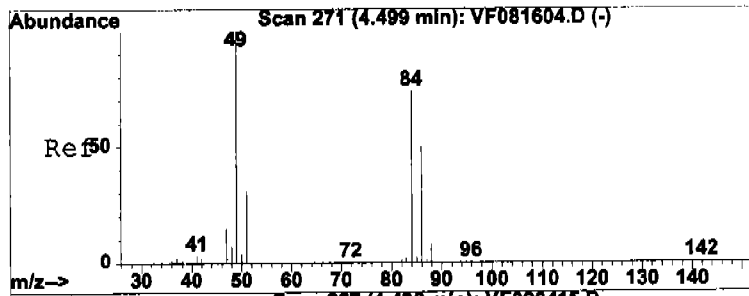


#13  
 Carbon Disulfide  
 Concen: 1.12 ug/l  
 RT: 3.90 min Scan# 210  
 Delta R.T. 0.00 min  
 Lab File: VF090415.D  
 Acq: 4 Sep 2004 6:50 am

Tgt Ion: 76 Resp: 159729  
 Ion Ratio Lower Upper  
 76 100  
 78 9.6 7.2 10.8

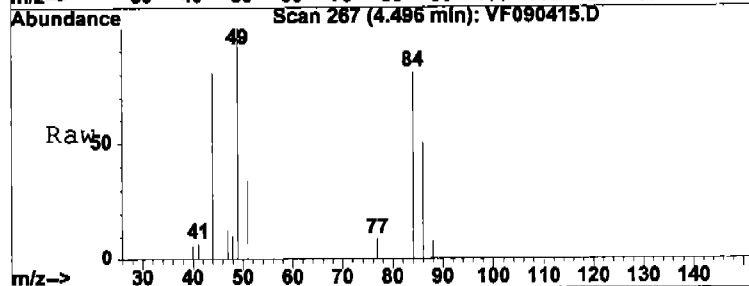




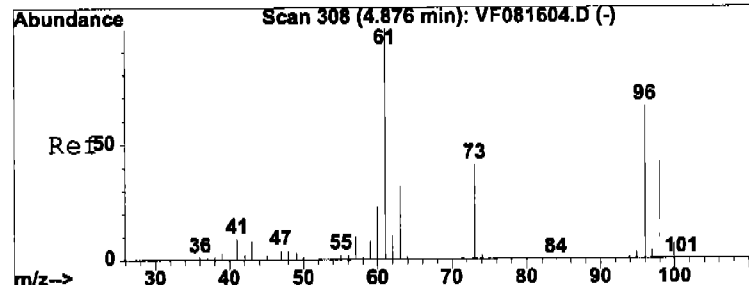
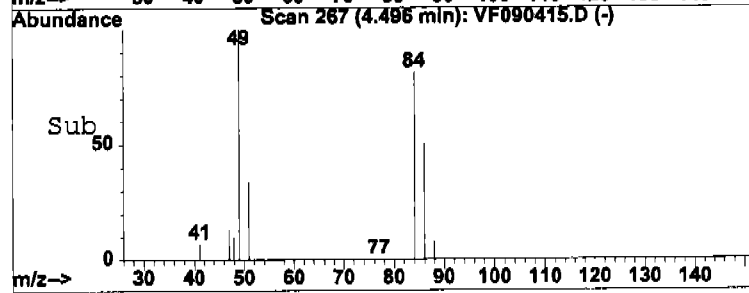
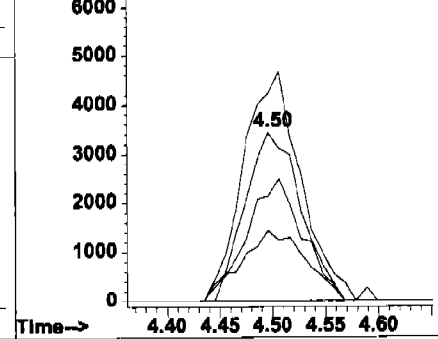


#14  
 Methylene Chloride  
 Concen: 0.29 ug/l  
 RT: 4.50 min Scan# 267  
 Delta R.T. -0.00 min  
 Lab File: VF090415.D  
 Acq: 4 Sep 2004 6:50 am

Tgt Ion:	84	Resp:	12772
Ion Ratio	Lower	Upper	
84	100		
49	123.2	108.6	163.0
51	41.6	0.0	84.4
86	62.1	54.2	81.2

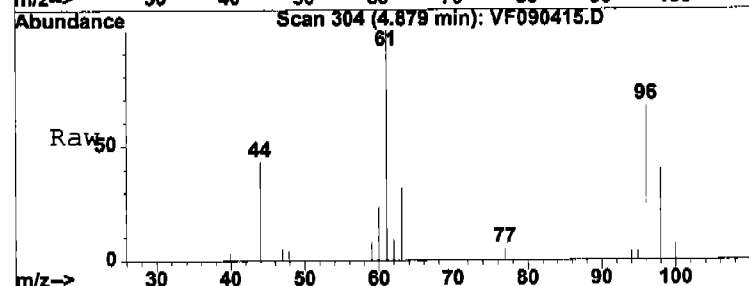


Abundance Ion 84.00 (83.70 to 84.70): VF09  
 Ion 49.00 (48.70 to 49.70): VF09  
 Ion 51.00 (50.70 to 51.70): VF09  
 Ion 86.00 (85.70 to 86.70): VF09

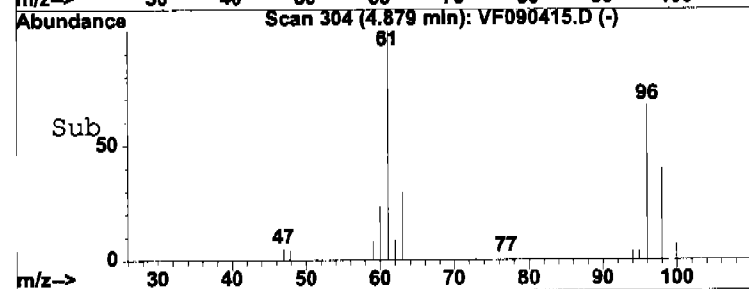
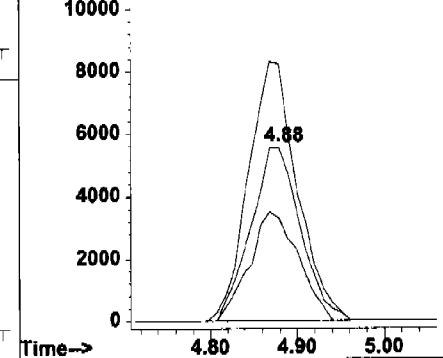


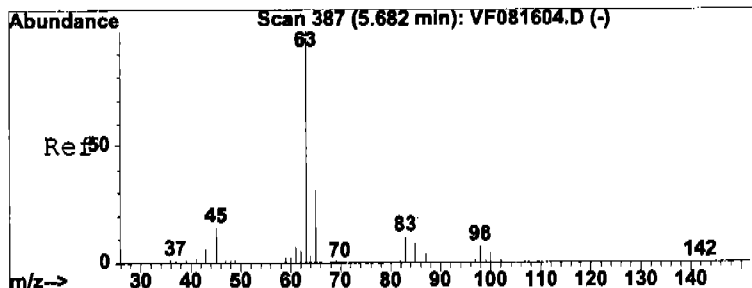
#15  
 trans-1,2-Dichloroethene  
 Concen: 0.39 ug/l  
 RT: 4.88 min Scan# 304  
 Delta R.T. 0.01 min  
 Lab File: VF090415.D  
 Acq: 4 Sep 2004 6:50 am

Tgt Ion:	96	Resp:	22118
Ion Ratio	Lower	Upper	
96	100		
61	148.2	121.8	182.6
98	59.3	51.7	77.5



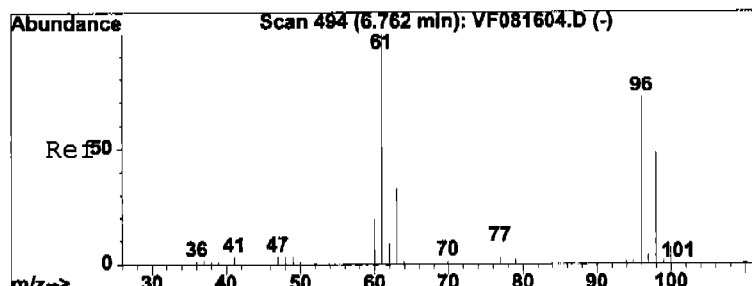
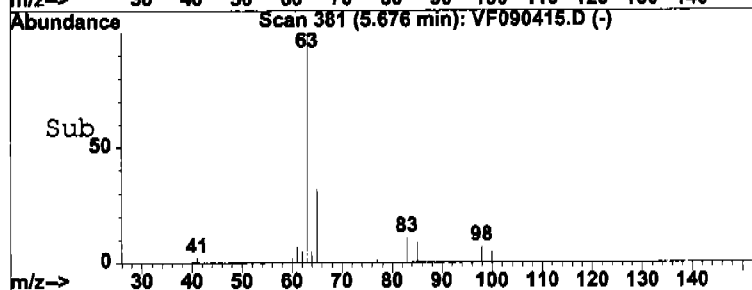
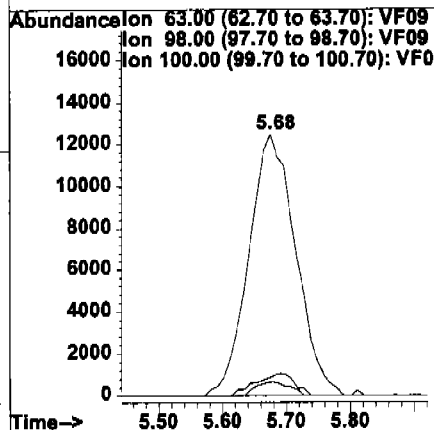
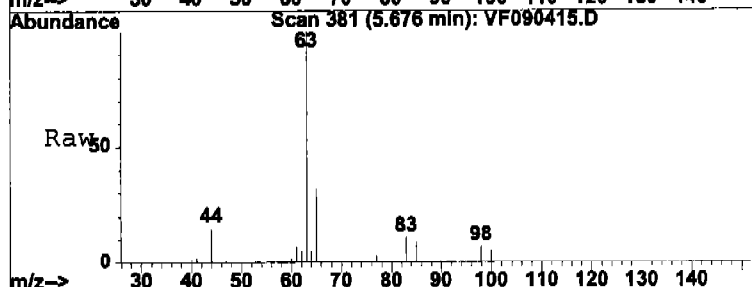
Abundance Ion 96.00 (95.70 to 96.70): VF09  
 Ion 61.00 (60.70 to 61.70): VF09  
 Ion 98.00 (97.70 to 98.70): VF09





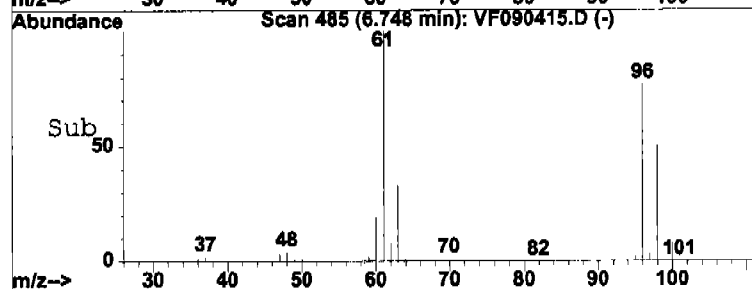
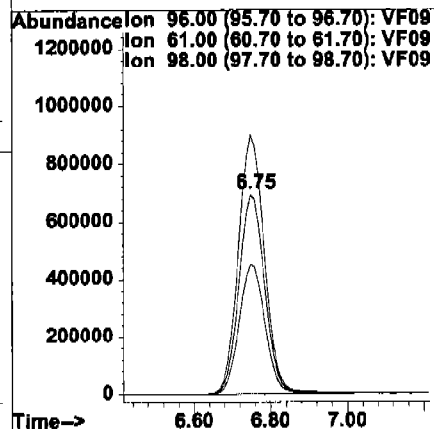
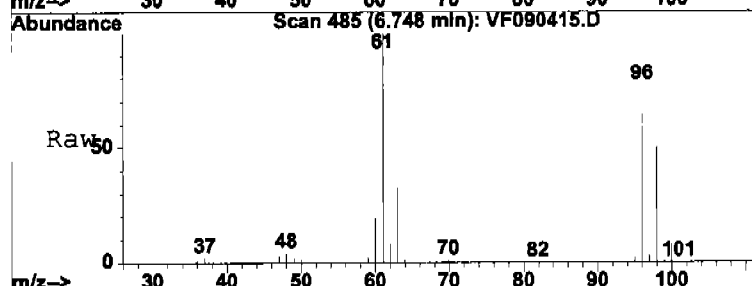
#16  
 1,1-Dichloroethane  
 Concen: 0.62 ug/l  
 RT: 5.68 min Scan# 381  
 Delta R.T. -0.01 min  
 Lab File: VF090415.D  
 Acq: 4 Sep 2004 6:50 am

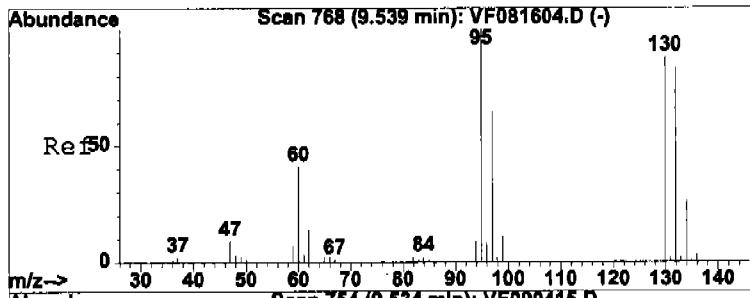
Tgt Ion:	63	Resp:	62959
Ion Ratio	Lower	Upper	
63	100		
98	7.1	3.6	10.8
100	5.2	2.2	6.6



#19  
 cis-1,2-Dichloroethene  
 Concen: 59.19 ug/l  
 RT: 6.75 min Scan# 485  
 Delta R.T. -0.00 min  
 Lab File: VF090415.D  
 Acq: 4 Sep 2004 6:50 am

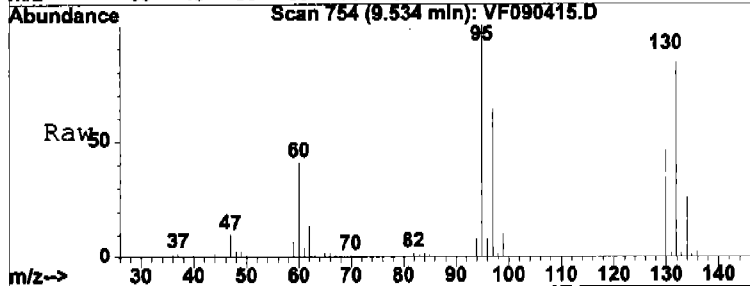
Tgt Ion:	96	Resp:	3294740
Ion Ratio	Lower	Upper	
96	100		
61	132.1	0.0	403.7
98	65.9	32.9	98.6



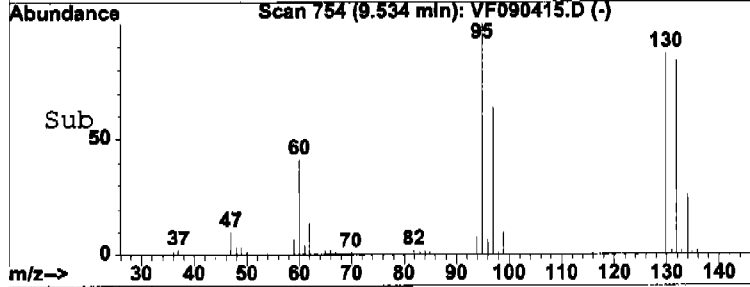
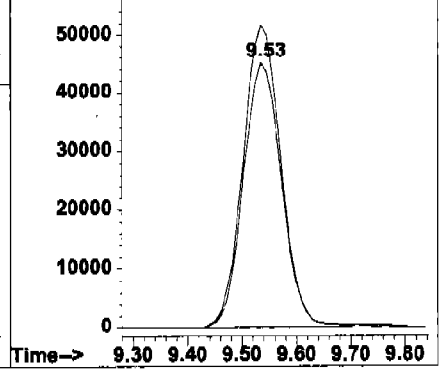


#32  
 Trichloroethene  
 Concen: 3.43 ug/l  
 RT: 9.53 min Scan# 754  
 Delta R.T. -0.01 min  
 Lab File: VF090415.D  
 Acq: 4 Sep 2004 6:50 am

Tgt Ion: 130 Resp: 218725  
 Ion Ratio Lower Upper  
 130 100  
 95 114.6 90.9 136.3



Abundance Ion 129.90 (129.60 to 130.60): VF  
 60000 Ion 94.90 (94.60 to 95.60): VF09



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090415.D Vial: 15  
 Acq On : 4 Sep 2004 6:50 am Operator: SAM  
 Sample : S4436-07 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

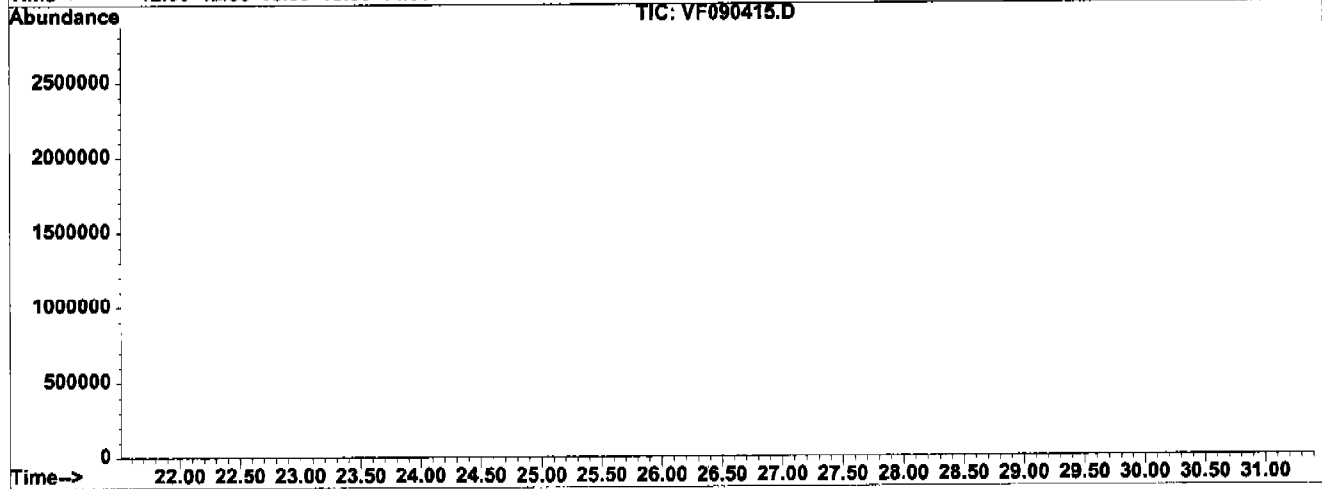
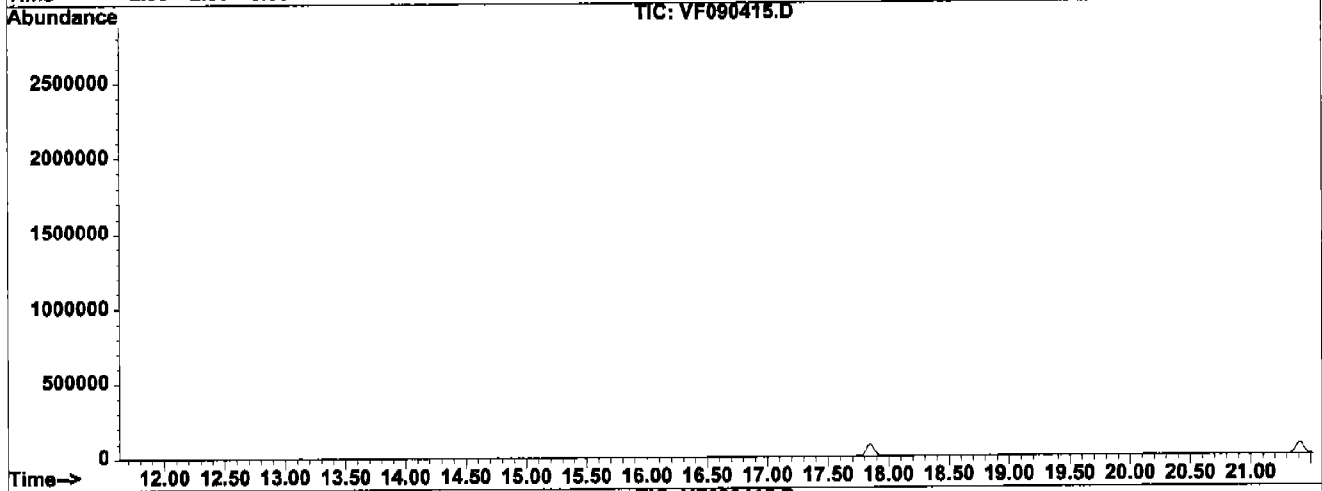
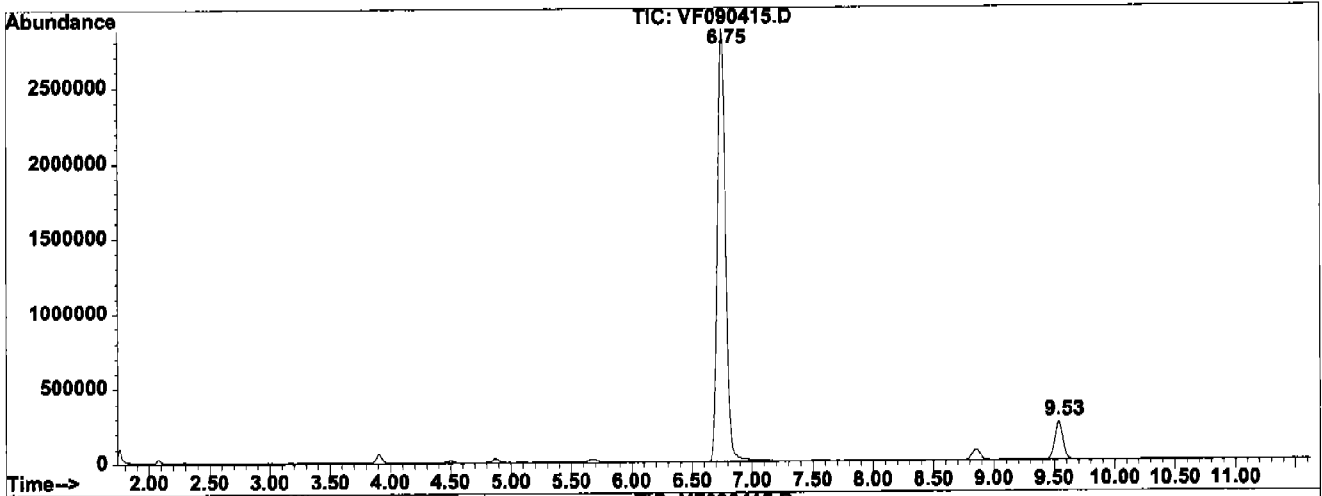
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	6.748	472	485	518	rBV	2877969	13783344	100.00%	91.780%
2	9.534	740	754	776	rBV2	255846	1234456	8.96%	8.220%

Sum of corrected areas: 15017800

VF090415.D VF0816DW.M Fri Sep 10 16:51:15 2004 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090415.D  
Operator : SAM  
Acquired : 4 Sep 2004 6:50 am using AcqMethod VF\_VOA  
Instrument : VOA F  
Sample Name: S4436-07  
Misc Info : 25mL  
Vial Number: 15  
Quant File :VF0816DW.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: SAM      Date Acquired: 4 Sep 2004 6:50 am  
Data File: C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090415.D  
Name: S4436-07  
Misc: 25mL  
Method: C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title: METHOD 524.2 VOLATILES DRINKING WATER  
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
VF090415.D VF0816DW.M			Fri Sep 10	16:51:16	2004			RPT1



## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/28/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/31/2004
Client Sample ID:	ARD2252DL	SDG No.:	S4436
Lab Sample ID:	S4436-07DL	Matrix:	WATER
Analytical Method:	524	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	nL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090718.D	5		9/7/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
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## TARGETS

75-71-8	Dichlorodifluoromethane	0.44	UD	5.0	0.44	ug/L
74-87-3	Chloromethane	0.55	UD	5.0	0.55	ug/L
75-01-4	Vinyl Chloride	0.72	UD	5.0	0.72	ug/L
74-83-9	Bromomethane	1.1	UD	5.0	1.1	ug/L
75-00-3	Chloroethane	0.95	UD	5.0	0.95	ug/L
75-69-4	Trichlorofluoromethane	0.46	UD	5.0	0.46	ug/L
75-65-0	tert-Butyl Alcohol	11	UD	50	11	ug/L
60-29-7	Diethyl Ether	1.1	UD	5.0	1.1	ug/L
75-35-4	1,1-Dichloroethene	0.81	UD	5.0	0.81	ug/L
74-88-4	Iodomethane	0.72	UD	5.0	0.72	ug/L
107-5-1	Allyl Chloride	0.91	UD	5.0	0.91	ug/L
107-13-1	Acrylonitrile	4.7	UD	10	4.7	ug/L
67-64-1	Acetone	23	JDB	29	7.5	ug/L
75-15-0	Carbon disulfide	0.90	UD	5.0	0.90	ug/L
1634-04-4	Methyl tert-butyl Ether	1.9	UD	5.0	1.9	ug/L
79-20-9	Methyl acrylate	0.86	UD	5.0	0.86	ug/L
75-09-2	Methylene Chloride	4.8	JDB	5.0	0.90	ug/L
156-60-5	trans-1,2-Dichloroethene	1.1	UD	5.0	1.1	ug/L
75-34-3	1,1-Dichloroethane	1.0	UD	5.0	1.0	ug/L
78-93-3	2-Butanone	4.7	UD	25	4.7	ug/L
56-23-5	Carbon Tetrachloride	1.1	UD	5.0	1.1	ug/L
594-20-7	2,2-Dichloropropane	1.0	UD	5.0	1.0	ug/L
156-59-2	cis-1,2-Dichloroethene	59	D	5.0	1.2	ug/L
67-66-3	Chloroform	1.1	UD	5.0	1.1	ug/L
71-55-6	1,1,1-Trichloroethane	1.2	UD	5.0	1.2	ug/L
110-57-6	t-1,4-Dichloro-2-butene	6.9	UD	10	6.9	ug/L
563-43-2	1,1-Dichloropropene	1.0	UD	5.0	1.0	ug/L
108-20-3	Isopropyl Ether	1.0	UD	5.0	1.0	ug/L
107-12-0	Propionitrile	16	UD	50	16	ug/L
71-43-2	Benzene	1.2	UD	5.0	1.2	ug/L
107-06-2	1,2-Dichloroethane	1.0	UD	5.0	1.0	ug/L
79-01-6	Trichloroethene	3.9	JD	5.0	1.2	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/28/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2252DL</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-07DL</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090718.D</b>	<b>5</b>		<b>9/7/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	1.1	UD	5.0	1.1	ug/L
126-98-7	Methacrylonitrile	1.6	UD	5.0	1.6	ug/L
109-99-9	Tetrahydrofuran	3.9	UD	12	3.9	ug/L
109-69-3	1-Chlorobutane	1.1	UD	5.0	1.1	ug/L
74-95-3	Dibromomethane	1.2	UD	5.0	1.2	ug/L
75-27-4	Bromodichloromethane	1.0	UD	5.0	1.0	ug/L
108-10-1	4-Methyl-2-Pentanone	5.1	UD	25	5.1	ug/L
80-62-6	Methyl methacrylate	2.7	UD	10	2.7	ug/L
97-63-2	Ethyl methacrylate	1.2	UD	5.0	1.2	ug/L
108-88-3	Toluene	1.1	UD	5.0	1.1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.95	UD	5.0	0.95	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.94	UD	5.0	0.94	ug/L
79-00-5	1,1,2-Trichloroethane	1.2	UD	5.0	1.2	ug/L
142-28-9	1,3-Dichloropropane	1.1	UD	5.0	1.1	ug/L
591-78-6	2-Hexanone	5.4	UD	25	5.4	ug/L
124-48-1	Dibromochloromethane	0.86	UD	5.0	0.86	ug/L
106-93-4	1,2-Dibromoethane	1.0	UD	5.0	1.0	ug/L
127-18-4	Tetrachloroethene	1.7	UD	5.0	1.7	ug/L
108-90-7	Chlorobenzene	1.0	UD	5.0	1.0	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	1.1	UD	5.0	1.1	ug/L
67-72-1	Hexachloroethane	0.98	UD	5.0	0.98	ug/L
100-41-4	Ethyl Benzene	1.1	UD	5.0	1.1	ug/L
136777-61-2	m/p-Xylenes	2.2	UD	5.0	2.2	ug/L
95-47-6	o-Xylene	1.1	UD	5.0	1.1	ug/L
100-42-5	Styrene	0.94	UD	5.0	0.94	ug/L
75-25-2	Bromoform	1.1	UD	5.0	1.1	ug/L
108-86-1	Bromobenzene	1.1	UD	5.0	1.1	ug/L
98-82-8	Isopropylbenzene	1.0	UD	5.0	1.0	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.0	UD	5.0	1.0	ug/L
96-18-4	1,2,3-Trichloropropane	1.4	UD	5.0	1.4	ug/L
103-61-5	N-propylbenzene	1.2	UD	5.0	1.2	ug/L
95-49-8	2-Chlorotoluene	2.5	UD	5.0	2.5	ug/L
108-67-8	1,3,5-Trimethylbenzene	1.1	UD	5.0	1.1	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound





## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/28/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/31/2004
Client Sample ID:	ARD2252DL	SDG No.:	S4436
Lab Sample ID:	S4436-07DL	Matrix:	WATER
Analytical Method:	524	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090718.D	5		9/7/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	1.1	UD	5.0	1.1	ug/L
98-06-6	tert-Butylbenzene	0.92	UD	5.0	0.92	ug/L
95-63-6	1,2,4-Trimethylbenzene	1.2	UD	5.0	1.2	ug/L
135-98-8	Sec-butylbenzene	1.0	UD	5.0	1.0	ug/L
99-87-6	p-Isopropyltoluene	1.1	UD	5.0	1.1	ug/L
541-73-1	1,3-Dichlorobenzene	1.0	UD	5.0	1.0	ug/L
106-46-7	1,4-Dichlorobenzene	1.0	UD	5.0	1.0	ug/L
104-51-8	n-Butylbenzene	1.0	UD	5.0	1.0	ug/L
95-50-1	1,2-Dichlorobenzene	0.87	UD	5.0	0.87	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.0	UD	5.0	1.0	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.99	UD	5.0	0.99	ug/L
87-68-3	Hexachlorobutadiene	0.87	UD	5.0	0.87	ug/L
91-20-3	Naphthalene	0.87	UD	5.0	0.87	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.90	UD	5.0	0.90	ug/L
<b>SURROGATES</b>						
2199-69-1	1,2-Dichlorobenzene-d4	1.02	102 %	80 - 120		SPK: 1
460-00-4	4-Bromofluorobenzene	0.96	96 %	80 - 120		SPK: 1
<b>INTERNAL STANDARDS</b>						
462-06-6	Fluorobenzene	222502	8.86			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

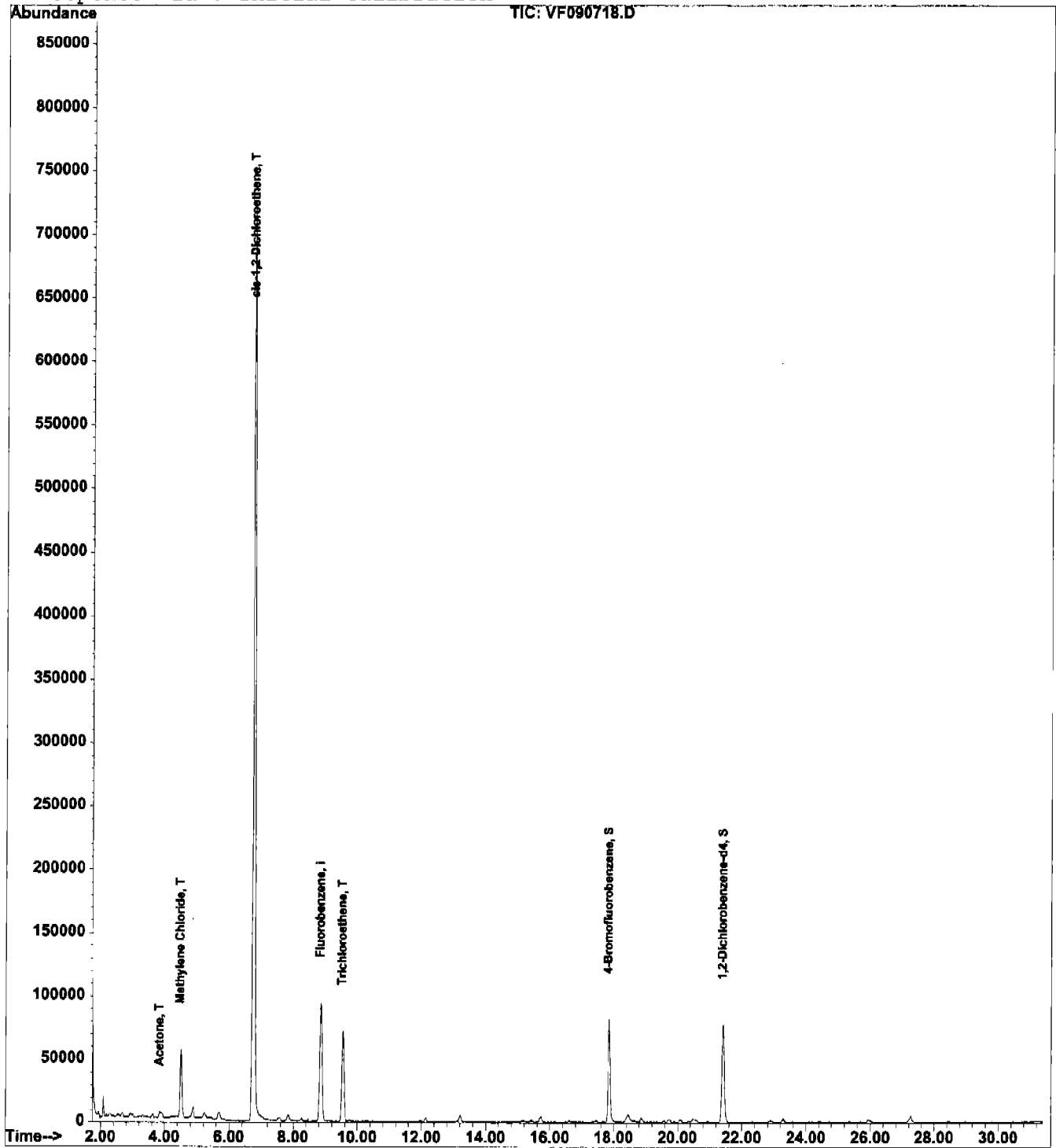
J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090718.D Vial: 9  
Acq On : 7 Sep 2004 10:54 pm Operator: SAM  
Sample : S4436-07 5X Inst : VOA F  
Misc : 25mL Multiplr: 1.00

MS Integration Params: rteint.p  
Quant Time: Sep 9 15:08 2004

Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090718.D Vial: 9  
Acq On : 7 Sep 2004 10:54 pm Operator: SAM  
Sample : S4436-07 5X Inst : VOA F  
Misc : 25mL Multiplr: 1.00

MS Integration Params: rteint.p  
Quant Time: Sep 9 15:08 2004

Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration  
DataAcq Meth : VF\_VOA

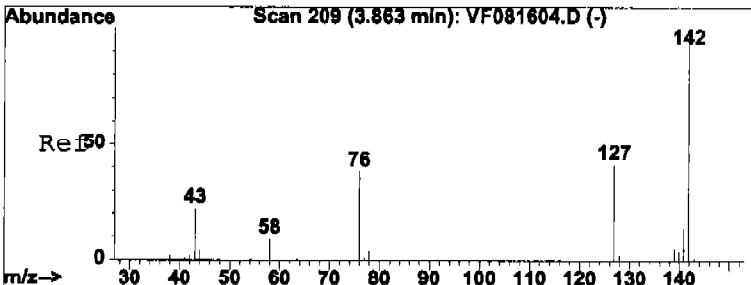
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.86	96	222502	1.00	ug/l	0.01
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.85	95	100059	0.96	ug/l	0.00
Spiked Amount	1.000		Recovery	=	96.00%	
63) 1,2-Dichlorobenzene-	21.42	152	59193	1.02	ug/l	0.00
Spiked Amount	1.000		Recovery	=	102.00%	
Target Compounds						
12) Acetone	3.86	43	12776	4.62	ug/l	96
14) Methylene Chloride	4.51	84	50044	0.95	ug/l	96
19) cis-1,2-Dichloroethe	6.76	96	795187	11.74	ug/l	86
32) Trichloroethene	9.55	130	60690	0.78	ug/l	99

Analyst Signature: Sy Analyst Name: Sy Date: 09/10/04

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound # : \_\_\_  
\_\_\_ Peak integrated by software incorrectly.Compound # : \_\_\_  
\_\_\_ OTHER: \_\_\_\_\_ Compound # : \_\_\_\_\_

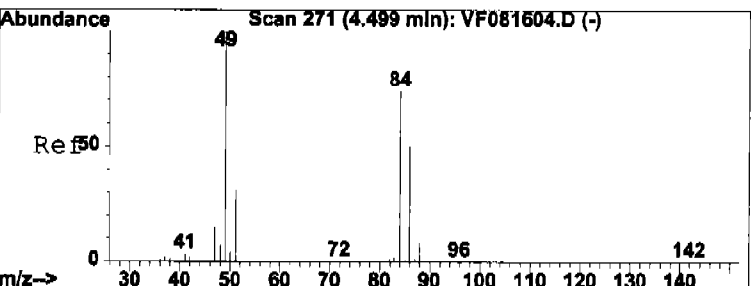
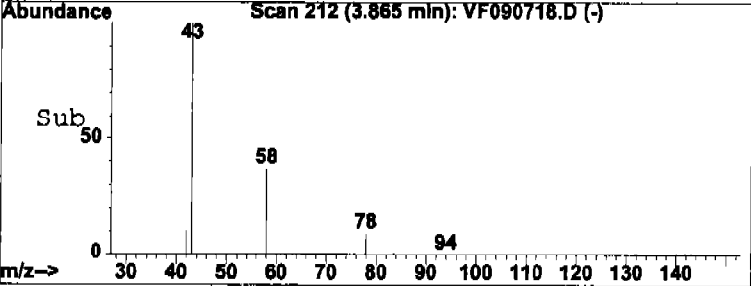
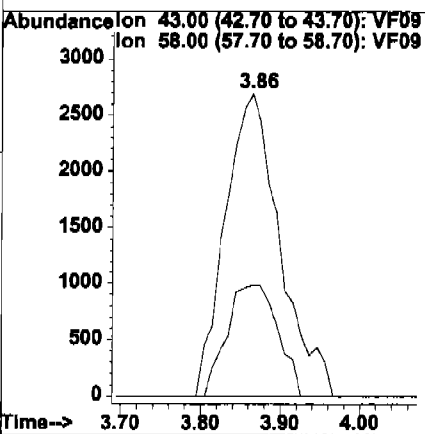
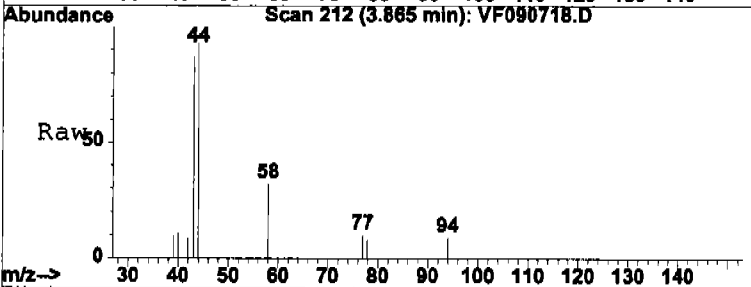
(#) = qualifier out of range (m) = manual integration



#12  
 Acetone  
 Concen: 4.62 ug/l  
 RT: 3.86 min Scan# 212  
 Delta R.T. 0.02 min  
 Lab File: VF090718.D  
 Acq: 7 Sep 2004 10:54 pm

Tgt Ion: 43 Resp: 12776

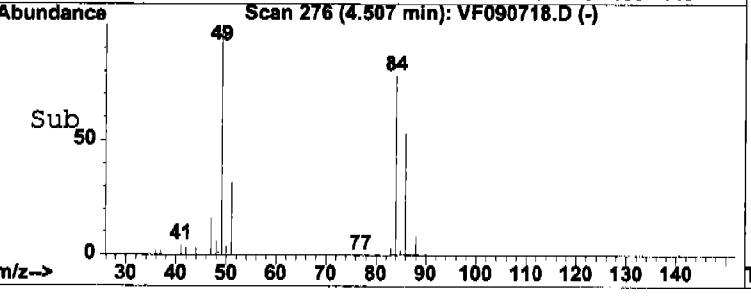
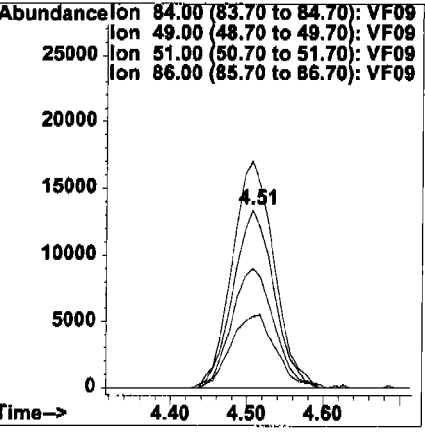
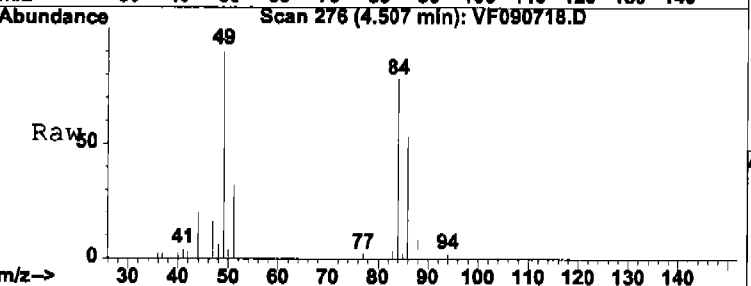
Ion	Ratio	Lower	Upper
43	100		
58	36.6	31.4	47.2

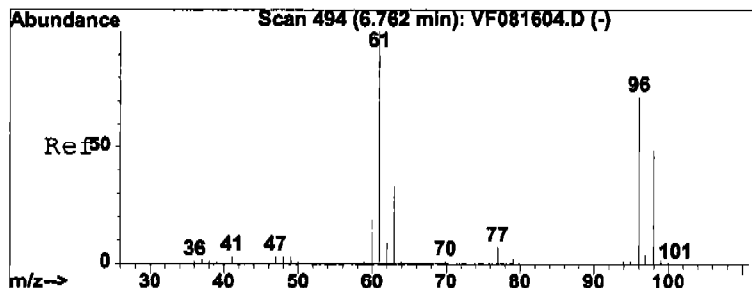


#14  
 Methylene Chloride  
 Concen: 0.95 ug/l  
 RT: 4.51 min Scan# 276  
 Delta R.T. 0.01 min  
 Lab File: VF090718.D  
 Acq: 7 Sep 2004 10:54 pm

Tgt Ion: 84 Resp: 50044

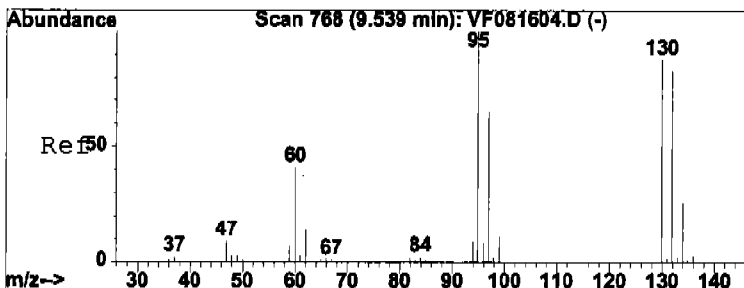
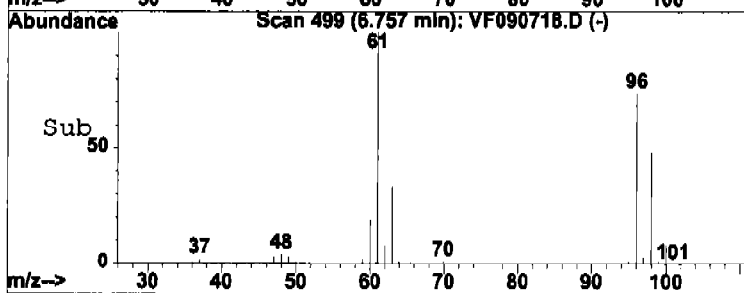
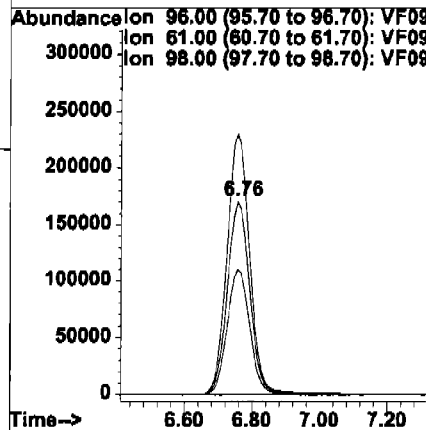
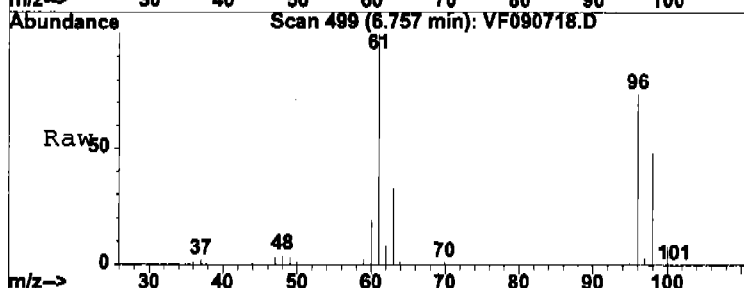
Ion	Ratio	Lower	Upper
84	100		
49	127.6	108.6	163.0
51	40.6	0.0	84.4
86	67.3	54.2	81.2





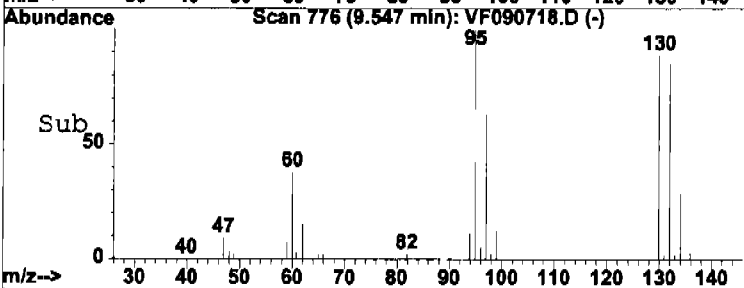
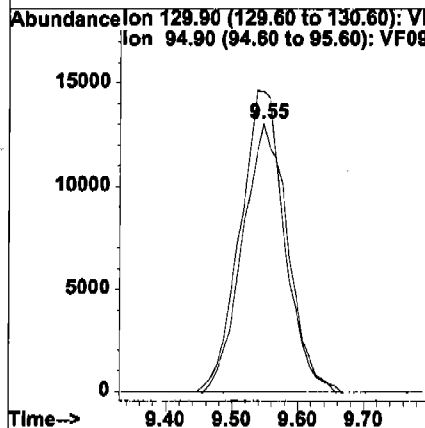
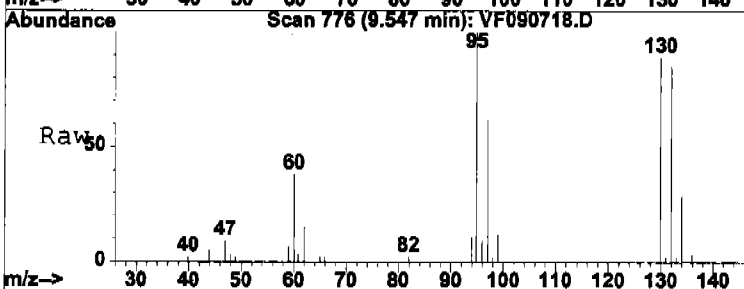
#19  
 cis-1,2-Dichloroethene  
 Concen: 11.74 ug/l  
 RT: 6.76 min Scan# 499  
 Delta R.T. 0.01 min  
 Lab File: VF090718.D  
 Acq: 7 Sep 2004 10:54 pm

Tgt Ion:	96	Resp:	795187
Ion Ratio	Lower	Upper	
96	100		
61	136.2	0.0	403.7
98	65.2	32.9	98.6



#32  
 Trichloroethene  
 Concen: 0.78 ug/l  
 RT: 9.55 min Scan# 776  
 Delta R.T. 0.01 min  
 Lab File: VF090718.D  
 Acq: 7 Sep 2004 10:54 pm

Tgt Ion:	130	Resp:	60690
Ion Ratio	Lower	Upper	
130	100		
95	112.2	90.9	136.3





## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/29/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/31/2004
Client Sample ID:	TR0056	SDG No.:	S4436
Lab Sample ID:	S4436-17	Matrix:	WATER
Analytical Method:	524	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090406.D	1		9/4/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	0.09	U	1.0	0.09	ug/L
74-87-3	Chloromethane	0.11	U	1.0	0.11	ug/L
75-01-4	Vinyl Chloride	0.14	U	1.0	0.14	ug/L
74-83-9	Bromomethane	0.22	U	1.0	0.22	ug/L
75-00-3	Chloroethane	0.19	U	1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	0.09	U	1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	2.2	U	10	2.2	ug/L
60-29-7	Diethyl Ether	0.21	U	1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	0.16	U	1.0	0.16	ug/L
74-88-4	Iodomethane	0.14	U	1.0	0.14	ug/L
107-5-1	Allyl Chloride	0.18	U	1.0	0.18	ug/L
107-13-1	Acrylonitrile	0.94	U	2.0	0.94	ug/L
67-64-1	Acetone	7.4	B	5.8	1.5	ug/L
75-15-0	Carbon disulfide	0.18	U	1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	0.37	U	1.0	0.37	ug/L
79-20-9	Methyl acrylate	0.17	U	1.0	0.17	ug/L
75-09-2	Methylene Chloride	0.3	JB	1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.94	U	5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	0.22	U	1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	0.20	U	1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L
67-66-3	Chloroform	0.22	U	1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	1.4	U	2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L
108-20-3	Isopropyl Ether	0.21	U	1.0	0.21	ug/L
107-12-0	Propionitrile	3.3	U	10	3.3	ug/L
71-43-2	Benzene	0.24	U	1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	0.24	U	1.0	0.24	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound



## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/29/2004
Project:	Seneca Ash Landfill Quarterly Monit	Date Received:	8/31/2004
Client Sample ID:	TR0056	SDG No.:	S4436
Lab Sample ID:	S4436-17	Matrix:	WATER
Analytical Method:	524	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090406.D	1		9/4/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	0.21	U	1.0	0.21	ug/L
126-98-7	Methacrylonitrile	0.33	U	1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	0.78	U	2.4	0.78	ug/L
109-69-3	1-Chlorobutane	0.22	U	1.0	0.22	ug/L
74-95-3	Dibromomethane	0.24	U	1.0	0.24	ug/L
75-27-4	Bromodichloromethane	0.20	U	1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	1.0	U	5.0	1.0	ug/L
80-62-6	Methyl methacrylate	0.53	U	2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	0.25	U	1.0	0.25	ug/L
108-88-3	Toluene	0.22	U	1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropenc	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L
591-78-6	2-Hexanone	1.1	U	5.0	1.1	ug/L
124-48-1	Dibromochloromethane	0.17	U	1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L
127-18-4	Tetrachloroethene	0.34	U	1.0	0.34	ug/L
108-90-7	Chlorobenzene	0.21	U	1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L
67-72-1	Hexachloroethane	0.20	U	1.0	0.20	ug/L
100-41-4	Ethyl Benzene	0.21	U	1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	0.43	U	1.0	0.43	ug/L
95-47-6	o-Xylene	0.21	U	1.0	0.21	ug/L
100-42-5	Styrene	0.19	U	1.0	0.19	ug/L
75-25-2	Bromoform	0.22	U	1.0	0.22	ug/L
108-86-1	Bromobenzene	0.21	U	1.0	0.21	ug/L
98-82-8	Isopropylbenzene	0.20	U	1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	0.28	U	1.0	0.28	ug/L
103-61-5	N-propylbenzene	0.24	U	1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	0.50	U	1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.22	U	1.0	0.22	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound



## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/29/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/31/2004
Client Sample ID:	TR0056	SDG No.:	S4436
Lab Sample ID:	S4436-17	Matrix:	WATER
Analytical Method:	524	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090406.D	1		9/4/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	0.22	U	1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	0.18	U	1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	0.20	U	1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	0.22	U	1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
104-51-8	n-Butylbenzene	0.20	U	1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.20	U	1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L
91-20-3	Naphthalene	0.17	U	1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.18	U	1.0	0.18	ug/L
<b>SURROGATES</b>						
2199-69-1	1,2-Dichlorobenzene-d4	1.03	103 %	80 - 120		SPK: 1
460-00-4	4-Bromofluorobenzene	0.97	97 %	80 - 120		SPK: 1
<b>INTERNAL STANDARDS</b>						
462-06-6	Fluorobenzene	230084	8.86			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090406.D Vial: 6  
 Acq On : 4 Sep 2004 1:01 am Operator: SAM  
 Sample : S4436-17 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 7 11:35 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.86	96	230084	1.00	ug/l	0.00
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.85	95	105363	0.97	ug/l	0.00
Spiked Amount	1.000		Recovery	=	97.00%	
63) 1,2-Dichlorobenzene-	21.42	152	62010	1.03	ug/l	0.00
Spiked Amount	1.000		Recovery	=	103.00%	
Target Compounds						Qvalue
12) Acetone	3.86	43	21158	7.40	ug/l	97
14) Methylene Chloride	4.51	84	16848	0.31	ug/l	96

-----  
 Analyst Signature: Sy Analyst Name: Sy Date: 09/10/04  
 -----

REASONS FOR MANUAL INTEGRATIONS

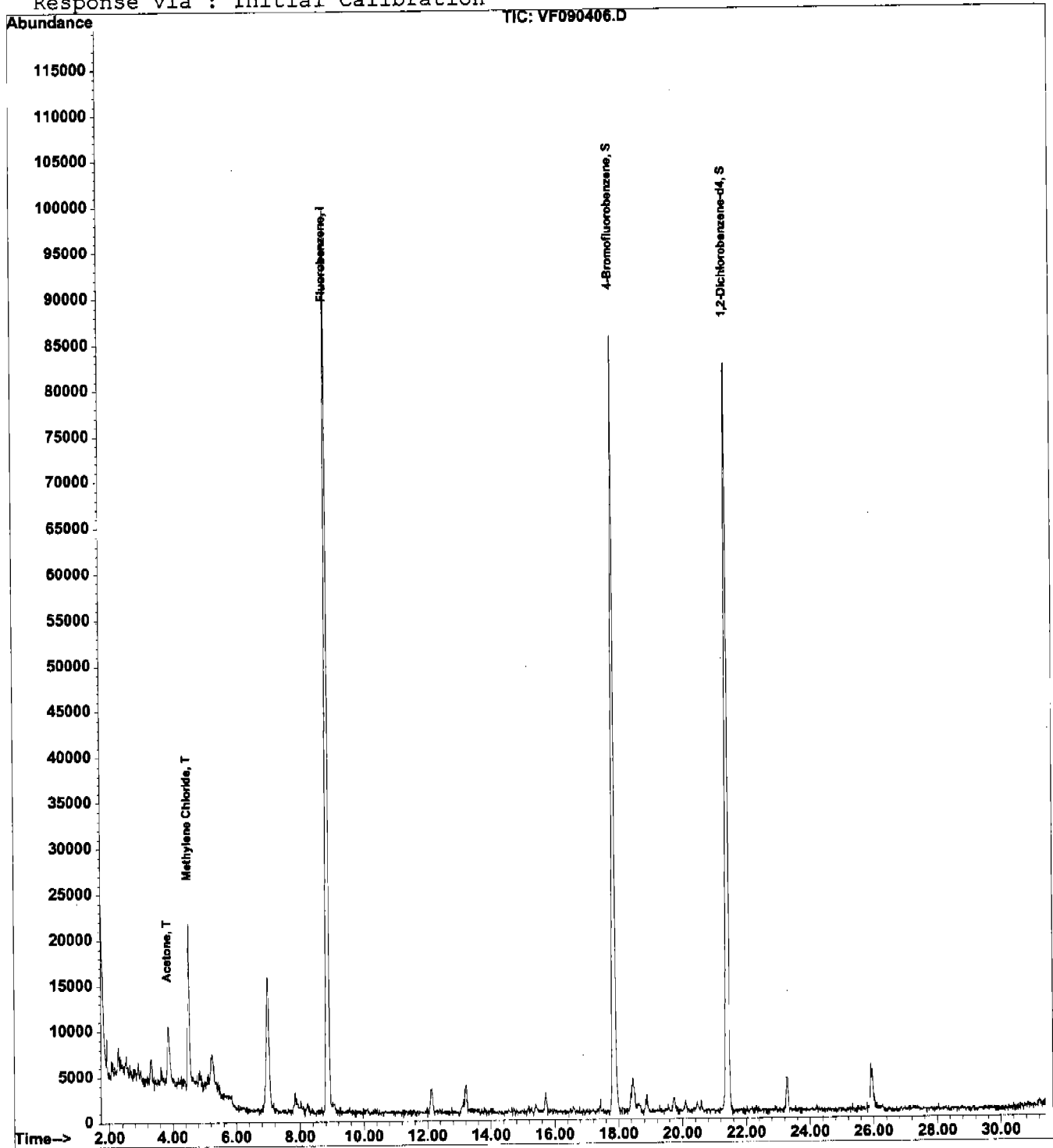
\_\_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound #: \_\_\_\_\_  
 \_\_\_\_ Peak integrated by software incorrectly.Compound #: \_\_\_\_\_  
 \_\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

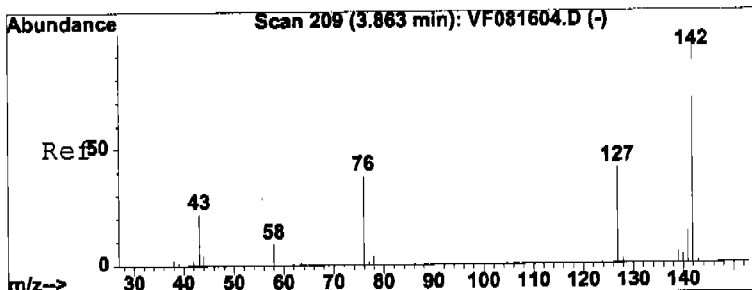
(#) = qualifier out of range (m) = manual integration  
 VF090406.D VF0816DW.M Fri Sep 10 16:57:30 2004

RPT1

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090406.D Vial: 6  
Acq On : 4 Sep 2004 1:01 am Operator: SAM  
Sample : S4436-17 Inst : VOA F  
Misc : 25mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Sep 7 11:35 2004 Quant Results File: VF0816DW.RES

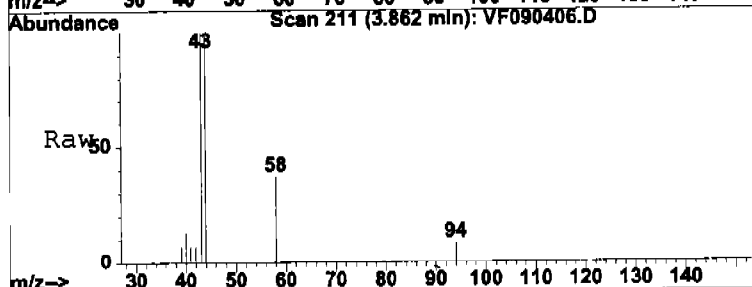
Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



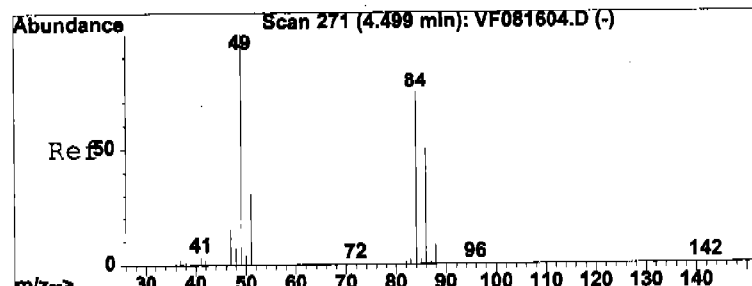
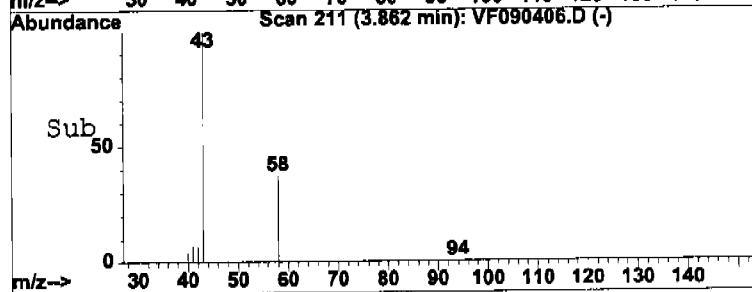
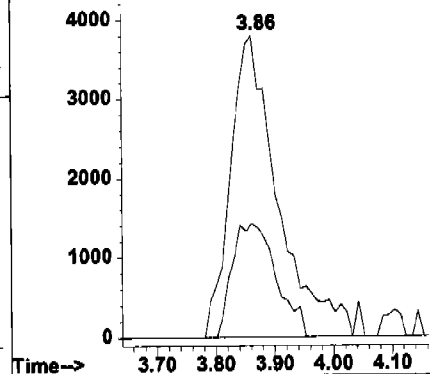


#12  
 Acetone  
 Concen: 7.40 ug/l  
 RT: 3.86 min Scan# 211  
 Delta R.T. 0.01 min  
 Lab File: VF090406.D  
 Acq: 4 Sep 2004 1:01 am

Tgt Ion: 43 Resp: 21158  
 Ion Ratio Lower Upper  
 43 100  
 58 37.3 31.4 47.2

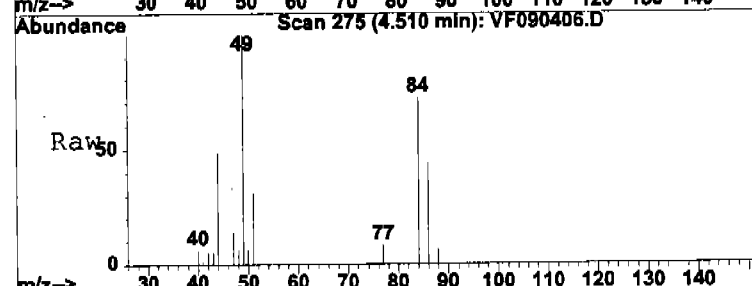


Abundance Ion 43.00 (42.70 to 43.70): VF09  
 Ion 58.00 (57.70 to 58.70): VF09

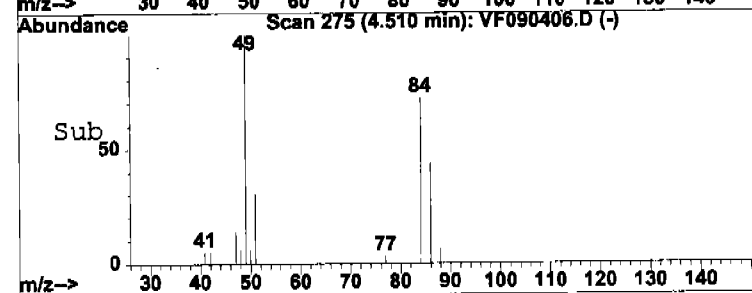
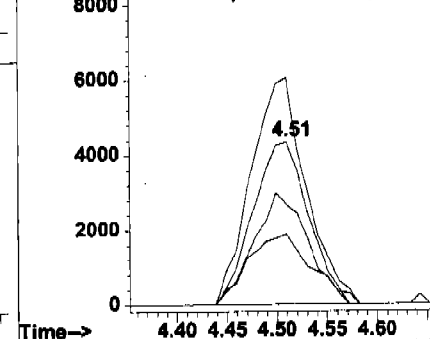


#14  
 Methylene Chloride  
 Concen: 0.31 ug/l  
 RT: 4.51 min Scan# 275  
 Delta R.T. 0.01 min  
 Lab File: VF090406.D  
 Acq: 4 Sep 2004 1:01 am

Tgt Ion: 84 Resp: 16848  
 Ion Ratio Lower Upper  
 84 100  
 49 139.8 108.6 163.0  
 51 43.7 0.0 84.4  
 86 61.6 54.2 81.2



Abundance Ion 84.00 (83.70 to 84.70): VF09  
 Ion 49.00 (48.70 to 49.70): VF09  
 Ion 51.00 (50.70 to 51.70): VF09  
 Ion 86.00 (85.70 to 86.70): VF09



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090406.D Vial: 6  
 Acq On : 4 Sep 2004 1:01 am Operator: SAM  
 Sample : S4436-17 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

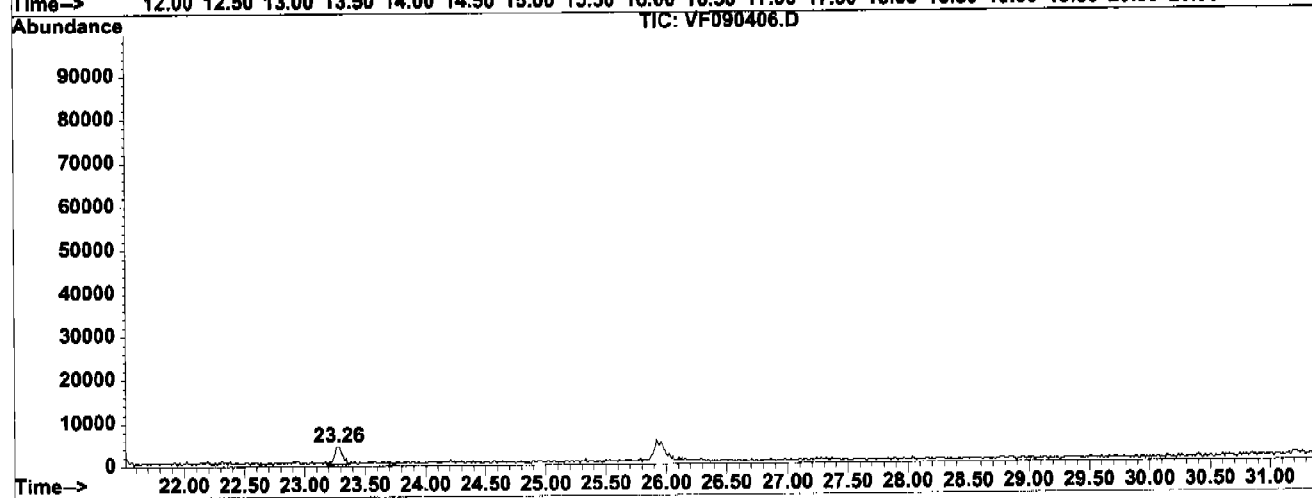
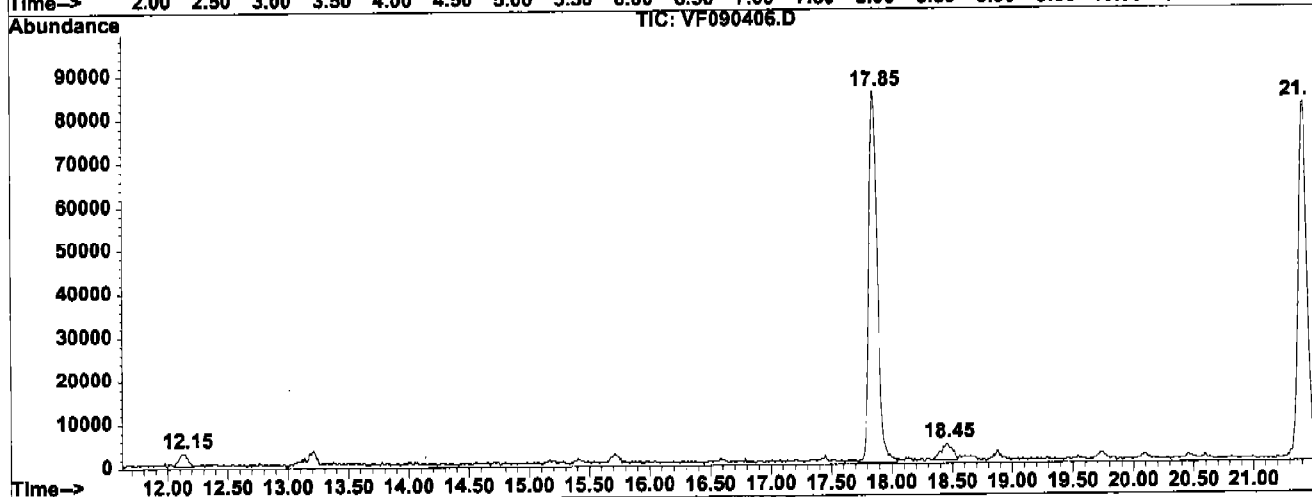
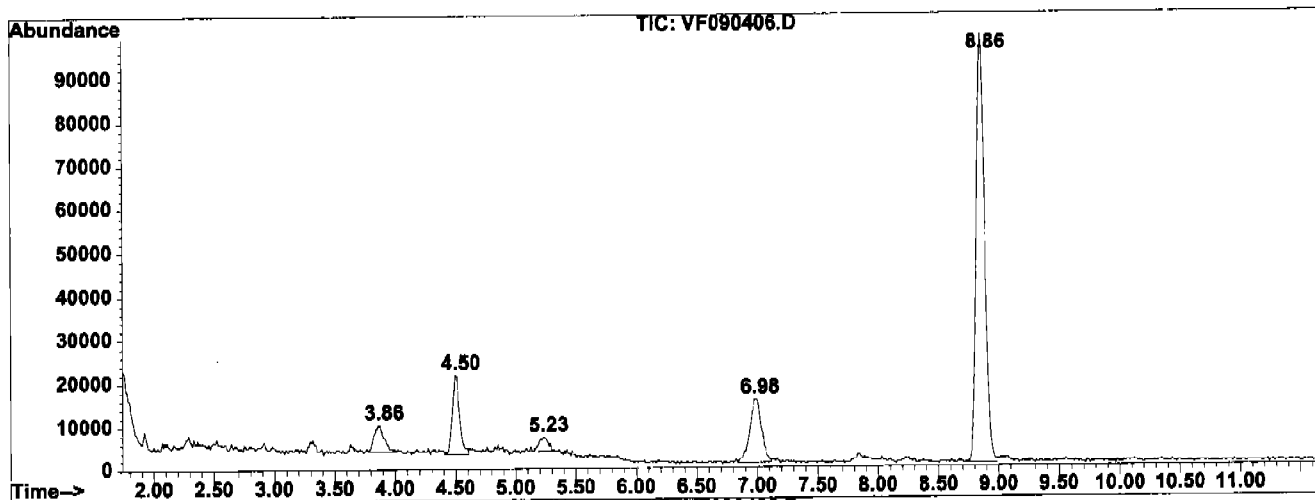
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	3.862	203	211	226	rBV3	6124	35300	7.36%	2.230%
2	4.499	265	274	284	rBV	18157	77197	16.10%	4.876%
3	5.227	338	346	356	rVV5	3199	18498	3.86%	1.168%
4	6.976	505	519	533	rBV2	14686	101424	21.16%	6.407%
5	8.855	690	704	717	rBV	98856	479427	100.00%	30.284%
6	12.148	1021	1030	1037	rVB3	2941	15396	3.21%	0.973%
7	17.850	1579	1591	1610	rBV2	85246	404040	84.28%	25.522%
8	18.453	1638	1650	1659	rBV5	3735	24712	5.15%	1.561%
9	21.417	1923	1941	1954	rBV2	81698	406953	84.88%	25.706%
10	23.263	2115	2123	2134	rBV5	3987	20153	4.20%	1.273%

Sum of corrected areas: 1583100

VF090406.D VF0816DW.M Fri Sep 10 16:57:38 2004 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090406.D  
Operator : SAM  
Acquired : 4 Sep 2004 1:01 am using AcqMethod VF\_VOA  
Instrument : VOA F  
Sample Name: S4436-17  
Misc Info : 25mL  
Vial Number: 6  
Quant File :VF0816DW.RES (RTE Integrator)



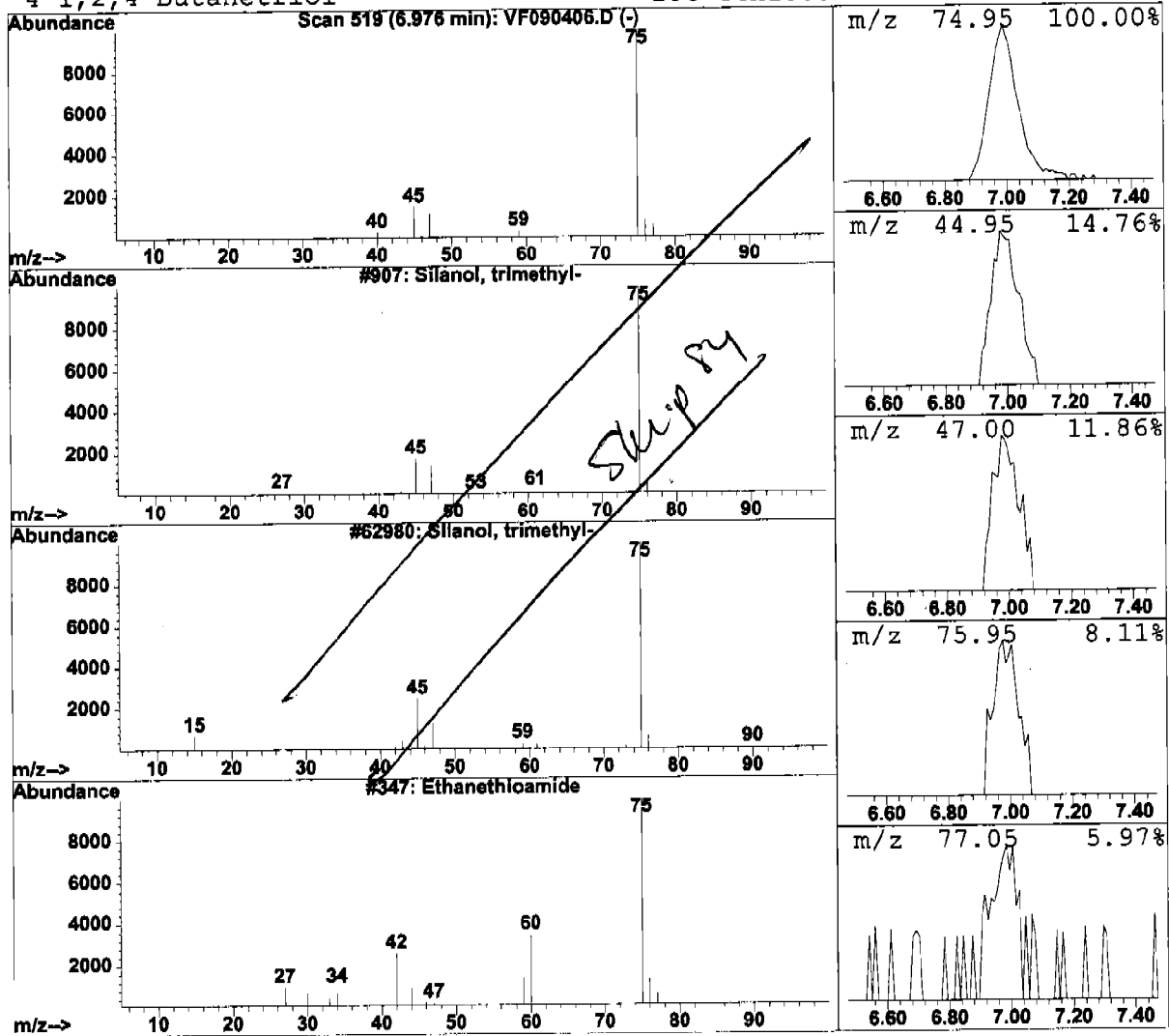
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090406.D Vial: 6  
 Acq On : 4 Sep 2004 1:01 am Operator: SAM  
 Sample : S4436-17 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 1 Silanol, trimethyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.98	0.21 ug/l	101424	Fluorobenzene	8.86

Hit# of	Tentative ID	MW	MolForm	CAS#	Qual
1	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	9
2	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	4
3	Ethanethioamide	75	C2H5NS	000062-55-5	3
4	1,2,4-Butanetriol	106	C4H10O3	003068-00-6	2







## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/30/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/31/2004
Client Sample ID:	TR2150	SDG No.:	S4436
Lab Sample ID:	S4436-20	Matrix:	WATER
Analytical Method:	524	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090717.D	1		9/7/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	0.09	U	1.0	0.09	ug/L
74-87-3	Chloromethane	0.11	U	1.0	0.11	ug/L
75-01-4	Vinyl Chloride	0.14	U	1.0	0.14	ug/L
74-83-9	Bromomethane	0.22	U	1.0	0.22	ug/L
75-00-3	Chloroethane	0.19	U	1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	0.09	U	1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	2.2	U	10	2.2	ug/L
60-29-7	Diethyl Ether	0.21	U	1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	0.16	U	1.0	0.16	ug/L
74-88-4	Iodomethane	0.14	U	1.0	0.14	ug/L
107-5-1	Allyl Chloride	0.18	U	1.0	0.18	ug/L
107-13-1	Acrylonitrile	0.94	U	2.0	0.94	ug/L
67-64-1	Acetone	4.4	JB	5.8	1.5	ug/L
75-15-0	Carbon disulfide	0.18	U	1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	0.37	U	1.0	0.37	ug/L
79-20-9	Methyl acrylate	0.17	U	1.0	0.17	ug/L
75-09-2	Methylene Chloride	0.5	JB	1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.94	U	5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	0.22	U	1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	0.20	U	1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	6.1		1.0	0.24	ug/L
67-66-3	Chloroform	0.22	U	1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	1.4	U	2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L
108-20-3	Isopropyl Ether	0.21	U	1.0	0.21	ug/L
107-12-0	Propionitrile	3.3	U	10	3.3	ug/L
71-43-2	Benzene	0.7	J	1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	0.24	U	1.0	0.24	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/30/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>TR2150</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-20</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090717.D</b>	<b>1</b>		<b>9/7/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	0.21	U	1.0	0.21	ug/L
126-98-7	Methacrylonitrile	0.33	U	1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	0.78	U	2.4	0.78	ug/L
109-69-3	1-Chlorobutane	0.22	U	1.0	0.22	ug/L
74-95-3	Dibromomethane	0.24	U	1.0	0.24	ug/L
75-27-4	Bromodichloromethane	0.20	U	1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	1.0	U	5.0	1.0	ug/L
80-62-6	Methyl methacrylate	0.53	U	2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	0.25	U	1.0	0.25	ug/L
108-88-3	Toluene	0.5	J	1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L
591-78-6	2-Hexanone	1.1	U	5.0	1.1	ug/L
124-48-1	Dibromochloromethane	0.17	U	1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L
127-18-4	Tetrachloroethene	0.34	U	1.0	0.34	ug/L
108-90-7	Chlorobenzene	0.21	U	1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L
67-72-1	Hexachloroethane	0.20	U	1.0	0.20	ug/L
100-41-4	Ethyl Benzene	0.21	U	1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	0.43	U	1.0	0.43	ug/L
95-47-6	o-Xylene	0.21	U	1.0	0.21	ug/L
100-42-5	Styrene	0.19	U	1.0	0.19	ug/L
75-25-2	Bromoform	0.22	U	1.0	0.22	ug/L
108-86-1	Bromobenzene	0.21	U	1.0	0.21	ug/L
98-82-8	Isopropylbenzene	0.20	U	1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	0.28	U	1.0	0.28	ug/L
103-61-5	N-propylbenzene	0.24	U	1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	0.50	U	1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.22	U	1.0	0.22	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/30/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>TR2150</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-20</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090717.D</b>	<b>1</b>		<b>9/7/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	0.22	U	1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	0.18	U	1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	0.20	U	1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	0.22	U	1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
104-51-8	n-Butylbenzene	0.20	U	1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.20	U	1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L
91-20-3	Naphthalene	0.17	U	1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.18	U	1.0	0.18	ug/L

**SURROGATES**

2199-69-1	1,2-Dichlorobenzene-d4	0.99	99 %	80 - 120	SPK: 1
460-00-4	4-Bromofluorobenzene	0.97	97 %	80 - 120	SPK: 1

**INTERNAL STANDARDS**

462-06-6	Fluorobenzene	246703	8.85		
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**TENTITIVE IDENTIFIED COMPOUNDS**

75285	Isobutane	0.69	J	1.94	ug/L
115117	1-Propene, 2-methyl-	6.7	J	2.09	ug/L
106989	1-Butene	0.80	J	2.19	ug/L
287230	Cyclobutane	1.4	J	2.30	ug/L
563462	1-Butene, 2-methyl-	1.4	J	2.55	ug/L
78784	Butane, 2-methyl-	1.3	J	2.67	ug/L
109671	1-Pentene	4.4	J	2.94	ug/L
627203	2-Pentene, (Z)-	0.77	J	3.19	ug/L
109682	2-Pentene	1.4	J	3.34	ug/L
2206237	3-Penten-1-yne	1.2	J	4.07	ug/L
760203	1-Pentene, 3-methyl-	2.9	J	4.22	ug/L
4461487	2-Pentene, 4-methyl-	0.62	J	4.44	ug/L

U = Not Detected

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N = Presumptive Evidence of a Compound



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/30/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/31/2004
Client Sample ID:	TR2150	SDG No.:	S4436
Lab Sample ID:	S4436-20	Matrix:	WATER
Analytical Method:	524	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF090717.D	1		9/7/2004	VF081604

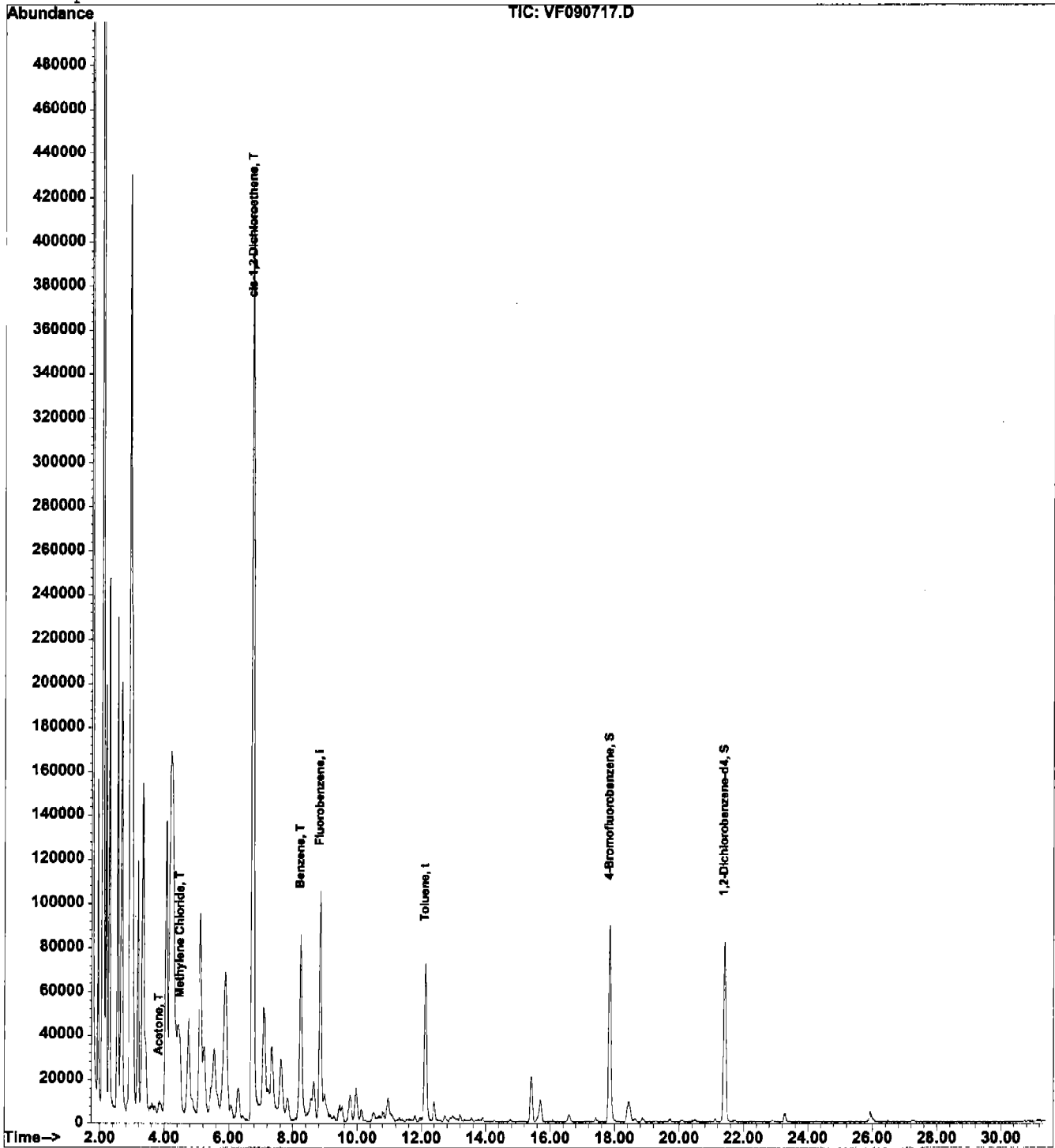
CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
96140	Pentane, 3-methyl-	0.56	J	4.75		ug/L
592416	1-Hexene	0.94	J	5.12		ug/L
592438	2-Hexene	0.89	J	5.90		ug/L

U = Not Detected  
RL = Reporting Limit  
MDL = Method Detection Limit  
E = Value Exceeds Calibration Range

J = Estimated Value  
B = Analyte Found in Associated Method Blank  
N = Presumptive Evidence of a Compound

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090717.D Vial: 8  
Acq On : 7 Sep 2004 10:15 pm Operator: SAM  
Sample : S4436-20 Inst : VOA F  
Misc : 25mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Sep 9 15:06 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090717.D Vial: 8  
 Acq On : 7 Sep 2004 10:15 pm Operator: SAM  
 Sample : S4436-20 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 9 15:06 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

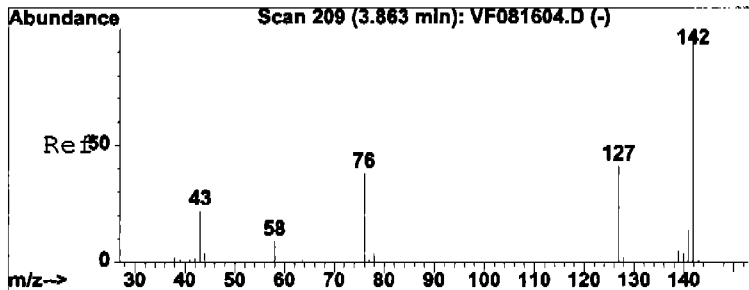
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.85	96	246703	1.00	ug/l	0.00
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.85	95	112385	0.97	ug/l	0.00
Spiked Amount	1.000		Recovery	=	97.00%	
63) 1,2-Dichlorobenzene-	21.41	152	63519	0.99	ug/l	0.00
Spiked Amount	1.000		Recovery	=	99.00%	
Target Compounds						
12) Acetone	3.86	43	13529	4.41	ug/l	98
14) Methylene Chloride	4.51	84	29990	0.51	ug/l #	55
19) cis-1,2-Dichloroethe	6.75	96	455250	6.06	ug/l	85
30) Benzene	8.24	78	186414	0.71	ug/l	99
44) Toluene	12.12	92	85496	0.50	ug/l	97

Analyst Signature: Sy Analyst Name: Sy Date: 09/10/04

-----REASONS FOR MANUAL INTEGRATIONS-----

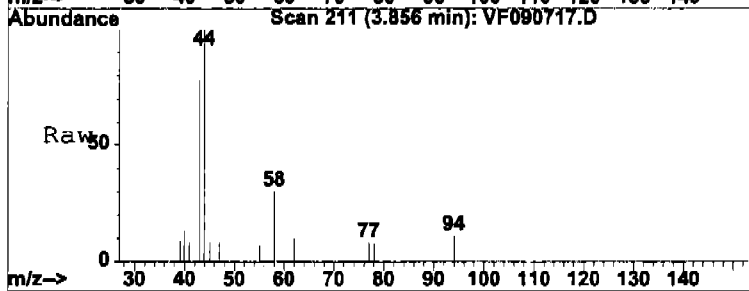
\_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly.Compound #: \_\_\_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

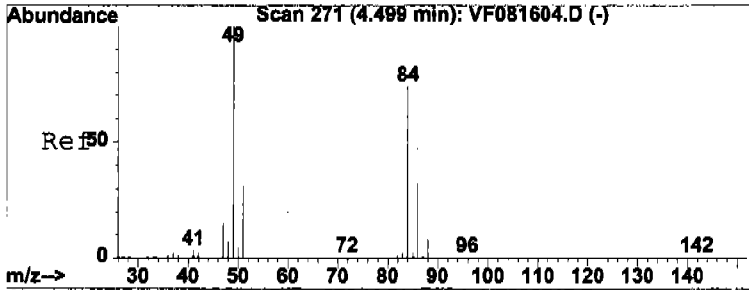
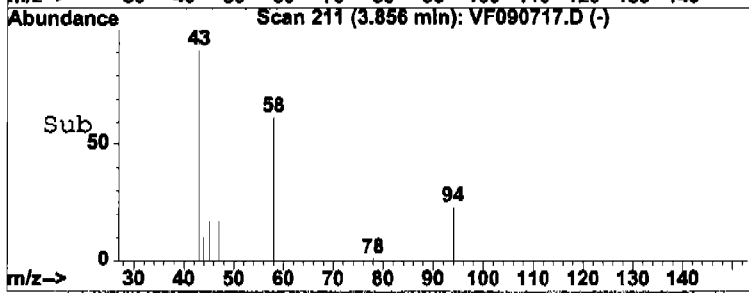
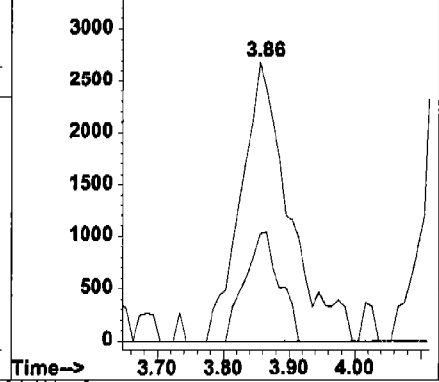


#12  
 Acetone  
 Concen: 4.41 ug/l  
 RT: 3.86 min Scan# 211  
 Delta R.T. 0.01 min  
 Lab File: VF090717.D  
 Acq: 7 Sep 2004 10:15 pm

Tgt Ion: 43 Resp: 13529  
 Ion Ratio Lower Upper  
 43 100  
 58 37.9 31.4 47.2

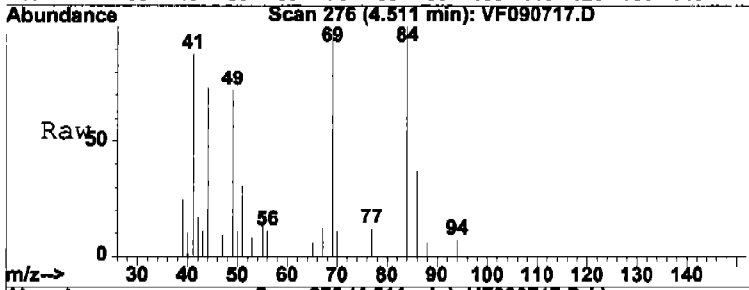


Abundance Ion 43.00 (42.70 to 43.70): VF09  
 Ion 58.00 (57.70 to 58.70): VF09

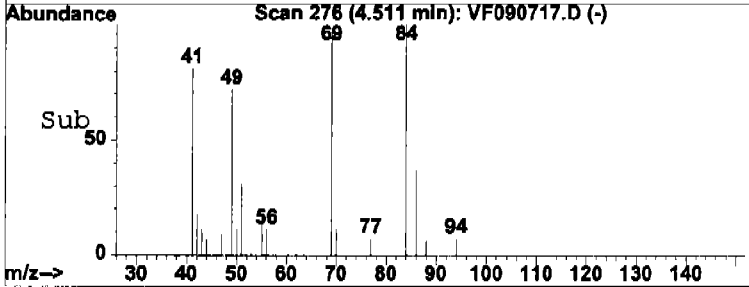
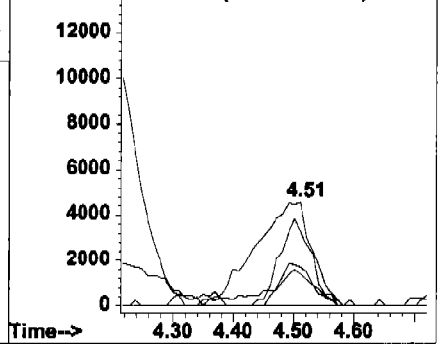


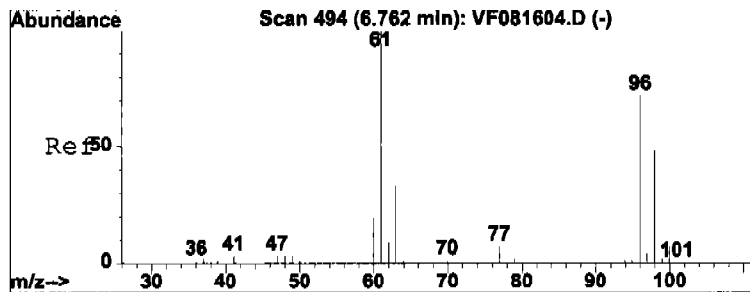
#14  
 Methylene Chloride  
 Concen: 0.51 ug/l  
 RT: 4.51 min Scan# 276  
 Delta R.T. 0.01 min  
 Lab File: VF090717.D  
 Acq: 7 Sep 2004 10:15 pm

Tgt Ion: 84 Resp: 29990  
 Ion Ratio Lower Upper  
 84 100  
 49 71.9 108.6 163.0#  
 51 24.7 0.0 84.4  
 86 36.9 54.2 81.2#



Abundance Ion 84.00 (83.70 to 84.70): VF09  
 Ion 49.00 (48.70 to 49.70): VF09  
 Ion 51.00 (50.70 to 51.70): VF09  
 Ion 86.00 (85.70 to 86.70): VF09

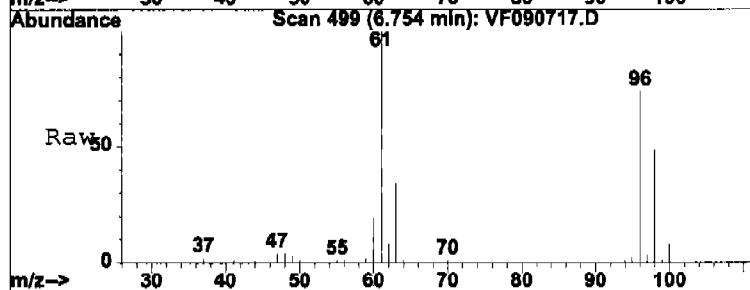




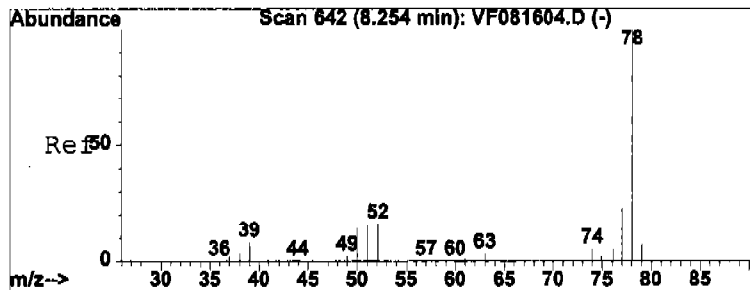
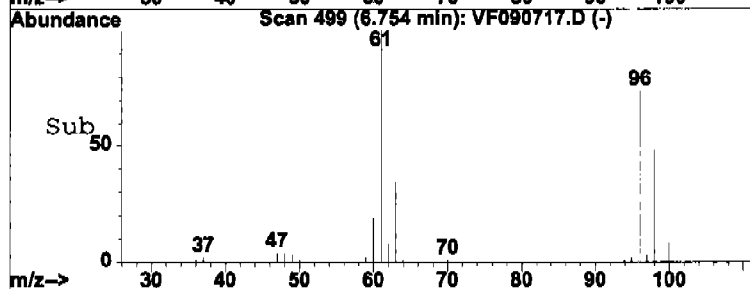
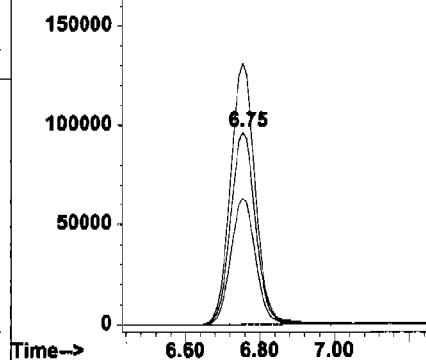
#19  
 cis-1,2-Dichloroethene  
 Concen: 6.06 ug/l  
 RT: 6.75 min Scan# 499  
 Delta R.T. 0.00 min  
 Lab File: VF090717.D  
 Acq: 7 Sep 2004 10:15 pm

Tgt Ion: 96 Resp: 455250

Ion	Ratio	Lower	Upper
96	100		
61	135.1	0.0	403.7
98	64.6	32.9	98.6



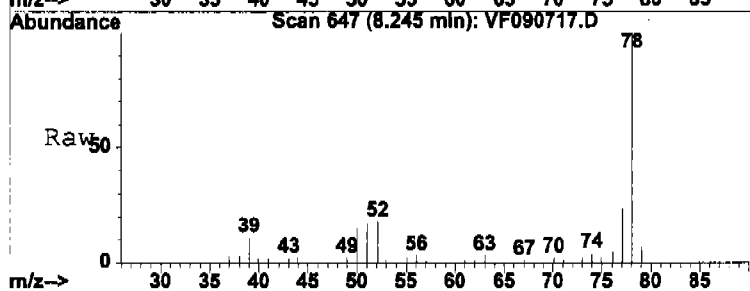
Abundance  
 Ion 96.00 (95.70 to 96.70): VF09  
 Ion 61.00 (60.70 to 61.70): VF09  
 Ion 98.00 (97.70 to 98.70): VF09



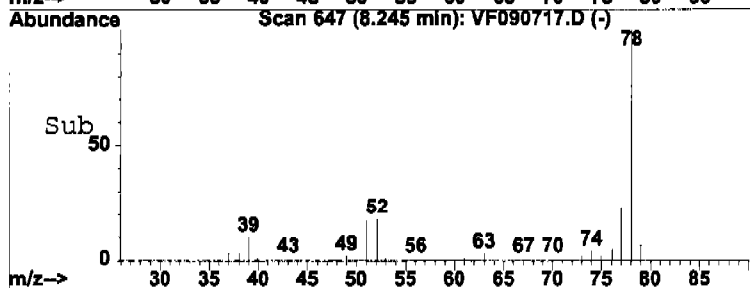
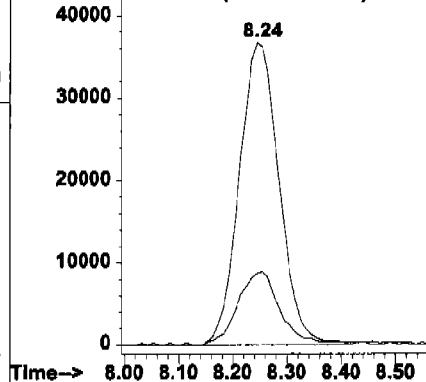
#30  
 Benzene  
 Concen: 0.71 ug/l  
 RT: 8.24 min Scan# 647  
 Delta R.T. 0.00 min  
 Lab File: VF090717.D  
 Acq: 7 Sep 2004 10:15 pm

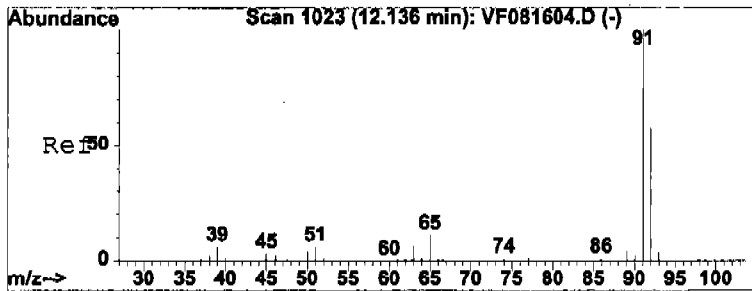
Tgt Ion: 78 Resp: 186414

Ion	Ratio	Lower	Upper
78	100		
77	23.8	18.6	27.8



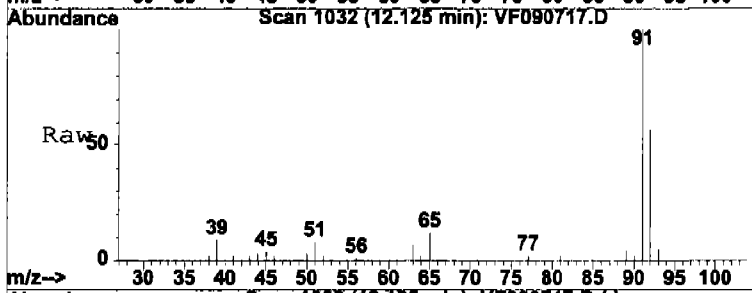
Abundance  
 Ion 78.10 (77.80 to 78.80): VF09  
 Ion 77.00 (76.70 to 77.70): VF09



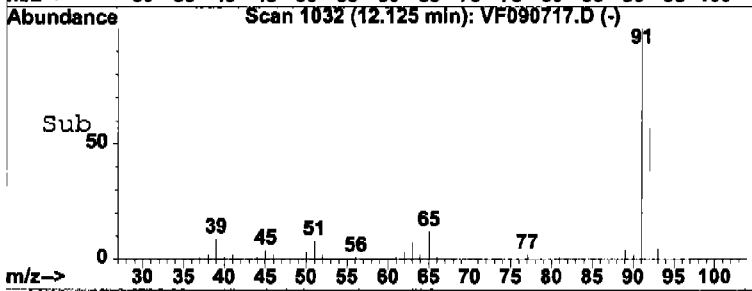
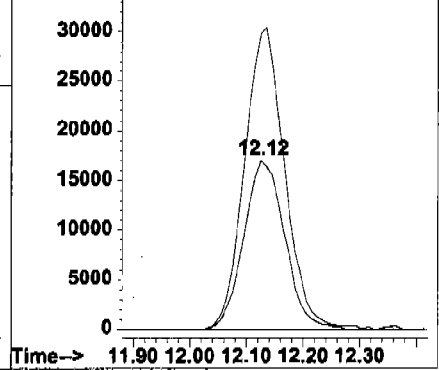


#44  
 Toluene  
 Concen: 0.50 ug/l  
 RT: 12.12 min Scan# 1032  
 Delta R.T. -0.00 min  
 Lab File: VF090717.D  
 Acq: 7 Sep 2004 10:15 pm

Tgt Ion: 92 Resp: 85496  
 Ion Ratio Lower Upper  
 92 100  
 91 174.6 136.2 204.4



Abundance Ion 92.00 (91.70 to 92.70): VF09  
 35000 Ion 91.00 (90.70 to 91.70): VF09





Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090717.D Vial: 8  
 Acq On : 7 Sep 2004 10:15 pm Operator: SAM  
 Sample : S4436-20 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

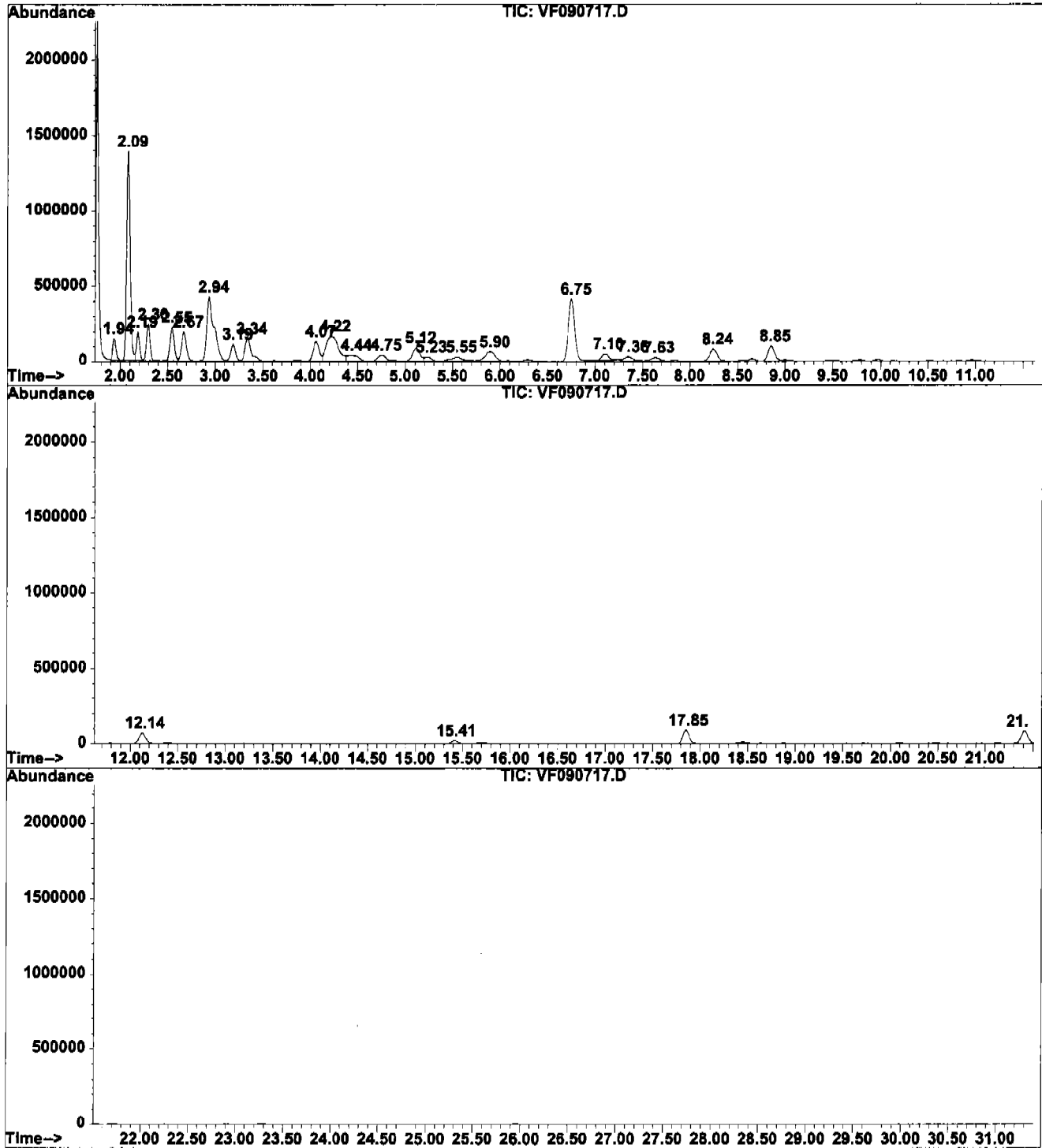
Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.937	17	21	30	rVB	146468	353554	10.32%	1.916%
2	2.086	30	36	43	rVV2	1385997	3424733	100.00%	18.556%
3	2.189	43	46	51	rVV	189834	409250	11.95%	2.217%
4	2.301	51	57	72	rVB	240497	616014	17.99%	3.338%
5	2.552	72	82	88	rBV	222195	726054	21.20%	3.934%
6	2.672	88	94	108	rVB	194892	685047	20.00%	3.712%
7	2.938	108	120	138	rBV2	424366	2245330	65.56%	12.166%
8	3.190	138	145	152	rVV	113031	395976	11.56%	2.145%
9	3.340	152	160	179	rVB	149278	700149	20.44%	3.794%
10	4.066	222	232	238	rBV	131982	599363	17.50%	3.247%
11	4.218	238	247	263	rVV5	163918	1502968	43.89%	8.143%
12	4.441	263	269	287	rVB7	40257	319992	9.34%	1.734%
13	4.753	287	300	324	rBV3	42875	286621	8.37%	1.553%
14	5.118	325	336	343	rBV2	90698	483810	14.13%	2.621%
15	5.230	343	347	359	rVB3	29781	149352	4.36%	0.809%
16	5.550	359	379	397	rBV7	28744	257365	7.51%	1.394%
17	5.901	397	414	427	rVB4	62991	459006	13.40%	2.487%
18	6.754	487	499	519	rBV	415507	1998388	58.35%	10.828%
19	7.096	522	533	543	rBV4	44561	239307	6.99%	1.297%
20	7.355	550	559	574	rVB5	28140	169703	4.96%	0.919%
21	7.627	574	586	599	rVB6	24089	158374	4.62%	0.858%
22	8.245	633	647	663	rBV2	83871	464035	13.55%	2.514%
23	8.850	697	707	717	rBV	102538	514142	15.01%	2.786%
24	12.135	1022	1033	1048	rVB	71787	350639	10.24%	1.900%
25	15.412	1345	1357	1371	rBV2	20847	103168	3.01%	0.559%
26	17.855	1589	1599	1614	rBV2	89462	426126	12.44%	2.309%
27	21.412	1933	1949	1967	rBV2	82137	418033	12.21%	2.265%

Sum of corrected areas: 18456499

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090717.D  
 Operator : SAM  
 Acquired : 7 Sep 2004 10:15 pm using AcqMethod VF\_VOA  
 Instrument : VOA F  
 Sample Name: S4436-20  
 Misc Info : 25mL  
 Vial Number: 8  
 Quant File :VF0816DW.RES (RTE Integrator)



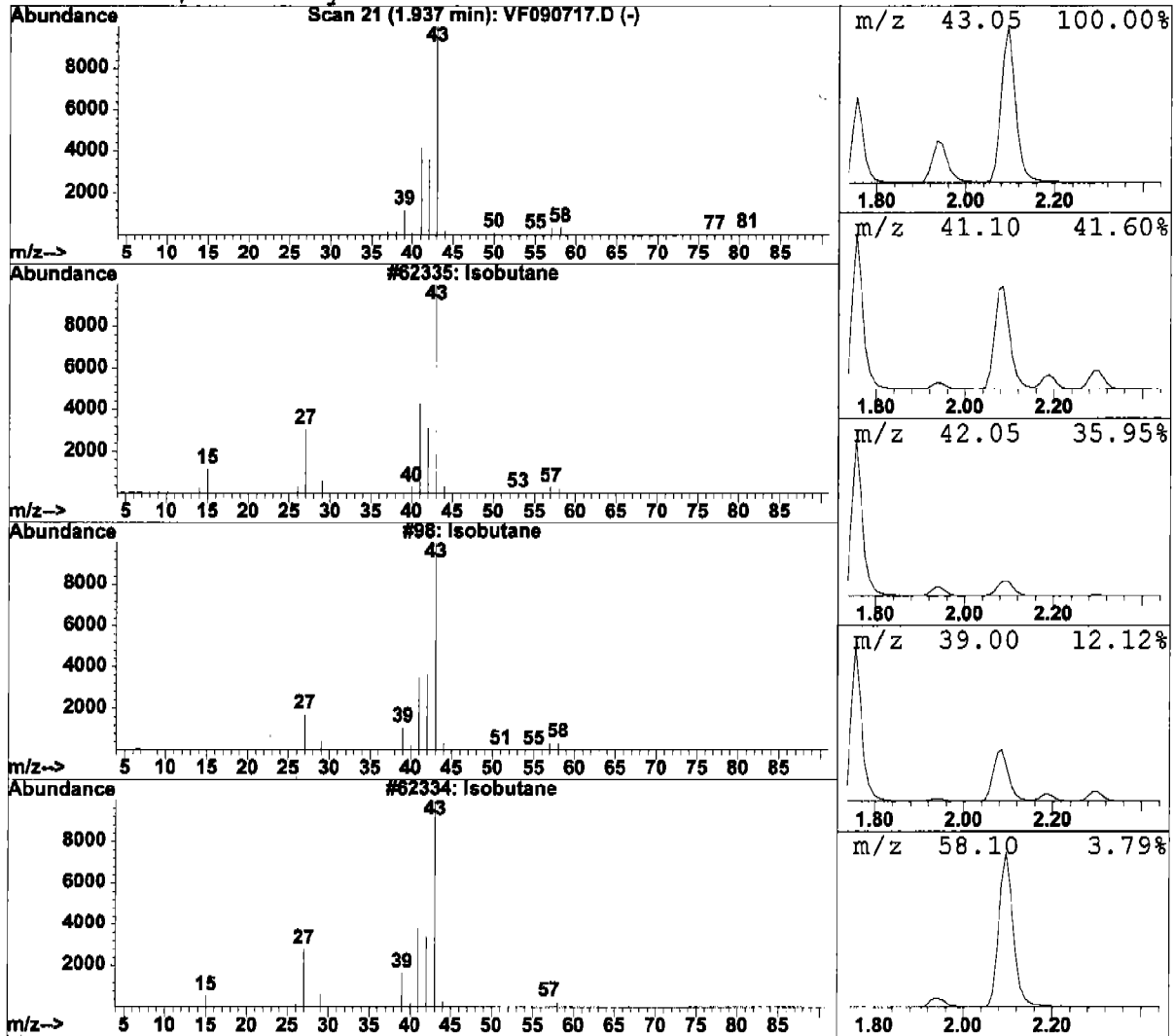
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090717.D Vial: 8  
 Acq On : 7 Sep 2004 10:15 pm Operator: SAM  
 Sample : S4436-20 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 1 Isobutane Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.94	0.69 ug/l	353554	Fluorobenzene	8.85

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Isobutane	58	C4H10	000075-28-5	64
2			Isobutane	58	C4H10	000075-28-5	64
3			Isobutane	58	C4H10	000075-28-5	56
4			Oxirane, trimethyl-	86	C5H10O	005076-19-7	9



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090717.D Vial: 8  
 Acq On : 7 Sep 2004 10:15 pm Operator: SAM  
 Sample : S4436-20 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

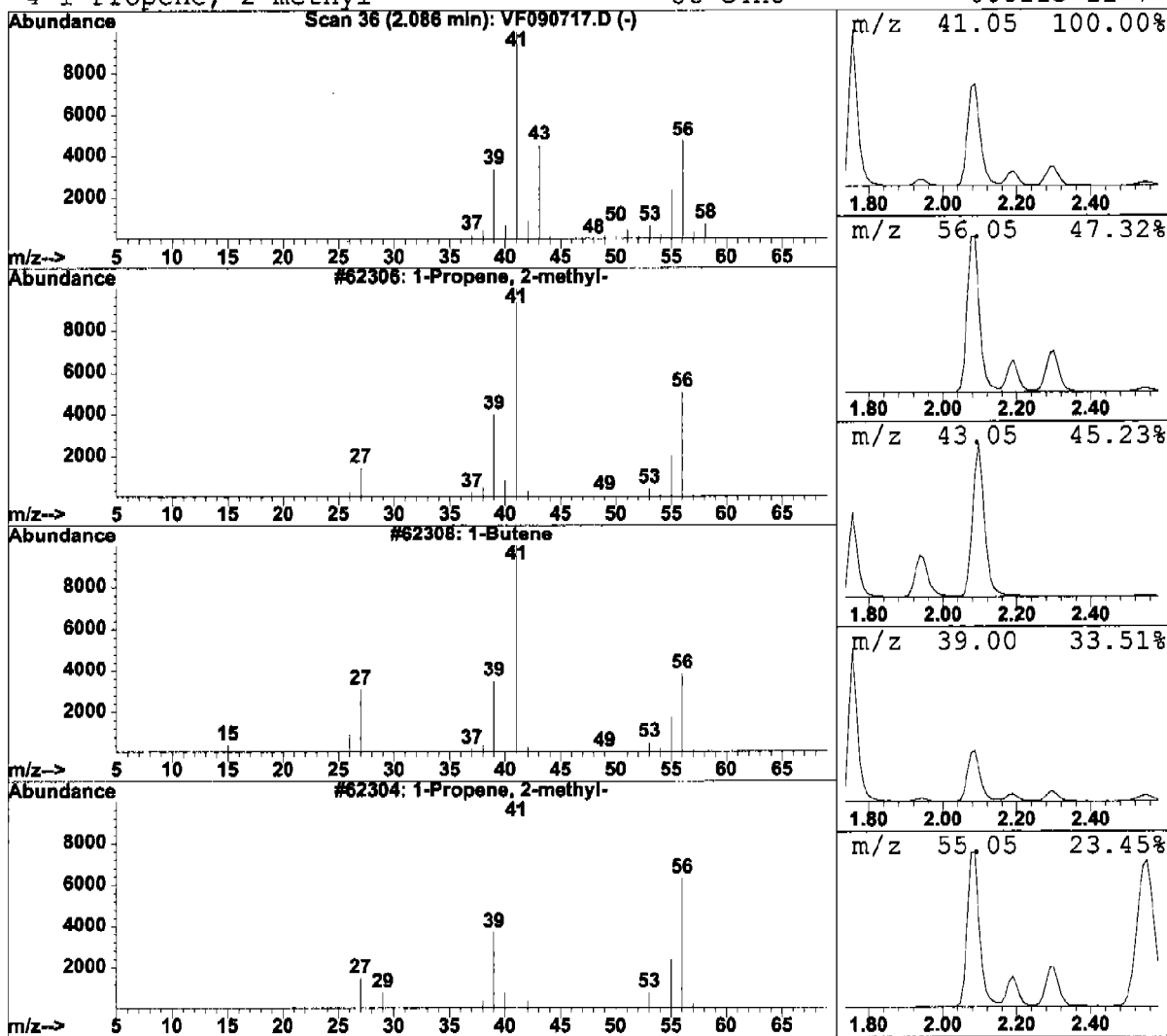
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 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 2 1-Propene, 2-methyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.09	6.66 ug/l	3424730	Fluorobenzene	8.85

Hit#	of 5	Tentative ID	MW	MolForm	CAS#	Qual
1		1-Propene, 2-methyl-	56	C4H8	000115-11-7	62
2		1-Butene	56	C4H8	000106-98-9	58
3		1-Propene, 2-methyl-	56	C4H8	000115-11-7	58
4		1-Propene, 2-methyl-	56	C4H8	000115-11-7	58



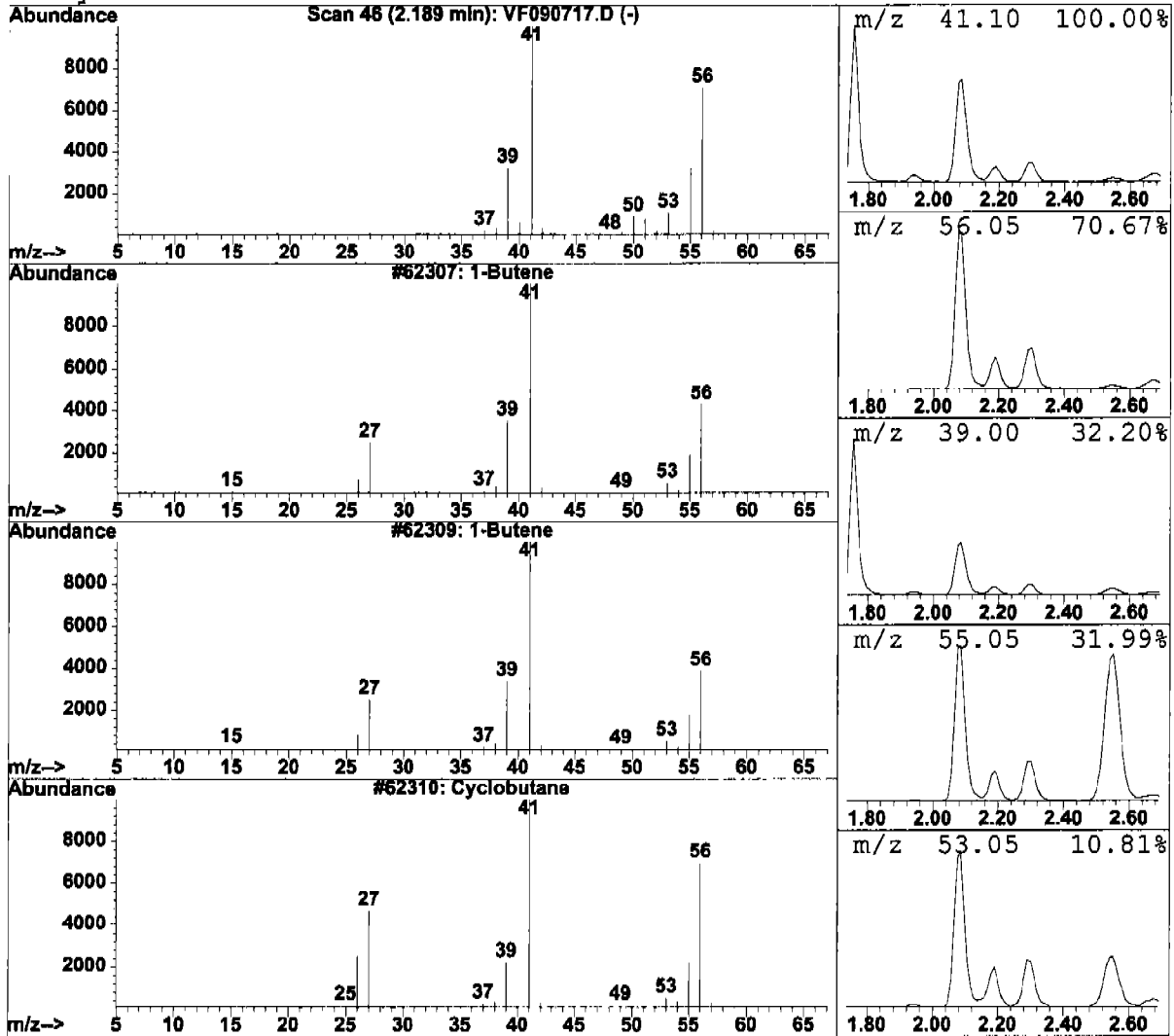
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 Acq On : 7 Sep 2004 10:15 pm Operator: SAM  
 Sample : S4436-20 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 3 1-Butene Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.19	0.80 ug/l	409250	Fluorobenzene	8.85

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	1-Butene	56	C4H8	000106-98-9	72
2		1-Butene	56	C4H8	000106-98-9	72
3		Cyclobutane	56	C4H8	000287-23-0	64
4		Cyclobutane	56	C4H8	000287-23-0	64



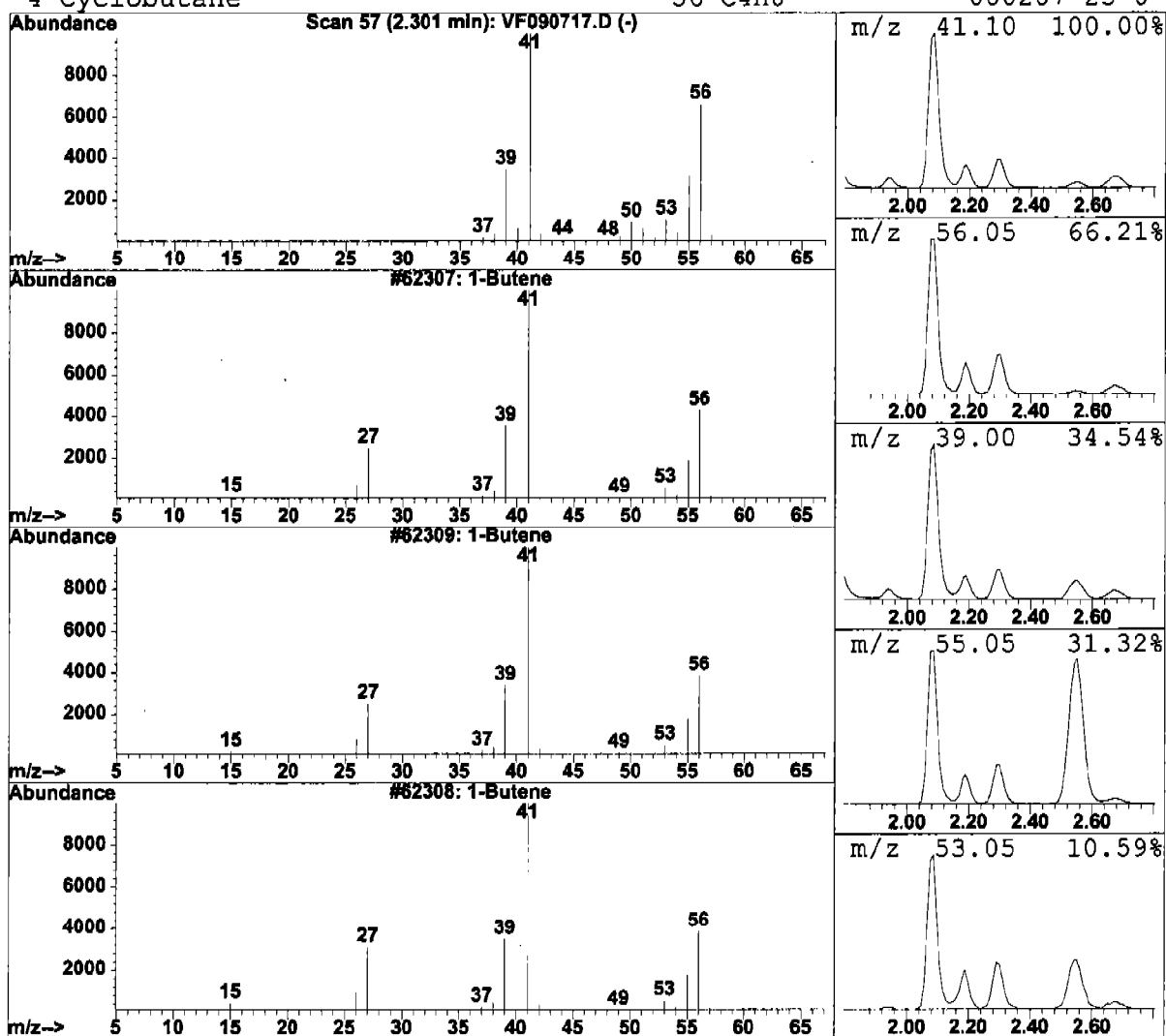
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 Acq On : 7 Sep 2004 10:15 pm Operator: SAM  
 Sample : S4436-20 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 4 1-Butene Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.30	1.20 ug/l	616014	Fluorobenzene	8.85

Hit#	of 5	Tentative ID	MW	MolForm	CAS#	Qual
1		1-Butene	56	C4H8	000106-98-9	81
2		1-Butene	56	C4H8	000106-98-9	81
3		1-Butene	56	C4H8	000106-98-9	74
4		Cyclobutane	56	C4H8	000287-23-0	72



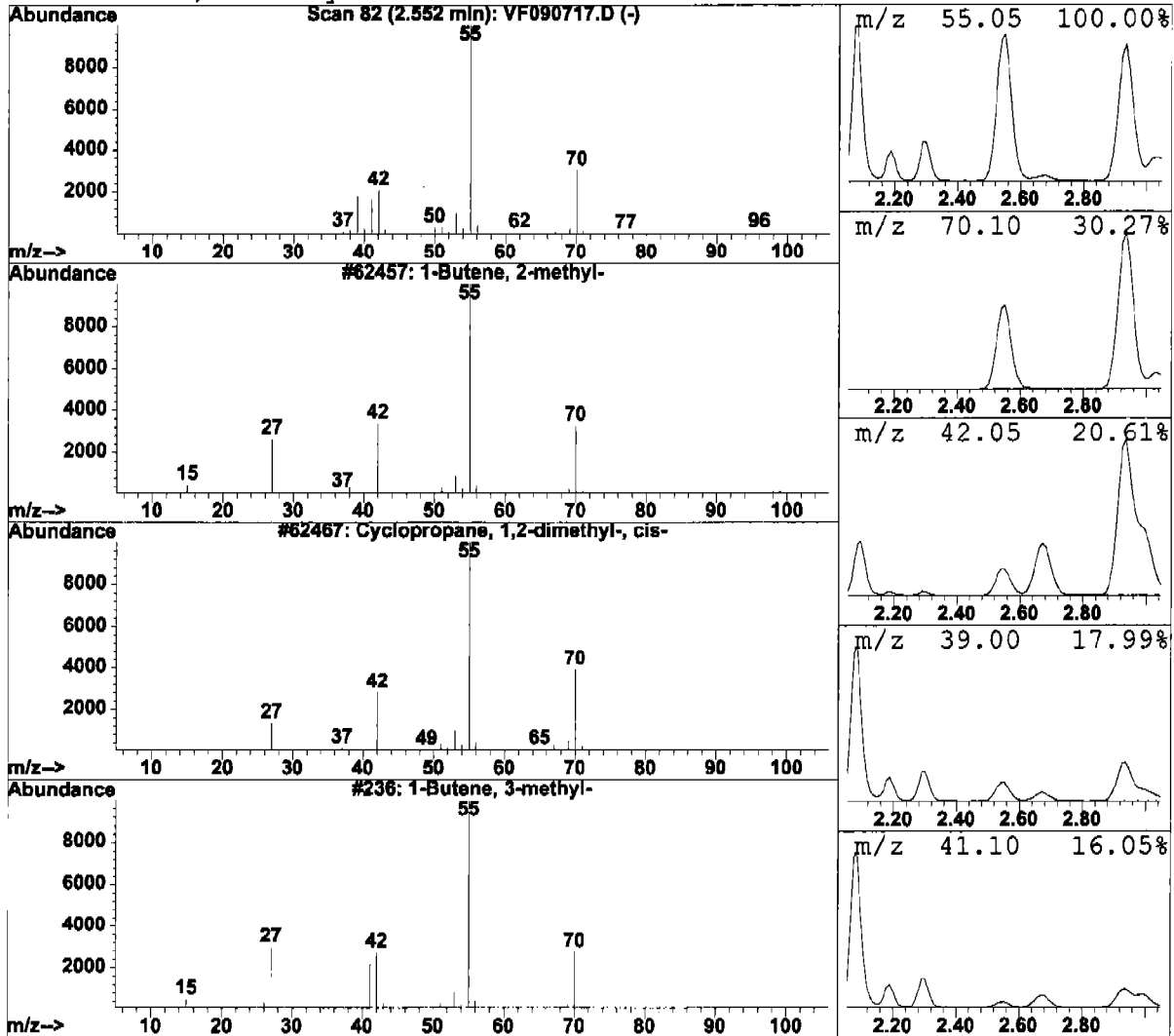
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 Acq On : 7 Sep 2004 10:15 pm Operator: SAM  
 Sample : S4436-20 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 5 1-Butene, 2-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.55	1.41 ug/l	726054	Fluorobenzene	8.85

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Butene, 2-methyl-	70	C5H10	000563-46-2	87
2	Cyclopropane, 1,2-dimethyl-, cis-	70	C5H10	000930-18-7	83
3	1-Butene, 3-methyl-	70	C5H10	000563-45-1	83
4	2-Butene, 2-methyl-	70	C5H10	000513-35-9	80



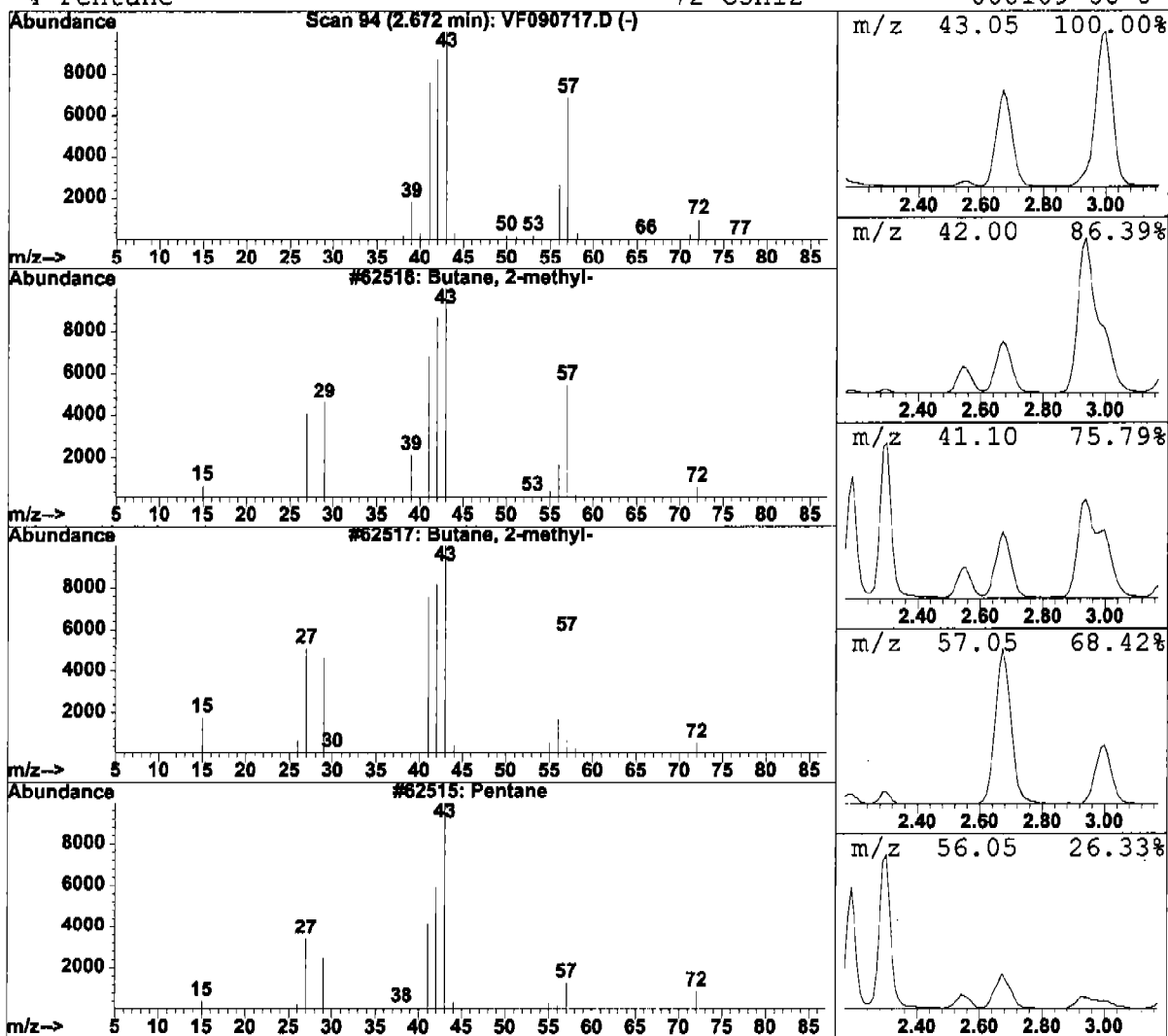
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 Acq On : 7 Sep 2004 10:15 pm Operator: SAM  
 Sample : S4436-20 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 6 Butane, 2-methyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.67	1.33 ug/l	685047	Fluorobenzene	8.85

Hit#	of 5	Tentative ID	MW	MolForm	CAS#	Qual
1		Butane, 2-methyl-	72	C5H12	000078-78-4	91
2		Butane, 2-methyl-	72	C5H12	000078-78-4	83
3		Pentane	72	C5H12	000109-66-0	64
4		Pentane	72	C5H12	000109-66-0	50





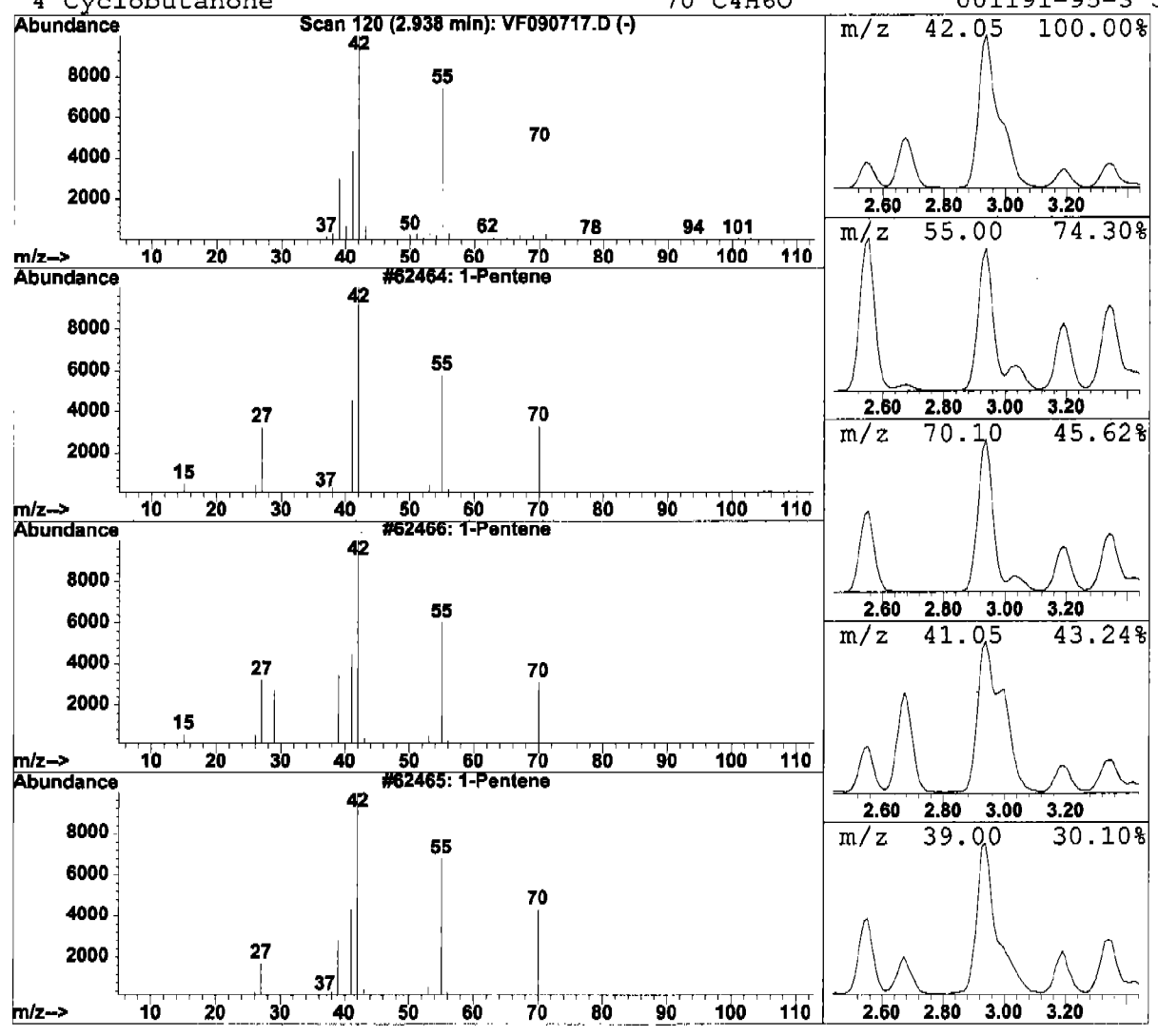
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 Sample : S4436-20 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 7 1-Pentene Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.94	4.37 ug/l	2245330	Fluorobenzene	8.85

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			1-Pentene	70	C5H10	000109-67-1	91
2			1-Pentene	70	C5H10	000109-67-1	86
3			1-Pentene	70	C5H10	000109-67-1	83
4			Cyclobutanone	70	C4H6O	001191-95-3	59



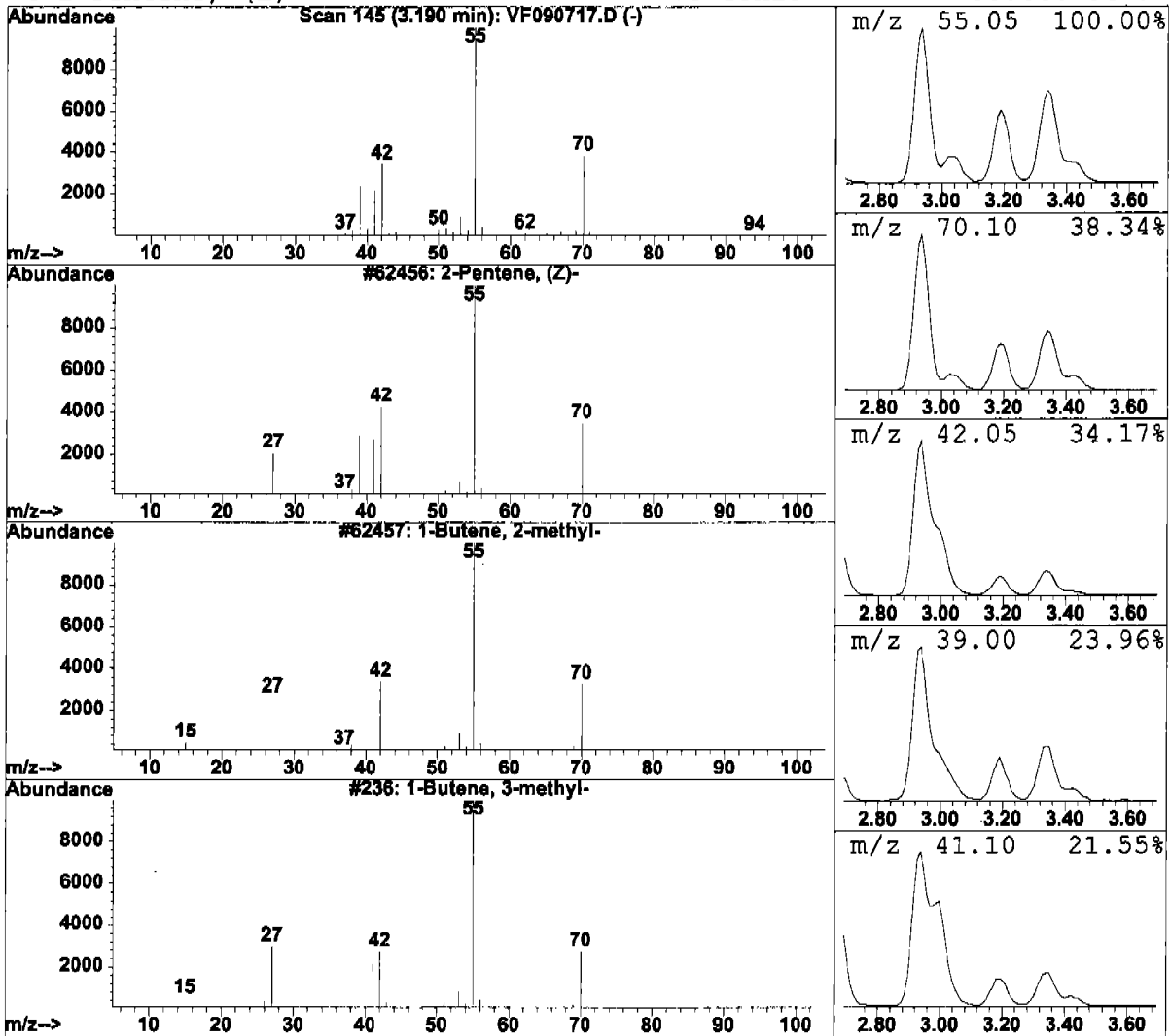
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 Acq On : 7 Sep 2004 10:15 pm Operator: SAM  
 Sample : S4436-20 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 8 2-Pentene, (Z)- Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.19	0.77 ug/l	395976	Fluorobenzene	8.85

Hit#	of 5	Tentative ID	MW	MolForm	CAS#	Qual
1		2-Pentene, (Z)-	70	C5H10	000627-20-3	91
2		1-Butene, 2-methyl-	70	C5H10	000563-46-2	90
3		1-Butene, 3-methyl-	70	C5H10	000563-45-1	90
4		2-Pentene, (E)-	70	C5H10	000646-04-8	87



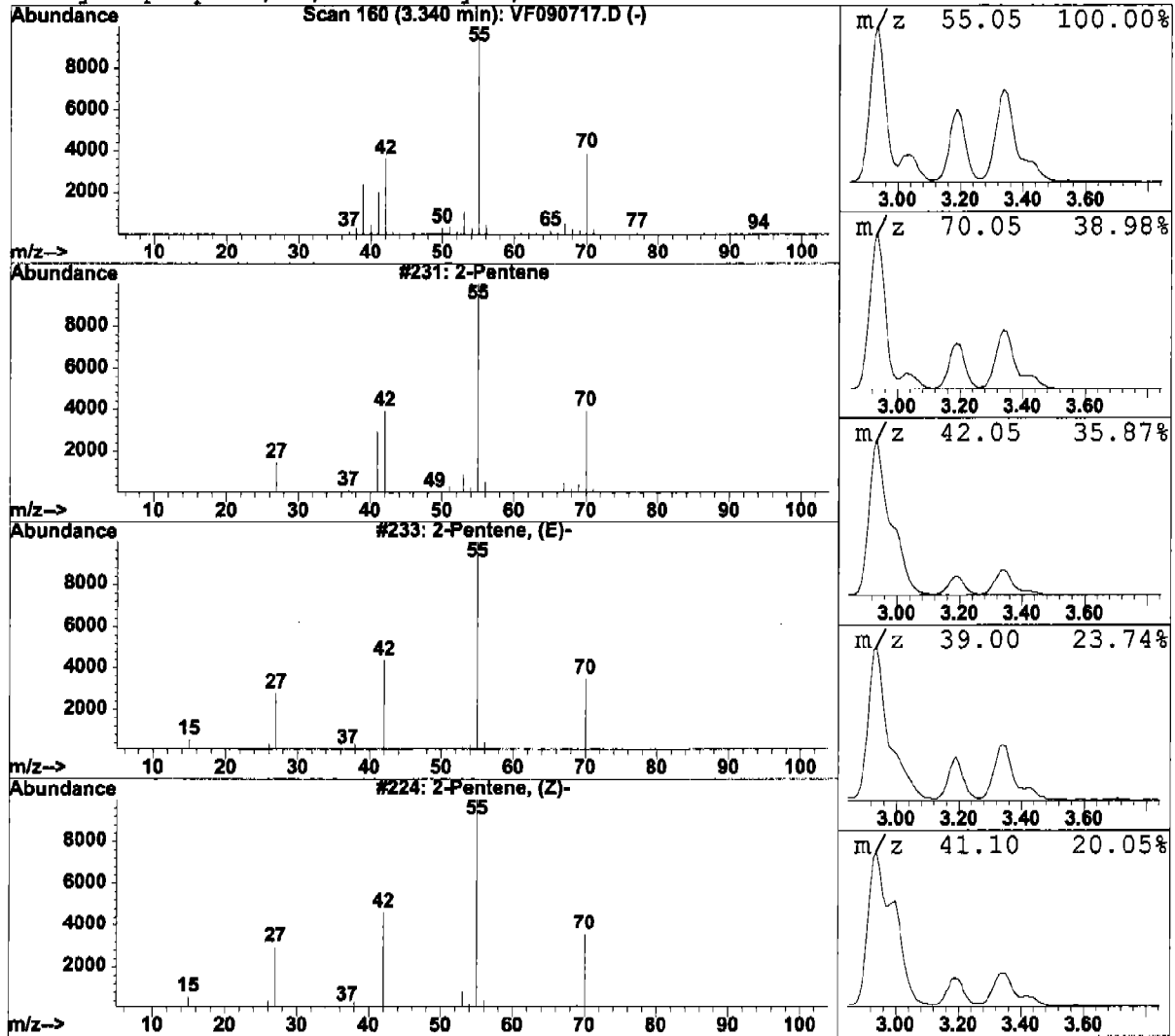
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 Acq On : 7 Sep 2004 10:15 pm Operator: SAM  
 Sample : S4436-20 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 9 2-Pentene Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.34	1.36 ug/l	700149	Fluorobenzene	8.85

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			2-Pentene	70	C5H10	000109-68-2	91
2			2-Pentene, (E)-	70	C5H10	000646-04-8	91
3			2-Pentene, (Z)-	70	C5H10	000627-20-3	91
4			Cyclopropane, 1,2-dimethyl-, cis-	70	C5H10	000930-18-7	91



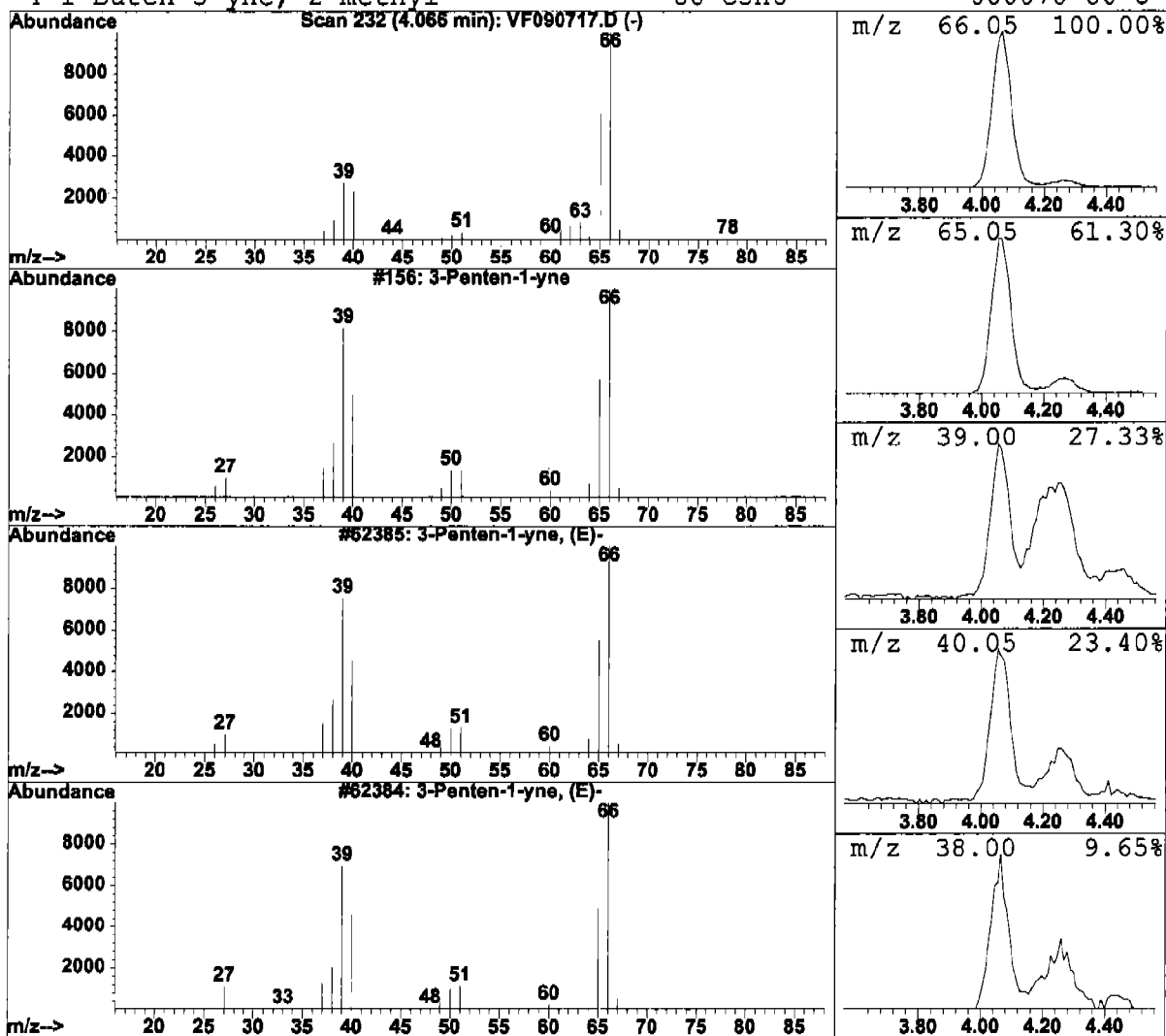
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 Acq On : 7 Sep 2004 10:15 pm Operator: SAM  
 Sample : S4436-20 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 10 3-Penten-1-yne Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.07	1.17 ug/l	599363	Fluorobenzene	8.85

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	3-Penten-1-yne	66	C5H6	002206-23-7	83
2		3-Penten-1-yne, (E)-	66	C5H6	002004-69-5	83
3		3-Penten-1-yne, (E)-	66	C5H6	002004-69-5	83
4		1-Buten-3-yne, 2-methyl-	66	C5H6	000078-80-8	83



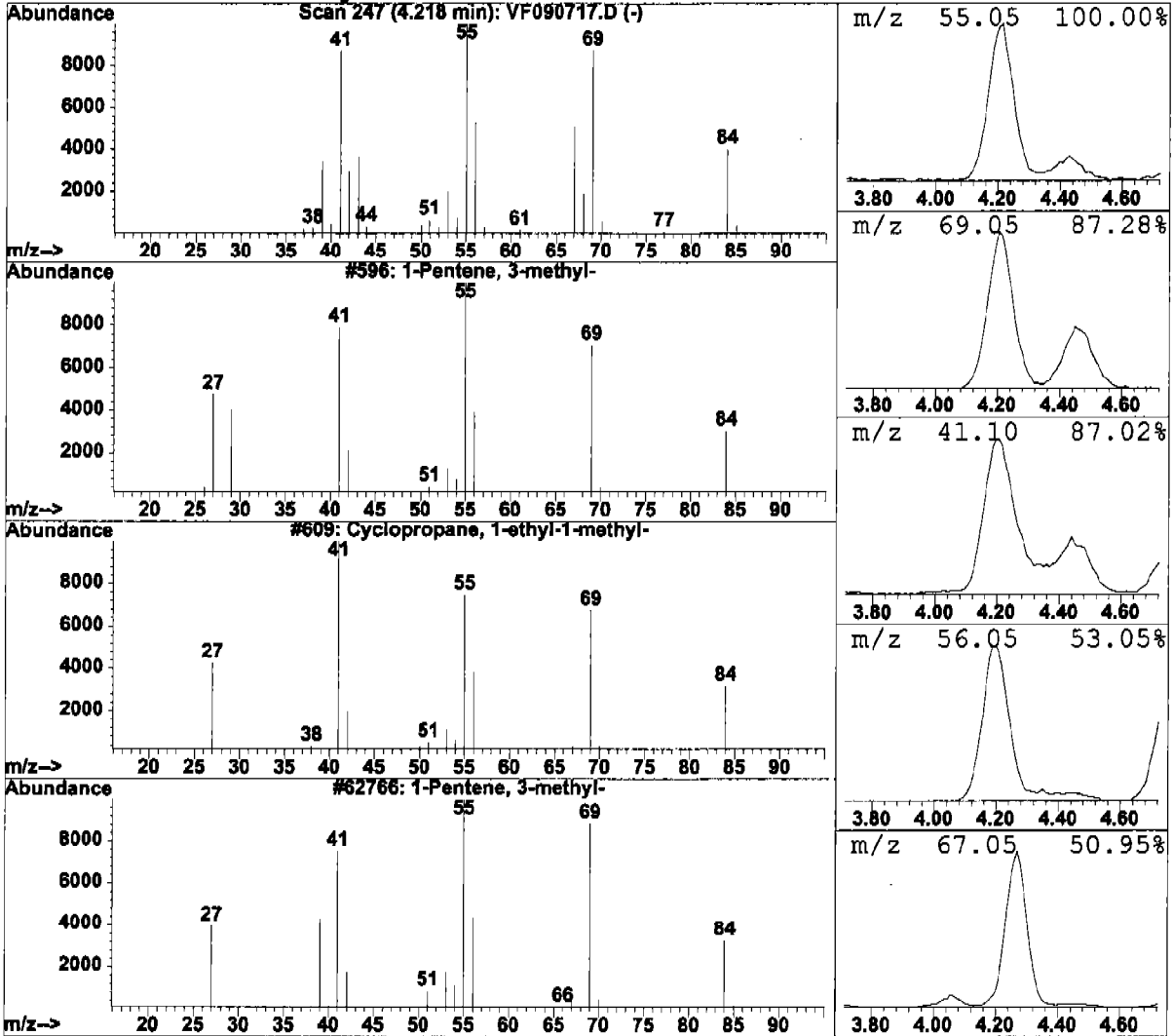
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090717.D Vial: 8  
 Acq On : 7 Sep 2004 10:15 pm Operator: SAM  
 Sample : S4436-20 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 11 1-Pentene, 3-methyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.22	2.92 ug/l	1502970	Fluorobenzene	8.85

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			1-Pentene, 3-methyl-	84	C6H12	000760-20-3	81
2			Cyclopropane, 1-ethyl-1-methyl-	84	C6H12	053778-43-1	76
3			1-Pentene, 3-methyl-	84	C6H12	000760-20-3	64
4			1-Pentene, 3-methyl-	84	C6H12	000760-20-3	64



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090717.D Vial: 8  
 Acq On : 7 Sep 2004 10:15 pm Operator: SAM  
 Sample : S4436-20 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

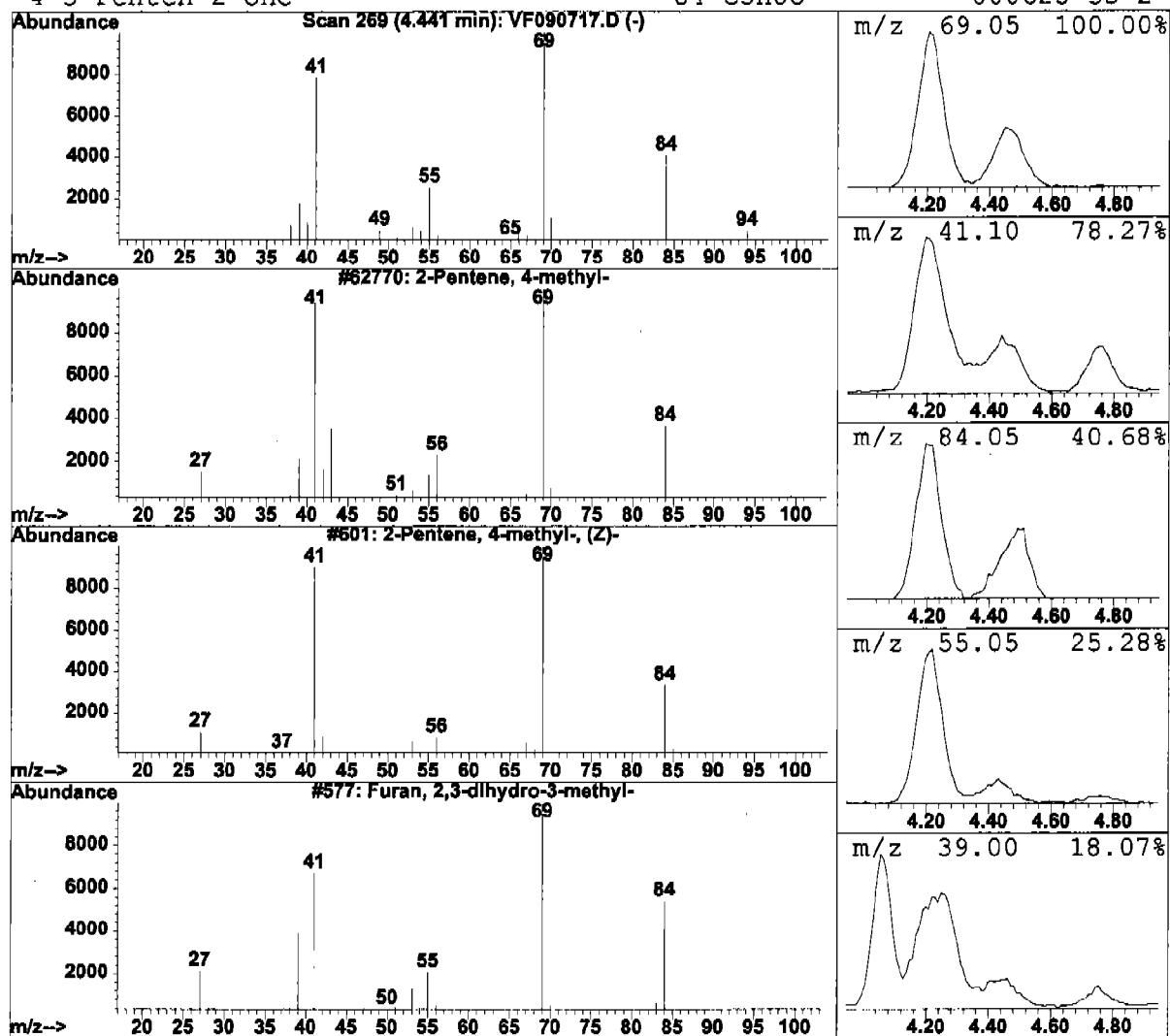
Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 12 2-Pentene, 4-methyl- Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.44	0.62 ug/l	319992	Fluorobenzene	8.85

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			2-Pentene, 4-methyl-	84	C6H12	004461-48-7	80
2			2-Pentene, 4-methyl-, (Z)-	84	C6H12	000691-38-3	72
3			Furan, 2,3-dihydro-3-methyl-	84	C5H8O	001708-27-6	56
4			3-Penten-2-one	84	C5H8O	000625-33-2	50



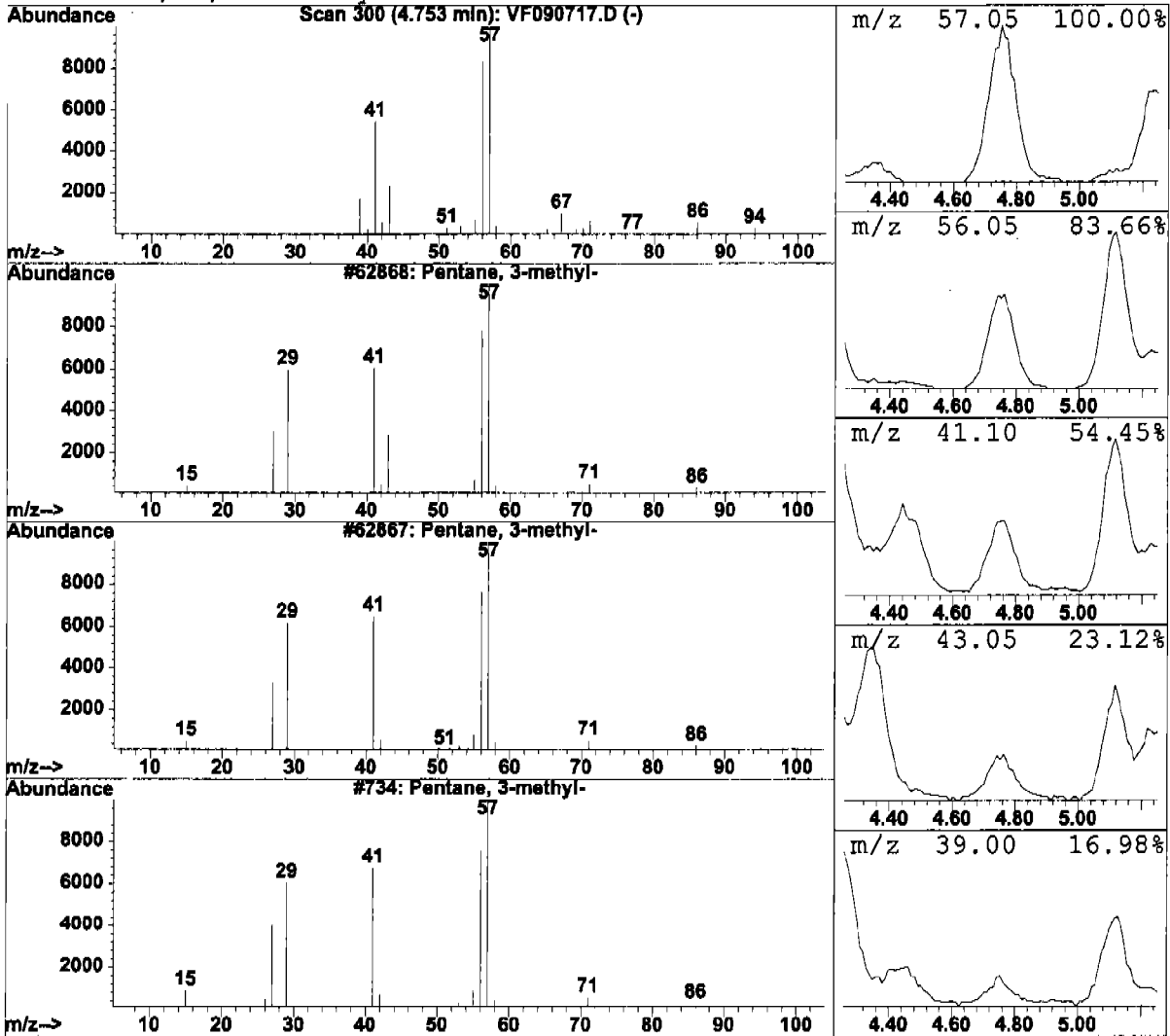
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090717.D Vial: 8  
 Acq On : 7 Sep 2004 10:15 pm Operator: SAM  
 Sample : S4436-20 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 13 Pentane, 3-methyl- Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.75	0.56 ug/l	286621	Fluorobenzene	8.85

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Pentane, 3-methyl-	86	C6H14	000096-14-0	86
2		Pentane, 3-methyl-	86	C6H14	000096-14-0	78
3		Pentane, 3-methyl-	86	C6H14	000096-14-0	50
4		Hexane, 3,4-dimethyl-	114	C8H18	000583-48-2	39



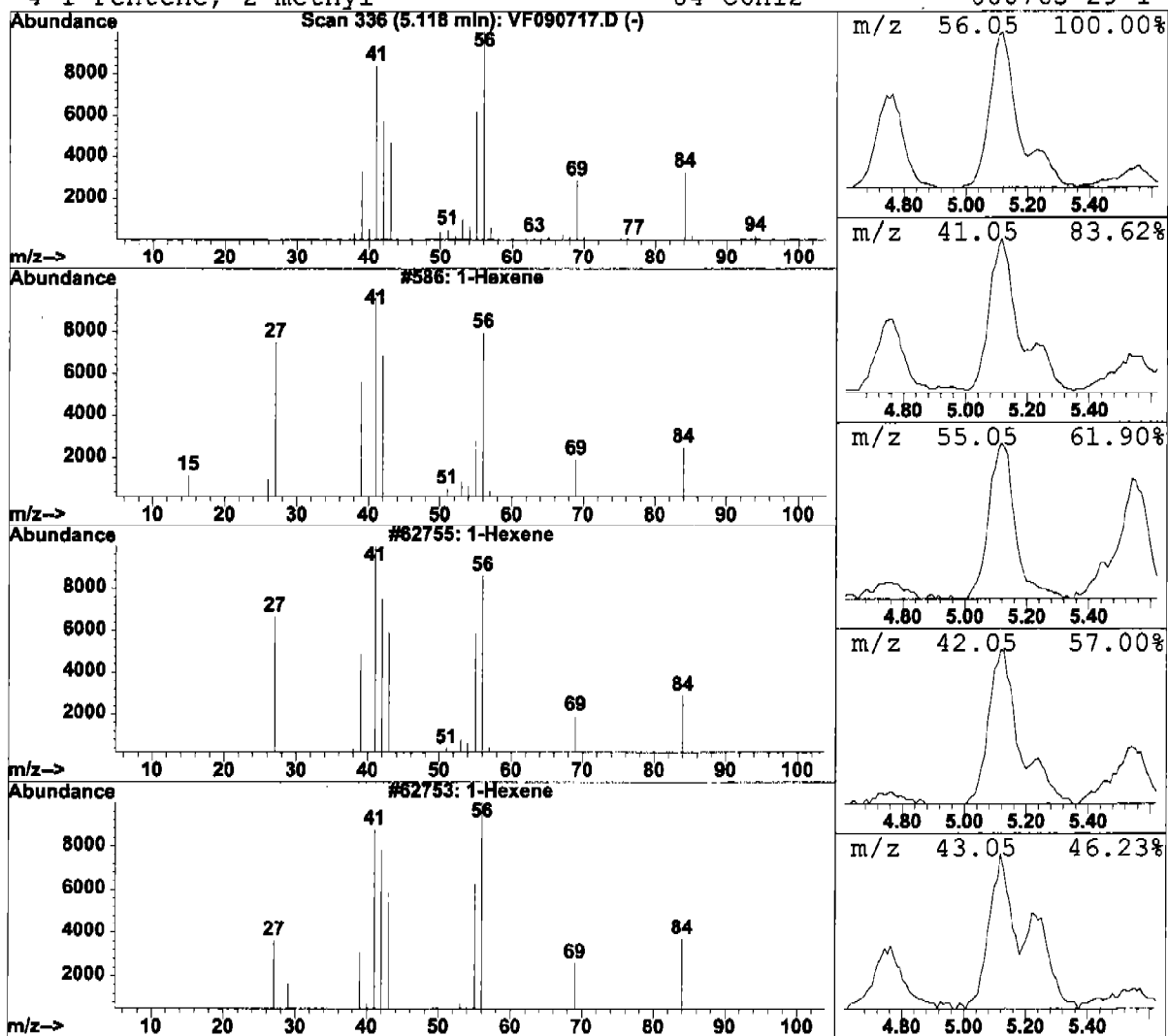
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090717.D Vial: 8  
 Acq On : 7 Sep 2004 10:15 pm Operator: SAM  
 Sample : S4436-20 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 14 1-Hexene Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.12	0.94 ug/l	483810	Fluorobenzene	8.85

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			1-Hexene	84	C6H12	000592-41-6	91
2			1-Hexene	84	C6H12	000592-41-6	91
3			1-Hexene	84	C6H12	000592-41-6	91
4			1-Pentene, 2-methyl-	84	C6H12	000763-29-1	87





Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090717.D Vial: 8  
 Acq On : 7 Sep 2004 10:15 pm Operator: SAM  
 Sample : S4436-20 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

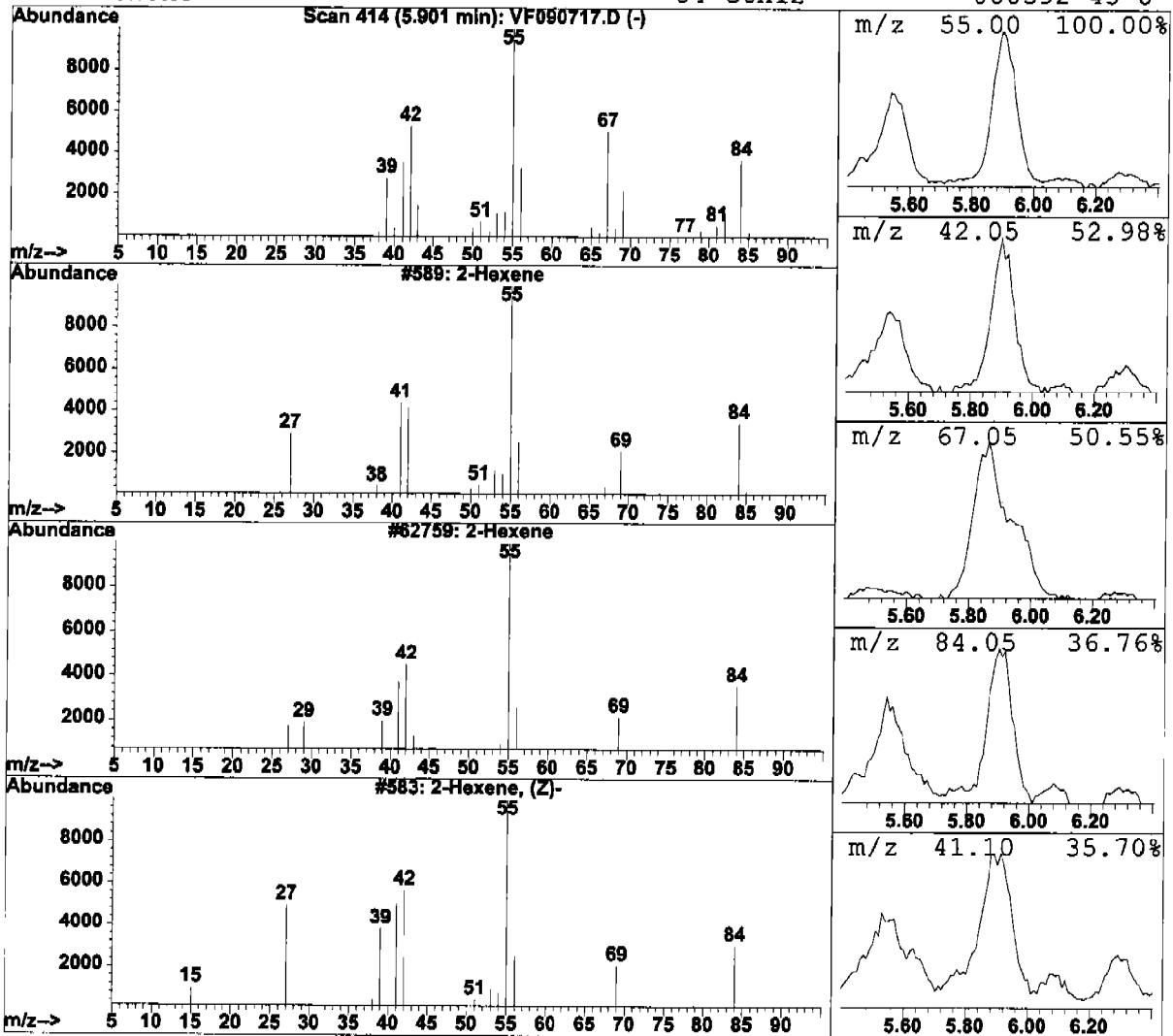
Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 15 2-Hexene Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.90	0.89 ug/l	459006	Fluorobenzene	8.85

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Hexene	84	C6H12	000592-43-8	70
2	2-Hexene	84	C6H12	000592-43-8	64
3	2-Hexene, (Z)-	84	C6H12	007688-21-3	62
4	2-Hexene	84	C6H12	000592-43-8	62



Tentatively Identified Compound (LSC) summary

Operator ID: SAM Date Acquired: 7 Sep 2004 10:15 pm  
 Data File: C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090717.D  
 Name: S4436-20  
 Misc: 25mL  
 Method: C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title: METHOD 524.2 VOLATILES DRINKING WATER  
 Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc Units	Area	IntStd	ISRT	ISArea	ISConc
Isobutane	1.94	0.7 ug/l	353554	ISTD01	8.85	514142	1.0
1-Propene, 2-methyl-	2.09	6.7 ug/l	3424730	ISTD01	8.85	514142	1.0
1-Butene	2.19	0.8 ug/l	409250	ISTD01	8.85	514142	1.0
1-Butene	2.30	1.2 ug/l	616014	ISTD01	8.85	514142	1.0
1-Butene, 2-methyl-	2.55	1.4 ug/l	726054	ISTD01	8.85	514142	1.0
Butane, 2-methyl-	2.67	1.3 ug/l	685047	ISTD01	8.85	514142	1.0
1-Pentene	2.94	4.4 ug/l	2245330	ISTD01	8.85	514142	1.0
2-Pentene, (Z)-	3.19	0.8 ug/l	395976	ISTD01	8.85	514142	1.0
2-Pentene	3.34	1.4 ug/l	700149	ISTD01	8.85	514142	1.0
3-Penten-1-yne	4.07	1.2 ug/l	599363	ISTD01	8.85	514142	1.0
1-Pentene, 3-methyl-	4.22	2.9 ug/l	1502970	ISTD01	8.85	514142	1.0
2-Pentene, 4-methyl-	4.44	0.6 ug/l	319992	ISTD01	8.85	514142	1.0
Pentane, 3-methyl-	4.75	0.6 ug/l	286621	ISTD01	8.85	514142	1.0
1-Hexene	5.12	0.9 ug/l	483810	ISTD01	8.85	514142	1.0
2-Hexene	5.90	0.9 ug/l	459006	ISTD01	8.85	514142	1.0

VF090717.D VF0816DW.M Thu Sep 09 15:20:56 2004 RPT1

CHEMTECH

VOLATILES  
CALIBRATION  
DATA

6A  
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4436 SAS No.: S4436 SDG No.: S4436  
 Instrument ID: MSVOAF Calibration Date(s): 8/16/2004 8/16/2004  
 Heated Purge: (Y/N) N Calibration Time(s): 09:49 12:24  
 GC Column: RTX624 ID: 0.53 (mm)

LAB FILE ID:							
	RRF001 = VF081602.D	RRF002 = VF081603.D					
RRF010 = VF081604.D	RRF020 = VF081605.D	RRF040 = VF081606.D					
COMPOUND	RRF001	RRF002	RRF010	RRF020	RRF040	RRF	% RSD
Dichlorodifluoromethane	0.325	0.344	0.280	0.341	0.299	0.318	8.7
Chloromethane *	0.226	0.236	0.200	0.218	0.188	0.214	9.1 *
Vinyl Chloride *	0.303	0.331	0.267	0.298	0.262	0.292	9.7 *
Bromomethane	0.093	0.152	0.114	0.139	0.122	0.124	18.4
Chloroethane	0.177	0.191	0.150	0.157	0.064	0.148	33.5
Trichlorofluoromethane	0.479	0.504	0.396	0.485	0.431	0.459	9.7
tert-Butyl Alcohol	0.007	0.007	0.006	0.006	0.006	0.006	11.8
Diethyl Ether	0.112	0.101	0.105	0.106	0.099	0.105	4.8
1,1-Dichloroethene *	0.321	0.297	0.274	0.292	0.266	0.290	7.4 *
Iodomethane	0.069	0.158	0.288	0.379	0.394	0.258	54.7
Allyl Chloride	0.324	0.316	0.297	0.302	0.270	0.302	6.9
Acrylonitrile	0.019	0.016	0.018	0.018	0.016	0.017	8.3
Acetone	0.017	0.014	0.011	0.011	0.009	0.012	26.4
Carbon Disulfide	0.818	0.809	0.759	0.799	0.720	0.781	5.2
Methyl tert-Butyl Ether	0.337	0.302	0.302	0.306	0.285	0.306	6.2
Methyl acrylate	0.094	0.090	0.097	0.100	0.093	0.095	4.0
Methylene Chloride	0.281	0.239	0.224	0.228	0.212	0.237	11.2
trans-1,2-Dichloroethen	0.340	0.324	0.291	0.308	0.287	0.310	7.2
1,1-Dichloroethane *	0.598	0.564	0.539	0.555	0.503	0.552	6.3 *
2-Butanone	0.032	0.028	0.028	0.028	0.027	0.029	6.9
Carbon Tetrachloride *	0.467	0.466	0.429	0.458	0.423	0.449	4.7 *
2,2-Dichloropropane	0.546	0.508	0.459	0.457	0.427	0.479	9.9
cis-1,2-Dichloroethene	0.326	0.307	0.293	0.308	0.288	0.304	4.9
Chloroform *	0.556	0.540	0.510	0.514	0.483	0.521	5.4 *
1,1,1-Trichloroethane *	0.545	0.534	0.495	0.519	0.480	0.515	5.2 *
t-1,4-Dichloro-2-butene	0.033	0.032	0.035	0.034	0.032	0.033	4.0
1,1-Dichloropropane	0.575	0.540	0.485	0.523	0.460	0.517	8.8
Isopropyl Ether	0.658	0.623	0.597	0.612	0.566	0.611	5.5
Propionitrile	0.007	0.006	0.007	0.007	0.007	0.007	7.1
Benzene *	1.149	1.110	1.011	1.068	0.989	1.065	6.3 *
1,2-Dichloroethane *	0.189	0.177	0.179	0.185	0.168	0.180	4.5 *
Trichloroethene *	0.372	0.361	0.322	0.360	0.328	0.349	6.3 *
1,2-Dichloropropane *	0.359	0.338	0.331	0.337	0.316	0.336	4.6 *
Methacrylonitrile	0.070	0.056	0.057	0.058	0.054	0.059	10.7
Tetrahydrofuran	0.021	0.019	0.020	0.020	0.018	0.020	6.1
1-Chlorobutane	0.798	0.767	0.689	0.698	0.594	0.709	11.2
Dibromomethane	0.134	0.121	0.128	0.133	0.124	0.128	4.4

\* Compounds with required minimum RRF and maximum %RSD values.  
 All other compounds must meet a minimum RRF of 0.010.

## VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4436 SAS No.: S4436 SDG No.: S4436  
 Instrument ID: MSVOAF Calibration Date(s): 8/16/2004 8/16/2004  
 Heated Purge: (Y/N) N Calibration Time(s): 09:49 12:24  
 GC Column: RTX624 ID: 0.53 (mm)

LAB FILE ID:							
RRF001 = VF081602.D		RRF002 = VF081603.D		RRF0010 = VF081604.D		RRF020 = VF081605.D	
RRF002 = VF081603.D		RRF040 = VF081606.D					
COMPOUND	RRF001	RRF002	RRF010	RRF020	RRF040	RRF	% RSD
Bromodichloromethane *	0.393	0.363	0.376	0.397	0.364	0.379	4.2
4-Methyl-2-Pentanone	0.126	0.113	0.124	0.122	0.115	0.120	4.8
Methyl methacrylate	0.084	0.078	0.083	0.084	0.079	0.082	3.6
Ethyl methacrylate	0.194	0.182	0.192	0.202	0.189	0.192	3.8
Toluene *	0.738	0.726	0.661	0.695	0.640	0.692	6.0
t-1,3-Dichloropropene *	0.274	0.252	0.262	0.276	0.256	0.264	4.0
cis-1,3-Dichloropropene *	0.478	0.448	0.458	0.483	0.446	0.463	3.7
1,1,2-Trichloroethane *	0.164	0.150	0.151	0.156	0.139	0.152	6.0
1,3-Dichloropropane	0.298	0.268	0.269	0.280	0.260	0.275	5.3
2-Hexanone	0.053	0.049	0.052	0.054	0.049	0.051	4.6
Dibromochloromethane *	0.200	0.190	0.209	0.221	0.208	0.206	5.6
1,2-Dibromoethane	0.157	0.148	0.154	0.162	0.153	0.155	3.3
Tetrachloroethene *	0.345	0.335	0.300	0.333	0.307	0.324	6.0
Chlorobenzene *	0.699	0.679	0.641	0.672	0.631	0.664	4.2
1,1,1,2-Tetrachloroethane	0.254	0.251	0.244	0.252	0.233	0.247	3.5
Hexachloroethane	0.424	0.434	0.411	0.442	0.394	0.421	4.5
Ethyl Benzene *	1.625	1.568	1.407	1.438	1.264	1.460	9.7
m/p-Xylenes *	1.211	1.158	1.042	1.094	0.935	1.088	9.8
o-Xylene *	1.124	1.084	0.997	1.044	0.936	1.037	7.1
Styrene *	0.733	0.715	0.689	0.721	0.656	0.703	4.4
Bromoform *	0.091	0.087	0.102	0.109	0.108	0.099	10.1
Bromobenzene	0.284	0.265	0.263	0.281	0.263	0.271	3.8
Isopropylbenzene	1.562	1.525	1.400	1.478	1.333	1.460	6.4
1,1,2,2-Tetrachloroethane *	0.200	0.183	0.184	0.187	0.167	0.184	6.4
1,2,3-Trichloropropane	0.133	0.128	0.133	0.138	0.125	0.131	3.9
n-propylbenzene	0.429	0.426	0.371	0.398	0.359	0.397	8.0
2-Chlorotoluene	0.330	0.321	0.301	0.320	0.292	0.313	5.0
1,3,5-Trimethylbenzene	1.204	1.178	1.051	1.096	0.979	1.102	8.4
4-Chlorotoluene	0.319	0.311	0.284	0.295	0.264	0.295	7.4
tert-Butylbenzene	1.503	1.470	1.348	1.438	1.291	1.410	6.2
1,2,4-Trimethylbenzene	1.096	1.031	0.951	1.016	0.917	1.002	7.0
sec-Butylbenzene	1.952	1.964	1.718	1.858	1.633	1.825	8.0
p-Isopropyltoluene	1.532	1.482	1.309	1.425	1.275	1.405	7.8
1,3-Dichlorobenzene *	0.597	0.583	0.541	0.584	0.535	0.568	4.9
1,4-Dichlorobenzene *	0.592	0.548	0.514	0.554	0.502	0.542	6.6
n-Butylbenzene	1.741	1.712	1.454	1.552	1.327	1.557	11.2
1,2-Dichlorobenzene *	0.473	0.442	0.409	0.432	0.388	0.429	7.5

\* Compounds with required minimum RRF and maximum %RSD values.  
 All other compounds must meet a minimum RRF of 0.010.

6A  
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Chentech Contract: PARS04  
 Lab Code: CTECH Case No.: S4436 SAS No.: S4436 SDG No.: S4436  
 Instrument ID: MSVOAF Calibration Date(s): 8/16/2004 8/16/2004  
 Heated Purge: (Y/N) N Calibration Time(s): 09:49 12:24  
 GC Column: RTX624 ID: 0.53 (mm)

LAB FILE ID:							
RRF001 = VF081602.D		RRF002 = VF081603.D		RRF010 = VF081604.D		RRF020 = VF081605.D	
RRF001 = VF081602.D		RRF002 = VF081603.D		RRF040 = VF081606.D			
COMPOUND	RRF001	RRF002	RRF010	RRF020	RRF040	RRF	% RSD
1,2-Dibromo-3-Chloropro	0.024	0.026	0.028	0.030	0.028	0.027	8.5
1,2,4-Trichlorobenzene *	0.336	0.343	0.328	0.375	0.347	0.346	5.2 *
Hexachlorobutadiene	0.292	0.309	0.272	0.315	0.298	0.297	5.6
Naphthalene	0.235	0.261	0.266	0.289	0.273	0.265	7.4
1,2,3-Trichlorobenzene	0.246	0.254	0.249	0.279	0.260	0.258	5.1
1,2-Dichlorobenzene-d4	0.250	0.258	0.270	0.274	0.255	0.261	3.9
4-Bromofluorobenzene *	0.435	0.443	0.464	0.482	0.524	0.470	7.6 *

\* Compounds with required minimum RRF and maximum %RSD values.  
 All other compounds must meet a minimum RRF of 0.010.

Response Factor Report VOA F

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration

Calibration Files

1 =VF081602.D 2 =VF081603.D 10 =VF081604.D  
 20 =VF081605.D 40 =VF081606.D

Compound	1	2	10	20	40	Avg	%RSD
1) i Fluorobenzene	-----ISTD-----						
2) T Dichlorodifluorometha	0.325	0.344	0.280	0.341	0.299	0.318	8.68
3) t Chloromethane	0.226	0.236	0.200	0.218	0.188	0.214	9.11
4) t Vinyl Chloride	0.303	0.331	0.267	0.298	0.262	0.292	9.67
5) T Bromomethane	0.093	0.152	0.114	0.139	0.122	0.124	18.39
6) T Chloroethane	0.177	0.191	0.149	0.157	0.064	0.148	33.60
7) T Trichlorofluoromethan	0.479	0.504	0.396	0.485	0.431	0.459	9.66
8) t 1,1-Dichloroethene	0.321	0.297	0.274	0.292	0.266	0.290	7.35
9) t Iodomethane	0.069	0.158	0.288	0.379	0.394	0.257	54.81
10) t Allyl Chloride	0.324	0.316	0.297	0.303	0.270	0.302	6.90
11) t Acrylonitrile	0.019	0.016	0.018	0.018	0.016	0.017	6.92
12) T Acetone	0.017	0.014	0.011	0.011	0.009	0.012	24.59
13) T Carbon Disulfide	0.818	0.809	0.759	0.799	0.720	0.781	5.25
14) T Methylene Chloride	0.281	0.239	0.224	0.228	0.212	0.237	11.15
15) T trans-1,2-Dichloroeth	0.339	0.324	0.291	0.308	0.287	0.310	7.12
16) t 1,1-Dichloroethane	0.598	0.564	0.539	0.555	0.503	0.552	6.29
17) T 2-Butanone	0.032	0.028	0.028	0.028	0.027	0.029	6.42
18) T 2,2-Dichloropropane	0.546	0.508	0.459	0.457	0.427	0.479	9.82
19) T cis-1,2-Dichloroethen	0.326	0.307	0.293	0.308	0.288	0.304	4.93
20) t Diethyl Ether	0.112	0.101	0.105	0.106	0.099	0.105	4.78
21) t tert-Butyl Alcohol	0.007	0.007	0.006	0.006	0.006	0.007	5.50
22) t Methyl tert-Butyl Eth	0.337	0.302	0.302	0.306	0.285	0.306	6.12
23) t Bromochloromethane	0.101	0.095	0.096	0.100	0.095	0.097	2.80
24) t Chloroform	0.556	0.540	0.510	0.514	0.483	0.521	5.42
25) T 1,1,1-Trichloroethane	0.545	0.534	0.495	0.519	0.480	0.514	5.22
26) T 1,1-Dichloropropene	0.575	0.540	0.485	0.523	0.460	0.516	8.73
27) T Carbon Tetrachloride	0.467	0.466	0.429	0.458	0.423	0.449	4.73
28) t Isopropyl Ether	0.658	0.623	0.597	0.612	0.566	0.611	5.56
29) t Propionitrile	0.007	0.006	0.007	0.007	0.007	0.007	5.29
30) T Benzene	1.149	1.110	1.011	1.069	0.989	1.065	6.26
31) T 1,2-Dichloroethane	0.189	0.177	0.179	0.185	0.167	0.180	4.62
32) T Trichloroethene	0.372	0.361	0.322	0.360	0.328	0.348	6.42
33) t 1,2-Dichloropropane	0.359	0.338	0.331	0.337	0.316	0.336	4.67
34) t Methacrylonitrile	0.070	0.056	0.057	0.058	0.054	0.059	10.21
35) t Methyl acrylate	0.093	0.090	0.097	0.100	0.093	0.095	4.15
36) t Tetrahydrofuran	0.021	0.019	0.020	0.020	0.018	0.019	5.76
37) t 1-Chlorobutane	0.798	0.767	0.689	0.698	0.594	0.709	11.19
38) T Dibromomethane	0.134	0.121	0.128	0.133	0.124	0.128	4.33
39) T Bromodichloromethane	0.393	0.363	0.376	0.397	0.364	0.379	4.15
40) T 4-Methyl-2-Pentanone	0.126	0.113	0.124	0.122	0.115	0.120	4.88
41) t t-1,4-Dichloro-2-bute	0.033	0.032	0.035	0.034	0.032	0.033	4.03
42) t Methyl methacrylate	0.084	0.078	0.083	0.084	0.079	0.082	3.38
43) t Ethyl methacrylate	0.194	0.182	0.192	0.202	0.189	0.192	3.74
44) t Toluene	0.738	0.726	0.661	0.695	0.640	0.692	6.00

(#) = Out of Range

VF0816DW.M

Tue Aug 17 13:01:28 2004

RPT1

Page 1

Response Factor Report VOA F

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration

Calibration Files

1 =VF081602.D 2 =VF081603.D 10 =VF081604.D  
 20 =VF081605.D 40 =VF081606.D

	Compound	1	2	10	20	40	Avg	%RSD
45) T	t-1,3-Dichloropropene	0.273	0.252	0.261	0.276	0.257	0.264	3.97
46) T	cis-1,3-Dichloropropene	0.478	0.448	0.458	0.483	0.446	0.463	3.67
47) T	1,1,2-Trichloroethane	0.164	0.150	0.151	0.156	0.139	0.152	6.10
48) t	1,3-Dichloropropane	0.298	0.268	0.269	0.280	0.260	0.275	5.45
49) t	2-Hexanone	0.053	0.049	0.052	0.054	0.049	0.051	4.37
50) t	Dibromochloromethane	0.199	0.190	0.209	0.221	0.208	0.205	5.72
51) T	1,2-Dibromoethane	0.157	0.148	0.154	0.162	0.153	0.155	3.35
52) S	4-Bromofluorobenzene	0.435	0.443	0.464	0.482	0.524	0.470	7.55
53) T	Tetrachloroethene	0.345	0.335	0.300	0.333	0.307	0.324	5.89
54) t	Chlorobenzene	0.699	0.679	0.641	0.672	0.631	0.664	4.25
55) T	1,1,1,2-Tetrachloroet	0.254	0.251	0.244	0.253	0.233	0.247	3.57
56) t	Pentachloroethane	0.294	0.287	0.283	0.296	0.266	0.285	4.23
57) t	Hexachloroethane	0.424	0.434	0.411	0.443	0.394	0.421	4.58
58) t	Ethyl Benzene	1.625	1.569	1.407	1.437	1.264	1.461	9.72
59) T	m/p-Xylenes	1.211	1.159	1.042	1.094	0.935	1.088	9.81
60) T	o-Xylene	1.124	1.084	0.997	1.044	0.936	1.037	7.09
61) T	Styrene	0.733	0.715	0.689	0.721	0.656	0.703	4.40
62) t	Bromoform	0.091	0.087	0.102	0.109	0.108	0.100	10.11
63) S	1,2-Dichlorobenzene-d	0.250	0.257	0.270	0.273	0.255	0.261	3.91
64) T	Isopropylbenzene	1.562	1.525	1.400	1.478	1.333	1.460	6.38
65) T	1,1,2,2-Tetrachloroet	0.200	0.183	0.184	0.187	0.167	0.184	6.35
66) T	1,2,3-Trichloropropan	0.133	0.128	0.133	0.138	0.125	0.132	3.68
67) t	Bromobenzene	0.284	0.265	0.263	0.281	0.263	0.271	3.77
68) t	n-propylbenzene	0.429	0.426	0.371	0.398	0.359	0.397	7.98
69) t	2-Chlorotoluene	0.330	0.321	0.301	0.319	0.292	0.313	5.01
70) t	1,3,5-Trimethylbenzen	1.204	1.178	1.051	1.096	0.979	1.102	8.36
71) t	4-Chlorotoluene	0.319	0.311	0.284	0.295	0.264	0.295	7.36
72) t	tert-Butylbenzene	1.503	1.470	1.348	1.438	1.291	1.410	6.26
73) t	1,2,4-Trimethylbenzen	1.096	1.031	0.951	1.016	0.917	1.002	7.01
74) t	sec-Butylbenzene	1.952	1.963	1.718	1.857	1.633	1.825	7.97
75) t	p-Isopropyltoluene	1.532	1.482	1.309	1.425	1.275	1.405	7.83
76) t	1,3-Dichlorobenzene	0.597	0.583	0.541	0.584	0.535	0.568	4.93
77) t	1,4-Dichlorobenzene	0.592	0.549	0.514	0.554	0.501	0.542	6.60
78) t	n-Butylbenzene	1.741	1.712	1.454	1.552	1.327	1.557	11.19
79) t	1,2-Dichlorobenzene	0.473	0.442	0.409	0.432	0.388	0.429	7.59
80) t	1,2-Dibromo-3-Chlorop	0.024	0.026	0.027	0.030	0.028	0.027	8.79
81) t	1,2,4-Trichlorobenzen	0.336	0.343	0.328	0.375	0.347	0.346	5.23
82) t	Hexachlorobutadiene	0.292	0.309	0.272	0.315	0.298	0.297	5.61
83) t	Naphthalene	0.235	0.261	0.266	0.289	0.273	0.265	7.53
84) t	1,2,3-Trichlorobenzen	0.246	0.254	0.249	0.279	0.260	0.258	5.07

(#) = Out of Range





Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081602.D Vial: 2  
 Acq On : 16 Aug 2004 9:49 am Operator: SAM  
 Sample : 1 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:49 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:48:47 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	Qion	Response	Conc	Unit	Qvalue
30) Benzene	8.25	78	259344	1.14	ug/l	99
31) 1,2-Dichloroethane	8.46	62	42729	1.06	ug/l	97
32) Trichloroethene	9.54	130	83993	1.16	ug/l	97
33) 1,2-Dichloropropane	10.06	63	81125	1.09	ug/l	94
34) Methacrylonitrile	7.29	41	15696	1.21	ug/l	91
35) Methyl acrylate	7.00	55	21105	0.96	ug/l	96
36) Tetrahydrofuran	7.25	42	9286	2.10	ug/l	98
37) 1-Chlorobutane	7.82	56	180261	1.16	ug/l	100
38) Dibromomethane	10.30	93	30170	1.05	ug/l	98
39) Bromodichloromethane	10.65	83	88641	1.04	ug/l	98
40) 4-Methyl-2-Pentanone	11.98	43	142093	5.06	ug/l	98
41) t-1,4-Dichloro-2-but	18.53	53	15075	1.91	ug/l	94
42) Methyl methacrylate	10.38	69	37792	2.03	ug/l	91
43) Ethyl methacrylate	13.00	69	43754	1.01	ug/l	98
44) Toluene	12.13	92	166673	1.12	ug/l	100
45) t-1,3-Dichloropropen	12.83	75	61737	1.05	ug/l	94
46) cis-1,3-Dichloroprop	11.58	75	107811	1.04	ug/l	100
47) 1,1,2-Trichloroethan	13.18	97	37037	1.09	ug/l	98
48) 1,3-Dichloropropane	13.54	76	67373	1.11	ug/l	100
49) 2-Hexanone	13.77	43	60167	5.16	ug/l	99
50) Dibromochloromethane	13.93	129	45035	0.95	ug/l	100
51) 1,2-Dibromoethane	14.13	107	35538	1.02	ug/l	99
53) Tetrachloroethene	13.21	164	77850	1.15	ug/l	99
54) Chlorobenzene	15.18	112	157898	1.09	ug/l	99
55) 1,1,1,2-Tetrachloroe	15.43	131	57412	1.04	ug/l	99
56) Pentachloroethane	19.64	117	66306	1.04	ug/l	97
57) Hexachloroethane	21.92	117	95805	1.03	ug/l	96
58) Ethyl Benzene	15.42	91	366949	1.15	ug/l	99
59) m/p-Xylenes	15.71	91	546772	2.32	ug/l	100
60) o-Xylene	16.58	91	253837	1.13	ug/l	99
61) Styrene	16.66	104	165577	1.07	ug/l	99
62) Bromoform	17.07	173	20578	0.89	ug/l #	96
64) Isopropylbenzene	17.43	105	352648	1.12	ug/l	100
65) 1,1,2,2-Tetrachloroe	18.36	83	45135	1.09	ug/l #	100
66) 1,2,3-Trichloropropa	18.53	75	30104	1.00	ug/l	96
67) Bromobenzene	18.12	156	64085	1.08	ug/l	97
68) n-propylbenzene	18.40	120	96800	1.16	ug/l	97

Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081602.D Vial: 2  
 Acq On : 16 Aug 2004 9:49 am Operator: SAM  
 Sample : 1 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:49 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:48:47 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
69) 2-Chlorotoluene	18.59	126	74480	1.10	ug/l	91
70) 1,3,5-Trimethylbenze	18.87	105	271784	1.15	ug/l	100
71) 4-Chlorotoluene	18.88	126	71998	1.12	ug/l	97
72) tert-Butylbenzene	19.56	119	339364	1.12	ug/l	98
73) 1,2,4-Trimethylbenze	19.73	105	247490	1.15	ug/l	98
74) sec-Butylbenzene	20.08	105	440724	1.14	ug/l	100
75) p-Isopropyltoluene	20.48	119	345899	1.17	ug/l	99
76) 1,3-Dichlorobenzene	20.35	146	134767	1.10	ug/l	98
77) 1,4-Dichlorobenzene	20.60	146	133579	1.15	ug/l	99
78) n-Butylbenzene	21.46	91	393070	1.20	ug/l	98
79) 1,2-Dichlorobenzene	21.46	146	106780	1.16	ug/l	98
80) 1,2-Dibromo-3-Chloro	23.42	75	5354	0.86	ug/l	98
81) 1,2,4-Trichlorobenze	25.35	180	75805	1.02	ug/l	99
82) Hexachlorobutadiene	25.73	225	65854	1.07	ug/l	96
83) Naphthalene	25.92	128	52974	0.88	ug/l	100
84) 1,2,3-Trichlorobenze	26.53	180	55500	0.99	ug/l	99

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 Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_  
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-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081603.D Vial: 4  
 Acq On : 16 Aug 2004 10:27 am Operator: SAM  
 Sample : 2 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:49 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:48:47 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.85	96	219073	1.00	ug/l	0.00
<b>System Monitoring Compounds</b>						
52) 4-Bromofluorobenzene	17.85	95	97064	0.95	ug/l	0.00
Spiked Amount	1.000		Recovery	=	95.00%	
63) 1,2-Dichlorobenzene-	21.41	152	56406	0.95	ug/l	0.00
Spiked Amount	1.000		Recovery	=	95.00%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluorometh	1.79	85	150531	2.45	ug/l	97
3) Chloromethane	2.01	50	103507	2.36	ug/l	99
4) Vinyl Chloride	2.12	62	144953	2.48	ug/l	99
5) Bromomethane	2.51	94	66665	2.66	ug/l	98
6) Chloroethane	2.64	64	83735	2.56	ug/l	100
7) Trichlorofluorometha	2.91	101	220885	2.55	ug/l	97
8) 1,1-Dichloroethene	3.63	96	129976	2.16	ug/l	95
9) Iodomethane	3.87	142	69145	1.10	ug/l	97
10) Allyl Chloride	4.25	41	138292	2.13	ug/l	97
11) Acrylonitrile	5.05	53	14218	3.70	ug/l	98
12) Acetone	3.85	43	29823	12.12	ug/l	90
13) Carbon Disulfide	3.90	76	354297	2.13	ug/l	99
14) Methylene Chloride	4.51	84	104798	2.14	ug/l	98
15) trans-1,2-Dichloroet	4.88	96	141741	2.22	ug/l	96
16) 1,1-Dichloroethane	5.67	63	247155	2.09	ug/l	99
17) 2-Butanone	6.88	43	60951	9.84	ug/l	95
18) 2,2-Dichloropropane	6.66	77	222455	2.21	ug/l	99
19) cis-1,2-Dichloroethe	6.75	96	134641	2.10	ug/l	97
20) Diethyl Ether	3.33	59	44285	1.92	ug/l	99
21) tert-Butyl Alcohol	4.85	59	29376	21.05	ug/l	100
22) Methyl tert-Butyl Et	4.89	73	132430	2.00	ug/l	98
23) Bromochloromethane	7.18	128	41562	1.97	ug/l	94
24) Chloroform	7.37	83	236785	2.12	ug/l	99
25) 1,1,1-Trichloroethan	7.55	97	233856	2.16	ug/l	99
26) 1,1-Dichloropropene	7.87	75	236427	2.22	ug/l	98
27) Carbon Tetrachloride	7.79	117	204320	2.17	ug/l	98
28) Isopropyl Ether	5.75	45	272972	2.09	ug/l	99
29) Propionitrile	7.10	54	27154	17.81	ug/l	100

Analyst Signature: [Signature] Analyst Name: [Signature] Date: 08/17/04

REASONS FOR MANUAL INTEGRATIONS

Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration  
 VF081603.D VF0816DW.M Tue Aug 17 12:59:29 2004

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081603.D Vial: 4  
 Acq On : 16 Aug 2004 10:27 am Operator: SAM  
 Sample : 2 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:49 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:48:47 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Benzene	8.24	78	486486	2.20	ug/l	99
31) 1,2-Dichloroethane	8.46	62	77528	1.97	ug/l	97
32) Trichloroethene	9.54	130	158074	2.24	ug/l	99
33) 1,2-Dichloropropane	10.06	63	148040	2.04	ug/l	99
34) Methacrylonitrile	7.30	41	24631	1.96	ug/l	95
35) Methyl acrylate	7.01	55	39308	1.84	ug/l	98
36) Tetrahydrofuran	7.23	42	16386	3.81	ug/l	98
37) 1-Chlorobutane	7.81	56	335914	2.23	ug/l	100
38) Dibromomethane	10.29	93	53037	1.90	ug/l	97
39) Bromodichloromethane	10.64	83	159078	1.93	ug/l	100
40) 4-Methyl-2-Pentanone	11.96	43	246844	9.06	ug/l	97
41) t-1,4-Dichloro-2-but	18.51	53	28408	3.71	ug/l	98
42) Methyl methacrylate	10.38	69	68173	3.77	ug/l	97
43) Ethyl methacrylate	12.98	69	79913	1.90	ug/l	99
44) Toluene	12.13	92	317960	2.19	ug/l	98
45) t-1,3-Dichloropropen	12.83	75	110444	1.93	ug/l	99
46) cis-1,3-Dichloroprop	11.58	75	196128	1.96	ug/l	100
47) 1,1,2-Trichloroethan	13.18	97	65935	1.99	ug/l	96
48) 1,3-Dichloropropane	13.52	76	117384	1.99	ug/l	98
49) 2-Hexanone	13.75	43	107156	9.47	ug/l	99
50) Dibromochloromethane	13.92	129	83118	1.82	ug/l	100
51) 1,2-Dibromoethane	14.13	107	64975	1.93	ug/l	100
53) Tetrachloroethene	13.20	164	146681	2.23	ug/l	97
54) Chlorobenzene	15.18	112	297543	2.12	ug/l	99
55) 1,1,1,2-Tetrachloroe	15.42	131	109883	2.06	ug/l	99
56) Pentachloroethane	19.64	117	125677	2.03	ug/l	98
57) Hexachloroethane	21.92	117	190168	2.11	ug/l	96
58) Ethyl Benzene	15.41	91	687251	2.23	ug/l	98
59) m/p-Xylenes	15.71	91	1015202	4.45	ug/l	99
60) o-Xylene	16.59	91	474956	2.17	ug/l	99
61) Styrene	16.65	104	313428	2.08	ug/l	99
62) Bromoform	17.06	173	38157	1.70	ug/l #	97
64) Isopropylbenzene	17.42	105	668150	2.18	ug/l	100
65) 1,1,2,2-Tetrachloroe	18.36	83	80226	1.99	ug/l	98
66) 1,2,3-Trichloropropa	18.52	75	56089	1.93	ug/l	95
67) Bromobenzene	18.11	156	116119	2.01	ug/l	97
68) n-propylbenzene	18.39	120	186710	2.30	ug/l	99

Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

VF081603.D VF0816DW.M Tue Aug 17 12:59:29 2004

RPT1

Page 2

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081603.D Vial: 4  
 Acq On : 16 Aug 2004 10:27 am Operator: SAM  
 Sample : 2 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:49 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:48:47 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
69) 2-Chlorotoluene	18.58	126	140563	2.13	ug/l	97
70) 1,3,5-Trimethylbenze	18.86	105	516295	2.24	ug/l	100
71) 4-Chlorotoluene	18.87	126	136227	2.19	ug/l	97
72) tert-Butylbenzene	19.56	119	644293	2.18	ug/l	99
73) 1,2,4-Trimethylbenze	19.73	105	451790	2.17	ug/l	98
74) sec-Butylbenzene	20.09	105	860293	2.29	ug/l	99
75) p-Isopropyltoluene	20.47	119	649197	2.26	ug/l	100
76) 1,3-Dichlorobenzene	20.35	146	255372	2.16	ug/l	99
77) 1,4-Dichlorobenzene	20.60	146	240329	2.14	ug/l	98
78) n-Butylbenzene	21.45	91	749900	2.35	ug/l	100
79) 1,2-Dichlorobenzene	21.46	146	193672	2.16	ug/l	99
80) 1,2-Dibromo-3-Chloro	23.41	75	11205	1.86	ug/l	95
81) 1,2,4-Trichlorobenze	25.35	180	150216	2.09	ug/l	99
82) Hexachlorobutadiene	25.70	225	135431	2.27	ug/l	99
83) Naphthalene	25.91	128	114461	1.96	ug/l	100
84) 1,2,3-Trichlorobenze	26.53	180	111400	2.04	ug/l	100

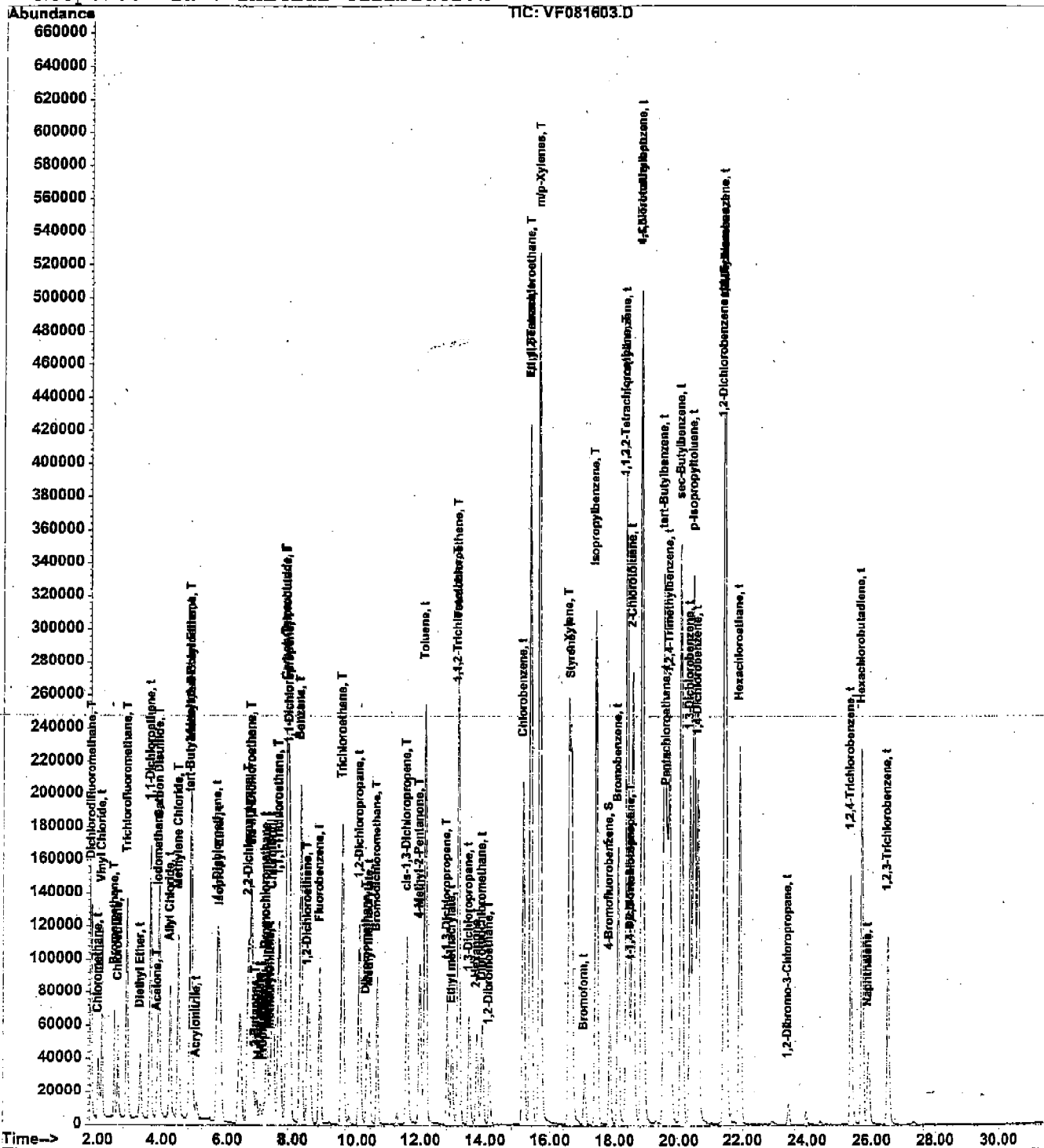
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 Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_  
 -----REASONS FOR MANUAL INTEGRATIONS-----  
 \_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly.Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081603.D Vial: 4  
Acq On : 16 Aug 2004 10:27 am Operator: SAM  
Sample : 2 PPB ICC Inst : VOA F  
Misc : 25mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Aug 17 9:49 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration





Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081604.D Vial: 5  
 Acq On : 16 Aug 2004 11:06 am Operator: SAM  
 Sample : 10 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00

MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:43 2004

Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:43:14 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)	
1) Fluorobenzene	8.85	96	228488	1.00	ug/l	-0.02	
<b>System Monitoring Compounds</b>							
52) 4-Bromofluorobenzene	17.85	95	106111	1.00	ug/l	0.03	
Spiked Amount	1.000		Recovery	=	100.00%		
63) 1,2-Dichlorobenzene	21.41	152	61743	1.00	ug/l	0.05	
Spiked Amount	1.000		Recovery	=	100.00%		
							<b>Qvalue</b>
<b>Target Compounds</b>							
2) Dichlorodifluorometh	1.80	85	639548	10.00	ug/l		99
3) Chloromethane	2.01	50	458064	10.00	ug/l		97
4) Vinyl Chloride	2.13	62	609955	10.00	ug/l		100
5) Bromomethane	2.51	94	260979	10.00	ug/l		100
6) Chloroethane	2.64	64	341482	10.00	ug/l		98
7) Trichlorofluorometha	2.91	101	904395	10.00	ug/l		99
8) 1,1-Dichloroethene	3.64	96	626736	10.00	ug/l		92
9) Iodomethane	3.87	142	656975	10.00	ug/l		97
10) Allyl Chloride	4.25	41	678099	10.00	ug/l		96
11) Acrylonitrile	5.06	53	80113	20.00	ug/l		97
12) Acetone	3.86	43	128339	50.00	ug/l		95
13) Carbon Disulfide	3.91	76	1733442	10.00	ug/l		100
14) Methylene Chloride	4.50	84	511588	10.00	ug/l		92
15) trans-1,2-Dichloroet	4.88	96	664827	10.00	ug/l		95
16) 1,1-Dichloroethane	5.68	63	1231182	10.00	ug/l		99
17) 2-Butanone	6.88	43	322954	50.00	ug/l		98
18) 2,2-Dichloropropane	6.67	77	1048507	10.00	ug/l		99
19) cis-1,2-Dichloroethe	6.76	96	668800	10.00	ug/l		95
20) Diethyl Ether	3.33	59	240808	10.00	ug/l		95
21) tert-Butyl Alcohol	4.87	59	145582	100.00	ug/l		100
22) Methyl tert-Butyl Et	4.89	73	689941	10.00	ug/l		97
23) Bromochloromethane	7.20	128	219789	10.00	ug/l		89
24) Chloroform	7.37	83	1165051	10.00	ug/l		96
25) 1,1,1-Trichloroethan	7.57	97	1131113	10.00	ug/l		98
26) 1,1-Dichloropropene	7.88	75	1108771	10.00	ug/l		98
27) Carbon Tetrachloride	7.79	117	980317	10.00	ug/l		99
28) Isopropyl Ether	5.76	45	1363137	10.00	ug/l		99
29) Propionitrile	7.11	54	158974	100.00	ug/l		100

Analyst Signature: Cy Analyst Name: Sy Date: 08/17/04

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081604.D Vial: 5  
 Acq On : 16 Aug 2004 11:06 am Operator: SAM  
 Sample : 10 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:43 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:43:14 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Benzene	8.25	78	2309628	10.00	ug/l	99
31) 1,2-Dichloroethane	8.47	62	409904	10.00	ug/l	99
32) Trichloroethene	9.54	130	735191	10.00	ug/l	99
33) 1,2-Dichloropropane	10.07	63	755438	10.00	ug/l	98
34) Methacrylonitrile	7.30	41	130789	10.00	ug/l	89
35) Methyl acrylate	7.01	55	222388	10.00	ug/l	96
36) Tetrahydrofuran	7.24	42	89628	20.00	ug/l	91
37) 1-Chlorobutane	7.81	56	1574020	10.00	ug/l	94
38) Dibromomethane	10.30	93	291424	10.00	ug/l	97
39) Bromodichloromethane	10.64	83	859438	10.00	ug/l	99
40) 4-Methyl-2-Pentanone	11.97	43	1421507	50.00	ug/l	97
41) t-1,4-Dichloro-2-but	18.50	53	159821	20.00	ug/l	99
42) Methyl methacrylate	10.38	69	377435	20.00	ug/l	85
43) Ethyl methacrylate	12.99	69	439420	10.00	ug/l	90
44) Toluene	12.14	92	1510825	10.00	ug/l	99
45) t-1,3-Dichloropropen	12.83	75	597386	10.00	ug/l	99
46) cis-1,3-Dichloroprop	11.59	75	1046314	10.00	ug/l	100
47) 1,1,2-Trichloroethan	13.19	97	345283	10.00	ug/l	99
48) 1,3-Dichloropropane	13.53	76	615245	10.00	ug/l	98
49) 2-Hexanone	13.75	43	590122	50.00	ug/l	95
50) Dibromochloromethane	13.92	129	477536	10.00	ug/l	99
51) 1,2-Dibromoethane	14.14	107	351957	10.00	ug/l	100
53) Tetrachloroethene	13.21	164	686582	10.00	ug/l	96
54) Chlorobenzene	15.19	112	1463718	10.00	ug/l	99
55) 1,1,1,2-Tetrachloroe	15.43	131	556810	10.00	ug/l	98
56) Pentachloroethane	19.65	117	645688	10.00	ug/l	98
57) Hexachloroethane	21.92	117	938356	10.00	ug/l	99
58) Ethyl Benzene	15.41	91	3215583	10.00	ug/l	100
59) m/p-Xylenes	15.70	91	4763403	20.00	ug/l	98
60) o-Xylene	16.58	91	2278112	10.00	ug/l	99
61) Styrene	16.66	104	1573408	10.00	ug/l	98
62) Bromoform	17.06	173	233875	10.00	ug/l	99
64) Isopropylbenzene	17.43	105	3199192	10.00	ug/l	98
65) 1,1,2,2-Tetrachloroe	18.37	83	419666	10.00	ug/l	98
66) 1,2,3-Trichloropropa	18.51	75	303795	10.00	ug/l	94
67) Bromobenzene	18.11	156	601909	10.00	ug/l	96
68) n-propylbenzene	18.40	120	846766	10.00	ug/l	94

Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

REASONS FOR MANUAL INTEGRATIONS

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081604.D Vial: 5  
 Acq On : 16 Aug 2004 11:06 am Operator: SAM  
 Sample : 10 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:43 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:43:14 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
69) 2-Chlorotoluene	18.58	126	687430	10.00	ug/l	94
70) 1,3,5-Trimethylbenze	18.86	105	2401082	10.00	ug/l	97
71) 4-Chlorotoluene	18.87	126	649962	10.00	ug/l	96
72) tert-Butylbenzene	19.56	119	3080128	10.00	ug/l	99
73) 1,2,4-Trimethylbenze	19.73	105	2173188	10.00	ug/l	98
74) sec-Butylbenzene	20.09	105	3926411	10.00	ug/l	99
75) p-Isopropyltoluene	20.47	119	2991578	10.00	ug/l	99
76) 1,3-Dichlorobenzene	20.35	146	1235568	10.00	ug/l	100
77) 1,4-Dichlorobenzene	20.59	146	1173390	10.00	ug/l	99
78) n-Butylbenzene	21.45	91	3321961	10.00	ug/l	99
79) 1,2-Dichlorobenzene	21.45	146	933738	10.00	ug/l	100
80) 1,2-Dibromo-3-Chloro	23.42	75	62724	10.00	ug/l	99
81) 1,2,4-Trichlorobenze	25.35	180	749264	10.00	ug/l	99
82) Hexachlorobutadiene	25.71	225	622187	10.00	ug/l	99
83) Naphthalene	25.92	128	608578	10.00	ug/l	100
84) 1,2,3-Trichlorobenze	26.53	180	568579	10.00	ug/l	98

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 Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly.Compound #: \_\_\_\_\_

\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

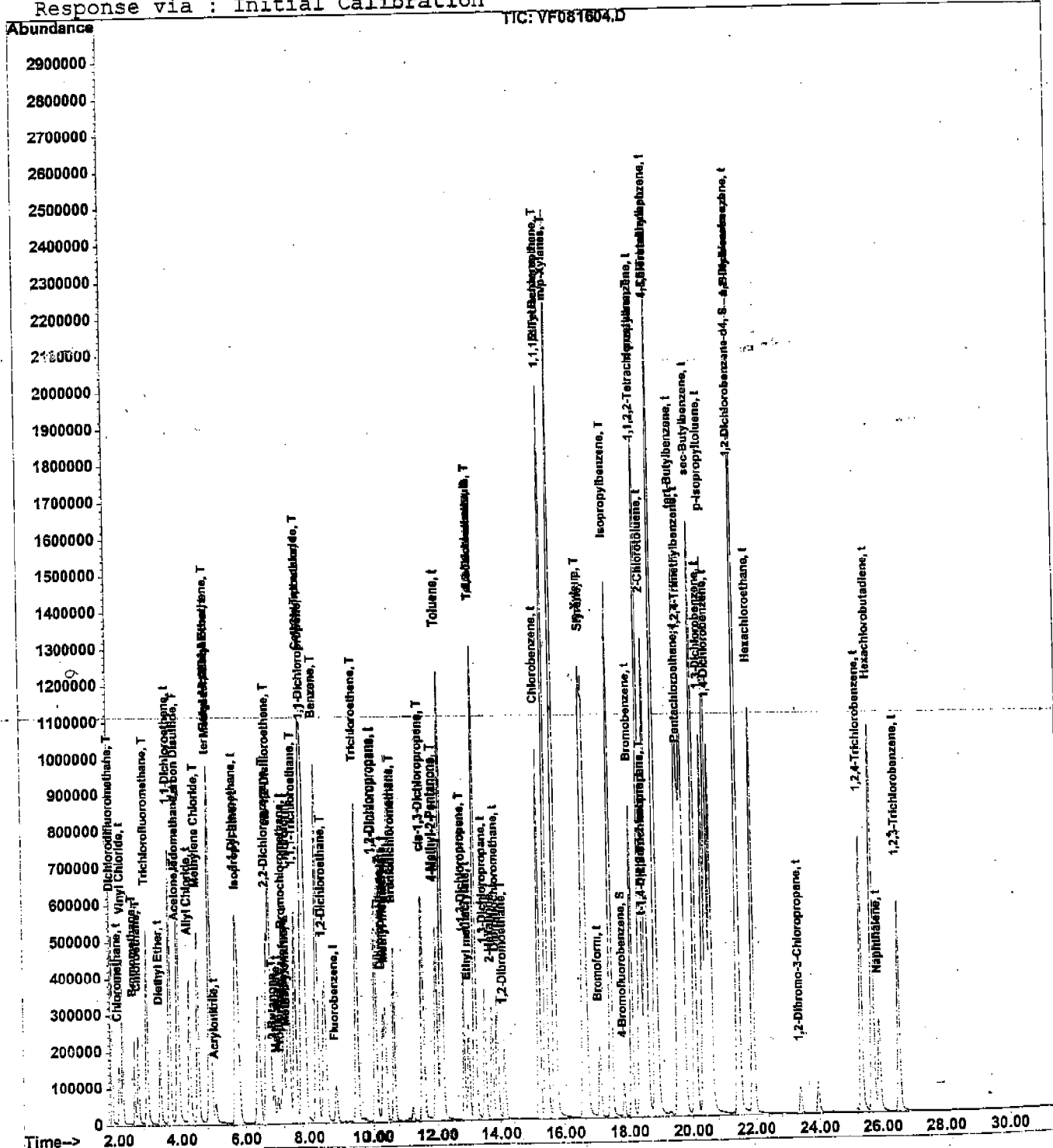


Quantitation Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081604.D Vial: 5  
Acq On : 16 Aug 2004 11:06 am Operator: SAM  
Sample : 10 PPB ICC Inst : VOA F  
Misc : 25mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Aug 17 9:43 2004

Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081605.D Vial: 6  
 Acq On : 16 Aug 2004 11:45 am Operator: SAM  
 Sample : 20 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:49 2004

Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:48:47 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.85	96	216654	1.00	ug/l	0.00
<b>System Monitoring Compounds</b>						
52) 4-Bromofluorobenzene	17.86	95	104438	1.04	ug/l	0.00
Spiked Amount			Recovery	=	104.00%	
63) 1,2-Dichlorobenzene-	21.42	152	59246	1.01	ug/l	0.00
Spiked Amount			Recovery	=	101.00%	
<b>Target Compounds</b>						
						Qvalue
2) Dichlorodifluorometh	1.79	85	1475963	24.34	ug/l	100
3) Chloromethane	2.00	50	946095	21.78	ug/l	98
4) Vinyl Chloride	2.12	62	1293120	22.36	ug/l	100
5) Bromomethane	2.50	94	603653	24.39	ug/l	99
6) Chloroethane	2.63	64	681544	21.05	ug/l	99
7) Trichlorofluorometha	2.90	101	2101138	24.50	ug/l	98
8) 1,1-Dichloroethene	3.63	96	1266627	21.31	ug/l	99
9) Iodomethane	3.87	142	1642381	26.36	ug/l	100
10) Allyl Chloride	4.24	41	1310935	20.39	ug/l	99
11) Acrylonitrile	5.06	53	153233	40.34	ug/l	98
12) Acetone	3.85	43	232597	95.57	ug/l	98
13) Carbon Disulfide	3.90	76	3462639	21.07	ug/l	99
14) Methylene Chloride	4.50	84	987394	20.35	ug/l	97
15) trans-1,2-Dichloroet	4.87	96	1335557	21.19	ug/l	99
16) 1,1-Dichloroethane	5.68	63	2404559	20.60	ug/l	100
17) 2-Butanone	6.88	43	612869	100.07	ug/l	99
18) 2,2-Dichloropropane	6.66	77	1978491	19.90	ug/l	99
19) cis-1,2-Dichloroethe	6.75	96	1335512	21.06	ug/l	98
20) Diethyl Ether	3.33	59	459059	20.10	ug/l	98
21) tert-Butyl Alcohol	4.86	59	281274	203.76	ug/l	100
22) Methyl tert-Butyl Et	4.89	73	1325091	20.25	ug/l	100
23) Bromochloromethane	7.19	128	434204	20.83	ug/l	97
24) Chloroform	7.36	83	2228884	20.18	ug/l	98
25) 1,1,1-Trichloroethan	7.56	97	2247484	20.95	ug/l	100
26) 1,1-Dichloropropene	7.88	75	2265028	21.54	ug/l	99
27) Carbon Tetrachloride	7.79	117	1984577	21.35	ug/l	100
28) Isopropyl Ether	5.75	45	2653376	20.53	ug/l	100
29) Propionitrile	7.10	54	307118	203.74	ug/l	100

Analyst Signature: CA Analyst Name: SU Date: 08/17/04

REASONS FOR MANUAL INTEGRATIONS

Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_  
 Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration  
 VF081605.D VF0816DW.M Tue Aug 17 13:00:23.2004

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081605.D Vial: 6  
 Acq On : 16 Aug 2004 11:45 am Operator: SAM  
 Sample : 20 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:49 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:48:47 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Benzene	8.24	78	4629954	21.14	ug/l	100
31) 1,2-Dichloroethane	8.45	62	800908	20.61	ug/l	99
32) Trichloroethene	9.54	130	1561341	22.40	ug/l	97
33) 1,2-Dichloropropane	10.06	63	1459578	20.38	ug/l	100
34) Methacrylonitrile	7.30	41	250388	20.19	ug/l	100
35) Methyl acrylate	7.01	55	432181	20.50	ug/l	100
36) Tetrahydrofuran	7.23	42	176441	41.52	ug/l	99
37) 1-Chlorobutane	7.81	56	3025683	20.27	ug/l	98
38) Dibromomethane	10.29	93	576431	20.86	ug/l	98
39) Bromodichloromethane	10.64	83	1721137	21.12	ug/l	100
40) 4-Methyl-2-Pentanone	11.97	43	2650674	98.33	ug/l	98
41) t-1,4-Dichloro-2-but	18.52	53	297957	39.32	ug/l	94
42) Methyl methacrylate	10.37	69	728124	40.69	ug/l	100
43) Ethyl methacrylate	12.98	69	874990	21.00	ug/l	97
44) Toluene	12.13	92	3011585	21.02	ug/l	99
45) t-1,3-Dichloropropen	12.82	75	1196260	21.12	ug/l	100
46) cis-1,3-Dichloroprop	11.57	75	2093372	21.10	ug/l	100
47) 1,1,2-Trichloroethan	13.18	97	677800	20.70	ug/l	99
48) 1,3-Dichloropropane	13.53	76	1213425	20.80	ug/l	100
49) 2-Hexanone	13.75	43	1162111	103.84	ug/l	100
50) Dibromochloromethane	13.92	129	958651	21.17	ug/l	99
51) 1,2-Dibromoethane	14.13	107	703334	21.08	ug/l	99
53) Tetrachloroethene	13.20	164	1442199	22.15	ug/l	98
54) Chlorobenzene	15.18	112	2912382	20.98	ug/l	98
55) 1,1,1,2-Tetrachloroe	15.44	131	1094108	20.72	ug/l	100
56) Pentachloroethane	19.65	117	1284707	20.98	ug/l	99
57) Hexachloroethane	21.92	117	1917448	21.55	ug/l	97
58) Ethyl Benzene	15.42	91	6228638	20.43	ug/l	99
59) m/p-Xylenes	15.71	91	9478893	41.97	ug/l	100
60) o-Xylene	16.59	91	4524564	20.95	ug/l	99
61) Styrene	16.66	104	3124558	20.94	ug/l	100
62) Bromoform	17.07	173	474077	21.38	ug/l	99
64) Isopropylbenzene	17.43	105	6403422	21.11	ug/l	100
65) 1,1,2,2-Tetrachloroe	18.37	83	808358	20.31	ug/l	100
66) 1,2,3-Trichloropropa	18.52	75	596983	20.72	ug/l	94
67) Bromobenzene	18.12	156	1218164	21.34	ug/l	97
68) n-propylbenzene	18.40	120	1725541	21.49	ug/l	98

Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081605.D Vial: 6  
 Acq On : 16 Aug 2004 11:45 am Operator: SAM  
 Sample : 20 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:49 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:48:47 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
69) 2-Chlorotoluene	18.59	126	1384203	21.24	ug/l	100
70) 1,3,5-Trimethylbenze	18.87	105	4748805	20.86	ug/l	100
71) 4-Chlorotoluene	18.88	126	1277716	20.73	ug/l	96
72) tert-Butylbenzene	19.57	119	6229127	21.33	ug/l	98
73) 1,2,4-Trimethylbenze	19.73	105	4403688	21.37	ug/l	100
74) sec-Butylbenzene	20.09	105	8048560	21.62	ug/l	100
75) p-Isopropyltoluene	20.48	119	6176120	21.77	ug/l	100
76) 1,3-Dichlorobenzene	20.36	146	2532504	21.62	ug/l	99
77) 1,4-Dichlorobenzene	20.60	146	2402322	21.59	ug/l	99
78) n-Butylbenzene	21.45	91	6726397	21.35	ug/l	100
79) 1,2-Dichlorobenzene	21.46	146	1873733	21.16	ug/l	99
80) 1,2-Dibromo-3-Chloro	23.41	75	130065	21.87	ug/l	98
81) 1,2,4-Trichlorobenze	25.34	180	1626846	22.90	ug/l	100
82) Hexachlorobutadiene	25.72	225	1365104	23.14	ug/l	100
83) Naphthalene	25.91	128	1253674	21.73	ug/l	100
84) 1,2,3-Trichlorobenze	26.53	180	1208028	22.41	ug/l	99

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 Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

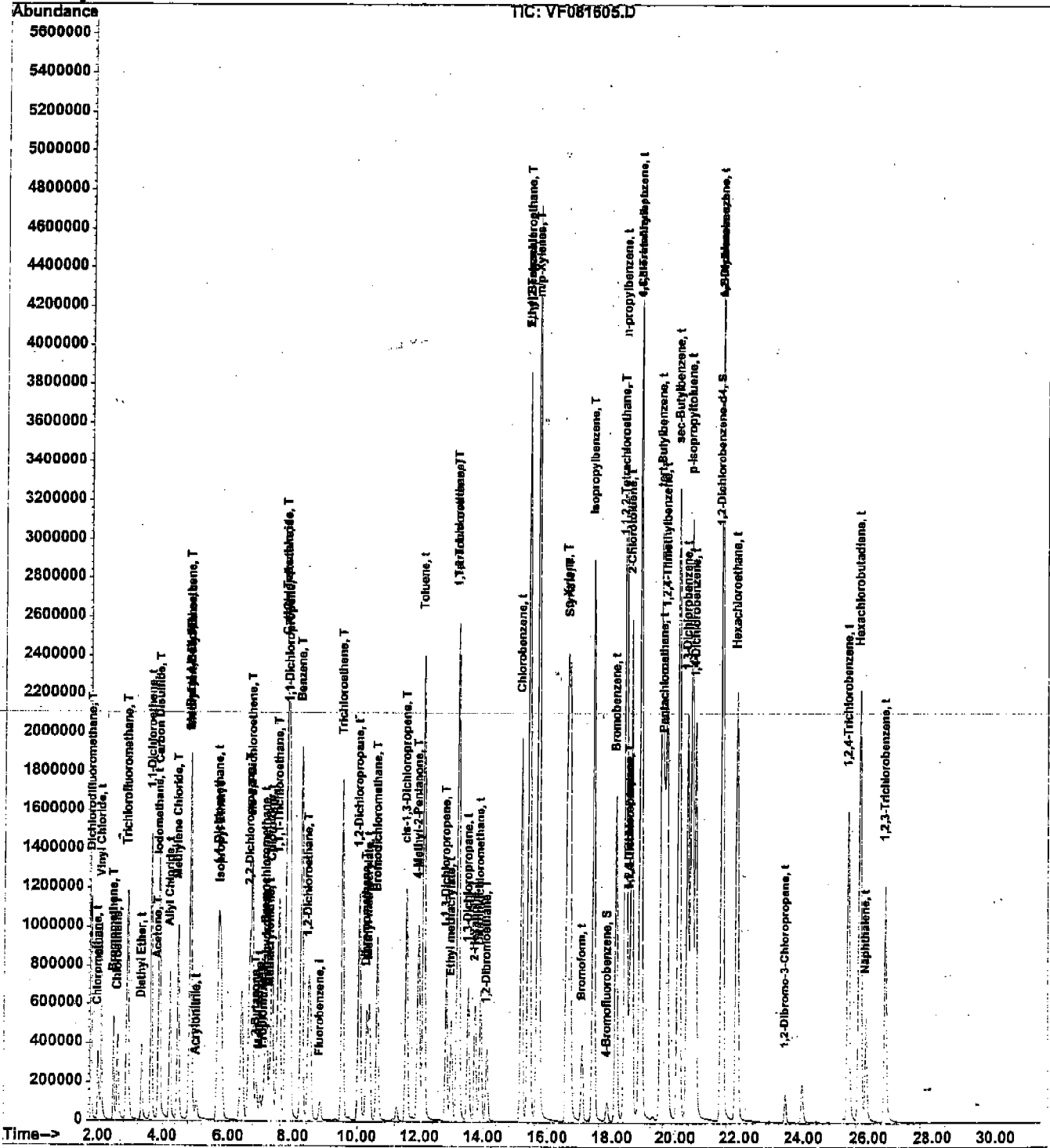
\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081605.D Vial: 6  
 Acq On : 16 Aug 2004 11:45 am Operator: SAM  
 Sample : 20 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:49 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081606.D Vial: 7  
 Acq On : 16 Aug 2004 12:24 pm Operator: SAM  
 Sample : 40 PPB ICC Inst : VOA F.  
 Misc : 25mL Multiplr: 1.00

MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:49 2004

Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:48:47 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	8.86	96	233018	1.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
52) 4-Bromofluorobenzene	17.86	95	122127	1.13	ug/l	0.00
Spiked Amount	1.000		Recovery	=	113.00%	
63) 1,2-Dichlorobenzene-	21.42	152	59346	0.94	ug/l	0.00
Spiked Amount	1.000		Recovery	=	94.00%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluorometh	1.80	85	2783687	42.68	ug/l	99
3) Chloromethane	2.01	50	1753541	37.54	ug/l	99
4) Vinyl Chloride	2.12	62	2441702	39.25	ug/l	100
5) Bromomethane	2.50	94	1135275	42.65	ug/l	100
6) Chloroethane	2.61	64	596281	17.12	ug/l	100
7) Trichlorofluorometha	2.90	101	4019666	43.58	ug/l	100
8) 1,1-Dichloroethene	3.63	96	2482939	38.85	ug/l	96
9) Iodomethane	3.87	142	3671177	54.79	ug/l	99
10) Allyl Chloride	4.25	41	2514848	36.37	ug/l	100
11) Acrylonitrile	5.07	53	303904	74.39	ug/l	99
12) Acetone	3.86	43	437428	167.11	ug/l	100
13) Carbon Disulfide	3.91	76	6708573	37.95	ug/l	99
14) Methylene Chloride	4.50	84	1980230	37.96	ug/l	95
15) trans-1,2-Dichloroet	4.87	96	2675206	39.46	ug/l	95
16) 1,1-Dichloroethane	5.68	63	4690769	37.36	ug/l	99
17) 2-Butanone	6.88	43	1248941	189.60	ug/l	100
18) 2,2-Dichloropropane	6.67	77	3983687	37.26	ug/l	99
19) cis-1,2-Dichloroethe	6.75	96	2683447	39.34	ug/l	96
20) Diethyl Ether	3.34	59	923235	37.59	ug/l	97
21) tert-Butyl Alcohol	4.88	59	565784	381.08	ug/l	100
22) Methyl tert-Butyl Et	4.90	73	2658055	37.78	ug/l	98
23) Bromochloromethane	7.20	128	888456	39.64	ug/l	93
24) Chloroform	7.36	83	4503294	37.90	ug/l	98
25) 1,1,1-Trichloroethan	7.56	97	4471106	38.76	ug/l	98
26) 1,1-Dichloropropene	7.89	75	4287030	37.91	ug/l	99
27) Carbon Tetrachloride	7.79	117	3940500	39.41	ug/l	99
28) Isopropyl Ether	5.76	45	5272439	37.93	ug/l	99
29) Propionitrile	7.11	54	630350	388.80	ug/l	100

Analyst Signature: Sy Analyst Name: Sy Date: 08/17/04

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081606.D Vial: 7  
 Acq On : 16 Aug 2004 12:24 pm Operator: SAM  
 Sample : 40 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:49 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:48:47 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Benzene	8.25	78	9218513	39.14	ug/l	100
31) 1,2-Dichloroethane	8.46	62	1560934	37.34	ug/l	98
32) Trichloroethene	9.54	130	3052668	40.71	ug/l	97
33) 1,2-Dichloropropane	10.06	63	2943558	38.21	ug/l	100
34) Methacrylonitrile	7.29	41	506112	37.94	ug/l	100
35) Methyl acrylate	7.01	55	866439	38.20	ug/l	100
36) Tetrahydrofuran	7.23	42	334051	73.09	ug/l	97
37) 1-Chlorobutane	7.82	56	5532199	34.46	ug/l	97
38) Dibromomethane	10.30	93	1154277	38.84	ug/l	97
39) Bromodichloromethane	10.65	83	3397362	38.76	ug/l	100
40) 4-Methyl-2-Pentanone	11.96	43	5364778	185.03	ug/l	99
41) t-1,4-Dichloro-2-but	18.52	53	591144	72.54	ug/l	93
42) Methyl methacrylate	10.38	69	1480933	76.95	ug/l	98
43) Ethyl methacrylate	12.99	69	1757710	39.22	ug/l	98
44) Toluene	12.13	92	5968479	38.74	ug/l	100
45) t-1,3-Dichloropropen	12.83	75	2391097	39.25	ug/l	99
46) cis-1,3-Dichloroprop	11.59	75	4161410	39.00	ug/l	100
47) 1,1,2-Trichloroethan	13.18	97	1293013	36.72	ug/l	98
48) 1,3-Dichloropropane	13.53	76	2418846	38.55	ug/l	99
49) 2-Hexanone	13.76	43	2288580	190.14	ug/l	99
50) Dibromochloromethane	13.92	129	1938071	39.80	ug/l	99
51) 1,2-Dibromoethane	14.13	107	1429254	39.82	ug/l	100
53) Tetrachloroethene	13.20	164	2864892	40.92	ug/l	96
54) Chlorobenzene	15.19	112	5880036	39.39	ug/l	98
55) 1,1,1,2-Tetrachloroe	15.43	131	2170069	38.22	ug/l	99
56) Pentachloroethane	19.65	117	2478266	37.64	ug/l	95
57) Hexachloroethane	21.93	117	3670981	38.36	ug/l	94
58) Ethyl Benzene	15.42	91	11785892	35.94	ug/l	97
59) m/p-Xylenes	15.71	91	17434166	71.78	ug/l	98
60) o-Xylene	16.59	91	8727363	37.56	ug/l	99
61) Styrene	16.66	104	6114765	38.11	ug/l	100
62) Bromoform	17.06	173	1008834	42.30	ug/l	99
64) Isopropylbenzene	17.43	105	12422264	38.07	ug/l	100
65) 1,1,2,2-Tetrachloroe	18.36	83	1557618	36.39	ug/l	99
66) 1,2,3-Trichloropropa	18.52	75	1169131	37.74	ug/l	95
67) Bromobenzene	18.11	156	2455014	39.99	ug/l	94
68) n-propylbenzene	18.40	120	3346082	38.75	ug/l	94

Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081606.D Vial: 7  
 Acq On : 16 Aug 2004 12:24 pm Operator: SAM  
 Sample : 40 PPB ICC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 9:49 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 09:48:47 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
69) 2-Chlorotoluene	18.59	126	2720707	38.81	ug/l	95
70) 1,3,5-Trimethylbenze	18.87	105	9126296	37.27	ug/l	100
71) 4-Chlorotoluene	18.87	126	2463357	37.16	ug/l	91
72) tert-Butylbenzene	19.57	119	12031666	38.30	ug/l	98
73) 1,2,4-Trimethylbenze	19.73	105	8546200	38.56	ug/l	100
74) sec-Butylbenzene	20.09	105	15221981	38.01	ug/l	100
75) p-Isopropyltoluene	20.48	119	11886575	38.96	ug/l	99
76) 1,3-Dichlorobenzene	20.36	146	4990586	39.61	ug/l	99
77) 1,4-Dichlorobenzene	20.60	146	4674282	39.06	ug/l	100
78) n-Butylbenzene	21.46	91	12365683	36.50	ug/l	99
79) 1,2-Dichlorobenzene	21.46	146	3613170	37.94	ug/l	98
80) 1,2-Dibromo-3-Chloro	23.42	75	256564	40.11	ug/l	94
81) 1,2,4-Trichlorobenze	25.35	180	3231719	42.29	ug/l	99
82) Hexachlorobutadiene	25.72	225	2773234	43.71	ug/l	100
83) Naphthalene	25.92	128	2545107	41.01	ug/l	100
84) 1,2,3-Trichlorobenze	26.53	180	2424152	41.81	ug/l	99

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 Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_  
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-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 \_\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 \_\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration  
 VF081606.D VF0816DW.M Tue Aug 17 13:04:09 2004

RPT1

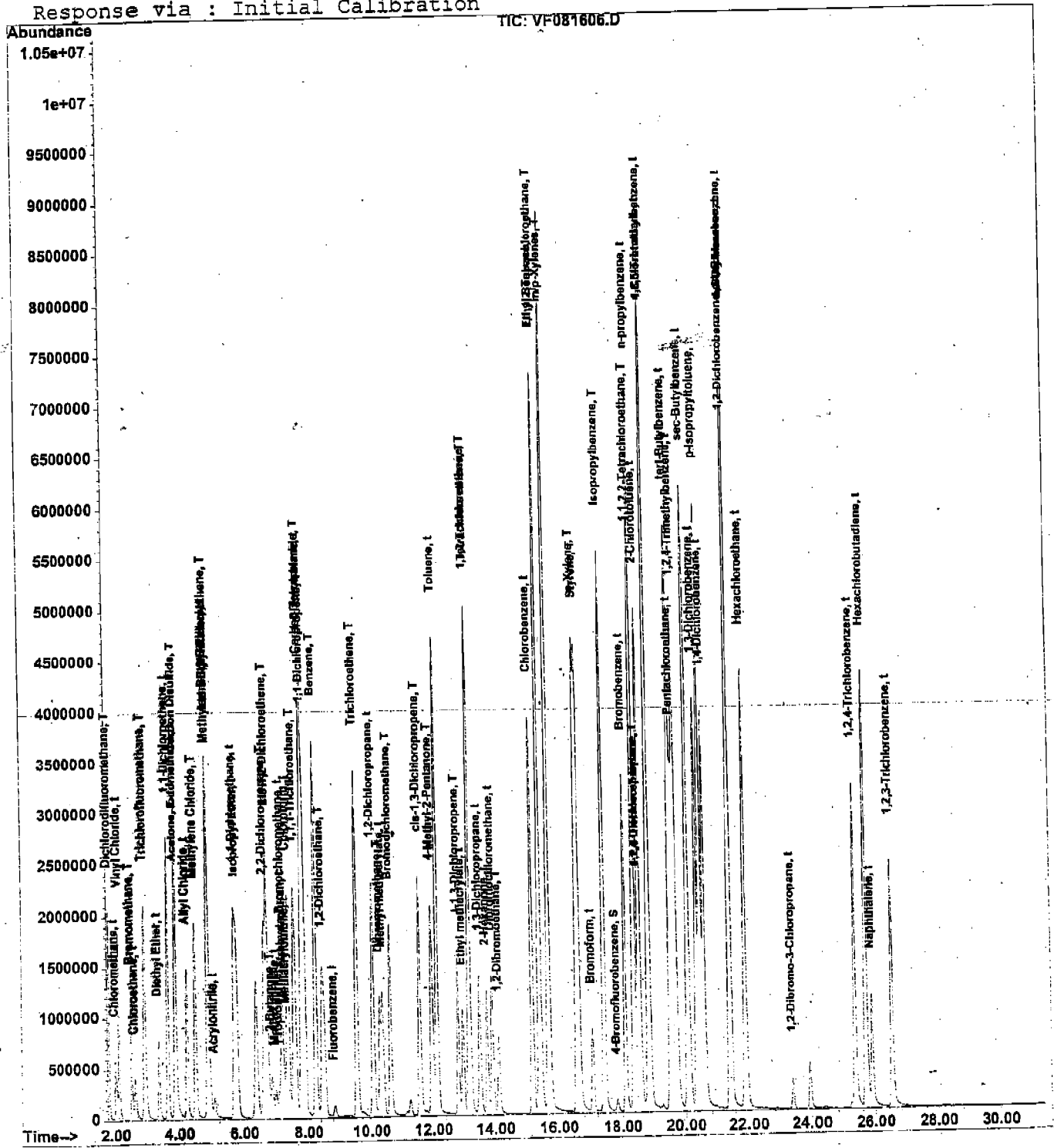
Quantitation Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081606.D  
Acq On : 16 Aug 2004 12:24 pm  
Sample : 40 PPB ICC  
Misc : 25mL  
MS Integration Params: rteint.p  
Quant Time: Aug 17 9:49 2004

Vial: 7  
Operator: SAM  
Inst : VOA F  
Multiplr: 1.00

Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Chentech Contract: PARS04  
 Lab Code: CTECH Case No.: S4436 SAS No.: S4436 SDG No.: S4436  
 Instrument ID: MSVOAF Calibration Date/Time: 9/3/2004 22:24  
 Lab File ID: VF090402.D Init. Calib. Date(s): 8/16/2004 8/16/2004  
 Heated Purge: (Y/N) N Init. Calib. Time(s): 09:49 12:24  
 GC Column: RTX624 ID: 0.53 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.318	0.393		23.6	30.0
Chloromethane	0.214	0.232		8.4	30.0
Vinyl Chloride	0.292	0.302		3.4	30.0
Bromomethane	0.124	0.131		5.6	30.0
Chloroethane	0.148	0.167		12.8	30.0
Trichlorofluoromethane	0.459	0.481		4.8	
tert-Butyl Alcohol	0.006	0.007		16.7	
Diethyl Ether	0.105	0.110		4.8	
1,1-Dichloroethene	0.290	0.292		0.7	30.0
Iodomethane	0.258	0.329		27.5	
Allyl Chloride	0.302	0.294		2.6	
Acrylonitrile	0.017	0.019		11.8	
Acetone	0.012	0.013		8.3	
Carbon Disulfide	0.781	0.781		0.0	30.0
Methyl tert-Butyl Ether	0.306	0.326		6.5	
Methyl acrylate	0.095	0.108		13.7	
Methylene Chloride	0.237	0.238		0.4	30.0
trans-1,2-Dichloroethane	0.310	0.314		1.3	30.0
1,1-Dichloroethane	0.552	0.553		0.2	30.0
2-Butanone	0.029	0.032		10.3	
Carbon Tetrachloride	0.449	0.447		0.4	30.0
2,2-Dichloropropane	0.479	0.511		6.7	30.0
cis-1,2-Dichloroethane	0.304	0.319		4.9	30.0
Chloroform	0.521	0.541		3.8	30.0
1,1,1-Trichloroethane	0.515	0.515		0.0	30.0
t-1,4-Dichloro-2-butene	0.033	0.040		21.2	
1,1-Dichloropropene	0.517	0.521		0.8	30.0
Isopropyl Ether	0.611	0.616		0.8	
Propionitrile	0.007	0.008		14.3	
Benzene	1.065	1.086		2.0	30.0
1,2-Dichloroethane	0.180	0.194		7.8	30.0
Trichloroethene	0.349	0.358		2.6	30.0
1,2-Dichloropropane	0.336	0.341		1.5	30.0
Methacrylonitrile	0.059	0.067		13.6	
Tetrahydrofuran	0.020	0.022		10.0	
1-Chlorobutane	0.709	0.717		1.1	
Dibromomethane	0.128	0.140		9.4	30.0
Bromodichloromethane	0.379	0.408		7.7	30.0
4-Methyl-2-Pentanone	0.120	0.133		10.8	
Methyl methacrylate	0.082	0.092		12.2	
Ethyl methacrylate	0.192	0.213		10.9	

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4436 SAS No.: S4436 SDG No.: S4436  
 Instrument ID: MSVOAF Calibration Date/Time: 9/3/2004 22:24  
 Lab File ID: VF090402.D Init. Calib. Date(s): 8/16/2004 8/16/2004  
 Heated Purge: (Y/N) N Init. Calib. Time(s): 09:49 12:24  
 GC Column: RTX624 ID: 0.53 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Toluene	0.692	0.693		0.1	30.0
t-1,3-Dichloropropene	0.264	0.288		9.1	30.0
cis-1,3-Dichloropropene	0.463	0.508		9.7	30.0
1,1,2-Trichloroethane	0.152	0.166		9.2	30.0
1,3-Dichloropropane	0.275	0.290		5.5	30.0
2-Hexanone	0.051	0.057		11.8	
Dibromochloromethane	0.206	0.228		10.7	30.0
1,2-Dibromoethane	0.155	0.172		11.0	30.0
Tetrachloroethene	0.324	0.321		0.9	30.0
Chlorobenzene	0.664	0.688		3.6	30.0
1,1,1,2-Tetrachloroethane	0.247	0.259		4.9	30.0
Hexachloroethane	0.421	0.443		5.2	
Ethyl Benzene	1.460	1.468		0.5	30.0
m/p-Xylenes	1.088	1.097		0.8	30.0
o-Xylene	1.037	1.054		1.6	30.0
Styrene	0.703	0.742		5.5	30.0
Bromoform	0.099	0.113		14.1	30.0
Bromobenzene	0.271	0.278		2.6	30.0
Isopropylbenzene	1.460	1.489		2.0	30.0
1,1,2,2-Tetrachloroethane	0.184	0.206		12.0	30.0
1,2,3-Trichloropropane	0.131	0.148		13.0	30.0
n-propylbenzene	0.397	0.401		1.0	30.0
2-Chlorotoluene	0.313	0.321		2.6	30.0
1,3,5-Trimethylbenzene	1.102	1.113		1.0	30.0
4-Chlorotoluene	0.295	0.301		2.0	30.0
tert-Butylbenzene	1.410	1.435		1.8	30.0
1,2,4-Trimethylbenzene	1.002	0.999		0.3	30.0
sec-Butylbenzene	1.825	1.864		2.1	30.0
p-Isopropyltoluene	1.405	1.439		2.4	30.0
1,3-Dichlorobenzene	0.568	0.593		4.4	30.0
1,4-Dichlorobenzene	0.542	0.556		2.6	30.0
n-Butylbenzene	1.557	1.592		2.2	30.0
1,2-Dichlorobenzene	0.429	0.449		4.7	30.0
1,2-Dibromo-3-Chloropropane	0.027	0.031		14.8	
1,2,4-Trichlorobenzene	0.346	0.348		0.6	30.0
Hexachlorobutadiene	0.297	0.302		1.7	30.0
Naphthalene	0.265	0.284		7.2	30.0
1,2,3-Trichlorobenzene	0.258	0.264		2.3	30.0
1,2-Dichlorobenzene-d4	0.261	0.267		2.3	
4-Bromofluorobenzene	0.470	0.466		0.9	

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090402.D Vial: 2  
 Acq On : 3 Sep 2004 10:24 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 20% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 i	Fluorobenzene	1.000	1.000	0.0	116	0.00
2 T	Dichlorodifluoromethane	0.318	0.393	-23.6	162	0.00
3 t	Chloromethane	0.214	0.232	-8.4	134	0.00
4 t	Vinyl Chloride	0.292	0.302	-3.4	131	0.00
5 T	Bromomethane	0.124	0.131	-5.6	133	0.00
6 T	Chloroethane	0.148	0.167	-12.8	129	0.00
7 T	Trichlorofluoromethane	0.459	0.481	-4.8	140	0.00
8 t	1,1-Dichloroethene	0.290	0.292	-0.7	123	0.00
9 t	Iodomethane	0.257	0.329	-28.0	132	0.00
10 t	Allyl Chloride	0.302	0.294	2.6	115	0.00
11 t	Acrylonitrile	0.017	0.019	-11.8	128	-0.01
12 T	Acetone	0.012	0.013	-8.3	135	0.00
13 T	Carbon Disulfide	0.781	0.781	0.0	119	0.00
14 T	Methylene Chloride	0.237	0.238	-0.4	123	0.00
15 T	trans-1,2-Dichloroethene	0.310	0.314	-1.3	125	0.00
16 t	1,1-Dichloroethane	0.552	0.553	-0.2	119	-0.01
17 T	2-Butanone	0.029	0.032	-10.3	129	-0.02
18 T	2,2-Dichloropropane	0.479	0.511	-6.7	129	0.00
19 T	cis-1,2-Dichloroethene	0.304	0.319	-4.9	126	0.00
20 t	Diethyl Ether	0.105	0.110	-4.8	121	0.00
21 t	tert-Butyl Alcohol	0.007	0.007	0.0	129	0.00
22 t	Methyl tert-Butyl Ether	0.306	0.326	-6.5	125	-0.02
23 t	Bromochloromethane	0.097	0.106	-9.3	128	0.00
24 t	Chloroform	0.521	0.541	-3.8	123	-0.01
25 T	1,1,1-Trichloroethane	0.514	0.515	-0.2	120	-0.02
26 T	1,1-Dichloropropene	0.516	0.521	-1.0	124	0.00
27 T	Carbon Tetrachloride	0.449	0.447	0.4	120	0.00
28 t	Isopropyl Ether	0.611	0.616	-0.8	119	0.00
29 t	Propionitrile	0.007	0.008	-14.3	129	0.00
30 T	Benzene	1.065	1.086	-2.0	124	0.00
31 T	1,2-Dichloroethane	0.180	0.194	-7.8	125	0.00
32 T	Trichloroethene	0.348	0.358	-2.9	128	0.00
33 t	1,2-Dichloropropane	0.336	0.341	-1.5	119	-0.01
34 t	Methacrylonitrile	0.059	0.067	-13.6	134	-0.01
35 t	Methyl acrylate	0.095	0.108	-13.7	128	-0.01
36 t	Tetrahydrofuran	0.019	0.022	-15.8	131	0.00
37 t	1-Chlorobutane	0.709	0.717	-1.1	120	0.00
38 T	Dibromomethane	0.128	0.140	-9.4	127	-0.02
39 T	Bromodichloromethane	0.379	0.408	-7.7	125	-0.01
40 T	4-Methyl-2-Pentanone	0.120	0.133	-10.8	124	-0.01
41 t	t-1,4-Dichloro-2-butene	0.033	0.040	-21.2	131	-0.01
42 t	Methyl methacrylate	0.082	0.092	-12.2	128	0.00

(#) = Out of Range



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090402.D Vial: 2  
 Acq On : 3 Sep 2004 10:24 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 20% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43 t	Ethyl methacrylate	0.192	0.213	-10.9	128	0.00
44 t	Toluene	0.692	0.693	-0.1	121	0.00
45 T	t-1,3-Dichloropropene	0.264	0.288	-9.1	127	0.00
46 T	cis-1,3-Dichloropropene	0.463	0.508	-9.7	128	0.00
47 T	1,1,2-Trichloroethane	0.152	0.166	-9.2	127	-0.02
48 t	1,3-Dichloropropane	0.275	0.290	-5.5	125	0.00
49 t	2-Hexanone	0.051	0.057	-11.8	127	0.00
50 t	Dibromochloromethane	0.205	0.228	-11.2	126	0.00
51 T	1,2-Dibromoethane	0.155	0.172	-11.0	129	0.00
52 S	4-Bromofluorobenzene	0.470	0.466	0.9	116	-0.01
53 T	Tetrachloroethene	0.324	0.321	0.9	124	0.00
54 t	Chlorobenzene	0.664	0.688	-3.6	124	-0.01
55 T	1,1,1,2-Tetrachloroethane	0.247	0.259	-4.9	123	-0.02
56 t	Pentachloroethane	0.285	0.302	-6.0	123	-0.02
57 t	Hexachloroethane	0.421	0.443	-5.2	125	-0.01
58 t	Ethyl Benzene	1.461	1.468	-0.5	121	0.00
59 T	m/p-Xylenes	1.088	1.097	-0.8	122	0.00
60 T	o-Xylene	1.037	1.054	-1.6	122	-0.02
61 T	Styrene	0.703	0.742	-5.5	124	-0.02
62 t	Bromoform	0.100	0.113	-13.0	127	-0.02
63 S	1,2-Dichlorobenzene-d4	0.261	0.267	-2.3	114	-0.02
64 T	Isopropylbenzene	1.460	1.489	-2.0	123	-0.01
65 T	1,1,2,2-Tetrachloroethane	0.184	0.206	-12.0	129	-0.02
66 T	1,2,3-Trichloropropane	0.132	0.148	-12.1	129	-0.01
67 t	Bromobenzene	0.271	0.278	-2.6	122	-0.01
68 t	n-propylbenzene	0.397	0.401	-1.0	125	-0.02
69 t	2-Chlorotoluene	0.313	0.321	-2.6	123	-0.01
70 t	1,3,5-Trimethylbenzene	1.102	1.113	-1.0	122	-0.02
71 t	4-Chlorotoluene	0.295	0.301	-2.0	122	-0.02
72 t	tert-Butylbenzene	1.410	1.435	-1.8	123	-0.02
73 t	1,2,4-Trimethylbenzene	1.002	0.999	0.3	121	-0.01
74 t	sec-Butylbenzene	1.825	1.864	-2.1	125	-0.02
75 t	p-Isopropyltoluene	1.405	1.439	-2.4	127	-0.02
76 t	1,3-Dichlorobenzene	0.568	0.593	-4.4	127	-0.03
77 t	1,4-Dichlorobenzene	0.542	0.556	-2.6	125	-0.02
78 t	n-Butylbenzene	1.557	1.592	-2.2	127	-0.02
79 t	1,2-Dichlorobenzene	0.429	0.449	-4.7	127	-0.02
80 t	1,2-Dibromo-3-Chloropropane	0.027	0.031	-14.8	132	-0.02
81 t	1,2,4-Trichlorobenzene	0.346	0.348	-0.6	123	-0.02
82 t	Hexachlorobutadiene	0.297	0.302	-1.7	128	-0.02
83 t	Naphthalene	0.265	0.284	-7.2	123	-0.02
84 t	1,2,3-Trichlorobenzene	0.258	0.264	-2.3	123	-0.03

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

VF090402.D VF0816DW.M

Thu Sep 09 12:52:23 2004

RPT1

Page 2

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090402.D Vial: 2  
 Acq On : 3 Sep 2004 10:24 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 7 11:31 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.84	96	264017	1.00	ug/l	0.00
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.84	95	123088	0.99	ug/l	-0.01
Spiked Amount	1.000		Recovery	=	99.00%	
63) 1,2-Dichlorobenzene-	21.40	152	70468	1.02	ug/l	-0.02
Spiked Amount	1.000		Recovery	=	102.00%	
Target Compounds						
						Qvalue
2) Dichlorodifluorometh	1.79	85	1037554	12.37	ug/l	100
3) Chloromethane	2.01	50	612670	10.85	ug/l	98
4) Vinyl Chloride	2.12	62	796597	10.33	ug/l	100
5) Bromomethane	2.50	94	346322	10.57	ug/l	99
6) Chloroethane	2.63	64	442004	11.32	ug/l	98
7) Trichlorofluorometha	2.90	101	1270589	10.49	ug/l	100
8) 1,1-Dichloroethene	3.63	96	771399	10.07	ug/l	95
9) Iodomethane	3.86	142	869190	12.79	ug/l	99
10) Allyl Chloride	4.24	41	777269	9.76	ug/l	99
11) Acrylonitrile	5.05	53	102722	22.39	ug/l	97
12) Acetone	3.85	43	173888	53.00	ug/l	99
13) Carbon Disulfide	3.90	76	2063224	10.01	ug/l	100
14) Methylene Chloride	4.49	84	629131	10.06	ug/l	97
15) trans-1,2-Dichloroet	4.87	96	829335	10.14	ug/l	95
16) 1,1-Dichloroethane	5.67	63	1461000	10.03	ug/l	99
17) 2-Butanone	6.86	43	417593	55.36	ug/l	97
18) 2,2-Dichloropropane	6.65	77	1349774	10.67	ug/l	100
19) cis-1,2-Dichloroethe	6.74	96	843524	10.49	ug/l	98
20) Diethyl Ether	3.33	59	290517	10.51	ug/l	98
21) tert-Butyl Alcohol	4.86	59	188433	109.25	ug/l	100
22) Methyl tert-Butyl Et	4.88	73	861251	10.65	ug/l	99
23) Bromochloromethane	7.18	128	280397	10.90	ug/l	98
24) Chloroform	7.35	83	1428825	10.39	ug/l	99
25) 1,1,1-Trichloroethan	7.54	97	1360254	10.02	ug/l	100
26) 1,1-Dichloropropene	7.87	75	1375027	10.08	ug/l	99
27) Carbon Tetrachloride	7.78	117	1178976	9.95	ug/l	99
28) Isopropyl Ether	5.75	45	1625397	10.07	ug/l	98
29) Propionitrile	7.09	54	204688	113.95	ug/l	100

Analyst Signature: Sy Analyst Name: Sy Date: 09/09/04

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090402.D Vial: 2  
 Acq On : 3 Sep 2004 10:24 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 7 11:31 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Benzene	8.24	78	2867289	10.19	ug/l	99
31) 1,2-Dichloroethane	8.45	62	513358	10.83	ug/l	100
32) Trichloroethene	9.53	130	944444	10.26	ug/l	95
33) 1,2-Dichloropropane	10.05	63	899241	10.13	ug/l	99
34) Methacrylonitrile	7.29	41	175763	11.28	ug/l	97
35) Methyl acrylate	7.00	55	284170	11.37	ug/l	100
36) Tetrahydrofuran	7.22	42	117373	22.88	ug/l	99
37) 1-Chlorobutane	7.80	56	1891988	10.11	ug/l	98
38) Dibromomethane	10.28	93	369008	10.93	ug/l	99
39) Bromodichloromethane	10.63	83	1078401	10.79	ug/l	99
40) 4-Methyl-2-Pentanone	11.95	43	1759198	55.49	ug/l	98
41) t-1,4-Dichloro-2-but	18.50	53	209322	23.76	ug/l	99
42) Methyl methacrylate	10.37	69	483489	22.47	ug/l	99
43) Ethyl methacrylate	12.98	69	563225	11.12	ug/l	99
44) Toluene	12.12	92	1828702	10.01	ug/l	98
45) t-1,3-Dichloropropen	12.82	75	760830	10.92	ug/l	98
46) cis-1,3-Dichloroprop	11.57	75	1340926	10.98	ug/l	100
47) 1,1,2-Trichloroethan	13.17	97	437124	10.88	ug/l	99
48) 1,3-Dichloropropane	13.52	76	766371	10.55	ug/l	99
49) 2-Hexanone	13.74	43	746634	55.10	ug/l	100
50) Dibromochloromethane	13.91	129	602969	11.12	ug/l	100
51) 1,2-Dibromoethane	14.12	107	453003	11.06	ug/l	99
53) Tetrachloroethene	13.20	164	848623	9.92	ug/l	99
54) Chlorobenzene	15.17	112	1816304	10.35	ug/l	99
55) 1,1,1,2-Tetrachloroe	15.42	131	683933	10.50	ug/l	100
56) Pentachloroethane	19.62	117	796403	10.58	ug/l	99
57) Hexachloroethane	21.91	117	1170701	10.53	ug/l	97
58) Ethyl Benzene	15.41	91	3875496	10.05	ug/l	99
59) m/p-Xylenes	15.70	91	5793401	20.17	ug/l	100
60) o-Xylene	16.58	91	2782213	10.16	ug/l	100
61) Styrene	16.64	104	1958346	10.55	ug/l	99
62) Bromoform	17.05	173	297111	11.29	ug/l	99
64) Isopropylbenzene	17.42	105	3931215	10.20	ug/l	99
65) 1,1,2,2-Tetrachloroe	18.34	83	542771	11.17	ug/l	99
66) 1,2,3-Trichloropropa	18.50	75	391161m	11.27	ug/l	
67) Bromobenzene	18.10	156	735195	10.26	ug/l	100
68) n-propylbenzene	18.38	120	1058286	10.11	ug/l	100

Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090402.D Vial: 2  
 Acq On : 3 Sep 2004 10:24 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00

MS Integration Params: rteint.p  
 Quant Time: Sep 7 11:31 2004

Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
69) 2-Chlorotoluene	18.57	126	848149	10.28	ug/l	98
70) 1,3,5-Trimethylbenze	18.85	105	2939652	10.11	ug/l	100
71) 4-Chlorotoluene	18.86	126	795358	10.22	ug/l	99
72) tert-Butylbenzene	19.54	119	3787595	10.17	ug/l	99
73) 1,2,4-Trimethylbenze	19.71	105	2636670	9.96	ug/l	98
74) sec-Butylbenzene	20.07	105	4922009	10.22	ug/l	100
75) p-Isopropyltoluene	20.46	119	3799259	10.24	ug/l	99
76) 1,3-Dichlorobenzene	20.33	146	1564846	10.43	ug/l	100
77) 1,4-Dichlorobenzene	20.58	146	1467735	10.26	ug/l	99
78) n-Butylbenzene	21.43	91	4202660	10.22	ug/l	100
79) 1,2-Dichlorobenzene	21.44	146	1186394	10.48	ug/l	100
80) 1,2-Dibromo-3-Chloro	23.39	75	82589	11.65	ug/l	99
81) 1,2,4-Trichlorobenze	25.33	180	918464	10.06	ug/l	100
82) Hexachlorobutadiene	25.70	225	796331	10.15	ug/l	99
83) Naphthalene	25.89	128	750376	10.73	ug/l	100
84) 1,2,3-Trichlorobenze	26.50	180	696642	10.24	ug/l	100

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 Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_  
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-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

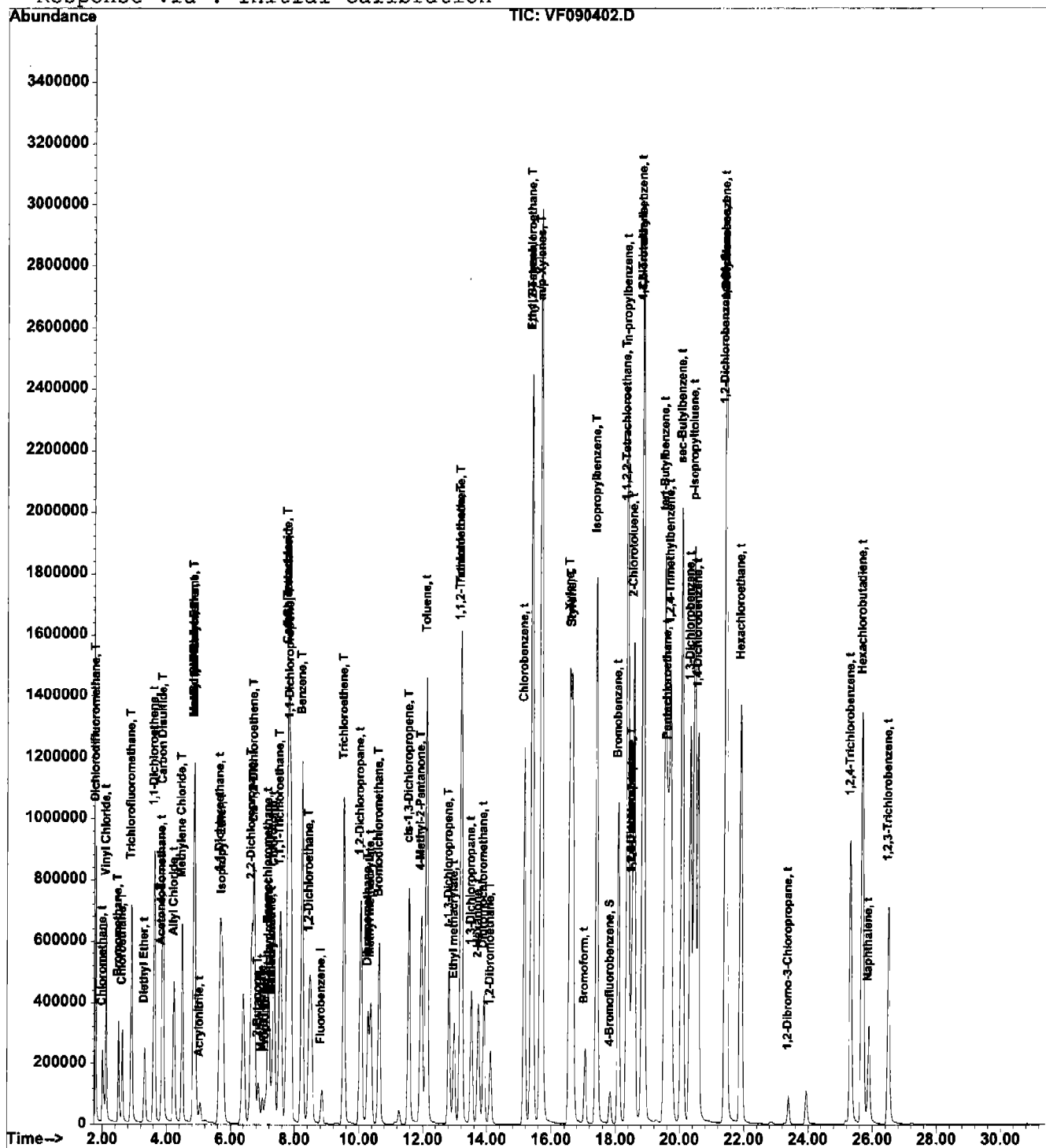
\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090402.D Vial: 2  
 Acq On : 3 Sep 2004 10:24 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 7 11:31 2004

Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration



## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4436 SAS No.: S4436 SDG No.: S4436  
 Instrument ID: MSVOAF Calibration Date/Time: 9/7/2004 19:00  
 Lab File ID: VF090712.D Init. Calib. Date(s): 8/16/2004 8/16/2004  
 Heated Purge: (Y/N) N Init. Calib. Time(s): 09:49 12:24  
 GC Column: RTX624 ID: 0.53 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.318	0.362		13.8	30.0
Chloromethane	0.214	0.206		3.7	30.0
Vinyl Chloride	0.292	0.286		2.1	30.0
Bromomethane	0.124	0.159		28.2	30.0
Chloroethane	0.148	0.165		11.5	30.0
Trichlorofluoromethane	0.459	0.470		2.4	
tert-Butyl Alcohol	0.006	0.007		16.7	
Diethyl Ether	0.105	0.112		6.7	
1,1-Dichloroethene	0.290	0.308		6.2	30.0
Iodomethane	0.258	0.384		48.8	
Allyl Chloride	0.302	0.298		1.3	
Acrylonitrile	0.017	0.020		17.6	
Acetone	0.012	0.013		8.3	
Carbon Disulfide	0.781	0.811		3.8	30.0
Methyl tert-Butyl Ether	0.306	0.336		9.8	
Methyl acrylate	0.095	0.109		14.7	
Methylene Chloride	0.237	0.274		15.6	30.0
trans-1,2-Dichloroethene	0.310	0.338		9.0	30.0
1,1-Dichloroethane	0.552	0.575		4.2	30.0
2-Butanone	0.029	0.031		6.9	
Carbon Tetrachloride	0.449	0.479		6.7	30.0
2,2-Dichloropropane	0.479	0.530		10.6	30.0
cis-1,2-Dichloroethene	0.304	0.322		5.9	30.0
Chloroform	0.521	0.555		6.5	30.0
1,1,1-Trichloroethane	0.515	0.545		5.8	30.0
t-1,4-Dichloro-2-butene	0.033	0.039		18.2	
1,1-Dichloropropene	0.517	0.556		7.5	30.0
Isopropyl Ether	0.611	0.622		1.8	
Propionitrile	0.007	0.008		14.3	
Benzene	1.065	1.124		5.5	30.0
1,2-Dichloroethane	0.180	0.201		11.7	30.0
Trichloroethene	0.349	0.379		8.6	30.0
1,2-Dichloropropane	0.336	0.357		6.3	30.0
Methacrylonitrile	0.059	0.065		10.2	
Tetrahydrofuran	0.020	0.022		10.0	
1-Chlorobutane	0.709	0.750		5.8	
Dibromomethane	0.128	0.142		10.9	30.0
Bromodichloromethane	0.379	0.418		10.3	30.0
4-Methyl-2-Pentanone	0.120	0.132		10.0	
Methyl methacrylate	0.082	0.093		13.4	
Ethyl methacrylate	0.192	0.219		14.1	

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Chentech Contract: PARS04  
 Lab Code: CTECH Case No.: S4436 SAS No.: S4436 SDG No.: S4436  
 Instrument ID: MSVOAF Calibration Date/Time: 9/7/2004 19:00  
 Lab File ID: VF090712.D Init. Calib. Date(s): 8/16/2004 8/16/2004  
 Heated Purge: (Y/N) N Init. Calib. Time(s): 09:49 12:24  
 GC Column: RTX624 ID: 0.53 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Toluene	0.692	0.733		5.9	30.0
t-1,3-Dichloropropane	0.264	0.301		14.0	30.0
cis-1,3-Dichloropropane	0.463	0.521		12.5	30.0
1,1,2-Trichloroethane	0.152	0.175		15.1	30.0
1,3-Dichloropropane	0.275	0.301		9.5	30.0
2-Hexanone	0.051	0.057		11.8	
Dibromochloromethane	0.206	0.240		16.5	30.0
1,2-Dibromoethane	0.155	0.178		14.8	30.0
Tetrachloroethene	0.324	0.352		8.6	30.0
Chlorobenzene	0.664	0.722		8.7	30.0
1,1,1,2-Tetrachloroethane	0.247	0.271		9.7	30.0
Hexachloroethane	0.421	0.464		10.2	
Ethyl Benzene	1.460	1.549		6.1	30.0
m/p-Xylenes	1.088	1.168		7.4	30.0
o-Xylene	1.037	1.108		6.8	30.0
Styrene	0.703	0.763		8.5	30.0
Bromoform	0.099	0.117		18.2	30.0
Bromobenzene	0.271	0.289		6.6	30.0
Isopropylbenzene	1.460	1.584		8.5	30.0
1,1,2,2-Tetrachloroethane	0.184	0.209		13.6	30.0
1,2,3-Trichloropropane	0.131	0.151		15.3	30.0
n-propylbenzene	0.397	0.426		7.3	30.0
2-Chlorotoluene	0.313	0.343		9.6	30.0
1,3,5-Trimethylbenzene	1.102	1.169		6.1	30.0
4-Chlorotoluene	0.295	0.319		8.1	30.0
tert-Butylbenzene	1.410	1.523		8.0	30.0
1,2,4-Trimethylbenzene	1.002	1.041		3.9	30.0
sec-Butylbenzene	1.825	1.987		8.9	30.0
p-Isopropyltoluene	1.405	1.516		7.9	30.0
1,3-Dichlorobenzene	0.568	0.618		8.8	30.0
1,4-Dichlorobenzene	0.542	0.599		10.5	30.0
n-Butylbenzene	1.557	1.618		3.9	30.0
1,2-Dichlorobenzene	0.429	0.462		7.7	30.0
1,2-Dibromo-3-Chloropropane	0.027	0.031		14.8	
1,2,4-Trichlorobenzene	0.346	0.332		4.0	30.0
Hexachlorobutadiene	0.297	0.321		8.1	30.0
Naphthalene	0.265	0.242		8.7	30.0
1,2,3-Trichlorobenzene	0.258	0.247		4.3	30.0
1,2-Dichlorobenzene-d4	0.261	0.264		1.1	
4-Bromofluorobenzene	0.470	0.484		3.0	

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090712.D Vial: 2  
 Acq On : 7 Sep 2004 7:00 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 20% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 i	Fluorobenzene	1.000	1.000	0.0	116	0.00
2 T	Dichlorodifluoromethane	0.318	0.362	-13.8	150	0.01
3 t	Chloromethane	0.214	0.206	3.7	119	0.01
4 t	Vinyl Chloride	0.292	0.286	2.1	124	0.00
5 T	Bromomethane	0.124	0.159	-28.2	162	0.02
6 T	Chloroethane	0.148	0.165	-11.5	128	0.00
7 T	Trichlorofluoromethane	0.459	0.470	-2.4	138	0.00
8 t	1,1-Dichloroethene	0.290	0.308	-6.2	130	0.00
9 t	Iodomethane	0.257	0.384	-49.4#	155	0.01
10 t	Allyl Chloride	0.302	0.298	1.3	116	0.00
11 t	Acrylonitrile	0.017	0.020	-17.6	130	0.00
12 T	Acetone	0.012	0.013	-8.3	133	0.01
13 T	Carbon Disulfide	0.781	0.811	-3.8	124	0.01
14 T	Methylene Chloride	0.237	0.274	-15.6	142	0.00
15 T	trans-1,2-Dichloroethene	0.310	0.338	-9.0	135	0.00
16 t	1,1-Dichloroethane	0.552	0.575	-4.2	124	0.00
17 T	2-Butanone	0.029	0.031	-6.9	128	0.00
18 T	2,2-Dichloropropane	0.479	0.530	-10.6	134	0.02
19 T	cis-1,2-Dichloroethene	0.304	0.322	-5.9	127	0.00
20 t	Diethyl Ether	0.105	0.112	-6.7	123	0.00
21 t	tert-Butyl Alcohol	0.007	0.007	0.0	129	0.00
22 t	Methyl tert-Butyl Ether	0.306	0.336	-9.8	129	0.00
23 t	Bromochloromethane	0.097	0.113	-16.5	136	0.00
24 t	Chloroform	0.521	0.555	-6.5	126	0.00
25 T	1,1,1-Trichloroethane	0.514	0.545	-6.0	128	0.00
26 T	1,1-Dichloropropene	0.516	0.556	-7.8	133	0.00
27 T	Carbon Tetrachloride	0.449	0.479	-6.7	129	0.00
28 t	Isopropyl Ether	0.611	0.622	-1.8	121	0.01
29 t	Propionitrile	0.007	0.008	-14.3	130	0.00
30 T	Benzene	1.065	1.124	-5.5	129	0.00
31 T	1,2-Dichloroethane	0.180	0.201	-11.7	130	0.00
32 T	Trichloroethene	0.348	0.379	-8.9	137	0.00
33 t	1,2-Dichloropropane	0.336	0.357	-6.2	125	0.00
34 t	Methacrylonitrile	0.059	0.065	-10.2	132	-0.01
35 t	Methyl acrylate	0.095	0.109	-14.7	130	0.00
36 t	Tetrahydrofuran	0.019	0.022	-15.8	129	0.00
37 t	1-Chlorobutane	0.709	0.750	-5.8	126	0.00
38 T	Dibromomethane	0.128	0.142	-10.9	130	0.00
39 T	Bromodichloromethane	0.379	0.418	-10.3	129	0.00
40 T	4-Methyl-2-Pentanone	0.120	0.132	-10.0	123	0.00
41 t	t-1,4-Dichloro-2-butene	0.033	0.039	-18.2	130	0.00
42 t	Methyl methacrylate	0.082	0.093	-13.4	131	0.01

(#) = Out of Range



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090712.D Vial: 2  
 Acq On : 7 Sep 2004 7:00 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 20% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43 t	Ethyl methacrylate	0.192	0.219	-14.1	132	0.00
44 t	Toluene	0.692	0.733	-5.9	129	0.00
45 T	t-1,3-Dichloropropene	0.264	0.301	-14.0	134	0.00
46 T	cis-1,3-Dichloropropene	0.463	0.521	-12.5	132	0.00
47 T	1,1,2-Trichloroethane	0.152	0.175	-15.1	134	0.00
48 t	1,3-Dichloropropane	0.275	0.301	-9.5	129	0.00
49 t	2-Hexanone	0.051	0.057	-11.8	128	0.00
50 t	Dibromochloromethane	0.205	0.240	-17.1	133	0.00
51 T	1,2-Dibromoethane	0.155	0.178	-14.8	134	0.00
52 S	4-Bromofluorobenzene	0.470	0.484	-3.0	121	0.00
53 T	Tetrachloroethene	0.324	0.352	-8.6	136	0.00
54 t	Chlorobenzene	0.664	0.722	-8.7	131	0.00
55 T	1,1,1,2-Tetrachloroethane	0.247	0.271	-9.7	129	0.00
56 t	Pentachloroethane	0.285	0.313	-9.8	128	0.00
57 t	Hexachloroethane	0.421	0.464	-10.2	131	0.00
58 t	Ethyl Benzene	1.461	1.549	-6.0	128	0.00
59 T	m/p-Xylenes	1.088	1.168	-7.4	130	0.00
60 T	o-Xylene	1.037	1.108	-6.8	129	0.00
61 T	Styrene	0.703	0.763	-8.5	128	0.00
62 t	Bromoform	0.100	0.117	-17.0	132	0.00
63 S	1,2-Dichlorobenzene-d4	0.261	0.264	-1.1	114	0.00
64 T	Isopropylbenzene	1.460	1.584	-8.5	131	0.00
65 T	1,1,2,2-Tetrachloroethane	0.184	0.209	-13.6	132	0.00
66 T	1,2,3-Trichloropropane	0.132	0.151	-14.4	132	0.00
67 t	Bromobenzene	0.271	0.289	-6.6	127	0.00
68 t	n-propylbenzene	0.397	0.426	-7.3	133	0.00
69 t	2-Chlorotoluene	0.313	0.343	-9.6	132	0.00
70 t	1,3,5-Trimethylbenzene	1.102	1.169	-6.1	129	0.00
71 t	4-Chlorotoluene	0.295	0.319	-8.1	130	0.00
72 t	tert-Butylbenzene	1.410	1.523	-8.0	131	0.00
73 t	1,2,4-Trimethylbenzene	1.002	1.041	-3.9	127	0.00
74 t	sec-Butylbenzene	1.825	1.987	-8.9	134	0.00
75 t	p-Isopropyltoluene	1.405	1.516	-7.9	134	0.00
76 t	1,3-Dichlorobenzene	0.568	0.618	-8.8	133	0.00
77 t	1,4-Dichlorobenzene	0.542	0.599	-10.5	135	0.00
78 t	n-Butylbenzene	1.557	1.618	-3.9	129	0.00
79 t	1,2-Dichlorobenzene	0.429	0.462	-7.7	131	0.00
80 t	1,2-Dibromo-3-Chloropropane	0.027	0.031	-14.8	133	0.00
81 t	1,2,4-Trichlorobenzene	0.346	0.332	4.0	118	0.00
82 t	Hexachlorobutadiene	0.297	0.321	-8.1	137	0.00
83 t	Naphthalene	0.265	0.242	8.7	106	0.00
84 t	1,2,3-Trichlorobenzene	0.258	0.247	4.3	115	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

VF090712.D VF0816DW.M

Thu Sep 09 15:01:29 2004

RPT1

Page 2

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090712.D Vial: 2  
 Acq On : 7 Sep 2004 7:00 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00

MS Integration Params: rteint.p  
 Quant Time: Sep 8 9:33 2004

Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.86	96	265073	1.00	ug/l	0.00
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.86	95	128228	1.03	ug/l	0.00
Spiked Amount	1.000		Recovery	=	103.00%	
63) 1,2-Dichlorobenzene-	21.42	152	70083	1.01	ug/l	0.00
Spiked Amount	1.000		Recovery	=	101.00%	
Target Compounds						Qvalue
2) Dichlorodifluorometh	1.80	85	959411	11.40	ug/l	99
3) Chloromethane	2.02	50	545580	9.62	ug/l	98
4) Vinyl Chloride	2.12	62	757503	9.78	ug/l	99
5) Bromomethane	2.51	94	422374	12.84	ug/l	98
6) Chloroethane	2.64	64	437315	11.16	ug/l	100
7) Trichlorofluorometha	2.91	101	1245445	10.24	ug/l	100
8) 1,1-Dichloroethene	3.64	96	815897	10.61	ug/l	96
9) Iodomethane	3.88	142	1019072	14.93	ug/l	97
10) Allyl Chloride	4.25	41	789710	9.87	ug/l	99
11) Acrylonitrile	5.06	53	104002	22.57	ug/l	99
12) Acetone	3.86	43	170080	51.64	ug/l	99
13) Carbon Disulfide	3.91	76	2148703	10.38	ug/l	99
14) Methylene Chloride	4.50	84	726319	11.57	ug/l	95
15) trans-1,2-Dichloroet	4.88	96	896823	10.92	ug/l	94
16) 1,1-Dichloroethane	5.68	63	1525476	10.43	ug/l	99
17) 2-Butanone	6.88	43	413958	54.66	ug/l	100
18) 2,2-Dichloropropane	6.68	77	1405351	11.06	ug/l	100
19) cis-1,2-Dichloroethe	6.76	96	852541	10.56	ug/l	98
20) Diethyl Ether	3.34	59	295593	10.65	ug/l	98
21) tert-Butyl Alcohol	4.87	59	187669	108.37	ug/l	100
22) Methyl tert-Butyl Et	4.89	73	891136	10.97	ug/l	99
23) Bromochloromethane	7.19	128	299673	11.61	ug/l	94
24) Chloroform	7.37	83	1471501	10.66	ug/l	99
25) 1,1,1-Trichloroethan	7.56	97	1445714	10.60	ug/l	100
26) 1,1-Dichloropropene	7.88	75	1474947	10.77	ug/l	99
27) Carbon Tetrachloride	7.79	117	1268755	10.67	ug/l	99
28) Isopropyl Ether	5.76	45	1649267	10.18	ug/l	98
29) Propionitrile	7.10	54	207212	114.89	ug/l	100

Analyst Signature: Suy Analyst Name: Suy Date: 09/09/04

REASONS FOR MANUAL INTEGRATIONS

Poor resolution of peaks exhibited on chromatogram.Compound #:

Peak integrated by software incorrectly.Compound #:

OTHER: Compound #:

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090712.D Vial: 2  
 Acq On : 7 Sep 2004 7:00 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00

MS Integration Params: rteint.p  
 Quant Time: Sep 8 9:33 2004

Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Benzene	8.25	78	2980235	10.55	ug/l	99
31) 1,2-Dichloroethane	8.46	62	534059	11.22	ug/l	100
32) Trichloroethene	9.54	130	1004211	10.87	ug/l	97
33) 1,2-Dichloropropane	10.07	63	945900	10.62	ug/l	98
34) Methacrylonitrile	7.29	41	172542	11.03	ug/l	99
35) Methyl acrylate	7.01	55	289942	11.56	ug/l	99
36) Tetrahydrofuran	7.23	42	115263	22.38	ug/l	99
37) 1-Chlorobutane	7.81	56	1989264	10.58	ug/l	98
38) Dibromomethane	10.29	93	377601	11.14	ug/l	99
39) Bromodichloromethane	10.65	83	1106840	11.03	ug/l	99
40) 4-Methyl-2-Pentanone	11.96	43	1746282	54.86	ug/l	97
41) t-1,4-Dichloro-2-but	18.51	53	207554	23.46	ug/l	95
42) Methyl methacrylate	10.38	69	492819	22.81	ug/l	100
43) Ethyl methacrylate	12.99	69	579859	11.41	ug/l	96
44) Toluene	12.13	92	1942229	10.59	ug/l	99
45) t-1,3-Dichloropropen	12.82	75	797571	11.40	ug/l	99
46) cis-1,3-Dichloroprop	11.58	75	1380949	11.26	ug/l	100
47) 1,1,2-Trichloroethan	13.19	97	463732	11.50	ug/l	98
48) 1,3-Dichloropropane	13.52	76	796588	10.93	ug/l	99
49) 2-Hexanone	13.75	43	754958	55.49	ug/l	100
50) Dibromochloromethane	13.92	129	636188	11.68	ug/l	100
51) 1,2-Dibromoethane	14.13	107	472005	11.48	ug/l	99
53) Tetrachloroethene	13.21	164	933696	10.87	ug/l	98
54) Chlorobenzene	15.18	112	1912949	10.86	ug/l	99
55) 1,1,1,2-Tetrachloroe	15.43	131	718136	10.98	ug/l	100
56) Pentachloroethane	19.65	117	829563	10.98	ug/l	100
57) Hexachloroethane	21.93	117	1228992	11.01	ug/l	98
58) Ethyl Benzene	15.41	91	4105899	10.60	ug/l	99
59) m/p-Xylenes	15.71	91	6190215	21.46	ug/l	100
60) o-Xylene	16.59	91	2938209	10.69	ug/l	99
61) Styrene	16.66	104	2021776	10.85	ug/l	99
62) Bromoform	17.07	173	309047	11.70	ug/l	99
64) Isopropylbenzene	17.43	105	4199213	10.85	ug/l	100
65) 1,1,2,2-Tetrachloroe	18.37	83	552842	11.33	ug/l	100
66) 1,2,3-Trichloropropa	18.52	75	399977	11.47	ug/l	94
67) Bromobenzene	18.12	156	767040	10.66	ug/l	98
68) n-propylbenzene	18.40	120	1128038	10.73	ug/l	97

Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090712.D Vial: 2  
 Acq On : 7 Sep 2004 7:00 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00

MS Integration Params: rteint.p  
 Quant Time: Sep 8 9:33 2004

Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
69) 2-Chlorotoluene	18.59	126	908330	10.96	ug/l	97
70) 1,3,5-Trimethylbenze	18.87	105	3097691	10.61	ug/l	99
71) 4-Chlorotoluene	18.88	126	845915	10.83	ug/l	98
72) tert-Butylbenzene	19.56	119	4036031	10.80	ug/l	99
73) 1,2,4-Trimethylbenze	19.73	105	2760148	10.39	ug/l	99
74) sec-Butylbenzene	20.09	105	5267342	10.89	ug/l	100
75) p-Isopropyltoluene	20.48	119	4018128	10.79	ug/l	99
76) 1,3-Dichlorobenzene	20.35	146	1638837	10.88	ug/l	99
77) 1,4-Dichlorobenzene	20.60	146	1586590	11.04	ug/l	99
78) n-Butylbenzene	21.45	91	4287802	10.39	ug/l	99
79) 1,2-Dichlorobenzene	21.46	146	1225808	10.79	ug/l	100
80) 1,2-Dibromo-3-Chloro	23.41	75	83235	11.69	ug/l	99
81) 1,2,4-Trichlorobenze	25.34	180	880911	9.61	ug/l	99
82) Hexachlorobutadiene	25.71	225	851893	10.82	ug/l	100
83) Naphthalene	25.91	128	642676	9.15	ug/l	100
84) 1,2,3-Trichlorobenze	26.53	180	654554	9.59	ug/l	100

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 Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_  
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-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound #: \_\_\_\_\_

\_\_\_\_ Peak integrated by software incorrectly.Compound #: \_\_\_\_\_

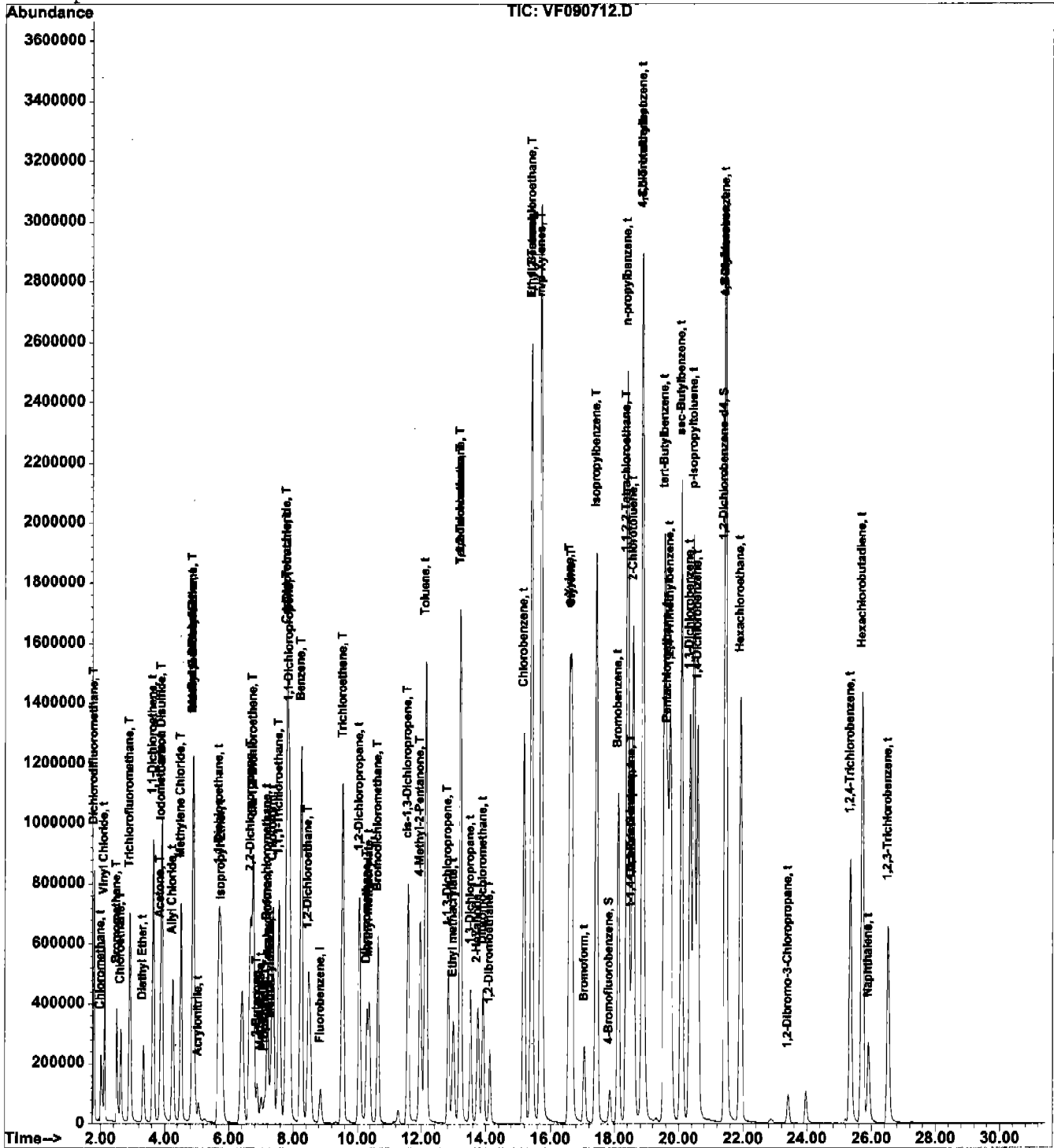
\_\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090712.D Vial: 2  
 Acq On : 7 Sep 2004 7:00 pm Operator: SAM  
 Sample : 10 PPB CCC Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 8 9:33 2004

Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090714.D Vial: 4  
 Acq On : 7 Sep 2004 8:18 pm Operator: SAM  
 Sample : VBF0907W4 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00

MS Integration Params: rteint.p  
 Quant Time: Sep 9 15:02 2004

Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.86	96	240105	1.00	ug/l	0.00
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.85	95	106959	0.95	ug/l	0.00
Spiked Amount			Recovery	=	95.00%	
63) 1,2-Dichlorobenzene-	21.43	152	64500	1.03	ug/l	0.00
Spiked Amount			Recovery	=	103.00%	
Target Compounds						
						Qvalue
12) Acetone	3.86	43	13244	4.44	ug/l	89
14) Methylene Chloride	4.50	84	69134	1.22	ug/l	97

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 Analyst Signature: Sy Analyst Name: Sy Date: 09/09/04  
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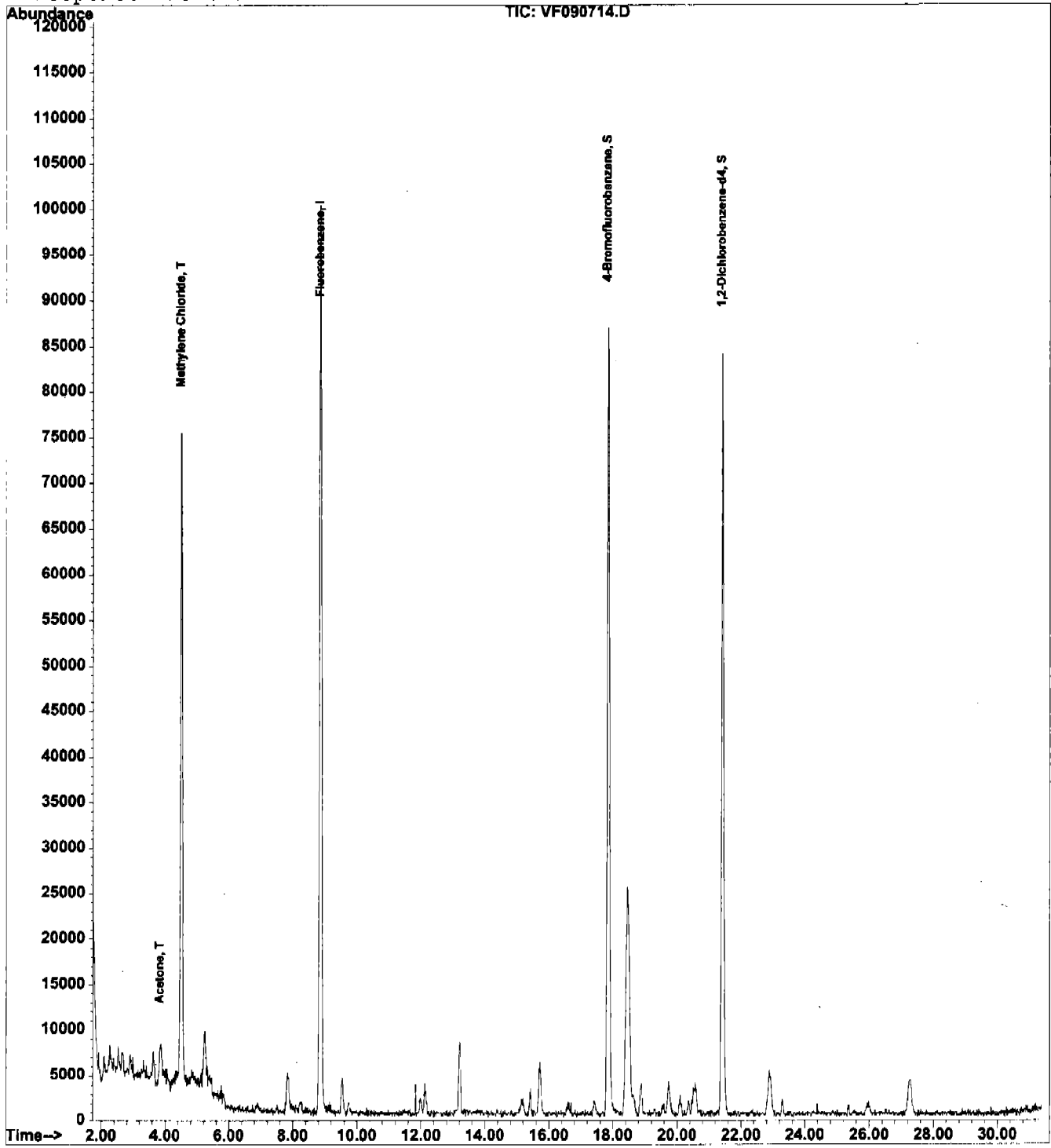
-----REASONS FOR MANUAL INTEGRATIONS-----

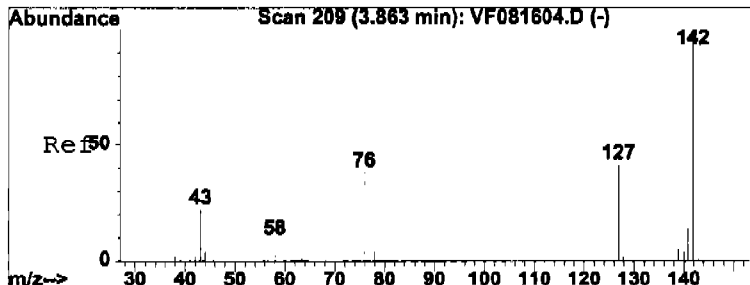
\_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly.Compound #: \_\_\_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090714.D Vial: 4  
Acq On : 7 Sep 2004 8:18 pm Operator: SAM  
Sample : VBF0907W4 Inst : VOA F  
Misc : 25mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Sep 9 15:02 2004 Quant Results File: VF0816DW.RES

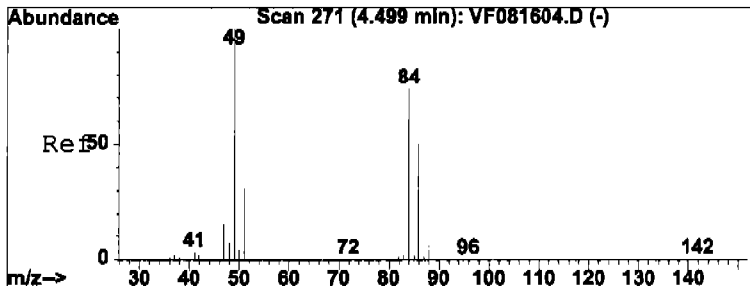
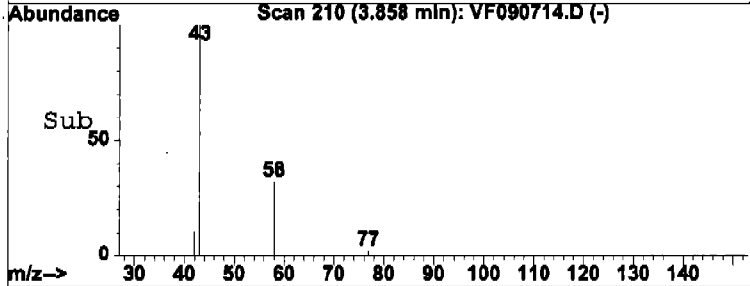
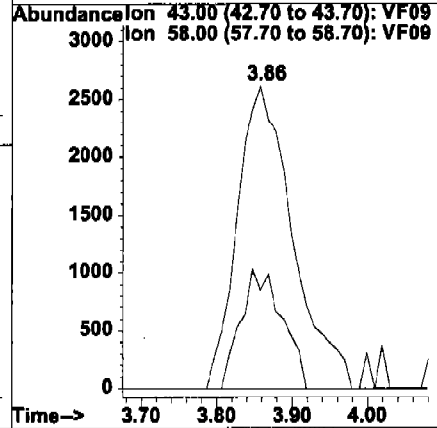
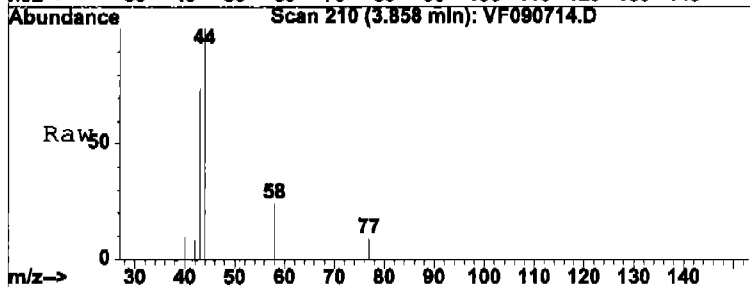
Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration





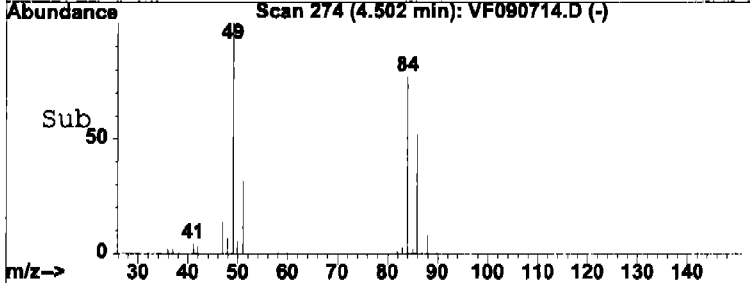
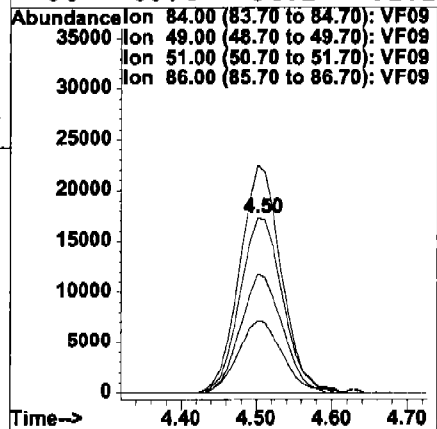
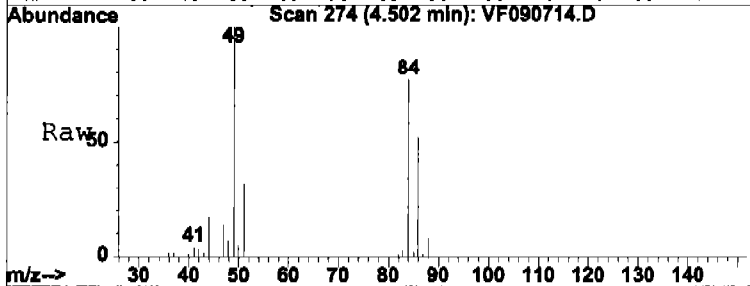
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 Acetone  
 Concen: 4.44 ug/l  
 RT: 3.86 min Scan# 210  
 Delta R.T. 0.01 min  
 Lab File: VF090714.D  
 Acq: 7 Sep 2004 8:18 pm

Tgt Ion: 43 Resp: 13244  
 Ion Ratio Lower Upper  
 43 100  
 58 32.3 31.4 47.2



#14  
 Methylene Chloride  
 Concen: 1.22 ug/l  
 RT: 4.50 min Scan# 274  
 Delta R.T. 0.00 min  
 Lab File: VF090714.D  
 Acq: 7 Sep 2004 8:18 pm

Tgt Ion: 84 Resp: 69134  
 Ion Ratio Lower Upper  
 84 100  
 49 130.3 108.6 163.0  
 51 41.4 0.0 84.4  
 86 68.4 54.2 81.2





Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090714.D Vial: 4  
 Acq On : 7 Sep 2004 8:18 pm Operator: SAM  
 Sample : VBF0907W4 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

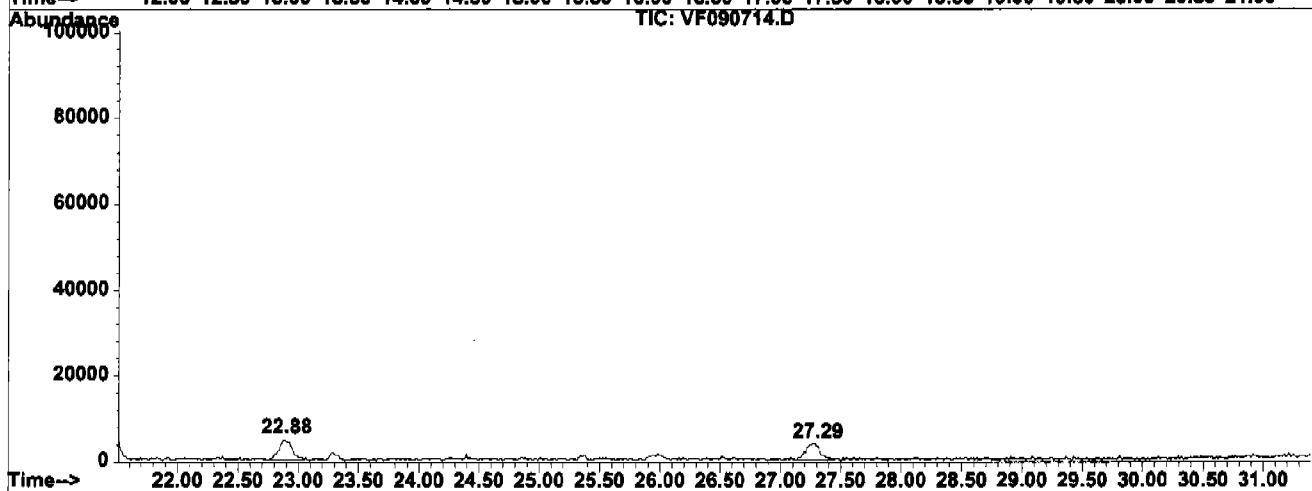
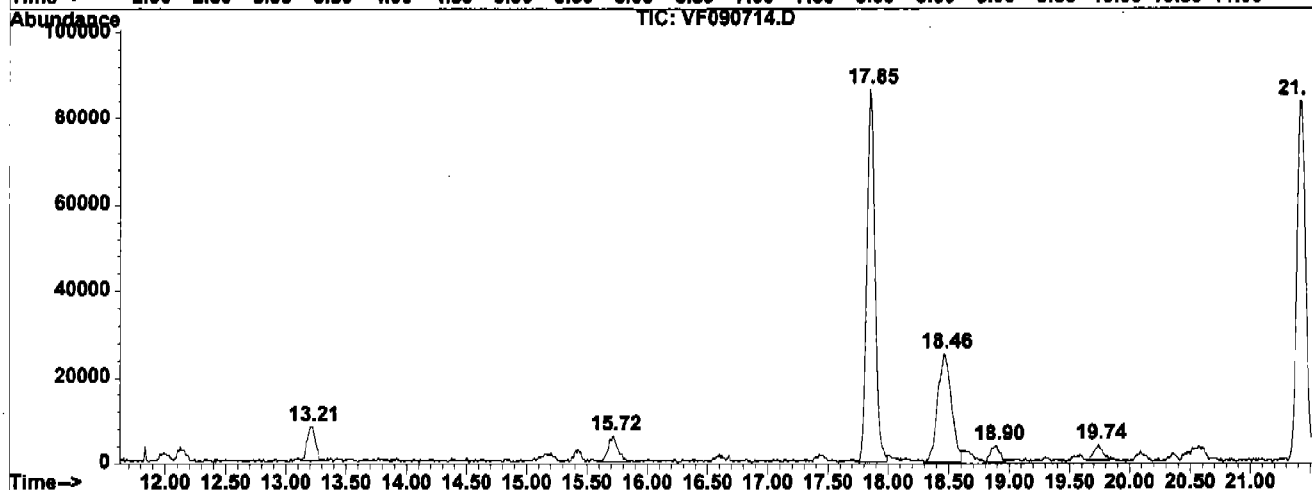
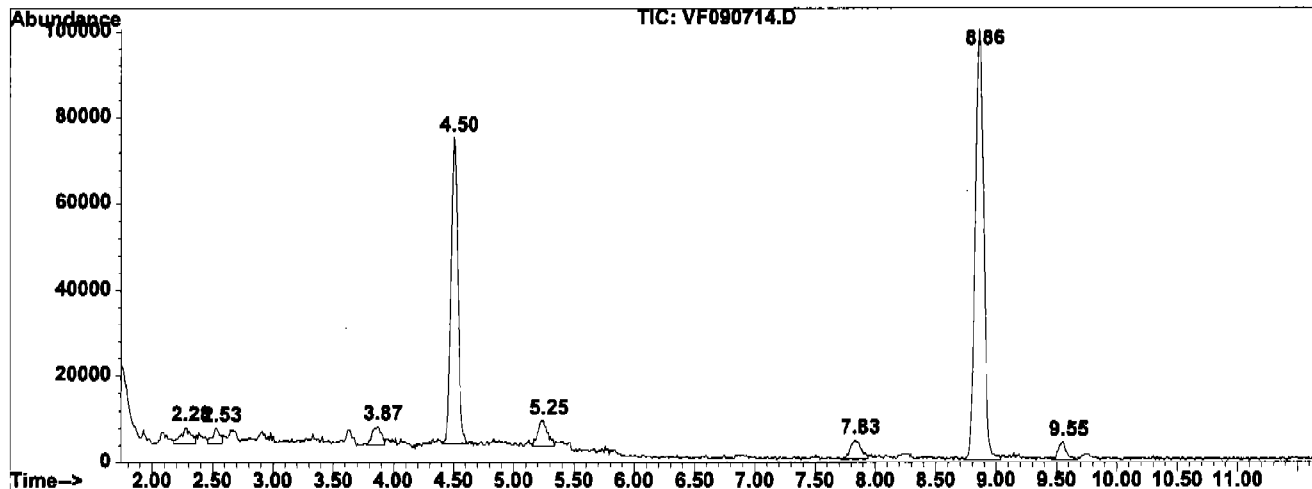
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	2.276	44	54	62	rVV2	3936	22839	4.64%	1.074%
2	2.531	72	79	84	rVV4	3696	16114	3.28%	0.758%
3	3.868	203	211	217	rBV4	4402	22699	4.61%	1.068%
4	4.502	264	274	286	rVB	70970	277807	56.48%	13.068%
5	5.246	339	348	357	rBV5	6024	34656	7.05%	1.630%
6	7.830	593	603	614	rBV4	4507	28706	5.84%	1.350%
7	8.857	693	705	723	rBV	99838	491861	100.00%	23.138%
8	9.553	766	774	785	rVB3	4169	19685	4.00%	0.926%
9	13.212	1127	1136	1143	rVB4	7888	37115	7.55%	1.746%
10	15.721	1370	1383	1397	rBV3	5887	32182	6.54%	1.514%
11	17.852	1581	1593	1607	rBV	86567	409359	83.23%	19.257%
12	18.459	1638	1653	1667	rBV5	25203	198095	40.27%	9.319%
13	18.897	1686	1696	1704	rBV4	3616	19165	3.90%	0.902%
14	19.742	1769	1779	1788	rVV4	3514	17270	3.51%	0.812%
15	21.416	1934	1944	1964	rBV	83698	426562	86.72%	20.066%
16	22.882	2075	2089	2105	rVB	4989	37004	7.52%	1.741%
17	27.289	2507	2523	2539	rVB3	3962	34674	7.05%	1.631%

Sum of corrected areas: 2125793

VF090714.D VF0816DW.M Thu Sep 09 15:03:03 2004 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090714.D  
Operator : SAM  
Acquired : 7 Sep 2004 8:18 pm using AcqMethod VF\_VOA  
Instrument : VOA F  
Sample Name: VBF0907W4  
Misc Info : 25mL  
Vial Number: 4  
Quant File :VF0816DW.RES (RTE Integrator)



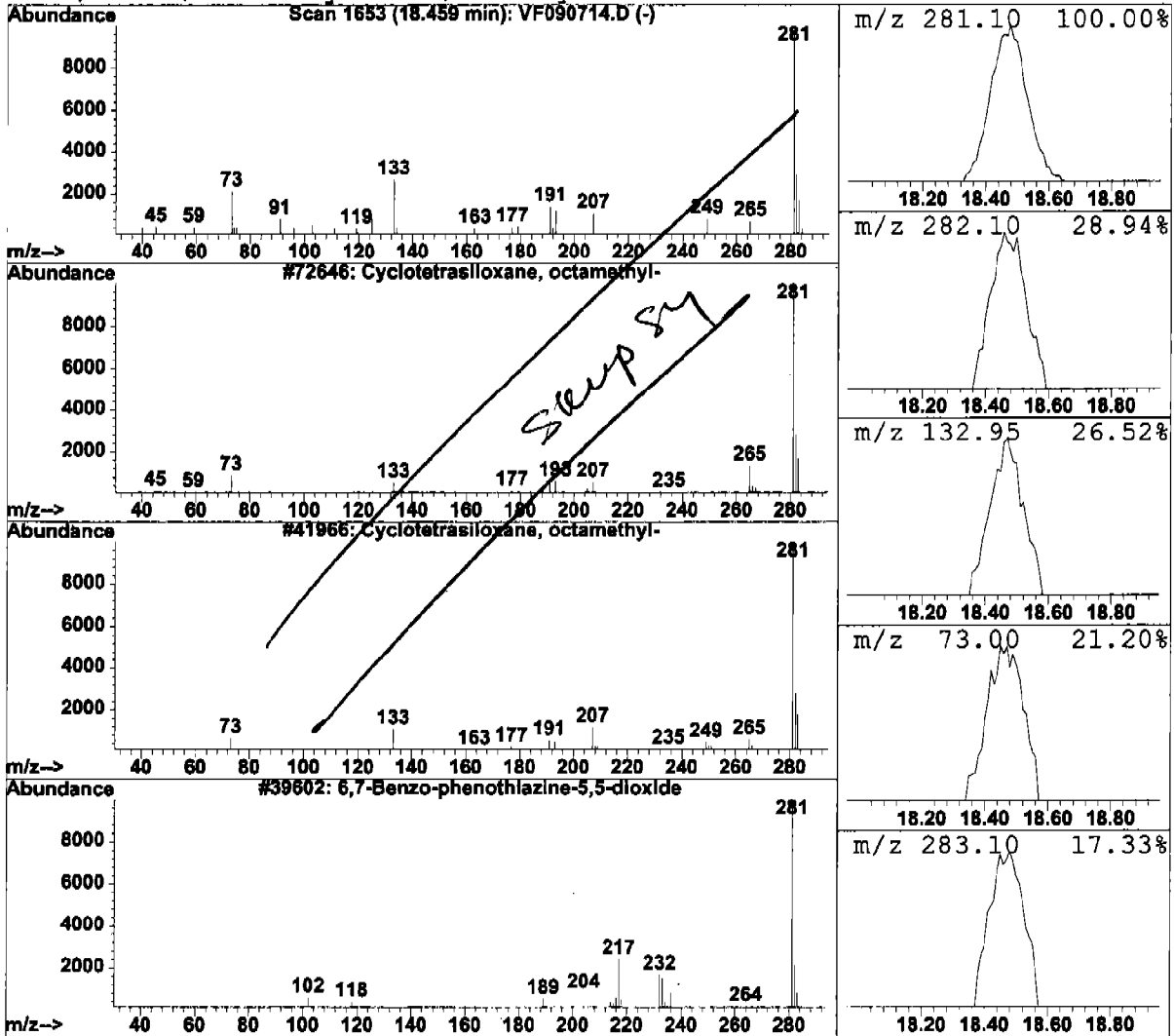
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090714.D Vial: 4  
 Acq On : 7 Sep 2004 8:18 pm Operator: SAM  
 Sample : VBF0907W4 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 1 Cyclotetrasiloxane, octamethyl Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.46	0.40 ug/l	198095	Fluorobenzene	8.86

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	72
2		Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	64
3		6,7-Benzo-phenothiazine-5,5-dioxide	281	C16H11NO2S	000000-00-0	9
4		3,6-Bis(N-dimethylamino)-9-ethylcar	281	C18H23N3	057103-04-5	9



Tentatively Identified Compound (LSC) summary

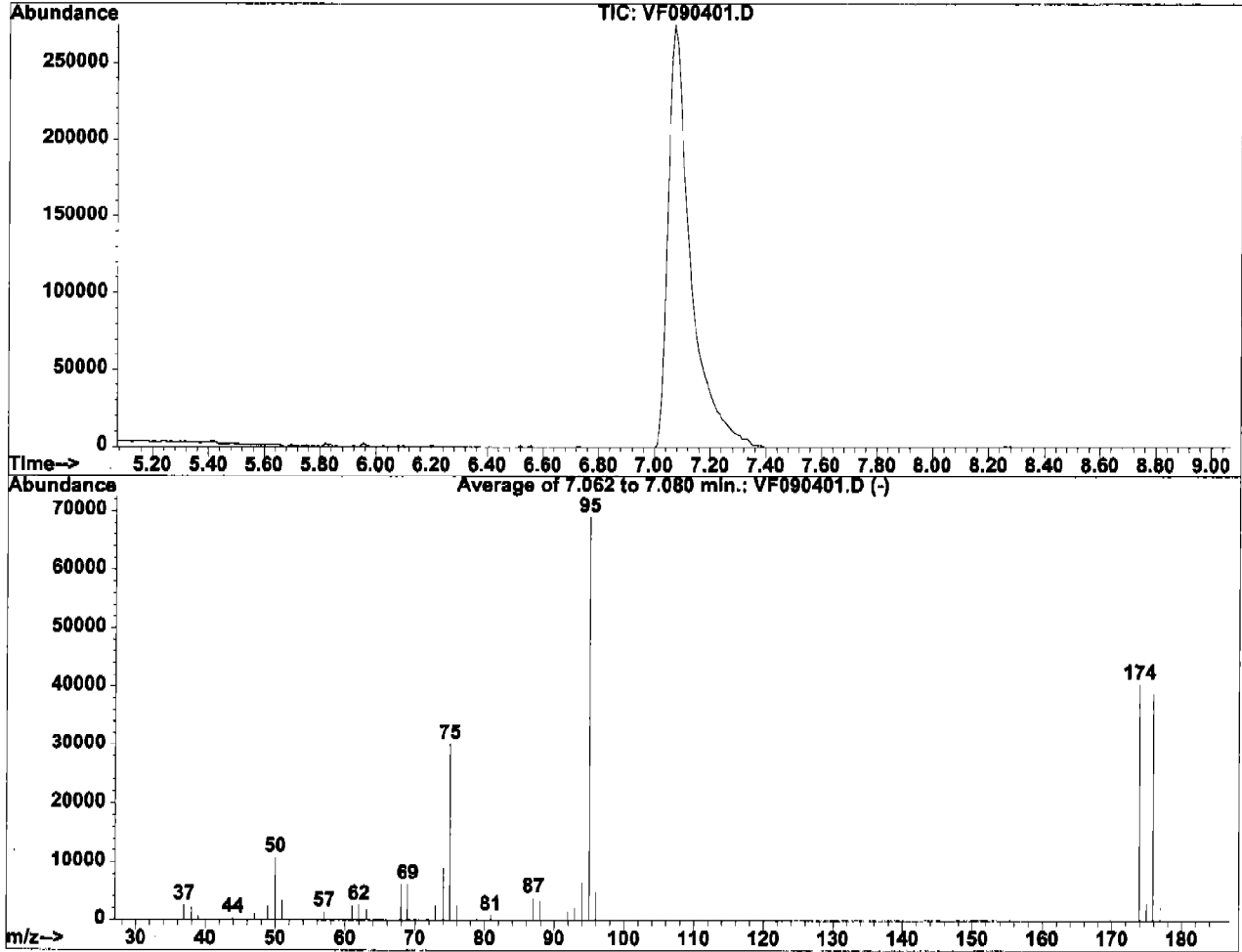
Operator ID: SAM      Date Acquired: 7 Sep 2004 8:18 pm  
Data File: C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090714.D  
Name: VBF0907W4  
Misc: 25mL  
Method: C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title: METHOD 524.2 VOLATILES DRINKING WATER  
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Cyclotetrasiloxane,	18.46	0.4	ug/l	198095	ISTD01	8.86	491861	1.0
VF090714.D VF0816DW.M			Thu Sep 09 15:03:04 2004			RPT1		

CHEMTECH

VOLATILES  
RAW QC  
DATA

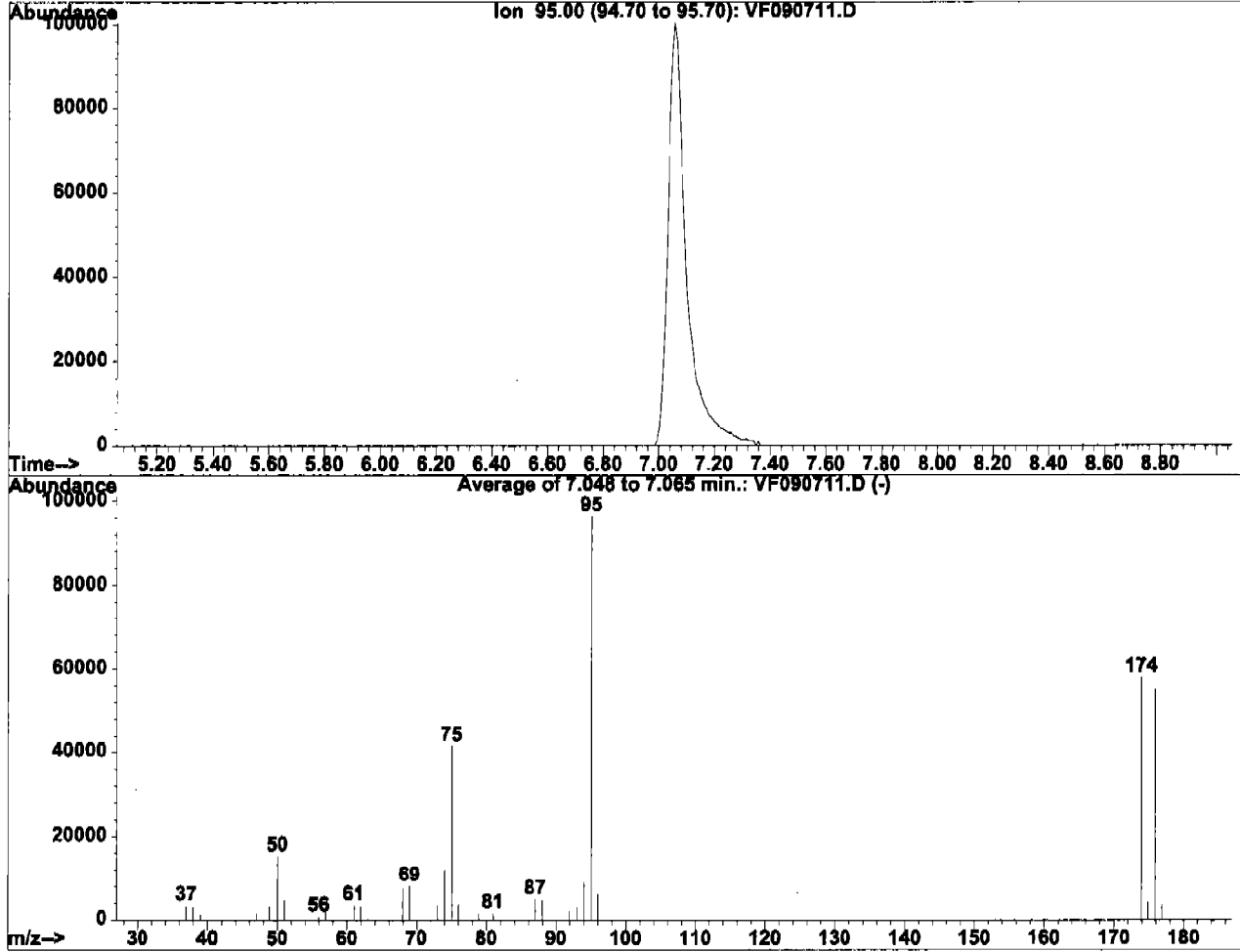
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090401.D Vial: 1  
 Acq On : 3 Sep 2004 9:52 pm Operator: SAM  
 Sample : BFB TUNE CHECK Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER



Spectrum Information: Average of 7.062 to 7.080 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
50	95	15	40	15.6	10783	PASS
75	95	30	60	43.8	30205	PASS
95	95	100	100	100.0	68957	PASS
96	95	5	9	6.8	4699	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	58.7	40456	PASS
175	174	5	9	7.0	2850	PASS
176	174	95	101	96.2	38933	PASS
177	176	5	9	6.0	2345	PASS

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090711.D Vial: 1  
 Acq On : 7 Sep 2004 6:27 pm Operator: SAM  
 Sample : BFB TUNE CHECK Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER

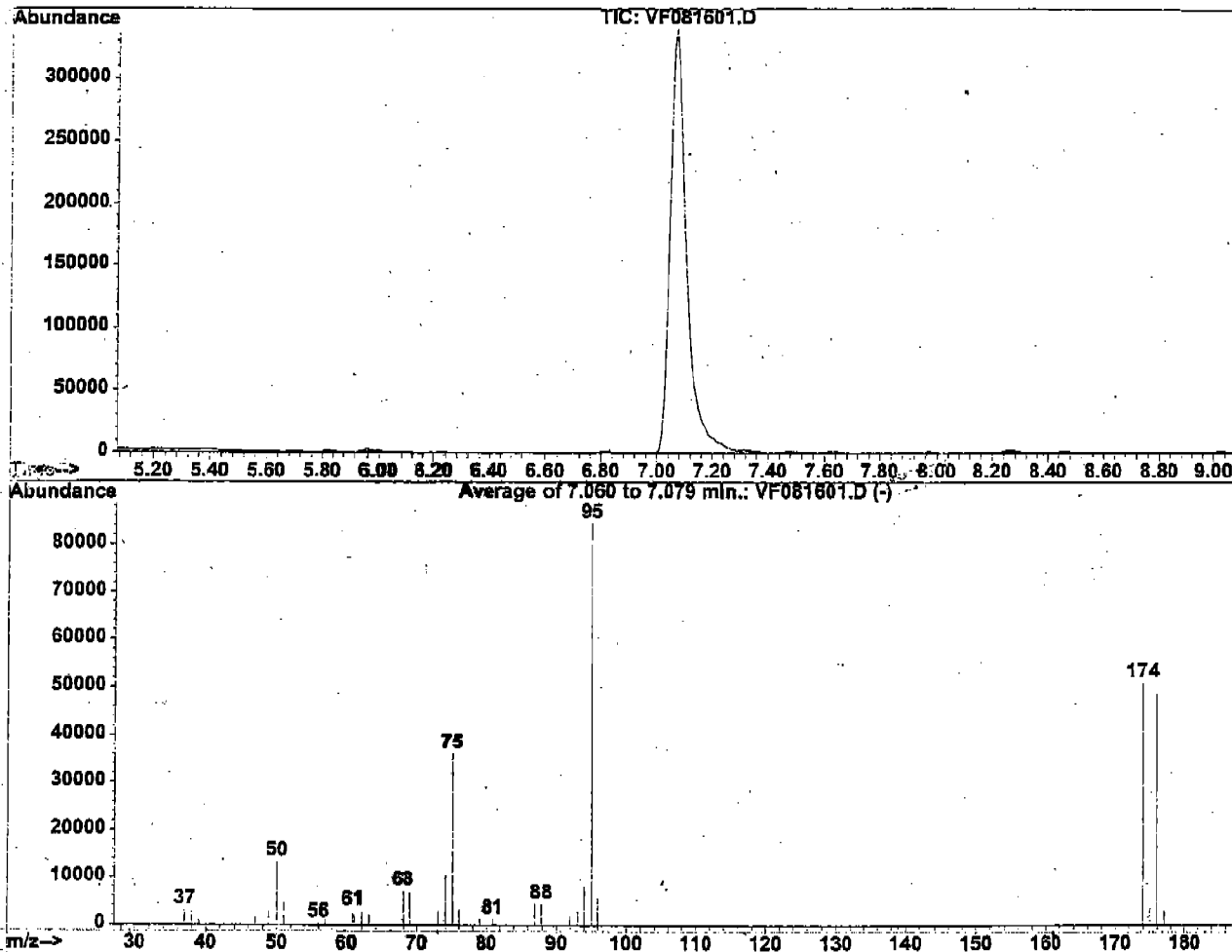


Spectrum Information: Average of 7.048 to 7.065 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.0	15439	PASS
75	95	30	60	43.2	41552	PASS
95	95	100	100	100.0	96280	PASS
96	95	5	9	6.5	6280	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	60.1	57827	PASS
175	174	5	9	7.2	4149	PASS
176	174	95	101	95.0	54947	PASS
177	176	5	9	6.8	3713	PASS

09/09/04  
84

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081601.D Vial: 1  
 Acq On : 16 Aug 2004 9:16 am Operator: SAM  
 Sample : BFB TUNE CHECK Inst : VOA F  
 Misc : 5mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER



AutoFind: Scans 450, 451, 452; Background Corrected with Scan 441

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.8	13370	PASS
75	95	30	60	42.8	36125	PASS
95	95	100	100	100.0	84491	PASS
96	95	5	9	6.6	5588	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	60.4	51053	PASS
175	174	5	9	6.9	3531	PASS
176	174	95	101	95.2	48627	PASS
177	176	5	9	6.3	3041	PASS



**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>QC/KNOWN</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>QC/KNOWN</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF081612.D</b>	<b>1</b>		<b>8/16/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	21		1.0	0.09	ug/L
74-87-3	Chloromethane	16		1.0	0.11	ug/L
75-01-4	Vinyl Chloride	19		1.0	0.14	ug/L
74-83-9	Bromomethane	30		1.0	0.22	ug/L
75-00-3	Chloroethane	22		1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	21		1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	48		10	2.2	ug/L
60-29-7	Diethyl Ether	16		1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	19		1.0	0.16	ug/L
74-88-4	Iodomethane	2.5		1.0	0.14	ug/L
107-5-1	Allyl Chloride	0.18	U	1.0	0.18	ug/L
107-13-1	Acrylonitrile	0.94	U	2.0	0.94	ug/L
67-64-1	Acetone	28	B	5.8	1.5	ug/L
75-15-0	Carbon disulfide	21		1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	0.37	U	1.0	0.37	ug/L
79-20-9	Methyl acrylate	0.17	U	1.0	0.17	ug/L
75-09-2	Methylene Chloride	19	B	1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	19		1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	18		1.0	0.21	ug/L
78-93-3	2-Butanone	76		5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	18		1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	16		1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	19		1.0	0.24	ug/L
67-66-3	Chloroform	18		1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	18		1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	1.5	J	2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	19		1.0	0.21	ug/L
108-20-3	Isopropyl Ether	0.21	U	1.0	0.21	ug/L
107-12-0	Propionitrile	20		10	3.3	ug/L
71-43-2	Benzene	18		1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	20		1.0	0.21	ug/L
79-01-6	Trichloroethene	19		1.0	0.24	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081612.D Vial: 13  
 Acq On : 16 Aug 2004 4:19 pm Operator: SAM  
 Sample : QC/KNOWN Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 13:08 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.85	96	237826	1.00	ug/l	0.00

System Monitoring Compounds

52) 4-Bromofluorobenzene	17.85	95	110607	0.99	ug/l	0.00
Spiked Amount	1.000		Recovery	=	99.00%	
63) 1,2-Dichlorobenzene-	21.43	152	65443	1.05	ug/l	0.00
Spiked Amount	1.000		Recovery	=	105.00%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluorometh	1.80	85	1615113	21.38	ug/l	98
3) Chloromethane	2.01	50	836051	16.43	ug/l	97
4) Vinyl Chloride	2.12	62	1331583	19.16	ug/l	99
5) Bromomethane	2.51	94	886220	30.02	ug/l	98
6) Chloroethane	2.63	64	767470	21.83	ug/l	100
7) Trichlorofluorometha	2.91	101	2242872	20.55	ug/l	98
8) 1,1-Dichloroethene	3.63	96	1331996	19.30	ug/l	97
9) Iodomethane	3.90	142	152046	2.48	ug/l	100
12) Acetone	3.87	43	83984	28.42	ug/l	99
13) Carbon Disulfide	3.91	76	3893964	20.97	ug/l	99
14) Methylene Chloride	4.50	84	1064612	18.90	ug/l	95
15) trans-1,2-Dichloroet	4.88	96	1418435	19.25	ug/l	95
16) 1,1-Dichloroethane	5.68	63	2425467	18.48	ug/l	99
17) 2-Butanone	6.94	43	513056	75.51	ug/l	79
18) 2,2-Dichloropropane	6.66	77	1877879	16.47	ug/l	98
19) cis-1,2-Dichloroethe	6.75	96	1376916	19.02	ug/l	95
20) Diethyl Ether	3.34	59	410399	16.48	ug/l	98
21) tert-Butyl Alcohol	4.88	59	74270	47.80	ug/l	100
23) Bromochloromethane	7.19	128	480592	20.74	ug/l	94
24) Chloroform	7.37	83	2282256	18.43	ug/l	99
25) 1,1,1-Trichloroethan	7.57	97	2235742	18.28	ug/l	99
26) 1,1-Dichloropropene	7.88	75	2331205	18.98	ug/l	99
27) Carbon Tetrachloride	7.79	117	1967516	18.44	ug/l	100
29) Propionitrile	7.10	54	31735	19.61	ug/l	100
30) Benzene	8.24	78	4672032	18.44	ug/l	99
31) 1,2-Dichloroethane	8.45	62	863874	20.23	ug/l	98
32) Trichloroethene	9.54	130	1552968	18.74	ug/l	98
33) 1,2-Dichloropropane	10.06	63	1506483	18.85	ug/l	99

Analyst Signature: cy Analyst Name: cy Date: 09/09/04

REASONS FOR MANUAL INTEGRATIONS

\_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly.Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081612.D Vial: 13  
 Acq On : 16 Aug 2004 4:19 pm Operator: SAM  
 Sample : QC/KNOWN Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 13:08 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
34) Methacrylonitrile	7.29	41	195974	13.96	ug/l #	69
38) Dibromomethane	10.29	93	630685	20.75	ug/l	98
39) Bromodichloromethane	10.64	83	1797419	19.96	ug/l	100
40) 4-Methyl-2-Pentanone	11.95	43	383173	13.42	ug/l #	75
41) t-1,4-Dichloro-2-but	18.60	53	11770	1.48	ug/l #	5
42) Methyl methacrylate	10.37	69	400880	20.68	ug/l	98
43) Ethyl methacrylate	12.98	69	935896	20.52	ug/l	95
44) Toluene	12.12	92	3123614	18.98	ug/l	100
45) t-1,3-Dichloropropen	12.83	75	1237961	19.72	ug/l	98
46) cis-1,3-Dichloroprop	11.57	75	1877170	17.06	ug/l	100
47) 1,1,2-Trichloroethan	13.18	97	730426	20.18	ug/l	98
48) 1,3-Dichloropropane	13.53	76	1327515	20.30	ug/l	99
49) 2-Hexanone	13.75	43	237029	19.42	ug/l	100
50) Dibromochloromethane	13.92	129	1053571	21.56	ug/l	99
51) 1,2-Dibromoethane	14.13	107	810606	21.98	ug/l	100
53) Tetrachloroethene	13.21	164	1417061	18.39	ug/l	98
54) Chlorobenzene	15.19	112	3076837	19.47	ug/l	99
55) 1,1,1,2-Tetrachloroe	15.43	131	1175834	20.03	ug/l	100
58) Ethyl Benzene	15.42	91	6373006	18.35	ug/l	98
59) m/p-Xylenes	15.71	91	9494719	36.69	ug/l	99
60) o-Xylene	16.59	91	4764278	19.31	ug/l	99
61) Styrene	16.66	104	3181945	19.03	ug/l	99
62) Bromoform	17.06	173	537109	22.66	ug/l	99
64) Isopropylbenzene	17.43	105	6309747	18.18	ug/l	100
65) 1,1,2,2-Tetrachloroe	18.37	83	888204	20.29	ug/l	100
67) Bromobenzene	18.12	156	1270832	19.69	ug/l	94
68) n-propylbenzene	18.40	120	1734302	18.39	ug/l	97
69) 2-Chlorotoluene	18.59	126	1344439	18.08	ug/l	99
70) 1,3,5-Trimethylbenze	18.88	105	4814238	18.38	ug/l	100
71) 4-Chlorotoluene	18.88	126	1324402	18.90	ug/l	95
72) tert-Butylbenzene	19.57	119	4782057	14.26	ug/l #	82
73) 1,2,4-Trimethylbenze	19.73	105	4754141	19.94	ug/l	100
74) sec-Butylbenzene	20.09	105	8022320	18.48	ug/l	100
75) p-Isopropyltoluene	20.48	119	6072079	18.18	ug/l	99
76) 1,3-Dichlorobenzene	20.36	146	2583071	19.12	ug/l	99
77) 1,4-Dichlorobenzene	20.60	146	2528833	19.62	ug/l	99
78) n-Butylbenzene	21.46	91	6867707	18.55	ug/l	100

Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081612.D Vial: 13  
 Acq On : 16 Aug 2004 4:19 pm Operator: SAM  
 Sample : QC/KNOWN Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 13:08 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
79) 1,2-Dichlorobenzene	21.47	146	2031507	19.92	ug/l	99
80) 1,2-Dibromo-3-Chloro	23.42	75	138276	21.65	ug/l	96
81) 1,2,4-Trichlorobenze	25.35	180	1583982	19.26	ug/l	100
82) Hexachlorobutadiene	25.72	225	1339726	18.96	ug/l	100
83) Naphthalene	25.92	128	1136504	18.04	ug/l	100
84) 1,2,3-Trichlorobenze	26.53	180	1207782	19.72	ug/l	99

-----  
 Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_  
 -----

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

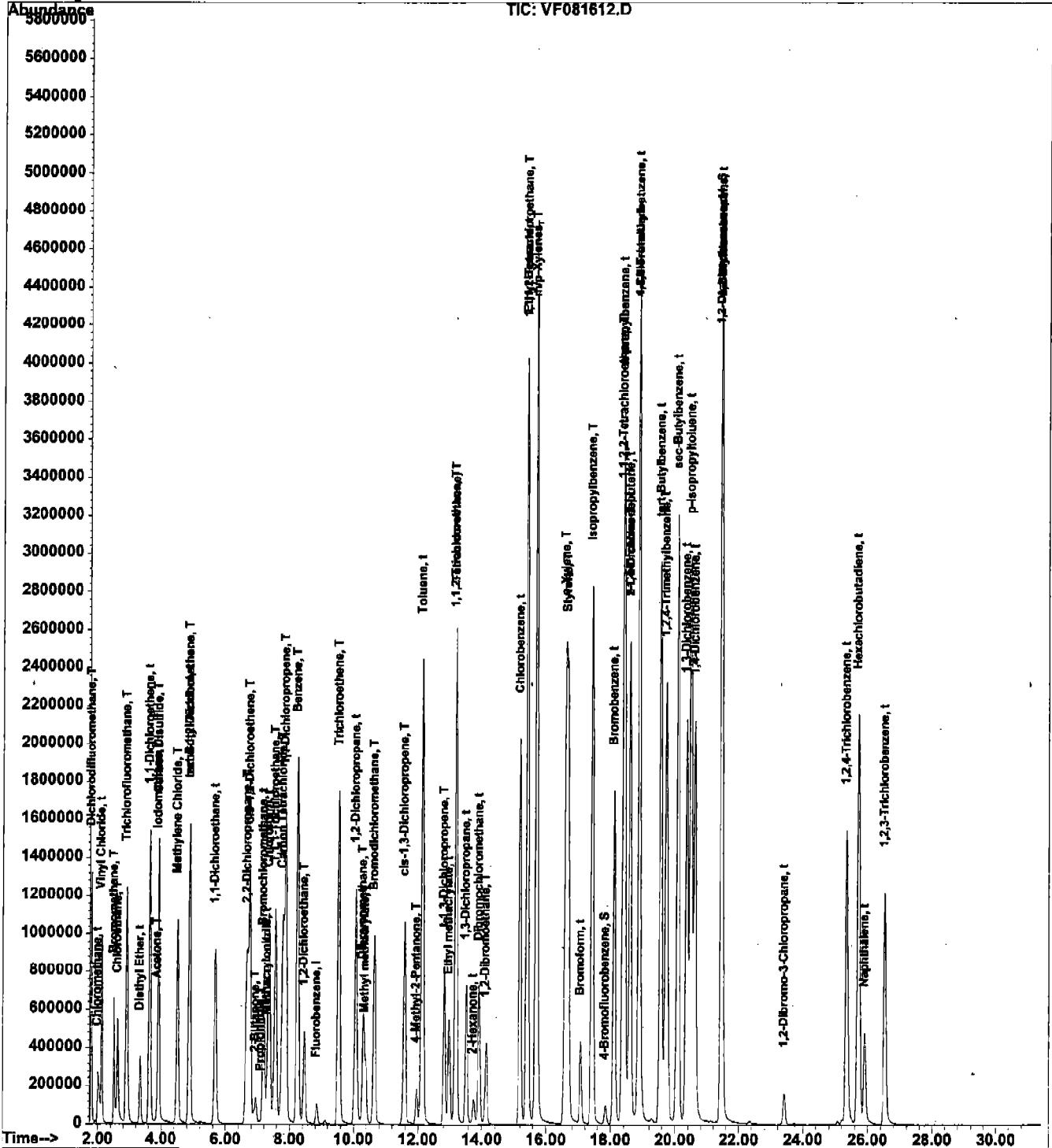
\_\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081612.D Vial: 13  
 Acq On : 16 Aug 2004 4:19 pm Operator: SAM  
 Sample : QC/KNOWN Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 13:08 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration



**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VBLK01</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>VBF0816W2</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF081611.D</b>	<b>1</b>		<b>8/16/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	0.09	U	1.0	0.09	ug/L
74-87-3	Chloromethane	0.11	U	1.0	0.11	ug/L
75-01-4	Vinyl Chloride	0.14	U	1.0	0.14	ug/L
74-83-9	Bromomethane	0.22	U	1.0	0.22	ug/L
75-00-3	Chloroethane	0.19	U	1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	0.09	U	1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	2.2	U	10	2.2	ug/L
60-29-7	Diethyl Ether	0.21	U	1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	0.16	U	1.0	0.16	ug/L
74-88-4	Iodomethane	0.14	U	1.0	0.14	ug/L
107-5-1	Allyl Chloride	0.18	U	1.0	0.18	ug/L
107-13-1	Acrylonitrile	0.94	U	2.0	0.94	ug/L
67-64-1	Acetone	10		5.8	1.5	ug/L
75-15-0	Carbon disulfide	0.18	U	1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	0.37	U	1.0	0.37	ug/L
79-20-9	Methyl acrylate	0.17	U	1.0	0.17	ug/L
75-09-2	Methylene Chloride	0.5	J	1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.94	U	5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	0.22	U	1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	0.20	U	1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L
67-66-3	Chloroform	0.22	U	1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	1.4	U	2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L
108-20-3	Isopropyl Ether	0.21	U	1.0	0.21	ug/L
107-12-0	Propionitrile	3.3	U	10	3.3	ug/L
71-43-2	Benzene	0.24	U	1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	0.24	U	1.0	0.24	ug/L

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VBLK01</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>VBF0816W2</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF081611.D</b>	<b>1</b>		<b>8/16/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	0.21	U	1.0	0.21	ug/L
126-98-7	Methacrylonitrile	0.33	U	1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	0.78	U	2.4	0.78	ug/L
109-69-3	1-Chlorobutane	0.22	U	1.0	0.22	ug/L
74-95-3	Dibromomethane	0.24	U	1.0	0.24	ug/L
75-27-4	Bromodichloromethane	0.20	U	1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	1.0	U	5.0	1.0	ug/L
80-62-6	Methyl methacrylate	0.53	U	2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	0.25	U	1.0	0.25	ug/L
108-88-3	Toluene	0.22	U	1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L
591-78-6	2-Hexanone	1.1	U	5.0	1.1	ug/L
124-48-1	Dibromochloromethane	0.17	U	1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L
127-18-4	Tetrachloroethene	0.34	U	1.0	0.34	ug/L
108-90-7	Chlorobenzene	0.21	U	1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L
67-72-1	Hexachloroethane	0.20	U	1.0	0.20	ug/L
100-41-4	Ethyl Benzene	0.21	U	1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	0.43	U	1.0	0.43	ug/L
95-47-6	o-Xylene	0.21	U	1.0	0.21	ug/L
100-42-5	Styrene	0.19	U	1.0	0.19	ug/L
75-25-2	Bromoform	0.22	U	1.0	0.22	ug/L
108-86-1	Bromobenzene	0.21	U	1.0	0.21	ug/L
98-82-8	Isopropylbenzene	0.20	U	1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	0.28	U	1.0	0.28	ug/L
103-61-5	N-propylbenzene	0.24	U	1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	0.50	U	1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.22	U	1.0	0.22	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monitc</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VBLK01</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>VBF0816W2</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF081611.D</b>	<b>1</b>		<b>8/16/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	0.22	U	1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	0.18	U	1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	0.20	U	1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	0.22	U	1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
104-51-8	n-Butylbenzene	0.20	U	1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.20	U	1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L
91-20-3	Naphthalene	0.17	U	1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.18	U	1.0	0.18	ug/L
<b>SURROGATES</b>						
2199-69-1	1,2-Dichlorobenzene-d4	1.04	104 %	80 - 120		SPK: 1
460-00-4	4-Bromofluorobenzene	0.98	98 %	80 - 120		SPK: 1
<b>INTERNAL STANDARDS</b>						
462-06-6	Fluorobenzene	226075	8.85			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

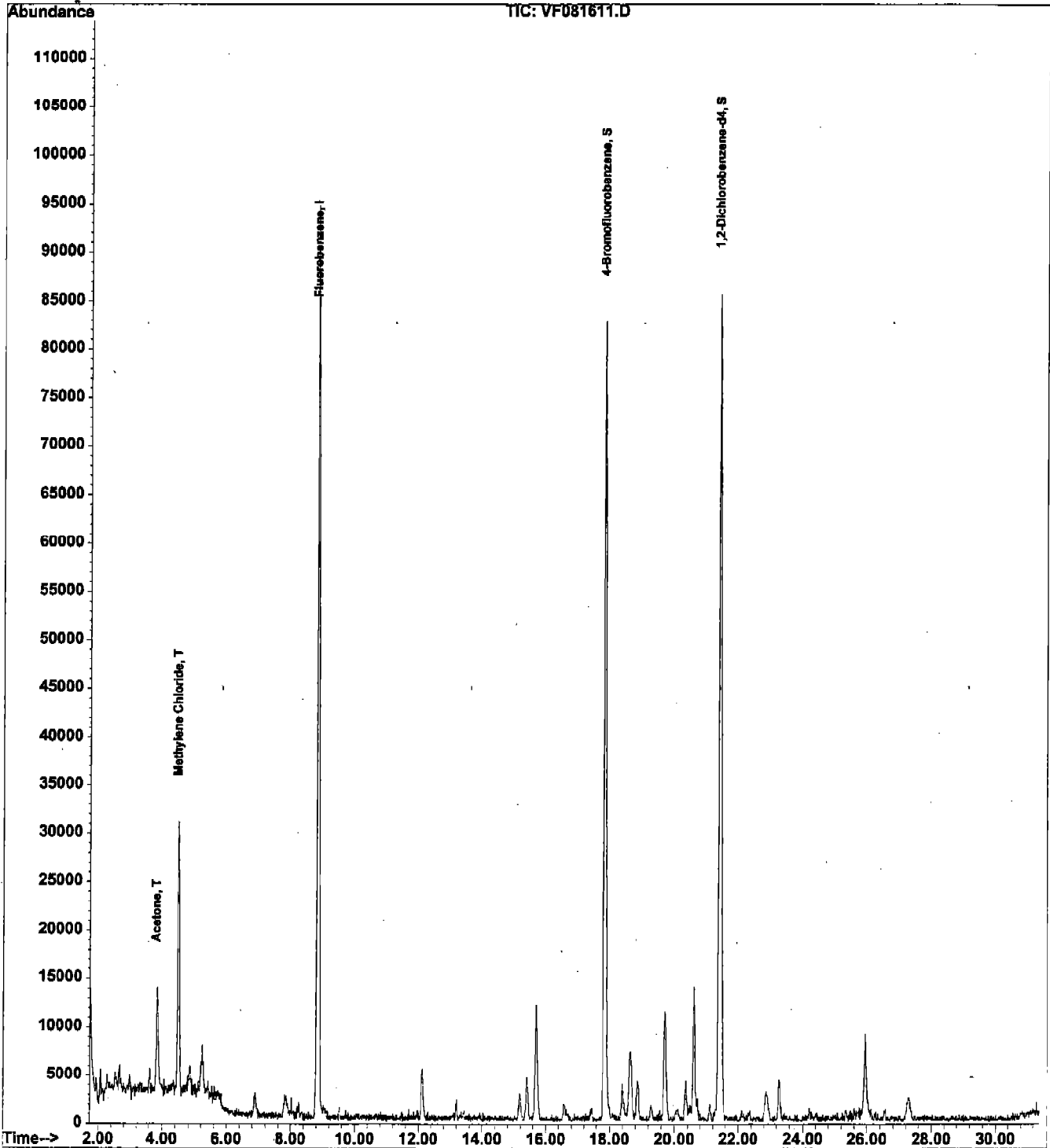
J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound



Quantitation Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081611.D Vial: 12  
Acq On : 16 Aug 2004 3:40 pm Operator: SAM  
Sample : VBF0816W2 Inst : VOA F  
Misc : 25mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Sep 9 18:20 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081611.D Vial: 12  
 Acq On : 16 Aug 2004 3:40 pm Operator: SAM  
 Sample : VBF0816W2 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 9 18:20 2004 Quant Results File: VF0816DW.RES

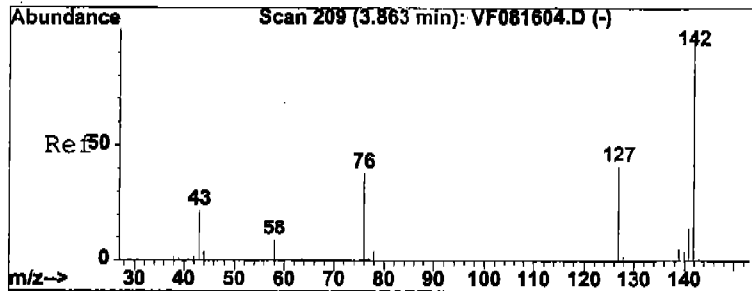
Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.85	96	226075	1.00	ug/l	0.00
<b>System Monitoring Compounds</b>						
52) 4-Bromofluorobenzene	17.85	95	104458	0.98	ug/l	-0.01
Spiked Amount	1.000		Recovery	=	98.00%	
63) 1,2-Dichlorobenzene-	21.41	152	61172	1.04	ug/l	-0.01
Spiked Amount	1.000		Recovery	=	104.00%	
<b>Target Compounds</b>						
12) Acetone	3.85	43	28626	10.19	ug/l	93
14) Methylene Chloride	4.50	84	26485	0.49	ug/l	92

-----  
 Analyst Signature: \_\_\_\_\_ Analyst Name: Sy Date: 09/09/04

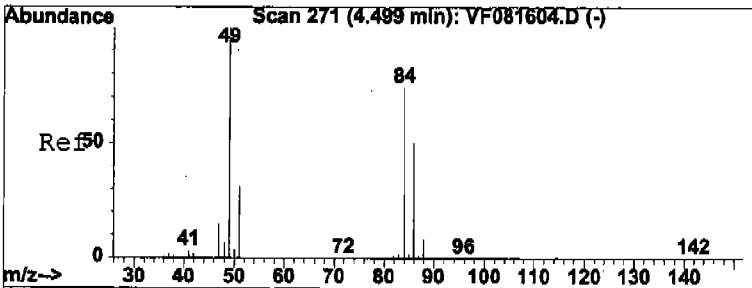
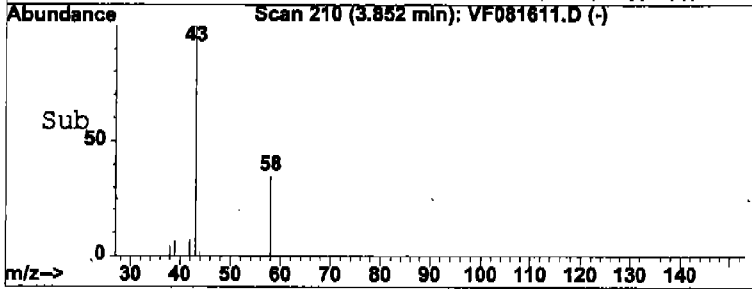
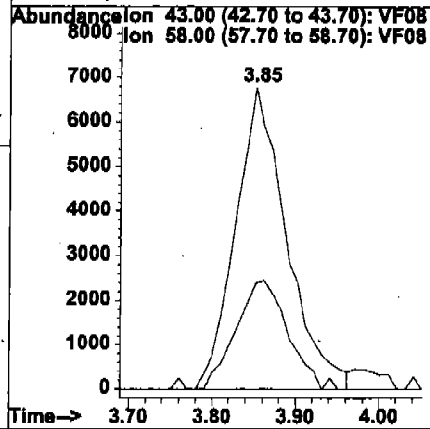
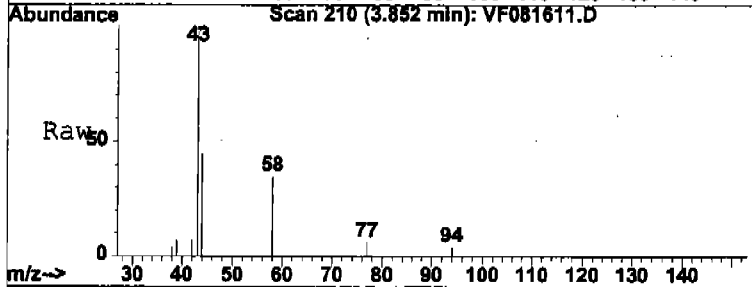
-----REASONS FOR MANUAL INTEGRATIONS-----  
 \_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly.Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration



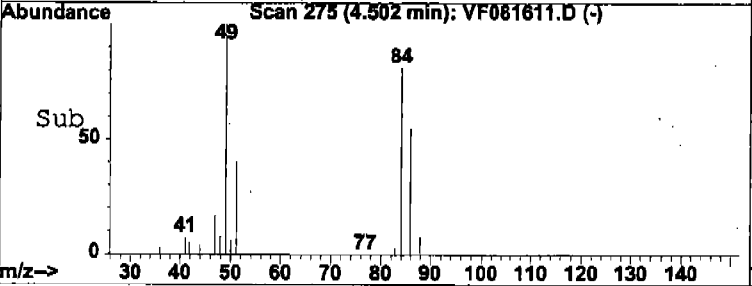
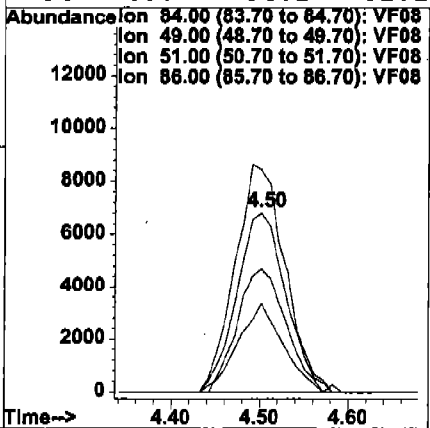
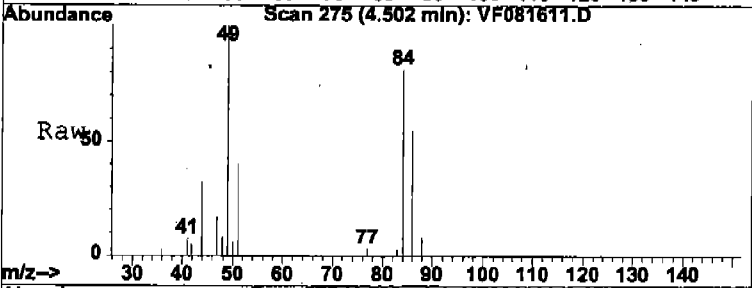
#12  
 Acetone  
 Concen: 10.19 ug/l  
 RT: 3.85 min Scan# 210  
 Delta R.T. 0.00 min  
 Lab File: VF081611.D  
 Acq: 16 Aug 2004 3:40 pm

Tgt Ion: 43 Resp: 28626  
 Ion Ratio Lower Upper  
 43 100  
 58 35.2 31.4 47.2



#14  
 Methylene Chloride  
 Concen: 0.49 ug/l  
 RT: 4.50 min Scan# 275  
 Delta R.T. 0.00 min  
 Lab File: VF081611.D  
 Acq: 16 Aug 2004 3:40 pm

Tgt Ion: 84 Resp: 26485  
 Ion Ratio Lower Upper  
 84 100  
 49 123.7 108.6 163.0  
 51 49.1 0.0 84.4  
 86 68.7 54.2 81.2



LSC Area Percent Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081611.D Vial: 12  
 Acq On : 16 Aug 2004 3:40 pm Operator: SAM  
 Sample : VBF0816W2 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

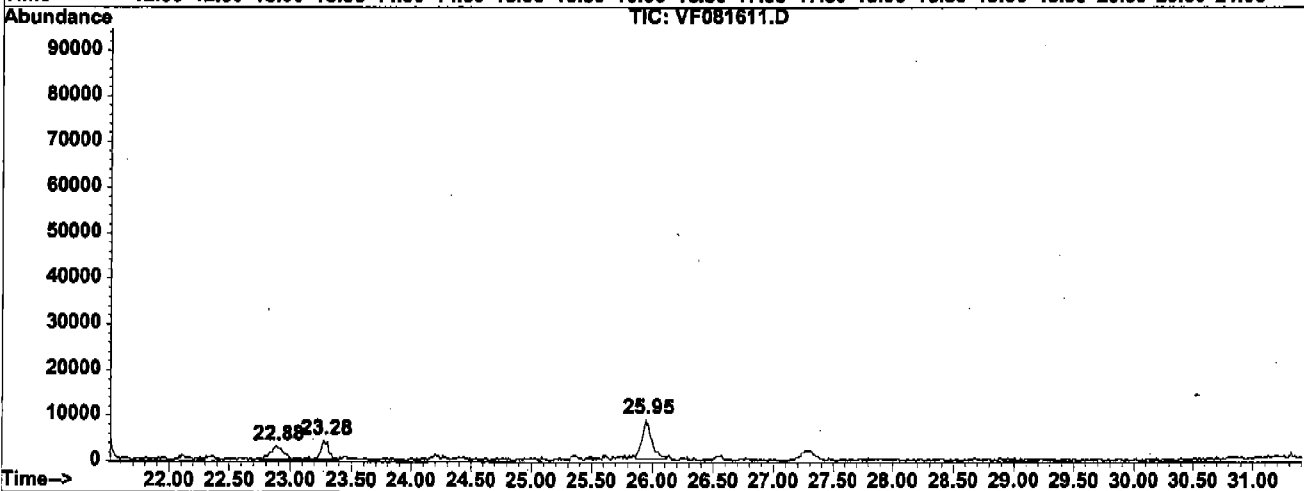
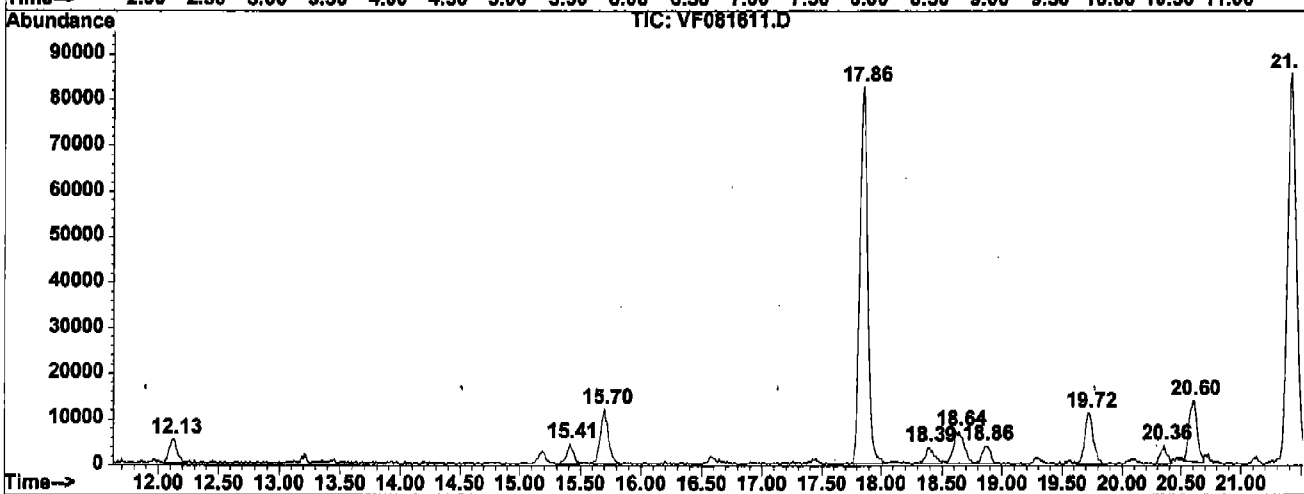
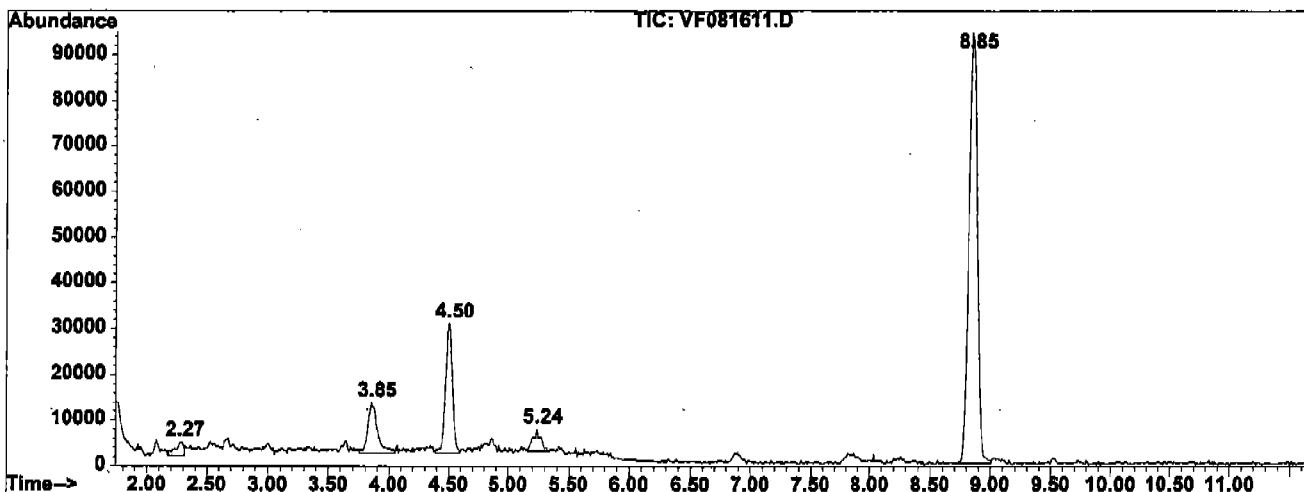
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	2.273	44	54	58	rBV3	2890	13974	3.03%	0.733%
2	3.852	200	210	230	rVB	11202	60678	13.16%	3.183%
3	4.502	264	275	284	rVB	28366	114249	24.77%	5.993%
4	5.238	340	348	358	rVB6	4841	21062	4.57%	1.105%
5	8.846	690	705	721	rBV	94277	461169	100.00%	24.193%
6	12.131	1022	1030	1041	rVB3	5246	25707	5.57%	1.349%
7	15.411	1344	1355	1364	rBV	4451	19361	4.20%	1.016%
8	15.702	1371	1384	1398	rBV2	11883	55069	11.94%	2.889%
9	17.855	1586	1597	1616	rBV2	82352	387001	83.92%	20.302%
10	18.389	1641	1650	1661	rBV2	3556	17655	3.83%	0.926%
11	18.642	1665	1675	1688	rVV3	6966	43461	9.42%	2.280%
12	18.864	1688	1697	1705	rVB4	3826	17974	3.90%	0.943%
13	19.723	1773	1782	1795	rVB3	11184	55606	12.06%	2.917%
14	20.357	1836	1845	1851	rBV3	4017	15848	3.44%	0.831%
15	20.599	1861	1869	1878	rBV3	13198	62631	13.58%	3.286%
16	21.421	1935	1950	1967	rVB3	85246	449545	97.48%	23.583%
17	22.881	2081	2094	2109	rBV2	2962	21767	4.72%	1.142%
18	23.276	2123	2133	2145	rVB3	4175	17713	3.84%	0.929%
19	25.946	2388	2396	2412	rVB5	8493	45769	9.92%	2.401%

Sum of corrected areas: 1906239

VF081611.D VF0816DW.M Thu Sep 09 18:18:33 2004 RPT1

LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081611.D  
Operator : SAM  
Acquired : 16 Aug 2004 3:40 pm using AcqMethod VF\_VOA  
Instrument : VOA F  
Sample Name: VBF0816W2  
Misc Info : 25mL  
Vial Number: 12  
Quant File :VF0816DW.RES (RTE Integrator)



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081611.D Vial: 12  
 Acq On : 16 Aug 2004 3:40 pm Operator: SAM  
 Sample : VBF0816W2 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

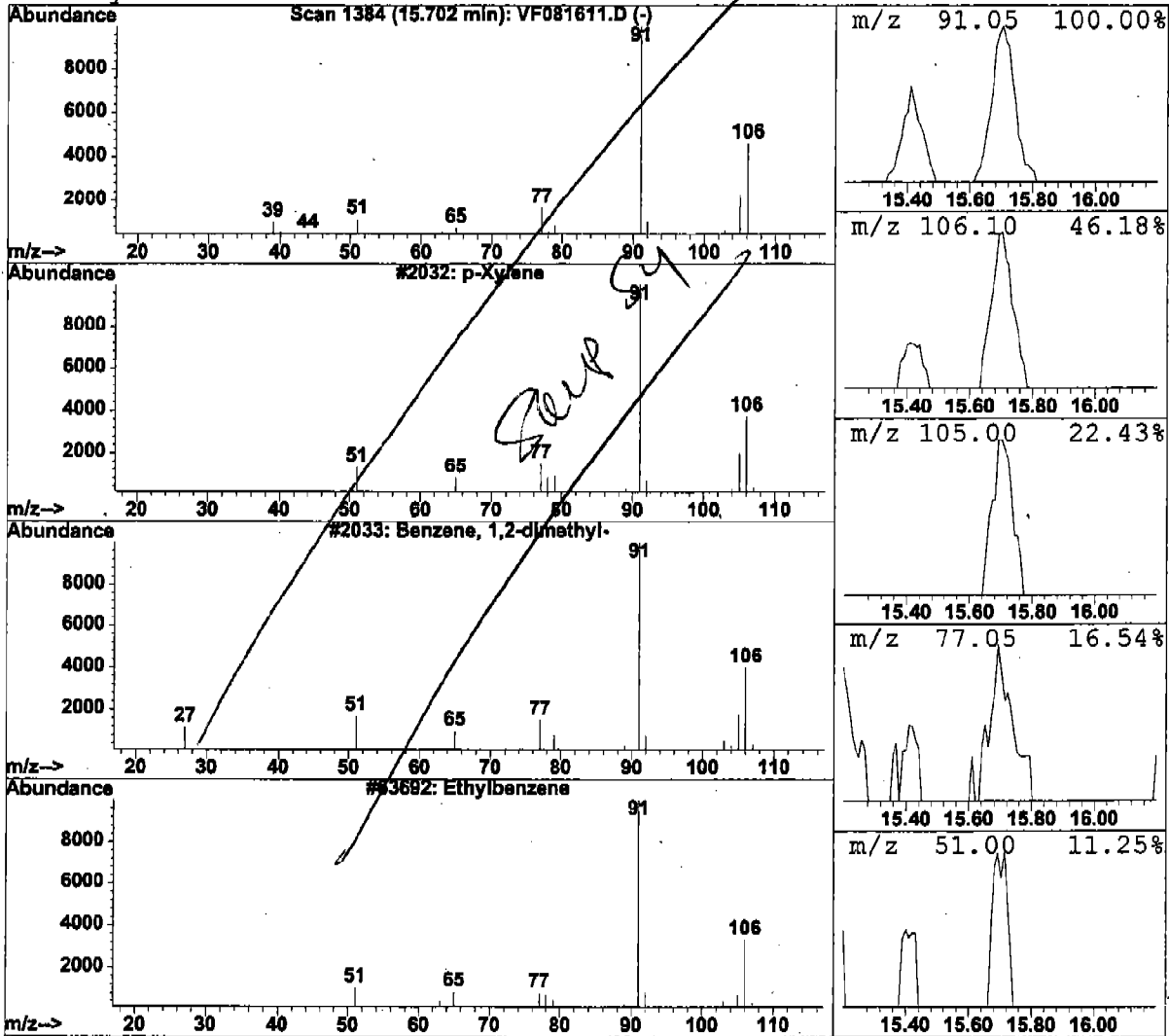
Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 1 p-Xylene Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.70	0.12 ug/l	55069	Fluorobenzene	8.85

Hit#	of 5	Tentative ID	MW	MolForm	CAS#	Qual
1		p-Xylene	106	C8H10	000106-42-3	86
2		Benzene, 1,2-dimethyl-	106	C8H10	000095-47-6	83
3		Ethylbenzene	106	C8H10	000100-41-4	72
4		Ethylbenzene	106	C8H10	000100-41-4	64



Library Search Compound Report

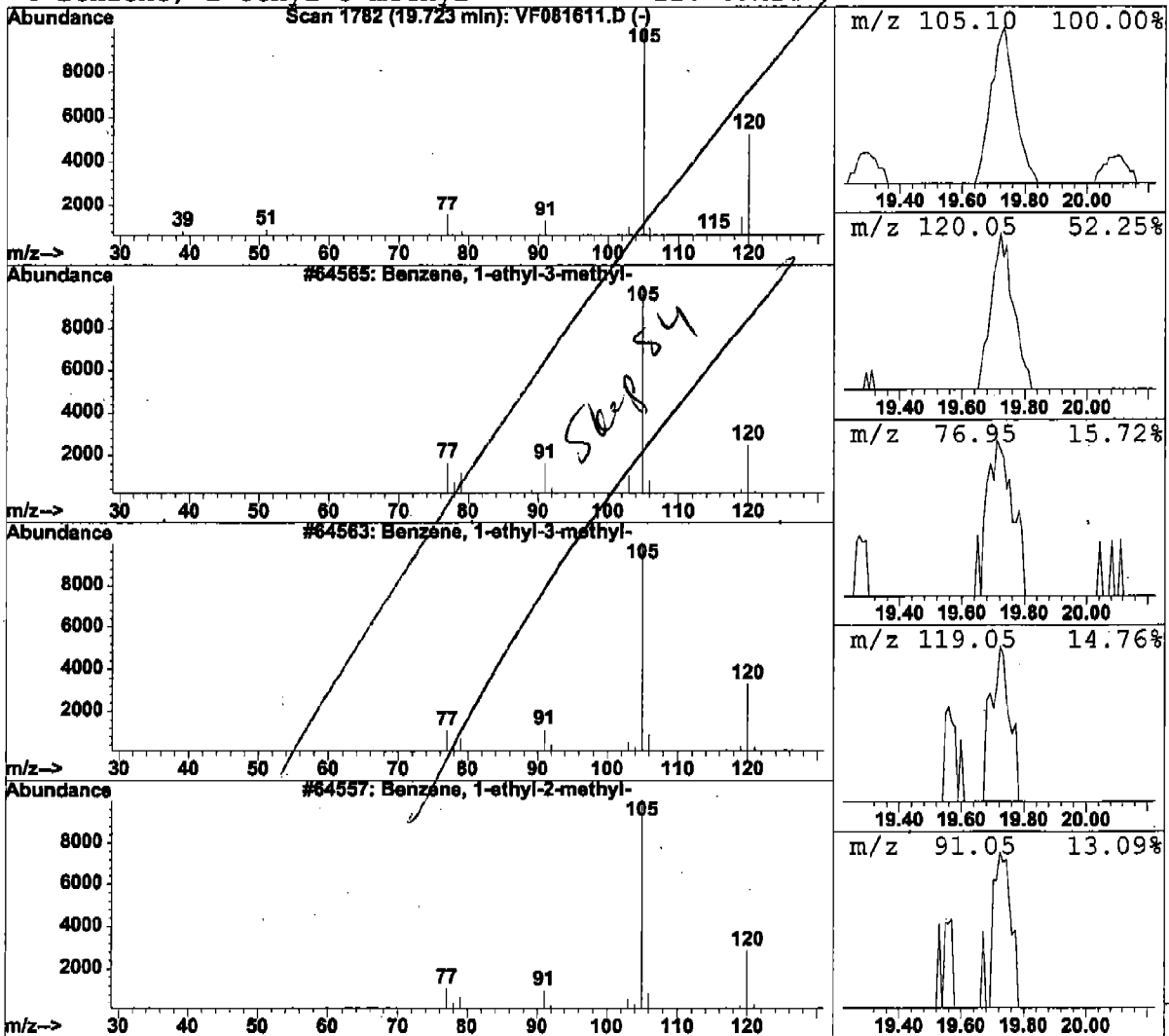
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081611.D Vial: 12  
 Acq On : 16 Aug 2004 3:40 pm Operator: SAM  
 Sample : VBF0816W2 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 2 Benzene, 1-ethyl-3-methyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.72	0.12 ug/l	55606	Fluorobenzene	8.85

Hit#	of 5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	80
2		Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	80
3		Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	72
4		Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	72



Library Search Compound Report

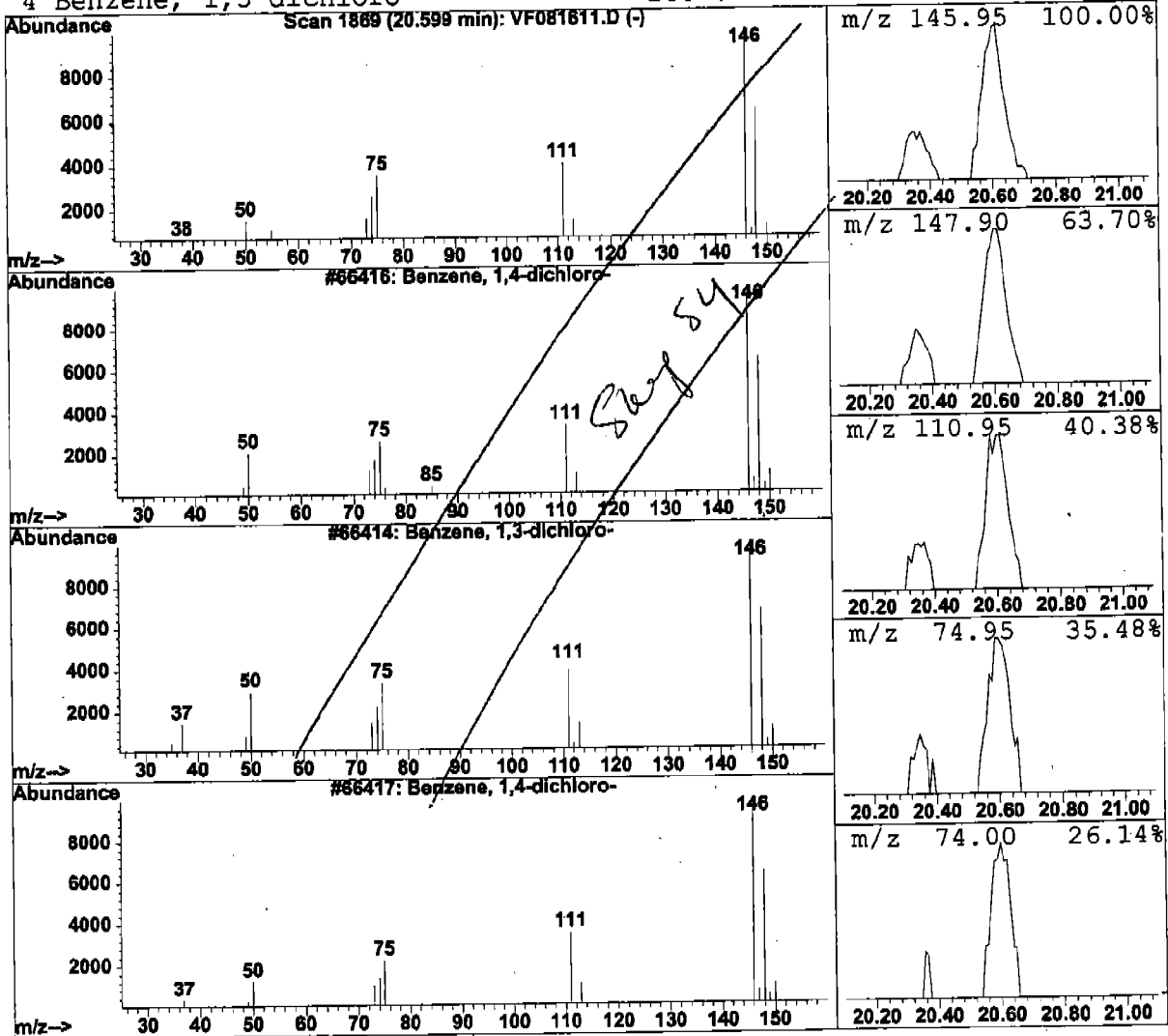
Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081611.D Vial: 12  
 Acq On : 16 Aug 2004 3:40 pm Operator: SAM  
 Sample : VBF0816W2 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 3 Benzene, 1,4-dichloro- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.60	0.14 ug/l	62631	Fluorobenzene	8.85

Hit#	of 5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzene, 1,4-dichloro-	146	C6H4Cl2	000106-46-7	91
2		Benzene, 1,3-dichloro-	146	C6H4Cl2	000541-73-1	91
3		Benzene, 1,4-dichloro-	146	C6H4Cl2	000106-46-7	91
4		Benzene, 1,3-dichloro-	146	C6H4Cl2	000541-73-1	90





Tentatively Identified Compound (LSC) summary

Operator ID: SAM      Date Acquired: 16 Aug 2004      3:40 pm  
Data File: C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081611.D  
Name: VBF0816W2  
Misc: 25mL  
Method: C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title: METHOD 524.2 VOLATILES DRINKING WATER  
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc Units	Area	IntStd	ISRT	ISArea	ISConc
p-Xylene	15.70	0.1 ug/l	55069	ISTD01	8.85	461169	1.0
Benzene, 1-ethyl-3-m	19.72	0.1 ug/l	55606	ISTD01	8.85	461169	1.0
Benzene, 1,4-dichlor	20.60	0.1 ug/l	62631	ISTD01	8.85	461169	1.0

VF081611.D VF0816DW.M Thu Sep 09 18:18:35 2004 RPT1

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VBLK02</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>VBF0904W2</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090404.D</b>	<b>1</b>		<b>9/3/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	0.09	U	1.0	0.09	ug/L
74-87-3	Chloromethane	0.11	U	1.0	0.11	ug/L
75-01-4	Vinyl Chloride	0.14	U	1.0	0.14	ug/L
74-83-9	Bromomethane	0.22	U	1.0	0.22	ug/L
75-00-3	Chloroethane	0.19	U	1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	0.09	U	1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	2.2	U	10	2.2	ug/L
60-29-7	Diethyl Ether	0.21	U	1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	0.16	U	1.0	0.16	ug/L
74-88-4	Iodomethane	0.14	U	1.0	0.14	ug/L
107-5-1	Allyl Chloride	0.18	U	1.0	0.18	ug/L
107-13-1	Acrylonitrile	0.94	U	2.0	0.94	ug/L
67-64-1	Acetone	3.1	J	5.8	1.5	ug/L
75-15-0	Carbon disulfide	0.18	U	1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	0.37	U	1.0	0.37	ug/L
79-20-9	Methyl acrylate	0.17	U	1.0	0.17	ug/L
75-09-2	Methylene Chloride	0.3	J	1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.94	U	5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	0.22	U	1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	0.20	U	1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L
67-66-3	Chloroform	0.22	U	1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	1.4	U	2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L
108-20-3	Isopropyl Ether	0.21	U	1.0	0.21	ug/L
107-12-0	Propionitrile	3.3	U	10	3.3	ug/L
71-43-2	Benzene	0.24	U	1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	0.24	U	1.0	0.24	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VBLK02</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>VBF0904W2</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090404.D</b>	<b>1</b>		<b>9/3/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	0.21	U	1.0	0.21	ug/L
126-98-7	Methacrylonitrile	0.33	U	1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	0.78	U	2.4	0.78	ug/L
109-69-3	1-Chlorobutane	0.22	U	1.0	0.22	ug/L
74-95-3	Dibromomethane	0.24	U	1.0	0.24	ug/L
75-27-4	Bromodichloromethane	0.20	U	1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	1.0	U	5.0	1.0	ug/L
80-62-6	Methyl methacrylate	0.53	U	2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	0.25	U	1.0	0.25	ug/L
108-88-3	Toluene	0.22	U	1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L
591-78-6	2-Hexanone	1.1	U	5.0	1.1	ug/L
124-48-1	Dibromochloromethane	0.17	U	1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L
127-18-4	Tetrachloroethene	0.34	U	1.0	0.34	ug/L
108-90-7	Chlorobenzene	0.21	U	1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L
67-72-1	Hexachloroethane	0.20	U	1.0	0.20	ug/L
100-41-4	Ethyl Benzene	0.21	U	1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	0.43	U	1.0	0.43	ug/L
95-47-6	o-Xylene	0.21	U	1.0	0.21	ug/L
100-42-5	Styrene	0.19	U	1.0	0.19	ug/L
75-25-2	Bromoform	0.22	U	1.0	0.22	ug/L
108-86-1	Bromobenzene	0.21	U	1.0	0.21	ug/L
98-82-8	Isopropylbenzene	0.20	U	1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	0.28	U	1.0	0.28	ug/L
103-61-5	N-propylbenzene	0.24	U	1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	0.50	U	1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.22	U	1.0	0.22	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VBLK02</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>VBF0904W2</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090404.D</b>	<b>1</b>		<b>9/3/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	0.22	U	1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	0.18	U	1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	0.20	U	1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	0.22	U	1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
104-51-8	n-Butylbenzene	0.20	U	1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.20	U	1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L
91-20-3	Naphthalene	0.17	U	1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.18	U	1.0	0.18	ug/L
<b>SURROGATES</b>						
2199-69-1	1,2-Dichlorobenzene-d4	1.02	102 %	80 - 120		SPK: 1
460-00-4	4-Bromofluorobenzene	0.96	96 %	80 - 120		SPK: 1
<b>INTERNAL STANDARDS</b>						
462-06-6	Fluorobenzene	237391	8.85			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090404.D Vial: 4  
 Acq On : 3 Sep 2004 11:42 pm Operator: SAM  
 Sample : VBF0904W2 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 7 11:33 2004 Quant Results File: VF0816DW.RES

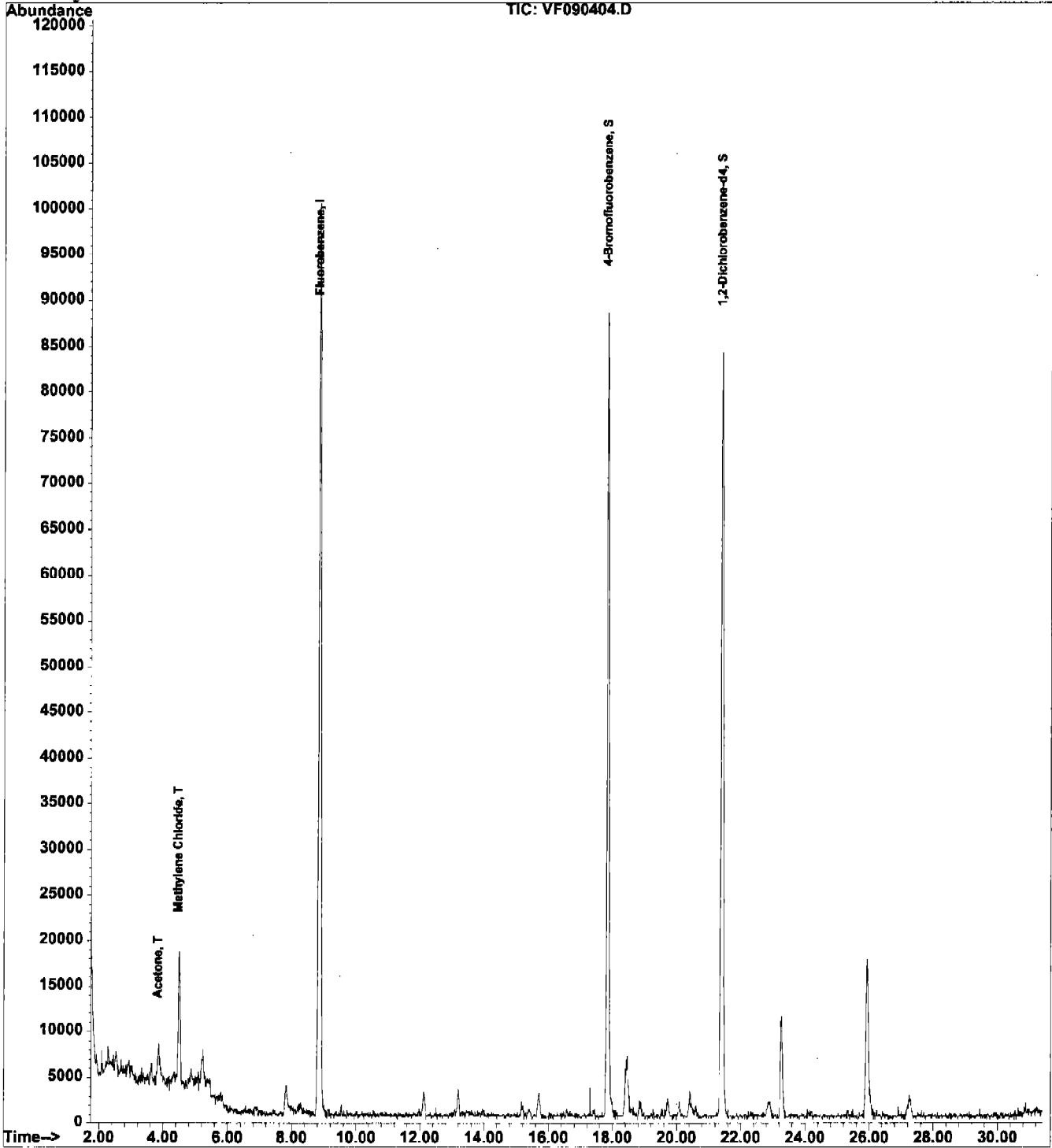
Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

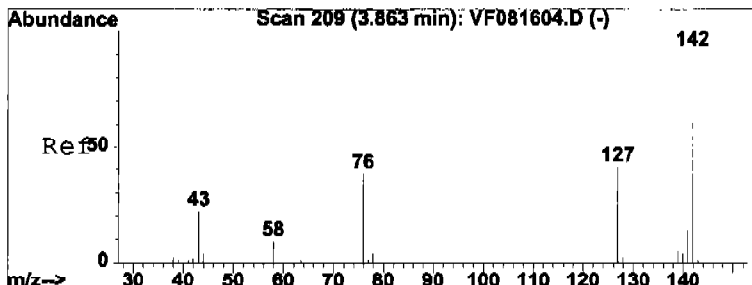
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	8.85	96	237391	1.00	ug/l	0.00
System Monitoring Compounds						
52) 4-Bromofluorobenzene	17.85	95	107469	0.96	ug/l	-0.01
Spiked Amount	1.000		Recovery	=	96.00%	
63) 1,2-Dichlorobenzene-	21.41	152	63238	1.02	ug/l	-0.01
Spiked Amount	1.000		Recovery	=	102.00%	
Target Compounds						Qvalue
12) Acetone	3.86	43	9012	3.06	ug/l	95
14) Methylene Chloride	4.49	84	14578	0.26	ug/l	94

-----  
 Analyst Signature: [Signature] Analyst Name: Sy Date: 09/09/04  
 -----REASONS FOR MANUAL INTEGRATIONS-----  
 \_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090404.D Vial: 4  
Acq On : 3 Sep 2004 11:42 pm Operator: SAM  
Sample : VBF0904W2 Inst : VOA F  
Misc : 25mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Sep 7 11:33 2004 Quant Results File: VF0816DW.RES

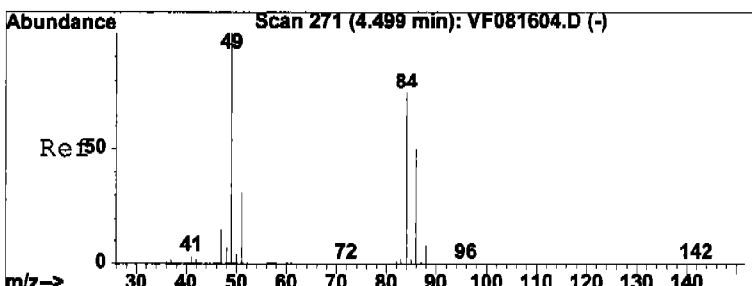
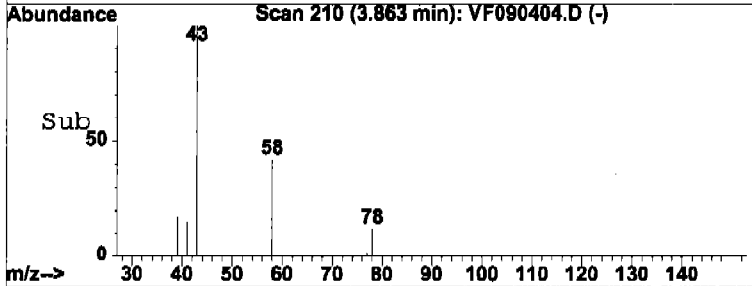
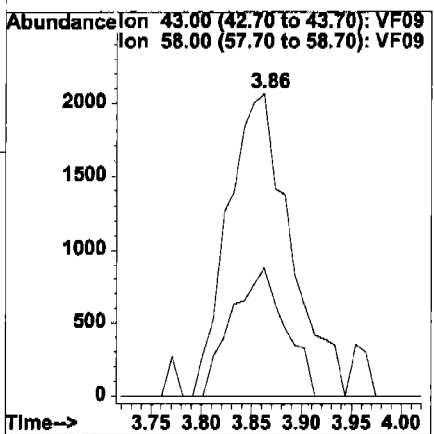
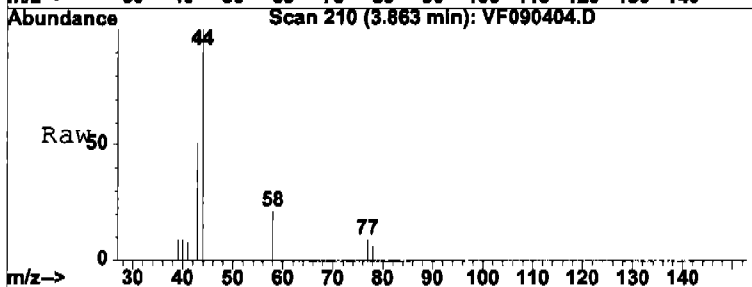
Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration





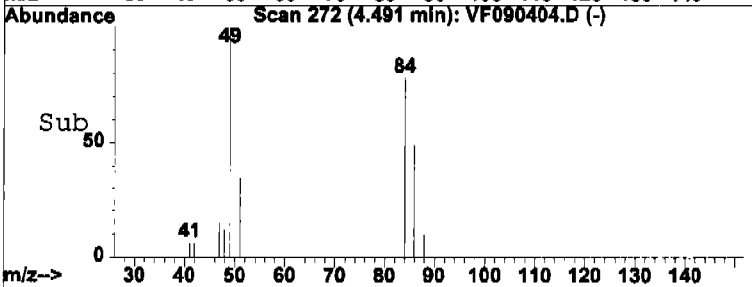
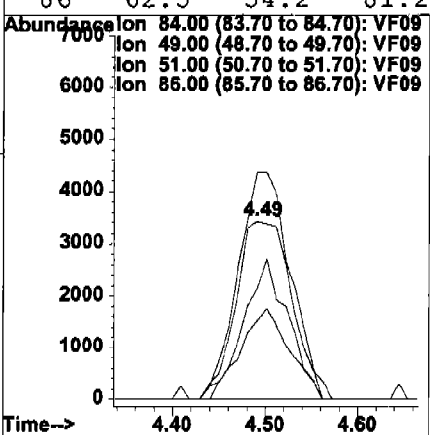
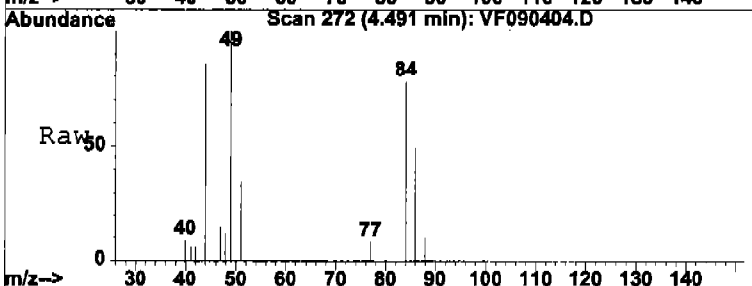
#12  
 Acetone  
 Concen: 3.06 ug/l  
 RT: 3.86 min Scan# 210  
 Delta R.T. 0.01 min  
 Lab File: VF090404.D  
 Acq: 3 Sep 2004 11:42 pm

Tgt Ion:	43	Resp:	9012
Ion Ratio	Lower	Upper	
43	100		
58	42.3	31.4	47.2



#14  
 Methylene Chloride  
 Concen: 0.26 ug/l  
 RT: 4.49 min Scan# 272  
 Delta R.T. -0.01 min  
 Lab File: VF090404.D  
 Acq: 3 Sep 2004 11:42 pm

Tgt Ion:	84	Resp:	14578
Ion Ratio	Lower	Upper	
84	100		
49	127.8	108.6	163.0
51	44.5	0.0	84.4
86	62.5	54.2	81.2



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090404.D Vial: 4  
 Acq On : 3 Sep 2004 11:42 pm Operator: SAM  
 Sample : VBF0904W2 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	3.863	200	210	218	rBV3	4498	23594	4.87%	1.412%
2	4.502	261	273	280	rVB	14520	57654	11.90%	3.451%
3	5.245	337	346	354	rVB7	4151	23295	4.81%	1.394%
4	7.838	588	600	612	rBV	3589	23701	4.89%	1.419%
5	8.850	688	699	713	rBV	99812	484578	100.00%	29.003%
6	17.847	1570	1583	1603	rBV2	88109	413210	85.27%	24.731%
7	18.440	1630	1641	1642	rBV2	6147	23045	4.76%	1.379%
8	18.461	1642	1643	1654	rVB3	6218	19008	3.92%	1.138%
9	20.418	1823	1835	1845	rBV4	2793	14689	3.03%	0.879%
10	21.410	1917	1932	1949	rVB	83643	409578	84.52%	24.514%
11	23.275	2105	2115	2126	rBV5	11161	54386	11.22%	3.255%
12	25.934	2365	2376	2393	rBV4	17353	103625	21.38%	6.202%
13	27.247	2493	2505	2519	rBV2	2726	20443	4.22%	1.224%

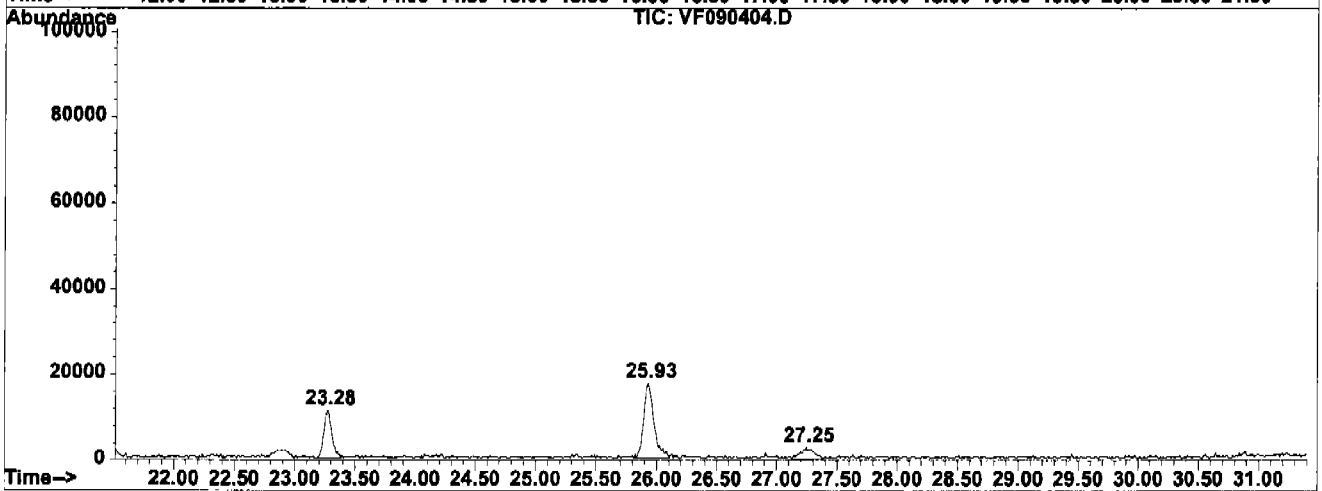
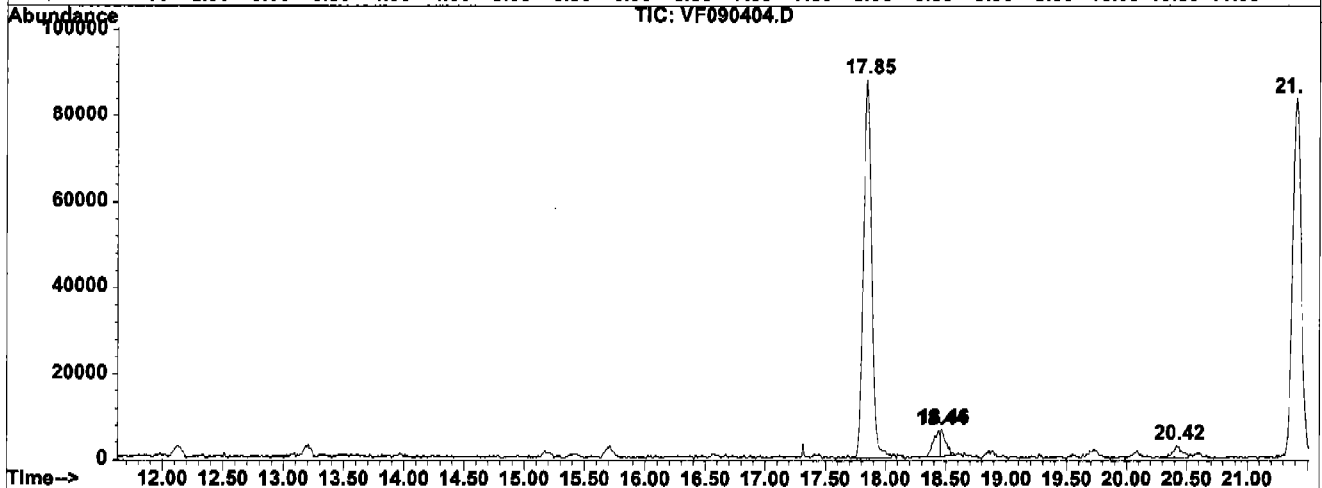
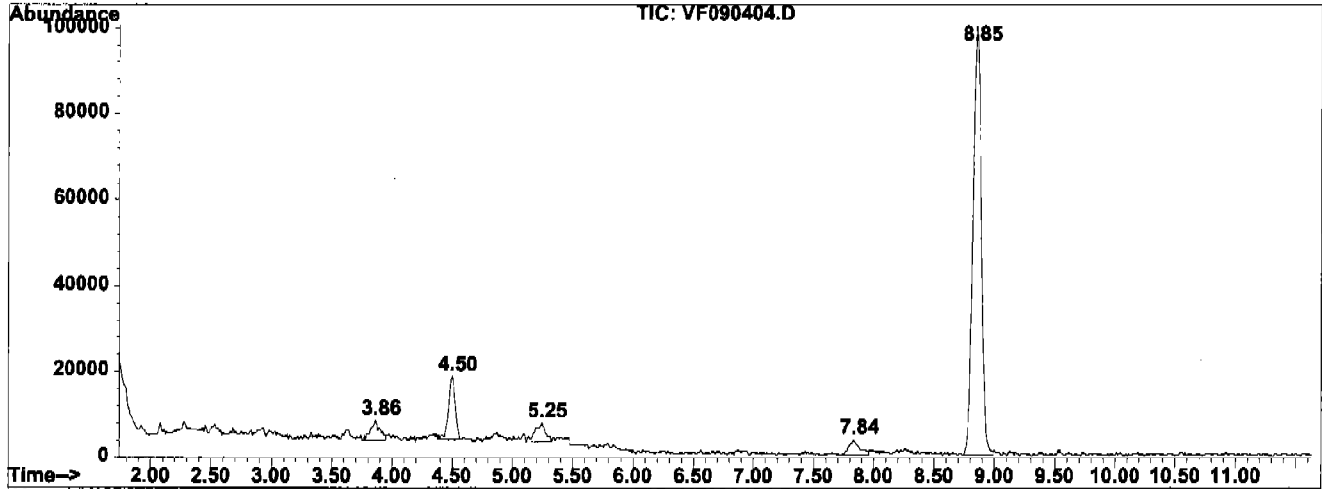
Sum of corrected areas: 1670806

VF090404.D VF0816DW.M Thu Sep 09 12:52:56 2004 RPT1



LSC Report - Integrated Chromatogram

File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090404.D  
Operator : SAM  
Acquired : 3 Sep 2004 11:42 pm using AcqMethod VF\_VOA  
Instrument : VOA F  
Sample Name: VBF0904W2  
Misc Info : 25mL  
Vial Number: 4  
Quant File : VF0816DW.RES (RTE Integrator)



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090404.D Vial: 4  
 Acq On : 3 Sep 2004 11:42 pm Operator: SAM  
 Sample : VBF0904W2 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

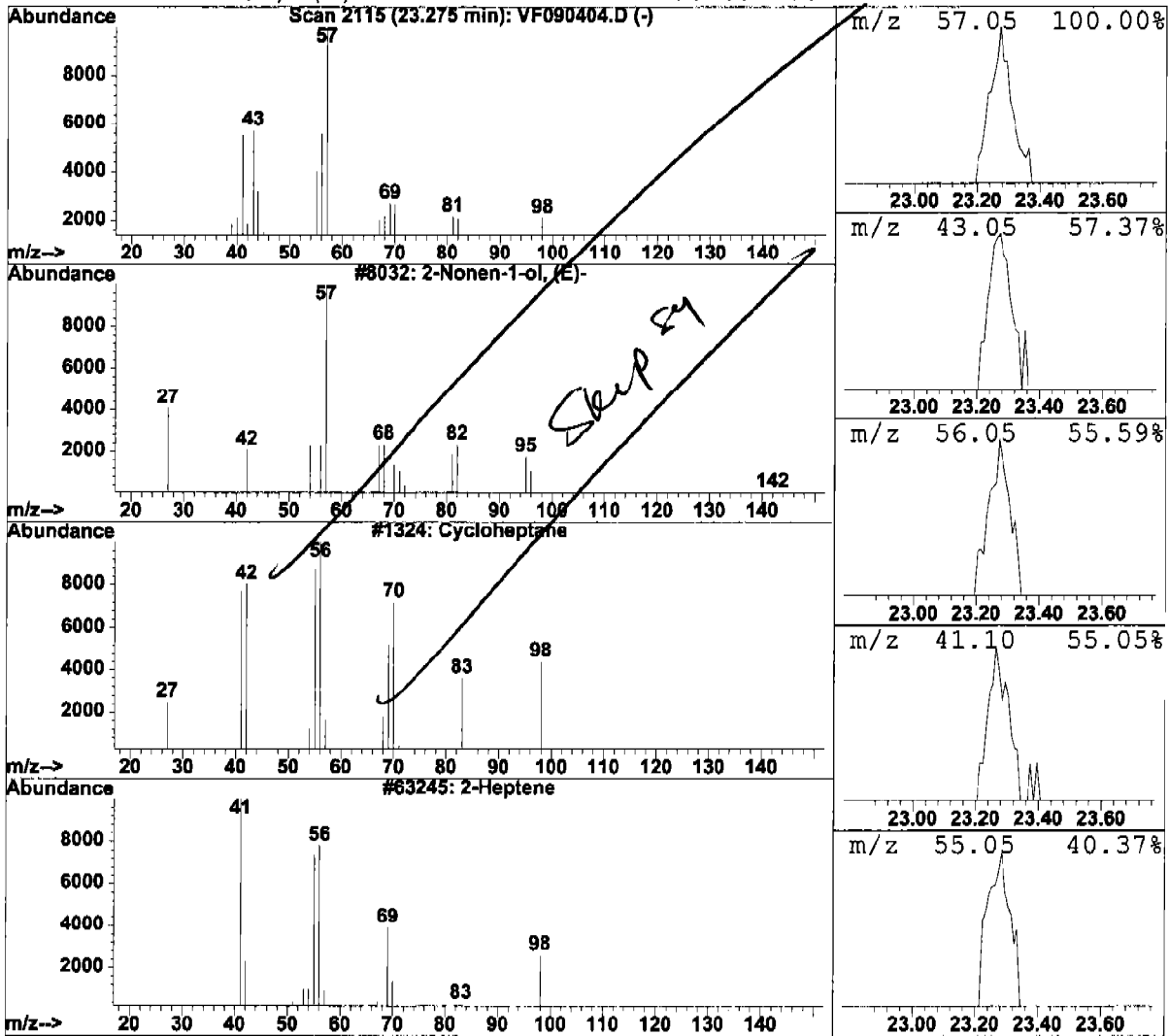
Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 1 2-Nonen-1-ol, (E)- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
23.28	0.11 ug/l	54386	Fluorobenzene	8.85

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Nonen-1-ol, (E)-	142	C9H18O	031502-14-4	50
2	Cycloheptane	98	C7H14	000291-64-5	25
3	2-Heptene	98	C7H14	000592-77-8	25
4	2-Penten-1-ol, (Z)-	86	C5H10O	001576-95-0	17



Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090404.D Vial: 4  
 Acq On : 3 Sep 2004 11:42 pm Operator: SAM  
 Sample : VBF0904W2 Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

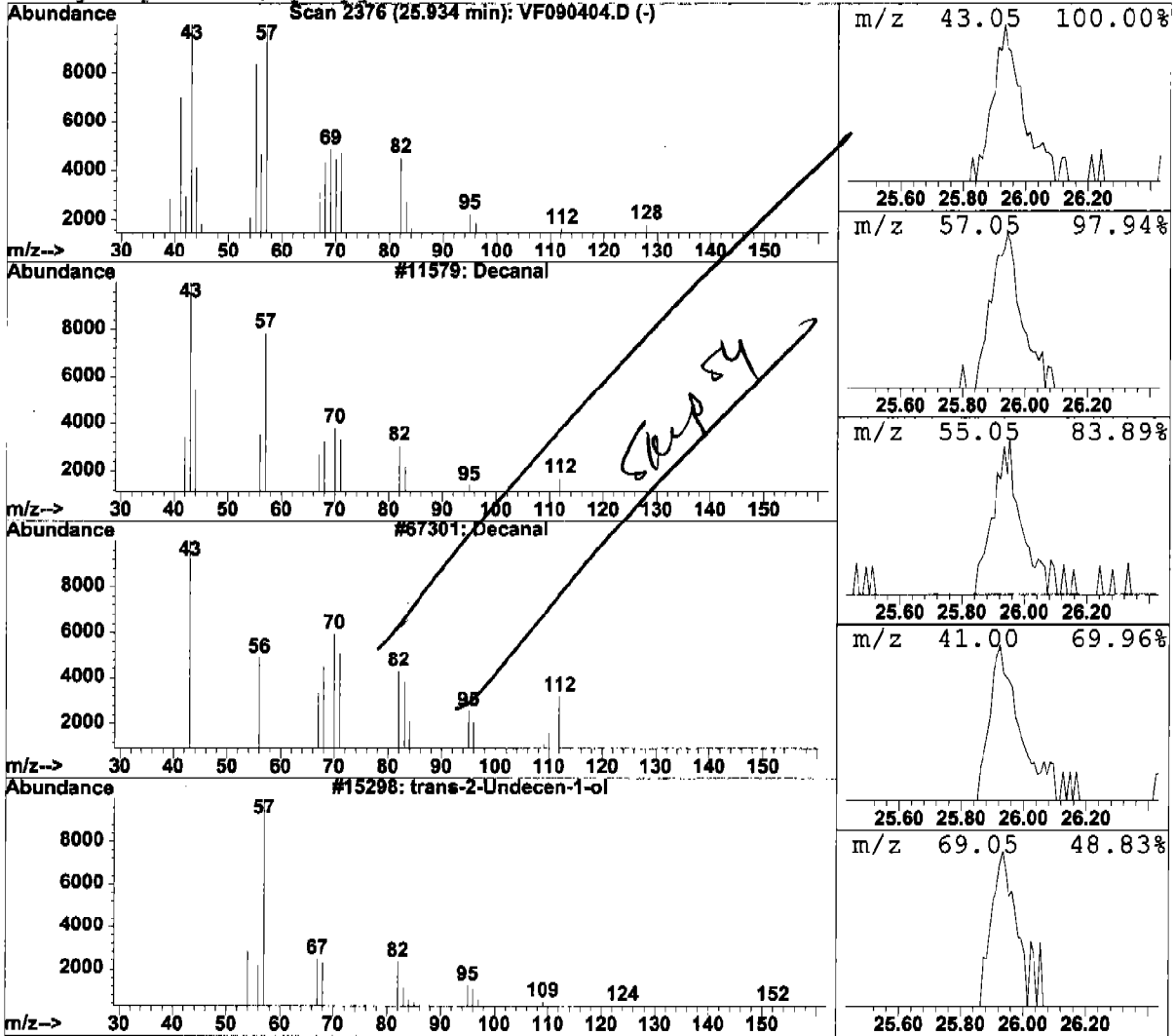
Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 2 Decanal Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
25.93	0.21 ug/l	103625	Fluorobenzene	8.85

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Decanal	156	C10H20O	000112-31-2	87
2		Decanal	156	C10H20O	000112-31-2	59
3		trans-2-Undecen-1-ol	170	C11H22O	000000-00-0	38
4		Cyclopentane, propyl-	112	C8H16	002040-96-2	38



Tentatively Identified Compound (LSC) summary

Operator ID: SAM Date Acquired: 3 Sep 2004 11:42 pm

Data File: C:\HPCHEM\1\DATA\MSVOAF\VF090404\VF090404.D

Name: VBF0904W2

Misc: 25mL

Method: C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)

Title: METHOD 524.2 VOLATILES DRINKING WATER

Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
2-Nonen-1-ol, (E)-	23.28	0.1	ug/l	54386	ISTD01	8.85	484578	1.0
Decanal	25.93	0.2	ug/l	103625	ISTD01	8.85	484578	1.0

VF090404.D VF0816DW.M Thu Sep 09 12:52:58 2004 RPT1

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VBLK03</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>VBF0907W4</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090714.D</b>	<b>1</b>		<b>9/7/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	0.09	U	1.0	0.09	ug/L
74-87-3	Chloromethane	0.11	U	1.0	0.11	ug/L
75-01-4	Vinyl Chloride	0.14	U	1.0	0.14	ug/L
74-83-9	Bromomethane	0.22	U	1.0	0.22	ug/L
75-00-3	Chloroethane	0.19	U	1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	0.09	U	1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	2.2	U	10	2.2	ug/L
60-29-7	Diethyl Ether	0.21	U	1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	0.16	U	1.0	0.16	ug/L
74-88-4	Iodomethane	0.14	U	1.0	0.14	ug/L
107-5-1	Allyl Chloride	0.18	U	1.0	0.18	ug/L
107-13-1	Acrylonitrile	0.94	U	2.0	0.94	ug/L
67-64-1	Acetone	4.4	J	5.8	1.5	ug/L
75-15-0	Carbon disulfide	0.18	U	1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	0.37	U	1.0	0.37	ug/L
79-20-9	Methyl acrylate	0.17	U	1.0	0.17	ug/L
75-09-2	Methylene Chloride	1.2		1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	0.22	U	1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.94	U	5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	0.22	U	1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	0.20	U	1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	0.24	U	1.0	0.24	ug/L
67-66-3	Chloroform	0.22	U	1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	1.4	U	2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L
108-20-3	Isopropyl Ether	0.21	U	1.0	0.21	ug/L
107-12-0	Propionitrile	3.3	U	10	3.3	ug/L
71-43-2	Benzene	0.24	U	1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	0.24	U	1.0	0.24	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VBLK03</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>VBF0907W4</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090714.D</b>	<b>1</b>		<b>9/7/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	0.21	U	1.0	0.21	ug/L
126-98-7	Methacrylonitrile	0.33	U	1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	0.78	U	2.4	0.78	ug/L
109-69-3	1-Chlorobutane	0.22	U	1.0	0.22	ug/L
74-95-3	Dibromomethane	0.24	U	1.0	0.24	ug/L
75-27-4	Bromodichloromethane	0.20	U	1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	1.0	U	5.0	1.0	ug/L
80-62-6	Methyl methacrylate	0.53	U	2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	0.25	U	1.0	0.25	ug/L
108-88-3	Toluene	0.22	U	1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L
591-78-6	2-Hexanone	1.1	U	5.0	1.1	ug/L
124-48-1	Dibromochloromethane	0.17	U	1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L
127-18-4	Tetrachloroethene	0.34	U	1.0	0.34	ug/L
108-90-7	Chlorobenzene	0.21	U	1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L
67-72-1	Hexachloroethane	0.20	U	1.0	0.20	ug/L
100-41-4	Ethyl Benzene	0.21	U	1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	0.43	U	1.0	0.43	ug/L
95-47-6	o-Xylenc	0.21	U	1.0	0.21	ug/L
100-42-5	Styrene	0.19	U	1.0	0.19	ug/L
75-25-2	Bromoform	0.22	U	1.0	0.22	ug/L
108-86-1	Bromobenzene	0.21	U	1.0	0.21	ug/L
98-82-8	Isopropylbenzene	0.20	U	1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	0.28	U	1.0	0.28	ug/L
103-61-5	N-propylbenzene	0.24	U	1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	0.50	U	1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.22	U	1.0	0.22	ug/L

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N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VBLK03</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>VPF0907W4</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090714.D</b>	<b>1</b>		<b>9/7/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	0.22	U	1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	0.18	U	1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	0.20	U	1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	0.22	U	1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	0.20	U	1.0	0.20	ug/L
104-51-8	n-Butylbenzene	0.20	U	1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	0.17	U	1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.20	U	1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L
91-20-3	Naphthalene	0.17	U	1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.18	U	1.0	0.18	ug/L
<b>SURROGATES</b>						
2199-69-1	1,2-Dichlorobenzene-d4	1.03	103 %	80 - 120		SPK: 1
460-00-4	4-Bromofluorobenzene	0.95	95 %	80 - 120		SPK: 1
<b>INTERNAL STANDARDS</b>						
462-06-6	Fluorobenzene	240105	8.86			

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**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VLCS01</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>LFB01</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF081617.D</b>	<b>1</b>		<b>8/16/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	1.8		1.0	0.09	ug/L
74-87-3	Chloromethane	1.6		1.0	0.11	ug/L
75-01-4	Vinyl Chloride	1.7		1.0	0.14	ug/L
74-83-9	Bromomethane	2.0		1.0	0.22	ug/L
75-00-3	Chloroethane	2.1		1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	1.8		1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	24		10	2.2	ug/L
60-29-7	Diethyl Ether	2.2		1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	2.1		1.0	0.16	ug/L
74-88-4	Iodomethane	1.6		1.0	0.14	ug/L
107-5-1	Allyl Chloride	2.0		1.0	0.18	ug/L
107-13-1	Acrylonitrile	4.5		2.0	0.94	ug/L
67-64-1	Acetone	21	B	5.8	1.5	ug/L
75-15-0	Carbon disulfide	2.0		1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	2.3		1.0	0.37	ug/L
79-20-9	Methyl acrylate	2.3		1.0	0.17	ug/L
75-09-2	Methylene Chloride	2.8	B	1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	2.1		1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	2.1		1.0	0.21	ug/L
78-93-3	2-Butanone	13		5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	2.0		1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	1.8		1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	2.1		1.0	0.24	ug/L
67-66-3	Chloroform	2.1		1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	2.0		1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	4.3		2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	2.1		1.0	0.21	ug/L
108-20-3	Isopropyl Ether	2.2		1.0	0.21	ug/L
107-12-0	Propionitrile	23		10	3.3	ug/L
71-43-2	Benzene	2.1		1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	2.2		1.0	0.21	ug/L
79-01-6	Trichloroethene	2.1		1.0	0.24	ug/L

U = Not Detected

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N = Presumptive Evidence of a Compound



**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VLCS01</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>LFB01</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF081617.D</b>	<b>1</b>		<b>8/16/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	2.2		1.0	0.21	ug/L
126-98-7	Methacrylonitrile	2.4		1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	4.8		2.4	0.78	ug/L
109-69-3	1-Chlorobutane	2.1		1.0	0.22	ug/L
74-95-3	Dibromomethane	2.2		1.0	0.24	ug/L
75-27-4	Bromodichloromethane	2.1		1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	11		5.0	1.0	ug/L
80-62-6	Methyl methacrylate	4.7		2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	2.2		1.0	0.25	ug/L
108-88-3	Toluene	2.1		1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	2.1		1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	2.1		1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	2.3		1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	2.2		1.0	0.22	ug/L
591-78-6	2-Hexanone	12		5.0	1.1	ug/L
124-48-1	Dibromochloromethane	2.2		1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	2.3		1.0	0.20	ug/L
127-18-4	Tetrachloroethene	2.1		1.0	0.34	ug/L
108-90-7	Chlorobenzene	2.2		1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	2.2		1.0	0.22	ug/L
67-72-1	Hexachloroethane	2.1		1.0	0.20	ug/L
100-41-4	Ethyl Benzene	2.2		1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	4.3		1.0	0.43	ug/L
95-47-6	o-Xylene	2.2		1.0	0.21	ug/L
100-42-5	Styrene	2.2		1.0	0.19	ug/L
75-25-2	Bromoform	2.1		1.0	0.22	ug/L
108-86-1	Bromobenzene	2.2		1.0	0.21	ug/L
98-82-8	Isopropylbenzene	2.2		1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	2.4		1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	2.2		1.0	0.28	ug/L
103-61-5	N-propylbenzene	2.2		1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	2.2		1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	2.2		1.0	0.22	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



## Report of Analysis

Client:	Parsons Engineering	Date Collected:	
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	
Client Sample ID:	VLCS01	SDG No.:	S4436
Lab Sample ID:	LFB01	Matrix:	WATER
Analytical Method:	524	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VF081617.D	1		8/16/2004	VF081604

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	2.2		1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	2.2		1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	2.2		1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	2.2		1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	2.2		1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	2.2		1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	2.2		1.0	0.20	ug/L
104-51-8	n-Butylbenzene	2.2		1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	2.3		1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	2.3		1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	2.3		1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	2.1		1.0	0.17	ug/L
91-20-3	Naphthalene	2.5		1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	2.4		1.0	0.18	ug/L

## SURROGATES

2199-69-1	1,2-Dichlorobenzene-d4	1.06	106 %	80 - 120	SPK: 1
460-00-4	4-Bromofluorobenzene	1.01	101 %	80 - 120	SPK: 1

## INTERNAL STANDARDS

462-06-6	Fluorobenzene	220016	8.86		
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U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081617.D Vial: 2  
 Acq On : 16 Aug 2004 7:34 pm Operator: SAM  
 Sample : LFB 2 PPB Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 13:03 2004

Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.86	96	220016	1.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
52) 4-Bromofluorobenzene	17.85	95	104227	1.01	ug/l	0.00
Spiked Amount			Recovery	=	101.00%	
63) 1,2-Dichlorobenzene-	21.41	152	60827	1.06	ug/l	0.00
Spiked Amount			Recovery	=	106.00%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluorometh	1.80	85	126354	1.81	ug/l	98
3) Chloromethane	2.01	50	76808	1.63	ug/l	98
4) Vinyl Chloride	2.13	62	110921	1.73	ug/l	99
5) Bromomethane	2.52	94	55207	2.02	ug/l	98
6) Chloroethane	2.64	64	68539	2.11	ug/l	100
7) Trichlorofluorometha	2.92	101	182490	1.81	ug/l	99
8) 1,1-Dichloroethene	3.64	96	132601	2.08	ug/l	99
9) Iodomethane	3.89	142	93018	1.64	ug/l	96
10) Allyl Chloride	4.26	41	134369	2.02	ug/l	99
11) Acrylonitrile	5.06	53	17107	4.47	ug/l	96
12) Acetone	3.86	43	58713	21.48	ug/l	95
13) Carbon Disulfide	3.91	76	336240	1.96	ug/l	99
14) Methylene Chloride	4.51	84	144741	2.78	ug/l	97
15) trans-1,2-Dichloroet	4.88	96	140711	2.06	ug/l	98
16) 1,1-Dichloroethane	5.68	63	255863	2.11	ug/l	99
17) 2-Butanone	6.88	43	81475	12.96	ug/l	98
18) 2,2-Dichloropropane	6.68	77	187122	1.77	ug/l	99
19) cis-1,2-Dichloroethe	6.76	96	143449	2.14	ug/l	96
20) Diethyl Ether	3.33	59	50918	2.21	ug/l	99
21) tert-Butyl Alcohol	4.85	59	34148	23.76	ug/l	100
22) Methyl tert-Butyl Et	4.89	73	157842	2.34	ug/l	98
23) Bromochloromethane	7.19	128	49612	2.31	ug/l	96
24) Chloroform	7.36	83	242101	2.11	ug/l	99
25) 1,1,1-Trichloroethan	7.55	97	227080	2.01	ug/l	100
26) 1,1-Dichloropropene	7.89	75	237602	2.09	ug/l	99
27) Carbon Tetrachloride	7.79	117	198508	2.01	ug/l	98
28) Isopropyl Ether	5.75	45	292239	2.17	ug/l	100
29) Propionitrile	7.11	54	34137	22.80	ug/l	100

Analyst Signature: Sy Analyst Name: Sy Date: 09/09/04

REASONS FOR MANUAL INTEGRATIONS

Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration  
 VF081617.D VF0816DW.M Thu Sep 09 18:17:10 2004

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081617.D Vial: 2  
 Acq On : 16 Aug 2004 7:34 pm Operator: SAM  
 Sample : LFB 2 PPB Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 13:03 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Benzene	8.25	78	489259	2.09	ug/l	99
31) 1,2-Dichloroethane	8.46	62	87115	2.20	ug/l	99
32) Trichloroethene	9.55	130	162810	2.12	ug/l	99
33) 1,2-Dichloropropane	10.07	63	160488	2.17	ug/l	97
34) Methacrylonitrile	7.29	41	31001	2.39	ug/l	92
35) Methyl acrylate	7.01	55	48424	2.33	ug/l	96
36) Tetrahydrofuran	7.24	42	20650	4.83	ug/l #	85
37) 1-Chlorobutane	7.82	56	326448	2.09	ug/l	100
38) Dibromomethane	10.30	93	62508	2.22	ug/l	98
39) Bromodichloromethane	10.65	83	176947	2.12	ug/l	99
40) 4-Methyl-2-Pentanone	11.97	43	303526	11.49	ug/l	98
41) t-1,4-Dichloro-2-but	18.52	53	31706	4.32	ug/l	98
42) Methyl methacrylate	10.39	69	83529	4.66	ug/l	99
43) Ethyl methacrylate	13.00	69	95030	2.25	ug/l	99
44) Toluene	12.14	92	321410	2.11	ug/l	98
45) t-1,3-Dichloropropen	12.83	75	122268	2.11	ug/l	93
46) cis-1,3-Dichloroprop	11.58	75	216110	2.12	ug/l	100
47) 1,1,2-Trichloroethan	13.19	97	78198	2.34	ug/l	100
48) 1,3-Dichloropropane	13.53	76	134610	2.22	ug/l	100
49) 2-Hexanone	13.77	43	129877	11.50	ug/l	99
50) Dibromochloromethane	13.93	129	101177	2.24	ug/l	98
51) 1,2-Dibromoethane	14.14	107	77389	2.27	ug/l	98
53) Tetrachloroethene	13.22	164	151060	2.12	ug/l	97
54) Chlorobenzene	15.19	112	323035	2.21	ug/l	99
55) 1,1,1,2-Tetrachloroe	15.44	131	120304	2.22	ug/l	100
56) Pentachloroethane	19.64	117	135904	2.17	ug/l	99
57) Hexachloroethane	21.92	117	192794	2.08	ug/l	98
58) Ethyl Benzene	15.43	91	694164	2.16	ug/l	98
59) m/p-Xylenes	15.71	91	1037579	4.33	ug/l	100
60) o-Xylene	16.59	91	497066	2.18	ug/l	99
61) Styrene	16.66	104	338388	2.19	ug/l	100
62) Bromoform	17.07	173	46670	2.13	ug/l	99
64) Isopropylbenzene	17.43	105	691346	2.15	ug/l	99
65) 1,1,2,2-Tetrachloroe	18.37	83	97200	2.40	ug/l	99
66) 1,2,3-Trichloropropa	18.51	75	62773	2.17	ug/l	95
67) Bromobenzene	18.12	156	131596	2.20	ug/l	98
68) n-propylbenzene	18.40	120	187327	2.15	ug/l	99

Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081617.D Vial: 2  
 Acq On : 16 Aug 2004 7:34 pm Operator: SAM  
 Sample : LFB 2 PPB Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Aug 17 13:03 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
69) 2-Chlorotoluene	18.59	126	150010	2.18	ug/l	96
70) 1,3,5-Trimethylbenze	18.87	105	526946	2.17	ug/l	100
71) 4-Chlorotoluene	18.88	126	142615	2.20	ug/l	99
72) tert-Butylbenzene	19.56	119	666461	2.15	ug/l	99
73) 1,2,4-Trimethylbenze	19.72	105	496514	2.25	ug/l	99
74) sec-Butylbenzene	20.09	105	879641	2.19	ug/l	100
75) p-Isopropyltoluene	20.48	119	670321	2.17	ug/l	99
76) 1,3-Dichlorobenzene	20.36	146	277204	2.22	ug/l	100
77) 1,4-Dichlorobenzene	20.60	146	266764	2.24	ug/l	99
78) n-Butylbenzene	21.45	91	746790	2.18	ug/l	99
79) 1,2-Dichlorobenzene	21.46	146	215140	2.28	ug/l	98
80) 1,2-Dibromo-3-Chloro	23.42	75	13720	2.32	ug/l	97
81) 1,2,4-Trichlorobenze	25.36	180	177221	2.33	ug/l	98
82) Hexachlorobutadiene	25.72	225	139463	2.13	ug/l	99
83) Naphthalene	25.92	128	145137	2.49	ug/l	100
84) 1,2,3-Trichlorobenze	26.53	180	135627	2.39	ug/l	99

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 Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly.Compound #: \_\_\_\_\_

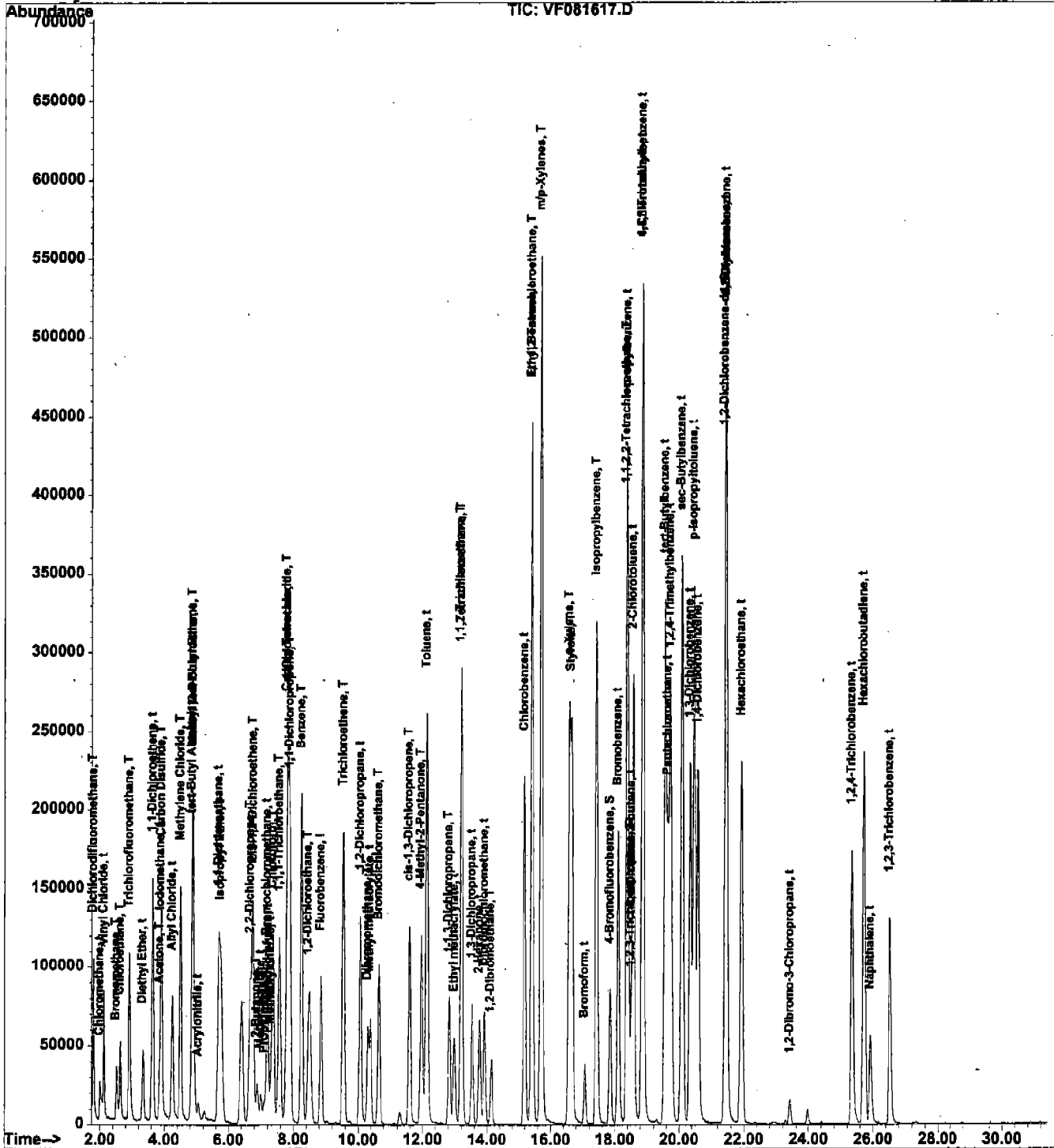
\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF081604\VF081617.D Vial: 2  
Acq On : 16 Aug 2004 7:34 pm Operator: SAM  
Sample : LFB 2 PPB Inst : VOA F  
Misc : 25mL Multiplr: 1.00  
MS Integration Params: rteint.p  
Quant Time: Aug 17 13:03 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
Title : METHOD 524.2 VOLATILES DRINKING WATER  
Last Update : Tue Aug 17 10:26:35 2004  
Response via : Initial Calibration



**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VLCS02</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>LFB02</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090725.D</b>	<b>1</b>		<b>9/8/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
75-71-8	Dichlorodifluoromethane	2.3		1.0	0.09	ug/L
74-87-3	Chloromethane	2.1		1.0	0.11	ug/L
75-01-4	Vinyl Chloride	1.9		1.0	0.14	ug/L
74-83-9	Bromomethane	2.7		1.0	0.22	ug/L
75-00-3	Chloroethane	2.2		1.0	0.19	ug/L
75-69-4	Trichlorofluoromethane	2.0		1.0	0.09	ug/L
75-65-0	tert-Butyl Alcohol	31		10	2.2	ug/L
60-29-7	Diethyl Ether	2.4		1.0	0.21	ug/L
75-35-4	1,1-Dichloroethene	2.0		1.0	0.16	ug/L
74-88-4	Iodomethane	2.0		1.0	0.14	ug/L
107-5-1	Allyl Chloride	2.0		1.0	0.18	ug/L
107-13-1	Acrylonitrile	4.9		2.0	0.94	ug/L
67-64-1	Acetone	16	B	5.8	1.5	ug/L
75-15-0	Carbon disulfide	1.9		1.0	0.18	ug/L
1634-04-4	Methyl tert-butyl Ether	2.5		1.0	0.37	ug/L
79-20-9	Methyl acrylate	2.5		1.0	0.17	ug/L
75-09-2	Methylene Chloride	3.1	B	1.0	0.18	ug/L
156-60-5	trans-1,2-Dichloroethene	2.1		1.0	0.22	ug/L
75-34-3	1,1-Dichloroethane	2.2		1.0	0.21	ug/L
78-93-3	2-Butanone	13		5.0	0.94	ug/L
56-23-5	Carbon Tetrachloride	2.0		1.0	0.22	ug/L
594-20-7	2,2-Dichloropropane	1.8		1.0	0.20	ug/L
156-59-2	cis-1,2-Dichloroethene	2.3		1.0	0.24	ug/L
67-66-3	Chloroform	2.3		1.0	0.22	ug/L
71-55-6	1,1,1-Trichloroethane	2.1		1.0	0.24	ug/L
110-57-6	t-1,4-Dichloro-2-butene	4.8		2.0	1.4	ug/L
563-43-2	1,1-Dichloropropene	2.1		1.0	0.21	ug/L
108-20-3	Isopropyl Ether	2.4		1.0	0.21	ug/L
107-12-0	Propionitrile	25		10	3.3	ug/L
71-43-2	Benzene	2.2		1.0	0.24	ug/L
107-06-2	1,2-Dichloroethane	2.5		1.0	0.21	ug/L
79-01-6	Trichloroethene	2.1		1.0	0.24	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VLCS02</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>LFB02</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090725.D</b>	<b>1</b>		<b>9/8/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
78-87-5	1,2-Dichloropropane	2.3		1.0	0.21	ug/L
126-98-7	Methacrylonitrile	2.6		1.0	0.33	ug/L
109-99-9	Tetrahydrofuran	5.2		2.4	0.78	ug/L
109-69-3	1-Chlorobutane	2.1		1.0	0.22	ug/L
74-95-3	Dibromomethane	2.4		1.0	0.24	ug/L
75-27-4	Bromodichloromethane	2.3		1.0	0.20	ug/L
108-10-1	4-Methyl-2-Pentanone	14		5.0	1.0	ug/L
80-62-6	Methyl methacrylate	4.9		2.0	0.53	ug/L
97-63-2	Ethyl methacrylate	2.5		1.0	0.25	ug/L
108-88-3	Toluene	2.2		1.0	0.22	ug/L
10061-02-6	t-1,3-Dichloropropene	2.2		1.0	0.19	ug/L
10061-01-5	cis-1,3-Dichloropropene	2.3		1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	2.6		1.0	0.24	ug/L
142-28-9	1,3-Dichloropropane	2.4		1.0	0.22	ug/L
591-78-6	2-Hexanone	13		5.0	1.1	ug/L
124-48-1	Dibromochloromethane	2.3		1.0	0.17	ug/L
106-93-4	1,2-Dibromoethane	2.5		1.0	0.20	ug/L
127-18-4	Tetrachloroethene	2.1		1.0	0.34	ug/L
108-90-7	Chlorobenzene	2.3		1.0	0.21	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	2.4		1.0	0.22	ug/L
67-72-1	Hexachloroethane	2.2		1.0	0.20	ug/L
100-41-4	Ethyl Benzene	2.3		1.0	0.21	ug/L
136777-61-2	m/p-Xylenes	4.5		1.0	0.43	ug/L
95-47-6	o-Xylene	2.3		1.0	0.21	ug/L
100-42-5	Styrene	2.3		1.0	0.19	ug/L
75-25-2	Bromoform	2.3		1.0	0.22	ug/L
108-86-1	Bromobenzene	2.3		1.0	0.21	ug/L
98-82-8	Isopropylbenzene	2.3		1.0	0.20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	2.6		1.0	0.21	ug/L
96-18-4	1,2,3-Trichloropropane	2.3		1.0	0.28	ug/L
103-61-5	N-propylbenzene	2.2		1.0	0.24	ug/L
95-49-8	2-Chlorotoluene	2.3		1.0	0.50	ug/L
108-67-8	1,3,5-Trimethylbenzene	2.3		1.0	0.22	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VLCS02</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>LFB02</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>524</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VF090725.D</b>	<b>1</b>		<b>9/8/2004</b>	<b>VF081604</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
106-43-4	4-Chlorotoluene	2.3		1.0	0.22	ug/L
98-06-6	tert-Butylbenzene	2.3		1.0	0.18	ug/L
95-63-6	1,2,4-Trimethylbenzene	2.3		1.0	0.24	ug/L
135-98-8	Sec-butylbenzene	2.3		1.0	0.20	ug/L
99-87-6	p-Isopropyltoluene	2.3		1.0	0.22	ug/L
541-73-1	1,3-Dichlorobenzene	2.3		1.0	0.20	ug/L
106-46-7	1,4-Dichlorobenzene	2.4		1.0	0.20	ug/L
104-51-8	n-Butylbenzene	2.2		1.0	0.20	ug/L
95-50-1	1,2-Dichlorobenzene	2.4		1.0	0.17	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	2.4		1.0	0.20	ug/L
120-82-1	1,2,4-Trichlorobenzene	2.2		1.0	0.20	ug/L
87-68-3	Hexachlorobutadiene	2.1		1.0	0.17	ug/L
91-20-3	Naphthalene	2.1		1.0	0.17	ug/L
87-61-6	1,2,3-Trichlorobenzene	2.2		1.0	0.18	ug/L

**SURROGATES**

2199-69-1	1,2-Dichlorobenzene-d4	1.06	106 %	80 - 120	SPK: 1
460-00-4	4-Bromofluorobenzene	1.01	101 %	80 - 120	SPK: 1

**INTERNAL STANDARDS**

462-06-6	Fluorobenzene	238192	8.87		
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U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090725.D Vial: 16  
 Acq On : 8 Sep 2004 3:29 am Operator: SAM  
 Sample : LFB Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 8 9:36 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	8.87	96	238192	1.00	ug/l	0.02

System Monitoring Compounds

52) 4-Bromofluorobenzene	17.87	95	113401	1.01	ug/l	0.01
Spiked Amount	1.000		Recovery	=	101.00%	
63) 1,2-Dichlorobenzene-	21.42	152	66080	1.06	ug/l	0.00
Spiked Amount	1.000		Recovery	=	106.00%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluorometh	1.80	85	176292	2.33	ug/l	99
3) Chloromethane	2.02	50	105709	2.07	ug/l	95
4) Vinyl Chloride	2.13	62	130625	1.88	ug/l	98
5) Bromomethane	2.52	94	79607	2.69	ug/l	97
6) Chloroethane	2.64	64	78116	2.22	ug/l	100
7) Trichlorofluorometha	2.92	101	215876	1.97	ug/l	99
8) 1,1-Dichloroethene	3.65	96	140397	2.03	ug/l	97
9) Iodomethane	3.89	142	123907	2.02	ug/l	99
10) Allyl Chloride	4.26	41	143304	1.99	ug/l	99
11) Acrylonitrile	5.07	53	20372	4.92	ug/l	97
12) Acetone	3.86	43	47797	16.15	ug/l	99
13) Carbon Disulfide	3.92	76	357135	1.92	ug/l	99
14) Methylene Chloride	4.51	84	172652	3.06	ug/l	96
15) trans-1,2-Dichloroet	4.89	96	153881	2.09	ug/l	97
16) 1,1-Dichloroethane	5.69	63	289119	2.20	ug/l	99
17) 2-Butanone	6.88	43	91315	13.42	ug/l	100
18) 2,2-Dichloropropane	6.67	77	203381	1.78	ug/l	99
19) cis-1,2-Dichloroethe	6.76	96	164573	2.27	ug/l	95
20) Diethyl Ether	3.35	59	58854	2.36	ug/l	98
21) tert-Butyl Alcohol	4.88	59	47942	30.81	ug/l	100
22) Methyl tert-Butyl Et	4.90	73	185099	2.54	ug/l	98
23) Bromochloromethane	7.20	128	56749	2.45	ug/l	99
24) Chloroform	7.38	83	282569	2.28	ug/l	99
25) 1,1,1-Trichloroethan	7.57	97	256120	2.09	ug/l	98
26) 1,1-Dichloropropene	7.89	75	258541	2.10	ug/l	99
27) Carbon Tetrachloride	7.80	117	218656	2.05	ug/l	93
28) Isopropyl Ether	5.76	45	342710	2.35	ug/l	100
29) Propionitrile	7.11	54	41299	25.48	ug/l	100

Analyst Signature: Sy Analyst Name: Sy Date: 09/15/04

REASONS FOR MANUAL INTEGRATIONS

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090725.D Vial: 16  
 Acq On : 8 Sep 2004 3:29 am Operator: SAM  
 Sample : LFB Inst : VOA F  
 Misc : 25mL Multiplr: 1.00

MS Integration Params: rteint.p  
 Quant Time: Sep 8 9:36 2004

Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Benzene	8.26	78	555164	2.19	ug/l	97
31) 1,2-Dichloroethane	8.48	62	105512	2.47	ug/l	97
32) Trichloroethene	9.55	130	175105	2.11	ug/l	98
33) 1,2-Dichloropropane	10.08	63	185471	2.32	ug/l	98
34) Methacrylonitrile	7.31	41	36376	2.59	ug/l	89
35) Methyl acrylate	7.03	55	56690	2.51	ug/l	100
36) Tetrahydrofuran	7.25	42	24127	5.21	ug/l	99
37) 1-Chlorobutane	7.82	56	358625	2.12	ug/l	98
38) Dibromomethane	10.31	93	73667	2.42	ug/l	99
39) Bromodichloromethane	10.66	83	206877	2.29	ug/l	96
40) 4-Methyl-2-Pentanone	11.97	43	387846	13.56	ug/l	99
41) t-1,4-Dichloro-2-but	18.53	53	37818	4.76	ug/l	97
42) Methyl methacrylate	10.39	69	95362	4.91	ug/l	95
43) Ethyl methacrylate	13.00	69	115226	2.52	ug/l	99
44) Toluene	12.14	92	363442	2.20	ug/l	99
45) t-1,3-Dichloropropen	12.83	75	139469	2.22	ug/l	99
46) cis-1,3-Dichloroprop	11.59	75	258288	2.34	ug/l	100
47) 1,1,2-Trichloroethan	13.19	97	94709	2.61	ug/l	96
48) 1,3-Dichloropropane	13.54	76	160130	2.44	ug/l	98
49) 2-Hexanone	13.77	43	162463	13.29	ug/l	96
50) Dibromochloromethane	13.94	129	113987	2.33	ug/l	100
51) 1,2-Dibromoethane	14.14	107	91025	2.46	ug/l	100
53) Tetrachloroethene	13.22	164	164158	2.13	ug/l	99
54) Chlorobenzene	15.20	112	368467	2.33	ug/l	100
55) 1,1,1,2-Tetrachloroe	15.44	131	139729	2.38	ug/l	99
56) Pentachloroethane	19.65	117	159089	2.34	ug/l	98
57) Hexachloroethane	21.93	117	223948	2.23	ug/l	95
58) Ethyl Benzene	15.43	91	792651	2.28	ug/l	99
59) m/p-Xylenes	15.71	91	1175264	4.53	ug/l	99
60) o-Xylene	16.60	91	559772	2.27	ug/l	99
61) Styrene	16.67	104	386856	2.31	ug/l	99
62) Bromoform	17.07	173	54885	2.31	ug/l	100
64) Isopropylbenzene	17.44	105	785726	2.26	ug/l	99
65) 1,1,2,2-Tetrachloroe	18.38	83	112983	2.58	ug/l	100
66) 1,2,3-Trichloropropa	18.52	75	72030	2.30	ug/l	95
67) Bromobenzene	18.13	156	150977	2.34	ug/l	95
68) n-propylbenzene	18.41	120	208996	2.21	ug/l	99

Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly.Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090725.D Vial: 16  
 Acq On : 8 Sep 2004 3:29 am Operator: SAM  
 Sample : LFB Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 8 9:36 2004 Quant Results File: VF0816DW.RES

Quant Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VF\_VOA

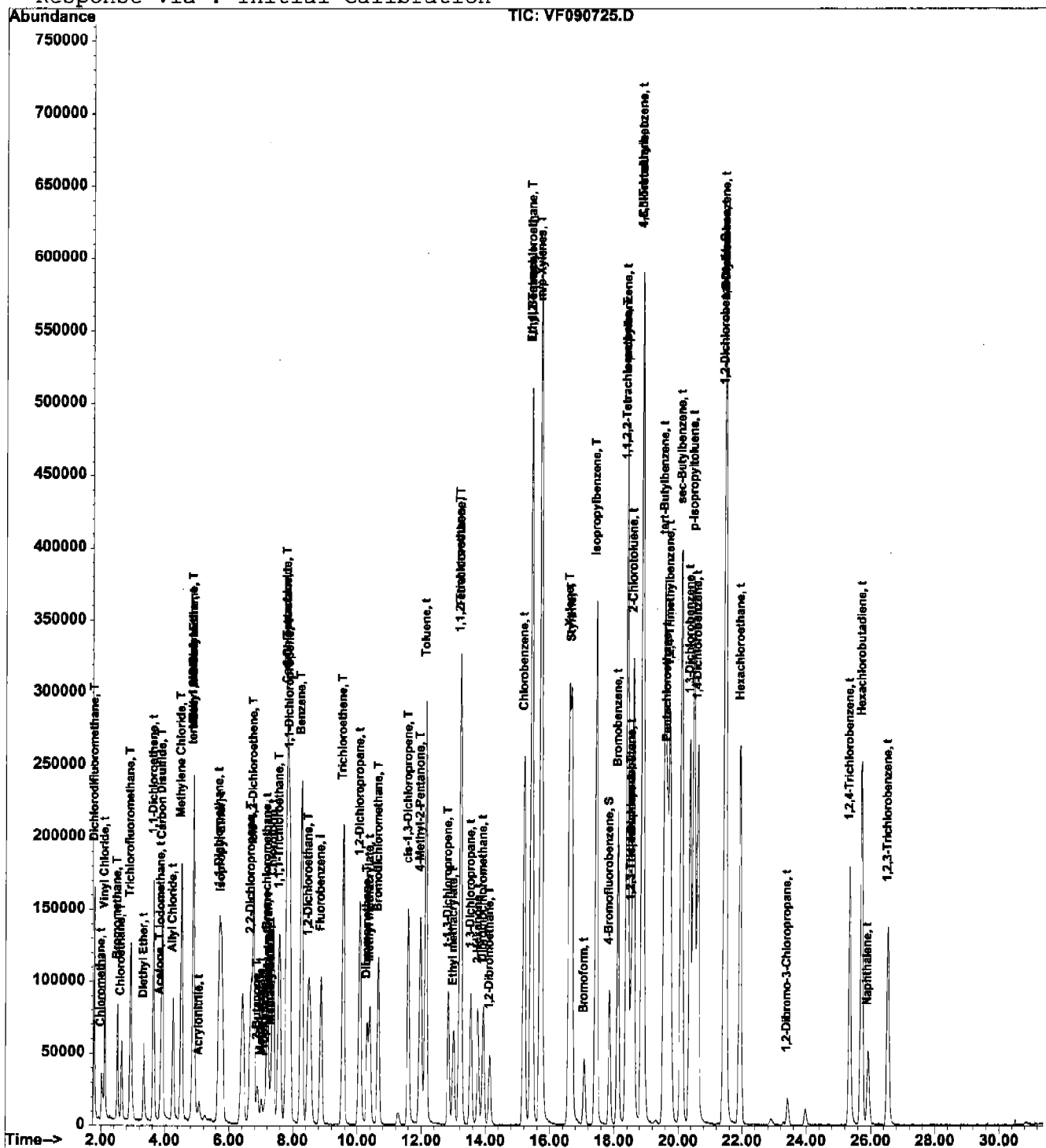
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
69) 2-Chlorotoluene	18.59	126	171317	2.30	ug/l	98
70) 1,3,5-Trimethylbenze	18.87	105	604800	2.30	ug/l	99
71) 4-Chlorotoluene	18.88	126	163994	2.34	ug/l	98
72) tert-Butylbenzene	19.56	119	764281	2.28	ug/l	99
73) 1,2,4-Trimethylbenze	19.73	105	553574	2.32	ug/l	100
74) sec-Butylbenzene	20.10	105	990168	2.28	ug/l	99
75) p-Isopropyltoluene	20.48	119	762800	2.28	ug/l	99
76) 1,3-Dichlorobenzene	20.36	146	316603	2.34	ug/l	100
77) 1,4-Dichlorobenzene	20.61	146	303926	2.35	ug/l	97
78) n-Butylbenzene	21.46	91	818493	2.21	ug/l	98
79) 1,2-Dichlorobenzene	21.47	146	243984	2.39	ug/l	99
80) 1,2-Dibromo-3-Chloro	23.41	75	15446	2.41	ug/l	98
81) 1,2,4-Trichlorobenze	25.34	180	176924	2.15	ug/l	99
82) Hexachlorobutadiene	25.71	225	146448	2.07	ug/l	98
83) Naphthalene	25.92	128	130007	2.06	ug/l	100
84) 1,2,3-Trichlorobenze	26.53	180	132241	2.16	ug/l	99

-----  
 Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_  
 -----REASONS FOR MANUAL INTEGRATIONS-----  
 \_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly.Compound #: \_\_\_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration  
 VF090725.D VF0816DW.M Wed Sep 15 12:53:28 2004

Data File : C:\HPCHEM\1\DATA\MSVOAF\VF090704\VF090725.D Vial: 16  
 Acq On : 8 Sep 2004 3:29 am Operator: SAM  
 Sample : LFB Inst : VOA F  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: rteint.p  
 Quant Time: Sep 8 9:36 2004 Quant Results File: VF0816DW.RES

Method : C:\HPCHEM\1\METHODS\VOAF\VF0816DW.M (RTE Integrator)  
 Title : METHOD 524.2 VOLATILES DRINKING WATER  
 Last Update : Tue Aug 17 10:26:35 2004  
 Response via : Initial Calibration



CHEMTECH

VOLATILES  
MISCELLANEOUS  
DATA

**Daily Analysis Runlog For GC/MS #: MSVOA F**

Start Date: 09/07/04 End Date: 09/07/04 Analyst: SG Review By: 10P

STD. NAME	STD REF. #:	STD NAME	STD REF. #:
BFB	MSV1- <u>888</u>	ICV Standard	MSV1- <u>N/A</u>
ICAL	MSV1- <u>N/A</u>	CCV Standard	MSV1- <u>977</u> <u>877</u>
Internal Standard	MSV1- <u>921</u>	Spiking Standard	MSV1- <u>977</u> <u>877</u>
Surrogate standard	MSV1- <u>921</u>	HP Processing Method	<u>VF081610W</u>

SR. #:	Sample ID	Data File Name	Method #:	pH	Run Info.	Comment
1	<u>BFB Tune</u>	<u>VF090711</u>	<u>BFB</u>			<u>Signal 09/07/04 6:27 PM</u>
2	<u>10P16CC</u>	<u>VF090712</u>	<u>524.1</u>			<u>25-ml sh</u>
3	<u>VF0807W3</u>	<u>13</u>				<u>Not need it</u>
4	<u>VF0807W4</u>	<u>14</u>				<u>OK</u>
5	<u>S4457-01-A</u>	<u>15</u>		<u>LL</u>		<u>OK</u>
6	<u>Int Bk</u>	<u>16</u>				<u>OK</u>
7	<u>S4436-20-B</u>	<u>17</u>		<u>LL</u>		<u>OK</u>
8	<u>S4436-07-B-A</u>	<u>18</u>		<u>LL</u>		<u>OK</u>
9	<u>S4457-01-A</u>	<u>18</u>		<u>LL</u>		<u>OK</u>
10	<u>S4457-02-A</u>	<u>20</u>		<u>LL</u>		<u>OK</u>
11	<u>S4457-03-A</u>	<u>21</u>		<u>LL</u>		<u>OK</u>
12	<u>S4457-04-A</u>	<u>22</u>		<u>LL</u>		<u>OK</u>
13	<u>S4414-08</u> <u>Int Bk</u>	<u>25x</u> <u>23</u>				<u>OK</u>
14	<u>S4414-06</u> <u>Int Bk</u>	<u>50x</u> <u>24</u>		<u>LL</u>		<u>OK</u>
15	<u>Int Bk</u>	<u>25</u>				<u>OK</u>
16						
17						
18					<u>09/08/04 SG</u>	
19						
20						

**Daily Analysis Runlog For GC/MS #: MSVOA F**

Start Date: 09/04/04 End Date: 09/04/04 Analyst Sy Review By: JCP

<u>STD. NAME</u>	<u>STD REF. #:</u>	<u>STD NAME</u>	<u>STD REF. #:</u>
BFB	MSV1- 888	ICV Standard	MSV1- N/A
ICAL	MSV1-N/A	CCV Standard	MSV1- <del>977</del> 877
Internal Standard	MSV1- 921	Spiking Standard	MSV1- <del>977</del> 877
Surrogate standard	MSV1- 921	HP Processing Method	<u>VFO816.DW.M</u>

<u>SR. #:</u>	<u>Sample ID</u>	<u>Data File Name</u>	<u>Method #:</u>	<u>pH</u>	<u>Run Info.</u>	<u>Comment</u>
1	<del>10-11-b</del>	<u>VFO90401</u>	<u>BFB</u>		<u>50up</u>	<u>09/03/04 9:52 PM</u>
2	<u>10-11-b</u>	<u>02</u>	<u>524.2</u>		<u>25up</u>	<u>ok</u>
3	<u>VAF0904W1</u>	<u>03</u>			<u>25up</u>	<u>Not need id</u>
4	<u>VAF0904W1</u>	<u>04</u>				<u>ok</u>
5	<u>S4484-01-A</u>	<u>05</u>		<u>LL</u>		<u>ok</u>
6	<u>S4436-01-A</u>	<u>06</u>		<u>LL</u>		<u>ok</u>
7	<u>S4414-12-b</u>	<u>07</u>		<u>LL</u>		<u>ok</u>
8	<u>S4414-15-b</u>	<u>08</u>		<u>LL</u>		<u>ok</u>
9	<u>S4414-11</u>	<u>FOXA 09</u>		<u>LL</u>		<u>ok</u>
10	<u>S4484-01-A</u>	<u>10</u>		<u>LL</u>		<u>ok</u>
11	<u>S4484-02-A</u>	<u>11</u>		<u>LL</u>		<u>ok</u>
12	<u>S4484-03-A</u>	<u>12</u>		<u>LL</u>		<u>ok</u>
13	<u>Int Blank</u>	<u>13</u>				<u>ok</u>
14	<u>S4484-04-A</u>	<u>14</u>		<u>LL</u>		<u>ok</u>
15	<u>S4436-01-A</u>	<u>15</u>		<u>LL</u>		<u>Surf. MR. 51</u>
16	<u>S4436-02-A</u>	<u>16</u>		<u>LL</u>		<u>RR Comb.</u>
17	<u>LFB</u>	<u>17</u>				<u>Not need it</u>
18	<u>LFB</u>	<u>18</u>				<u>ok</u>
19	<u>PORT-Blank</u>	<u>19</u>				<u>09/04/04 8:47 AM</u>
20						

09/04/04 Sy



**Daily Analysis Runlog For GC/MS #: MSVOA F**

Start Date: 08/16/04 End Date: 08/16/04 Analyst: CV Review By: 157

STD. NAME	STD REF. #:	STD NAME	STD REF. #:
BFB	MSV1- 828	ICV Standard	MSV1- 918-961
ICAL	MSV1- 877	CCV Standard	MSV1- 960-837
Internal Standard	MSV1- 921	Spiking Standard	MSV1- 877-960
Surrogate standard	MSV1- 921	HP Processing Method	VFO816DW.M

SR. #:	Sample ID	Data File Name	Method #:	pH	Run Info.	Comment
1	BFB Tuning	VFO81601	BFB		5.3 MP04	08/16/04 9:16 AM
2	1 Ppb ICC	VFO81602	524.1		25.3 MP04	Initial CAL for
3	2 Ppb ICC	03				04 524.1 Drinking W.
4	10 Ppb ICC	04				04
5	20 Ppb ICC	05				04
6	40 Ppb ICC	06				04
7	30 Ppb ICC	07				04
8	Inst Blank	08				NC
9	20 Ppb ICV	09				04
10	VFO816W	10				NC
11	VFO816W	11				04
12	QC/Know	12				04
13	Inst Blank	13				04
14	S2935-03	14		L2		04
15	S2935-01	15		L2		04
16	S2935-02	16		L2		04
17		17				04 08/16/04 7:24 PM
18						
19						08/17/04 54
20						

**CHEMTECH** 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#: 20012; NEW YORK LAB ID#: 11376

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: S4436

MATRIX: Water

METHOD: 524.1

- |  | NA | NO | YES |
|--|----|----|-----|
| 1. Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)   |    |    | ✓   |
| 2. GC/MS Tuning Specifications<br>BFB Meet Criteria (NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY<br>ASP CLP, CLP AND NJ)   |    |    | ✓   |
| 3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for<br>8000 Series.   |    |    | ✓   |
| 4. GC/MS Calibration - Initial Calibration performed before sample analysis and<br>continuing calibration performed within 24 hours of sample analysis for 600 series and<br>12 hours for 8000 series. |    |    | ✓   |
| 5. GC/MS Calibration Requirements.   |    |    | ✓   |
| a. Calibration Check Compounds for 8260 and CLP.   |    |    | ✓   |
| b. System Performance Check Compounds for 8260 and CLP   |    |    | ✓   |

**8260 CALIBRATION CRITERIA**

<u>SPCC Compounds</u>	<u>MIN RF</u>	<u>CCC Compounds</u>
Chloromethane	0.1	1,1-Dichloroethene
1,1-Dichloroethane	0.1	Chloroform
Bromoform	0.1	1,2-Dichloropropane
Chlorobenzene	0.3	Toluene
1,1,2,2-Tetrachloroethane	0.3	Ethylbenzene
Vinyl chloride		

For CCC compounds Initial Calibration Criteria – RSD less than or equal to 30%  
For CCC compounds Continuing Calibration Criteria - %D less than or equal to 20%

6. Blank Contamination - If yes, list compounds and concentrations in each blank: ✓
- The Blank analysis indicated presence of Acetone and Methylene Chloride due to possible lab contamination.
7. Surrogate Recoveries Meet Criteria ✓
- If not met, list those compounds and their recoveries which fall outside the acceptable ranges.
- The surrogate recoveries met the acceptable criteria except for ARD2252

**GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)**

8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria ✓

If not met, list those compounds and their recoveries which fall outside the acceptable range.

The MS recoveries met the requirements for all compounds except for Acetone, Methylene Chloride, Bromomethane, tert-Butyl Alcohol and 4-Methyl-2-Pentanone. The MSD recoveries met the acceptable requirements.

9. Internal Standard Area/Retention Time Shift Meet Criteria ✓

Comments:

10. Analysis Holding Time Met ✓

If not met, list number of days exceeded for each sample:

Rayshella Kelpone  
QA REVIEW

9/11/04  
Date

**CHEMTECH**

**SHIPPING AND  
RECEIVING  
DOCUMENTATION**





CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092  
(908) 789-8900 Fax (908) 789-8922  
www.chemtech.net

CHEMTECH PROJECT NO. 5443C  
COC Number 52402

CLIENT INFORMATION		PROJECT INFORMATION		BILLING INFORMATION				
REPORT TO BE SENT TO:		PROJECT NAME: Ash handbill		BILL TO:				
COMPANY: Parsons		PROJECT NO.: 1793155 LOCATION: Semeca		ADDRESS: SAME				
ADDRESS: 100 Summer St 8th Floor		PROJECT MANAGER: jennifer.parsons@parsons.com		CITY:				
CITY: Boston STATE: MA ZIP: 02110		e-mail: Jennifer.Parsons@parsons.com		STATE:				
ATTENTION: Jennifer Parsons		PHONE: (617-457-7900) FAX: (617-457-7979)		PHONE:				
PHONE: 617-457-7900 FAX: 617-457-7979		DATA DELIVERABLE INFORMATION		ATTENTION:				
DATA TURNAROUND INFORMATION		RESULTS ONLY <input type="checkbox"/>		ANALYSIS				
FAX: _____ DAYS: _____		RESULTS + QC <input checked="" type="checkbox"/>		USEPA CLP <input checked="" type="checkbox"/>				
HARD COPY: _____ DAYS: _____		New Jersey REDUCED <input checked="" type="checkbox"/>		New York State ASP 'B' <input checked="" type="checkbox"/>				
EDD: _____ DAYS: _____		New Jersey CLP <input type="checkbox"/>		New York State ASP 'A' <input checked="" type="checkbox"/>				
* TO BE APPROVED BY CHEMTECH		Other <input type="checkbox"/>		Other <input type="checkbox"/>				
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS		<input checked="" type="checkbox"/> EDD FORMAT						
CHEMTECH SAMPLE ID	PROJECT IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE	SAMPLE COLLECTION DATE	TIME	NO OF BOTTLES	PRESERVATIVES	COMMENTS
1. 9	ARD 2253	W	X	8-29-04	1130	7	A, E	
2. 10	ARD 2246 MS	W	X	8-29-04	1130	7	A, E	
3. 11	ARD 2246 MSD	W	X	8-29-04	1130	7	A, E	
4. 12	ARD 2247	W	X	8-29-04	1300	7	A, E	
5. 13	ARD 2249	W	X	8-29-04	1445	7	A, E	
6. 14	ARD 2258	W	X	8-29-04	1710	7	A, E	
7. 15	ARD 2250	W	X	8-29-04	0927	7	A, E	
8. 16	ARD 2246	W	X	8-29-04	1130	7	A, E	
9. 17	TR 0056	W	X			2		Trp Blank
10. 18	ARD 0046	W	X			2		Trp Blank

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RECEIVED BY: [Signature] DATE/TIME: 8/30/04 1700

RECEIVED BY: [Signature] DATE/TIME: [Blank]

RECEIVED FOR LAB BY: [Signature] DATE/TIME: 08/11/04 AM

Conditions of bottles or coolers at receipt:  Compliant  Non Compliant  Cooler Temp. LFC

MeOH extraction requires an additional 4 oz jar for percent solid.

Comments:

SHIPPED VIA: CLIENT:  HAND DELIVERED  OVERNIGHT  YES  NO

CHEMTECH:  PICKED UP  OVERNIGHT  YES  NO

Page 2 of 3

# CHEMTECH

## CHAIN OF CUSTODY RECORD

CHEMTECH JOB NO.: 54436  
 CHEMTECH QUOTE NO.:

284 Sheffield Street, Mountainside, NJ 07092  
 (908) 789-8900 Fax (908) 789-8922  
 www.chemtech.net

CLIENT INFORMATION		PROJECT INFORMATION		BILLING INFORMATION	
REPORT TO BE SENT TO: COMPANY: <u>PlusXon</u>		PROJECT NAME: <u>Abk Landfill</u>		BILL TO:	
ADDRESS: <u>100 Summer St 8th Fl</u>		PROJECT NO.: <u>743155</u> LOCATION: <u>Semin</u>		ADDRESS: <u>SAPE</u>	
CITY: <u>Boston</u> STATE: <u>MA</u> ZIP: <u>02110</u>		PROJECT MANAGER: <u>J Kossmanik</u>		CITY: STATE: ZIP:	
ATTENTION: <u>Jennifer Kossmanik</u>		E-MAIL: <u>Jennifer.kossmanik</u>		ATTENTION: PHONE:	
PHONE: <u>617-457-7900</u> FAX: <u>617-457-7974</u>		PHONE: <u>617-457-7900</u> FAX: <u>617-457-7974</u>		ANALYSIS:	
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		PRESERVATIVES	
DAYS * _____ DAYS * _____ DAYS * _____ FAX: _____ HARD COPY: _____ EDD: _____ * TO BE APPROVED BY CHEMTECH ** NORMAL TURNAROUND TIME - 14 DAYS		<input type="checkbox"/> RESULTS ONLY <input type="checkbox"/> RESULTS + QC <input type="checkbox"/> NJ REDUCED <input type="checkbox"/> NJ CLP <input checked="" type="checkbox"/> EDD FORMAT: _____ <input type="checkbox"/> USE EPA CLP <input checked="" type="checkbox"/> NYS ASP "B" <input checked="" type="checkbox"/> NYS ASP "A"		1 2 3 4 5 6 7 8 9 A-E A-E A-E B-E TPC (3200) TPC (3210) TPC (3210)	
CHEMTECH SAMPLE ID		PROJECT IDENTIFICATION		COMMENTS	
1. <u>19</u>	<u>ARD 2261</u>	SAMPLE MATRIX	SAMPLE COLLECTION DATE TIME	Specify Preservatives A - HCl B - HNO <sub>3</sub> C - H <sub>2</sub> SO <sub>4</sub> D - MeOH E - ICE F - Other	
2. <u>20</u>	<u>TR 2150</u>	W	8-30-04 09:00 7 3 1		
3. <u>21</u>	<u>ARD 1049</u>	W	8-30-04 12:21 7 3 1		
4.		W	8-30-04 08:30 7 3 1		
5.					
6.					
7.					
8.					
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY					
RELINQUISHED BY SAMPLER:		RECEIVED BY:		Temp. of Cooler: <u>4.6</u>	
1. <u>William</u>	<u>8/31/04</u>	1. <u>William</u>	<u>8/31/04</u>	<input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant	
2. <u>William</u>		2. <u>William</u>		Conditions of bottles or coolers at receipt: MeOH extractions requires an additional 4oz. jar for percent solid.	
3. <u>FEAT SA</u>		3. <u>William</u>		Comments:	
RELINQUISHED BY:		RECEIVED FOR LAB BY:		Shipped Via: Client <input type="checkbox"/> Hand Delivered <input type="checkbox"/> Overnight <input type="checkbox"/> Complete	
		1. <u>William</u>		Chemtech <input type="checkbox"/> Picked Up <input type="checkbox"/> Overnight <input type="checkbox"/> No	
		2. <u>William</u>		Page <u>3</u> of <u>3</u>	
		3. <u>William</u>		WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY	

**CHEMTECH**

284 Sheffield Street Mountainside NJ 07092  
Tel. 908-789-8900

**END OF ANALYTICAL RESULTS**



**DATA PACKAGE FOR  
VOLATILE ORGANICS**

**PROJECT NAME: Seneca Ash Landfill Quarterly Monitoring**

**PARSONS ENGINEERING  
100 SUMMER STREET  
SUITE 800  
BOSTON, MA 02110  
6174577900**

**CHEMTECH PROJECT NO.  
ATTENTION:**

**S4436  
Jennifer Rossmann**

# CHEMTECH

## CASE NARRATIVE

### **Parsons Engineering**

**Project Name: Seneca Ash Landfill Quarterly Monitoring**

**Project # 743155**

**Chemtech Project # S4436**

### **A. Number of Samples and Date of Receipt:**

21 Water samples were received on 8/31/04.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: Gases methane, ethane, ethene, Metals Group3, TCL Volatiles + 10, and Volatiles Method 524.2 + 15. This data package contains results for TCL Volatiles + 10

### **C. Analytical Techniques:**

The analysis performed on instrument MSVOA F were done using GC column RTX624, which is 75 meters, 0.53 ID, 3.0 df, Restek Cat. #10974. The Trap was supplied by Supelco, VOCARB 3000, Tekmar 2000 Concentrator. The analysis performed on instrument MSVOA K were done using GC column DB624, which is 20 meters, 0.18 ID, 1.0 df, J&W Cat. #1211324. The Trap was supplied by OI Analytical, OI #10 Trap , OI 4560 Concentrator.

### **D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The surrogate recoveries met the acceptable criteria except for ARD2253 and ARD2250

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The MS recoveries met the requirements for all compounds.

The MSD recoveries met the acceptable requirements.

The RPD recoveries met criteria for all samples except for Trichloroethene.

The Blank Spike met requirements for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The calibration met the requirements.

The Tuning criteria met requirements.

### **D. Additional Comments:**

Samples ARD2254, ARD2252, ARD2253, ARD2247, ARD2250, ARD2246 and ARD225 were diluted due to high concentrations.

# CHEMTECH

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature \_\_\_\_\_



Name: Krupa Dubey

Date: \_\_\_\_\_

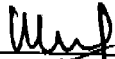
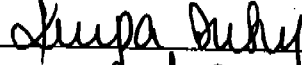



Title: QA/QC

**COVER PAGE****OrderID:** S4436**ProjectID:** Seneca Ash Landfill Quarterl**CustomerName:** Parsons Engineering

LAB SAMPLE NO.	CLIENT SAMPLE NO
S4436-01	ARD2254
S4436-02	ARD2255
S4436-03	ARD2259
S4436-04	ARD2256
S4436-05	ARD2245
S4436-06	ARD2257
S4436-07	ARD2252
S4436-08	ARD2248
S4436-09	ARD2253
S4436-10	ARD2246MS
S4436-11	ARD2246MSD
S4436-12	ARD2247
S4436-13	ARD2249
S4436-14	ARD2258
S4436-15	ARD2250
S4436-16	ARD2246
S4436-17	TR0056
S4436-18	ARD0046
S4436-19	ARD2251
S4436-20	TR2150
S4436-21	ARD0049

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature:  Name:   
Date: 9/17/04 Title: 

## DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following " Results Qualifiers" are used:

- Value            If the result is a value greater than or equal to the detection limit, report the value
- U**                Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
- J**                Indicates an estimated value. This flag is used:
- (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.)
  - (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
- B**                Indicates the analyte was found in the blank as well as the sample report as "12 B".
- E**                Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
- D**                This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- P**                This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
- N**                This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
- A**                This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.

CHEMTECH

VOLATILES

DATA

CHEMTECH

VOLATILES

QC

DATA

**Surrogate Summary**  
SW-846

SDG No.: S4436Client: Parsons EngineeringAnalytical Method: EPA SW846 8260 - LOW

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits	
							Low	High
BSK0902W3	VLCS01	1,2-Dichloroethane-d4	10	11.16	112		72.00	119.00
		Dibromofluoromethane	10	9.9	99		85.00	115.00
		Toluene-d8	10	9.82	98		81.00	120.00
		4-Bromofluorobenzene	10	9.69	97		76.00	119.00
S4436-01	ARD2254	1,2-Dichloroethane-d4	10	10.47	105		72.00	119.00
		Dibromofluoromethane	10	10.35	104		85.00	115.00
		Toluene-d8	10	9.44	94		81.00	120.00
		4-Bromofluorobenzene	10	9.4	94		76.00	119.00
S4436-01DL	ARD2254DL	1,2-Dichloroethane-d4	10	10.37	104		72.00	119.00
		Dibromofluoromethane	10	10.48	105		85.00	115.00
		Toluene-d8	10	9.29	93		81.00	120.00
		4-Bromofluorobenzene	10	9.59	96		76.00	119.00
S4436-02	ARD2255	1,2-Dichloroethane-d4	10	11.02	110		72.00	119.00
		Dibromofluoromethane	10	10.51	105		85.00	115.00
		Toluene-d8	10	9.52	95		81.00	120.00
		4-Bromofluorobenzene	10	9.63	96		76.00	119.00
S4436-03	ARD2259	1,2-Dichloroethane-d4	10	11.2	112		72.00	119.00
		Dibromofluoromethane	10	10.56	106		85.00	115.00
		Toluene-d8	10	9.69	97		81.00	120.00
		4-Bromofluorobenzene	10	10.34	103		76.00	119.00
S4436-04	ARD2256	1,2-Dichloroethane-d4	10	9.99	100		72.00	119.00
		Dibromofluoromethane	10	10.74	107		85.00	115.00
		Toluene-d8	10	9.55	96		81.00	120.00
		4-Bromofluorobenzene	10	9.95	100		76.00	119.00
S4436-05	ARD2245	1,2-Dichloroethane-d4	10	10.89	109		72.00	119.00
		Dibromofluoromethane	10	10.21	102		85.00	115.00
		Toluene-d8	10	9.4	94		81.00	120.00
		4-Bromofluorobenzene	10	10.13	101		76.00	119.00
S4436-06	ARD2257	1,2-Dichloroethane-d4	10	10.81	108		72.00	119.00
		Dibromofluoromethane	10	10.61	106		85.00	115.00
		Toluene-d8	10	9.4	94		81.00	120.00
		4-Bromofluorobenzene	10	10.01	100		76.00	119.00
S4436-08	ARD2258	1,2-Dichloroethane-d4	10	10.55	106		72.00	119.00
		Dibromofluoromethane	10	10.99	110		85.00	115.00
		Toluene-d8	10	9.57	96		81.00	120.00
		4-Bromofluorobenzene	10	9.95	100		76.00	119.00
S4436-09	ARD2253	1,2-Dichloroethane-d4	10	12.27	123	*	72.00	119.00
		Dibromofluoromethane	10	10.6	106		85.00	115.00
		Toluene-d8	10	9.38	94		81.00	120.00
		4-Bromofluorobenzene	10	9.69	97		76.00	119.00
S4436-09DL	ARD2253DL	1,2-Dichloroethane-d4	10	11.01	110		72.00	119.00
		Dibromofluoromethane	10	10.62	106		85.00	115.00



Surrogate Summary  
SW-846

SDG No.: S4436

Client: Parsons Engineering

Analytical Method: EPA SW846 8260 - LOW

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits	
							Low	High
S4436-09DL	ARD2253DL	Toluene-d8	10	9.34	93		81.00	120.00
		4-Bromofluorobenzene	10	10.01	100		76.00	119.00
S4436-10MS	ARD2246MS	1,2-Dichloroethane-d4	10	11.25	112		72.00	119.00
		Dibromofluoromethane	10	10	100		85.00	115.00
		Toluene-d8	10	10.1	101		81.00	120.00
		4-Bromofluorobenzene	10	9.88	99		76.00	119.00
S4436-11MSD	ARD2246MSD	1,2-Dichloroethane-d4	10	11.47	115		72.00	119.00
		Dibromofluoromethane	10	10.48	105		85.00	115.00
		Toluene-d8	10	10.08	101		81.00	120.00
		4-Bromofluorobenzene	10	9.92	99		76.00	119.00
S4436-12	ARD2247	1,2-Dichloroethane-d4	10	11.34	113		72.00	119.00
		Dibromofluoromethane	10	10.53	105		85.00	115.00
		Toluene-d8	10	9.46	95		81.00	120.00
		4-Bromofluorobenzene	10	10.08	101		76.00	119.00
S4436-12DL	ARD2247DL	1,2-Dichloroethane-d4	10	11.44	114		72.00	119.00
		Dibromofluoromethane	10	10.69	107		85.00	115.00
		Toluene-d8	10	9.48	95		81.00	120.00
		4-Bromofluorobenzene	10	10.07	101		76.00	119.00
S4436-13	ARD2249	1,2-Dichloroethane-d4	10	11.16	112		72.00	119.00
		Dibromofluoromethane	10	10.52	105		85.00	115.00
		Toluene-d8	10	9.23	92		81.00	120.00
		4-Bromofluorobenzene	10	10.23	102		76.00	119.00
S4436-14	ARD2258	1,2-Dichloroethane-d4	10	11.17	112		72.00	119.00
		Dibromofluoromethane	10	10.47	105		85.00	115.00
		Toluene-d8	10	9.46	95		81.00	120.00
		4-Bromofluorobenzene	10	10.35	104		76.00	119.00
S4436-15	ARD2250	1,2-Dichloroethane-d4	10	11.93	119		72.00	119.00
		Dibromofluoromethane	10	6.94	69	*	85.00	115.00
		Toluene-d8	10	6.19	62	*	81.00	120.00
		4-Bromofluorobenzene	10	5.37	54	*	76.00	119.00
S4436-15DL	ARD2250DL	1,2-Dichloroethane-d4	10	11.62	116		72.00	119.00
		Dibromofluoromethane	10	10.62	106		85.00	115.00
		Toluene-d8	10	9.33	93		81.00	120.00
		4-Bromofluorobenzene	10	10.44	104		76.00	119.00
S4436-15DL2	ARD2250DL2	1,2-Dichloroethane-d4	10	10.77	108		72.00	119.00
		Dibromofluoromethane	10	9.77	98		85.00	115.00
		Toluene-d8	10	9.58	96		81.00	120.00
		4-Bromofluorobenzene	10	9.63	96		76.00	119.00
S4436-16	ARD2246	1,2-Dichloroethane-d4	10	11.83	118		72.00	119.00
		Dibromofluoromethane	10	10.96	110		85.00	115.00
		Toluene-d8	10	9.38	94		81.00	120.00
		4-Bromofluorobenzene	10	10.06	101		76.00	119.00

**Surrogate Summary**  
SW-846

SDG No.: S4436Client: Parsons EngineeringAnalytical Method: EPA SW846 8260 - LOW

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits	
							Low	High
S4436-16DL	ARD2246DL	1,2-Dichloroethane-d4	10	10.04	100		72.00	119.00
		Dibromofluoromethane	10	10.62	106		85.00	115.00
		Toluene-d8	10	9.41	94		81.00	120.00
		4-Bromofluorobenzene	10	10.04	100		76.00	119.00
S4436-18	ARD0046	1,2-Dichloroethane-d4	10	11.03	110		72.00	119.00
		Dibromofluoromethane	10	10.79	108		85.00	115.00
		Toluene-d8	10	9.75	98		81.00	120.00
		4-Bromofluorobenzene	10	8.89	89		76.00	119.00
S4436-19	ARD2251	1,2-Dichloroethane-d4	10	11.74	117		72.00	119.00
		Dibromofluoromethane	10	10.6	106		85.00	115.00
		Toluene-d8	10	9.47	95		81.00	120.00
		4-Bromofluorobenzene	10	10.23	102		76.00	119.00
S4436-19DL	ARD2251DL	1,2-Dichloroethane-d4	10	11.01	110		72.00	119.00
		Dibromofluoromethane	10	10.74	107		85.00	115.00
		Toluene-d8	10	9.47	95		81.00	120.00
		4-Bromofluorobenzene	10	10.1	101		76.00	119.00
S4436-21	ARD0049	1,2-Dichloroethane-d4	10	11.29	113		72.00	119.00
		Dibromofluoromethane	10	10.31	103		85.00	115.00
		Toluene-d8	10	9.5	95		81.00	120.00
		4-Bromofluorobenzene	10	10.2	102		76.00	119.00
VBK0902W2	VBLK01	1,2-Dichloroethane-d4	10	10.42	104		72.00	119.00
		Dibromofluoromethane	10	10.64	106		85.00	115.00
		Toluene-d8	10	9.67	97		81.00	120.00
		4-Bromofluorobenzene	10	8.59	86		76.00	119.00
VBK0902W4	VBLK02	1,2-Dichloroethane-d4	10	10.78	108		72.00	119.00
		Dibromofluoromethane	10	10.18	102		85.00	115.00
		Toluene-d8	10	9.38	94		81.00	120.00
		4-Bromofluorobenzene	10	10.08	101		76.00	119.00
VBK0903W2	VBLK03	1,2-Dichloroethane-d4	10	10.48	105		72.00	119.00
		Dibromofluoromethane	10	10.29	103		85.00	115.00
		Toluene-d8	10	9.59	96		81.00	120.00
		4-Bromofluorobenzene	10	10.01	100		76.00	119.00

**Matrix Spike/Matrix Spike Duplicate Summary**

**SW-846**

**SDG No.:** S4436

**Client:** Parsons Engineering

**Analytical Method:** EPA SW846 8260 - LOW

Lab Sample ID	Parameter	Spike	Sample Result	Result	Rec	RPD	Qual	Limits		
								Low	High	RPD
<b>Client Sample ID: ARD2246MS</b>										
S4436-10MS	1,1-Dichloroethene	10	0.4	12	116			68	131	
	Benzene	10	0.2	9.4	92			74	125	
	Trichloroethene	10	11.0	19	80			76	123	
	Toluene	10	0.0	9.1	91			73	129	
	Chlorobenzene	10	0.0	9.5	95			72	135	
<b>Client Sample ID: ARD2246MSD</b>										
S4436-11MSD	1,1-Dichloroethene	10	0.4	12	116	0		68	131	21
	Benzene	10	0.2	9.8	96	4		74	125	17
	Trichloroethene	10	11.0	21	100	22	*	76	123	20
	Toluene	10	0.0	9.3	93	2		73	129	20
	Chlorobenzene	10	0.0	9.4	94	1		72	135	21

**Laboratory Control Sample/Laboratory Control Sample Duplicate Summary**

SW-846

SDG No.: S4436

Client: Parsons Engineering

Analytical Method: EPA SW846 8260 - LOW

Lab Sample ID	Parameter	Spike	Result	Rec	RPD	Qual	Low	Limits	
								High	RPD
BSK0902W3	1,1-Dichloroethene	10	12	120			74	126	
	Benzene	10	11	110			80	127	
	Trichloroethene	10	12	120			76	126	
	Toluene	10	11	110			80	124	
	Chlorobenzene	10	11	110			76	135	

4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK01

Lab Name: Chemtech Contract: PARS04  
Lab Code: CTECH Case No.: S4436 SAS No.: S4436 SDG NO.: S4436  
Lab File ID: VK090210.D Lab Sample ID: VBK0902W2  
Date Analyzed: 9/2/2004 Time Analyzed: 06:51  
GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N  
Instrument ID: MSVOAK

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
ARD0046	S4436-18	VK090212.D	08:09
ARD2254	S4436-01	VK090213.D	08:48
ARD2255	S4436-02	VK090214.D	09:27
ARD2259	S4436-03	VK090215.D	10:06
ARD2256	S4436-04	VK090216.D	10:44
ARD2245	S4436-05	VK090217.D	11:23

COMMENTS:

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4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK02

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4436 SAS No.: S4436 SDG NO.: S4436  
 Lab File ID: VK090223.D Lab Sample ID: VBK0902W4  
 Date Analyzed: 9/2/2004 Time Analyzed: 15:26  
 GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N  
 Instrument ID: MSVOAK

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
ARD2257	S4436-06	VK090224.D	16:05
ARD2258	S4436-08	VK090225.D	16:44
ARD2253	S4436-09	VK090226.D	17:23
ARD2246MS	S4436-10MS	VK090227.D	18:02
ARD2246MSD	S4436-11MSD	VK090228.D	18:41
ARD2247	S4436-12	VK090229.D	19:20
ARD2249	S4436-13	VK090230.D	19:59
ARD2258	S4436-14	VK090231.D	20:38
ARD2250	S4436-15	VK090232.D	21:17
ARD2251	S4436-19	VK090234.D	22:34
ARD0049	S4436-21	VK090235.D	23:13
VLCS01	BSK0902W3	VK090236.D	23:52

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_

4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK03

Lab Name: Chemtech

Contract: PARS04

Lab Code: CTECH Case No.: S4436

SAS No.: S4436 SDG NO.: S4436

Lab File ID: VK090336.D

Lab Sample ID: VBK0903W2

Date Analyzed: 9/3/2004

Time Analyzed: 17:39

GC Column: DB624 ID: 0.18 (mm)

Heated Purge: (Y/N) N

Instrument ID: MSVOAK

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
ARD2254DL	S4436-01DL	VK090337.D	18:18
ARD2253DL	S4436-09DL	VK090338.D	18:57
ARD2247DL	S4436-12DL	VK090339.D	19:36
ARD2250DL	S4436-15DL	VK090340.D	20:15
ARD2250DL2	S4436-15DL2	VK090341.D	20:54
ARD2246	S4436-16	VK090342.D	21:33
ARD2246DL	S4436-16DL	VK090343.D	22:12
ARD2251DL	S4436-19DL	VK090344.D	22:51

COMMENTS:

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5A  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4436 SAS No.: S4436 SDG NO.: S4436  
 Lab File ID: VK090201.D BFB Injection Date: 9/2/2004  
 Instrument ID: MSVOAK BFB Injection Time: 01:01  
 GC Column: DB624 ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.4
75	30.0 - 60.0% of mass 95	41.3
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.2 ( 0.5 1
174	50.0 - 100.0% of mass 95	50.6
175	5.0 - 9.0% of mass 174	3.9 ( 7.8 1
176	95.0 - 101.0% of mass 174	48.8 ( 96.4 1
177	5.0 - 9.0% of mass 176	3.4 ( 6.9 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTD001	1 PPB ICC	VK090202.D	9/2/2004	01:40
VSTD004	4 PPB ICC	VK090203.D	9/2/2004	02:19
VSTD010	10 PPB ICC	VK090204.D	9/2/2004	02:58
VSTD020	20 PPB ICC	VK090205.D	9/2/2004	03:37
VSTD040	40 PPB ICC	VK090207.D	9/2/2004	04:55
VBLK01	VBK0902W2	VK090210.D	9/2/2004	06:51
ARD0046	S4436-18	VK090212.D	9/2/2004	08:09
ARD2254	S4436-01	VK090213.D	9/2/2004	08:48
ARD2255	S4436-02	VK090214.D	9/2/2004	09:27
ARD2259	S4436-03	VK090215.D	9/2/2004	10:06
ARD2256	S4436-04	VK090216.D	9/2/2004	10:44
ARD2245	S4436-05	VK090217.D	9/2/2004	11:23



5A  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4436 SAS No.: S4436 SDG NO.: S4436  
 Lab File ID: VK090220.D BFB Injection Date: 9/2/2004  
 Instrument ID: MSVOAK BFB Injection Time: 13:29  
 GC Column: DB624 ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.2
75	30.0 - 60.0% of mass 95	40.1
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.8 ( 1.4 1
174	50.0 - 100.0% of mass 95	56.9
175	5.0 - 9.0% of mass 174	3.9 ( 6.9 1
176	95.0 - 101.0% of mass 174	55.2 ( 97.0 1
177	5.0 - 9.0% of mass 176	3.4 ( 6.2 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTD004	4 PPB CCC	VK090221.D	9/2/2004	14:08
VBLK02	VBK0902W4	VK090223.D	9/2/2004	15:26
ARD2257	S4436-06	VK090224.D	9/2/2004	16:05
ARD2258	S4436-08	VK090225.D	9/2/2004	16:44
ARD2253	S4436-09	VK090226.D	9/2/2004	17:23
ARD2246MS	S4436-10MS	VK090227.D	9/2/2004	18:02
ARD2246MSD	S4436-11MSD	VK090228.D	9/2/2004	18:41
ARD2247	S4436-12	VK090229.D	9/2/2004	19:20
ARD2249	S4436-13	VK090230.D	9/2/2004	19:59
ARD2258	S4436-14	VK090231.D	9/2/2004	20:38
ARD2250	S4436-15	VK090232.D	9/2/2004	21:17
ARD2251	S4436-19	VK090234.D	9/2/2004	22:34
ARD0049	S4436-21	VK090235.D	9/2/2004	23:13
VLCS01	BSK0902W3	VK090236.D	9/2/2004	23:52

5A  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4436 SAS No.: S4436 SDG NO.: S4436  
 Lab File ID: VK090333.D BFB Injection Date: 9/3/2004  
 Instrument ID: MSVOAK BFB Injection Time: 15:43  
 GC Column: DB624 ID: 0.18 (mm) Heated Purge: Y/N : N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.5
75	30.0 - 60.0% of mass 95	43.9
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.1
173	Less than 2.0% of mass 174	0.3 ( 0.5 1
174	50.0 - 100.0% of mass 95	58.8
175	5.0 - 9.0% of mass 174	4.1 ( 7.0 1
176	95.0 - 101.0% of mass 174	57.5 ( 97.8 1
177	5.0 - 9.0% of mass 176	4.2 ( 7.3 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTD010	10 PPB CCC	VK090334.D	9/3/2004	16:22
VBLK03	VBK0903W2	VK090336.D	9/3/2004	17:39
ARD2254DL	S4436-01DL	VK090337.D	9/3/2004	18:18
ARD2253DL	S4436-09DL	VK090338.D	9/3/2004	18:57
ARD2247DL	S4436-12DL	VK090339.D	9/3/2004	19:36
ARD2250DL	S4436-15DL	VK090340.D	9/3/2004	20:15
ARD2250DL2	S4436-15DL2	VK090341.D	9/3/2004	20:54
ARD2246	S4436-16	VK090342.D	9/3/2004	21:33
ARD2246DL	S4436-16DL	VK090343.D	9/3/2004	22:12
ARD2251DL	S4436-19DL	VK090344.D	9/3/2004	22:51

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Chemtech Contract PARS04  
 Lab Code: CTECH Case No.: S4436 SAS No.: S4436 SDG No.: S4436  
 Lab File ID: VK090334.D Date Analyzed: 9/3/2004  
 Instrument ID: MSVOAK Time Analyzed: 16:22  
 GC Column: DB624 ID: 0.1 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT#	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	350521	3.96	786586	4.56	676665	7.10
UPPER LIMIT	701042	4.46	1573172	5.06	1353330	7.60
LOWER LIMIT	175261	3.46	393293	4.06	338333	6.60
SAMPLE NO.						
VBLK03	344653	3.96	766593	4.57	632277	7.11
ARD2254DL	346315	3.96	757241	4.56	604469	7.11
ARD2253DL	333954	3.96	764622	4.57	617966	7.11
ARD2247DL	331403	3.96	769010	4.57	626829	7.11
ARD2250DL	335690	3.96	768745	4.57	624232	7.11
ARD2250DL2	329557	3.97	776283	4.57	614013	7.11
ARD2246	324664	3.96	756035	4.56	632028	7.11
ARD2246DL	335197	3.96	741506	4.57	621059	7.11
ARD2251DL	327878	3.97	745887	4.57	620815	7.11

IS1 = Pentafluorobenzene  
 IS2 = 1,4-Difluorobenzene  
 IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

\* Values outside of QC limits.

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No. S4436 SAS No.: S4436 SDG No.: S4436  
 Lab File ID: VK090334.D Date Analyzed: 9/3/2004  
 Instrument ID: MSVOAK Time Analyzed: 16:22  
 GC Column: DB624 ID: 0.1 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT#			
12 HOUR STD	323393	8.56			
UPPER LIMIT	646786	9.06			
LOWER LIMIT	161697	8.06			
SAMPLE NO.					
VBLK03	298677	8.57			
ARD2254DL	276938	8.57			
ARD2253DL	305475	8.57			
ARD2247DL	313598	8.57			
ARD2250DL	301952	8.57			
ARD2250DL2	308660	8.57			
ARD2246	297270	8.57			
ARD2246DL	297511	8.57			
ARD2251DL	285690	8.57			

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area  
 AREA LOWER LIMIT = -50% of internal standard area  
 RT UPPER LIMIT = +0.50 minutes of internal standard RT  
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Chemtech Contract PARS04  
 Lab Code: CTECH Case No.: S4436 SAS No.: S4436 SDG No.: S4436  
 Lab File ID: VK090204.D Date Analyzed: 9/2/2004  
 Instrument ID: MSVOAK Time Analyzed: 02:58  
 GC Column: DB624 ID: 0.1 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT#	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	361564	3.96	717145	4.56	618428	7.10
UPPER LIMIT	723128	4.46	1434290	5.06	1236856	7.60
LOWER LIMIT	180782	3.46	358573	4.06	309214	6.60
SAMPLE NO.						
VBLK01	343864	3.96	762386	4.56	623215	7.11
ARD0046	347913	3.96	753738	4.56	623540	7.10
ARD2254	352778	3.96	774464	4.56	623746	7.10
ARD2255	320258	3.96	756587	4.56	631579	7.11
ARD2259	327938	3.96	749919	4.56	614669	7.10
ARD2256	333893	3.96	717662	4.56	645259	7.11
ARD2245	342397	3.96	755426	4.56	667365	7.11

IS1 = Pentafluorobenzene  
 IS2 = 1,4-Difluorobenzene  
 IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

\* Values outside of QC limits.

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No. S4436 SAS No.: S4436 SDG No.: S4436  
 Lab File ID: VK090204.D Date Analyzed: 9/2/2004  
 Instrument ID: MSVOAK Time Analyzed: 02:58  
 GC Column: DB624 ID: 0.1 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT#				
12 HOUR STD	277246	8.56				
UPPER LIMIT	554492	9.06				
LOWER LIMIT	138623	8.06				
SAMPLE NO.						
VBLK01	305532	8.56				
ARD0046	292270	8.56				
ARD2254	304556	8.56				
ARD2255	295389	8.56				
ARD2259	302659	8.57				
ARD2256	289697	8.57				
ARD2245	299173	8.56				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

\* Values outside of QC limits.

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Chemtech Contract PARS04  
 Lab Code: CTECH Case No.: S4436 SAS No.: S4436 SDG No.: S4436  
 Lab File ID: VK090221.D Date Analyzed: 9/2/2004  
 Instrument ID: MSVOAK Time Analyzed: 14:08  
 GC Column: DB624 ID: 0.1 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT#	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	365266	3.96	733669	4.56	613689	7.10
UPPER LIMIT	730532	4.46	1467338	5.06	1227378	7.60
LOWER LIMIT	182633	3.46	366835	4.06	306845	6.60
SAMPLE NO.						
VBLK02	330398	3.96	752763	4.56	619249	7.11
ARD2257	345462	3.96	767694	4.56	624781	7.11
ARD2258	338749	3.96	746132	4.56	610291	7.11
ARD2253	309586	3.96	752801	4.57	616580	7.11
ARD2246MS	335237	3.96	761653	4.56	663229	7.10
ARD2246MSD	327971	3.96	759489	4.56	671460	7.10
ARD2247	329596	3.96	757234	4.56	617339	7.11
ARD2249	340286	3.96	753640	4.56	624315	7.11
ARD2258	321288	3.96	742730	4.56	583400	7.11
ARD2250	333141	3.96	1148306	4.57	628356	7.11
ARD2251	314069	3.96	728131	4.56	602099	7.11
ARD0049	309232	3.95	719013	4.55	579730	7.11
VLCS01	318775	3.95	725939	4.56	633366	7.10

IS1 = Pentafluorobenzene  
 IS2 = 1,4-Difluorobenzene  
 IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

\* Values outside of QC limits.

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No. S4436 SAS No.: S4436 SDG No.: S4436  
 Lab File ID: VK090221.D Date Analyzed: 9/2/2004  
 Instrument ID: MSVOAK Time Analyzed: 14:08  
 GC Column: DB624 ID: 0.1 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT#				
12 HOUR STD	289941	8.57				
UPPER LIMIT	579882	9.07				
LOWER LIMIT	144971	8.07				
SAMPLE NO.						
VBLK02	286802	8.57				
ARD2257	302560	8.57				
ARD2258	277667	8.57				
ARD2253	289565	8.57				
ARD2246MS	315275	8.56				
ARD2246MSD	314202	8.56				
ARD2247	291110	8.57				
ARD2249	286537	8.56				
ARD2258	272919	8.57				
ARD2250	299750	8.57				
ARD2251	282270	8.56				
ARD0049	276195	8.56				
VLCS01	291423	8.56				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

\* Values outside of QC limits.



CHEMTECH

VOLATILES  
SAMPLE  
DATA

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/27/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2254</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-01</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090213.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
74-87-3	Chloromethane	0.16	U	1.0	0.16	ug/L
75-01-4	Vinyl chloride	0.11	U	1.0	0.11	ug/L
74-83-9	Bromomethane	0.12	U	1.0	0.12	ug/L
75-00-3	Chloroethane	0.18	U	1.0	0.18	ug/L
75-35-4	1,1-Dichloroethene	0.20	U	1.0	0.20	ug/L
67-64-1	Acetone	1.2	U	5.0	1.2	ug/L
75-15-0	Carbon disulfide	0.21	U	1.0	0.21	ug/L
75-09-2	Methylene Chloride	0.36	U	1.0	0.36	ug/L
156-60-5	trans-1,2-Dichloroethene	0.46	J	1.0	0.25	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.92	U	5.0	0.92	ug/L
56-23-5	Carbon Tetrachloride	0.17	U	1.0	0.17	ug/L
156-59-2	cis-1,2-Dichloroethene	81	E	1.0	0.27	ug/L
67-66-3	Chloroform	0.23	U	1.0	0.23	ug/L
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22	ug/L
71-43-2	Benzene	0.20	U	1.0	0.20	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	200	E	1.0	0.19	ug/L
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17	ug/L
108-10-1	4-Methyl-2-Pentanone	0.77	U	5.0	0.77	ug/L
108-88-3	Toluene	0.19	U	1.0	0.19	ug/L
10061-02-6	t-1,3-Dichloropropene	0.15	U	1.0	0.15	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L
591-78-6	2-Hexanone	0.58	U	5.0	0.58	ug/L
124-48-1	Dibromochloromethane	0.21	U	1.0	0.21	ug/L
127-18-4	Tetrachloroethene	0.20	U	1.0	0.20	ug/L
108-90-7	Chlorobenzene	0.16	U	1.0	0.16	ug/L
100-41-4	Ethyl Benzene	0.18	U	1.0	0.18	ug/L
136777-61-2	m&p-Xylenes	0.36	U	1.0	0.36	ug/L
95-47-6	o-Xylene	0.17	U	1.0	0.17	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/27/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/31/2004
Client Sample ID:	ARD2254	SDG No.:	S4436
Lab Sample ID:	S4436-01	Matrix:	WATER
Analytical Method:	8260	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Allquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VK090213.D	1		9/2/2004	VK090204

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
100-42-5	Styrene	0.17	U	1.0	0.17	ug/L
75-25-2	Bromoform	0.37	U	1.0	0.37	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	10.47	105 %	72 - 119		SPK: 10
1868-53-7	Dibromofluoromethane	10.35	104 %	85 - 115		SPK: 10
2037-26-5	Toluene-d8	9.44	94 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	9.4	94 %	76 - 119		SPK: 10
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	352778	3.96			
540-36-3	1,4-Difluorobenzene	774464	4.56			
3114-55-4	Chlorobenzene-d5	623746	7.10			
3855-82-1	1,4-Dichlorobenzene-d4	304556	8.56			

U = Not Detected  
RL = Reporting Limit  
MDL = Method Detection Limit  
E = Value Exceeds Calibration Range

J = Estimated Value  
B = Analyte Found in Associated Method Blank  
N = Presumptive Evidence of a Compound

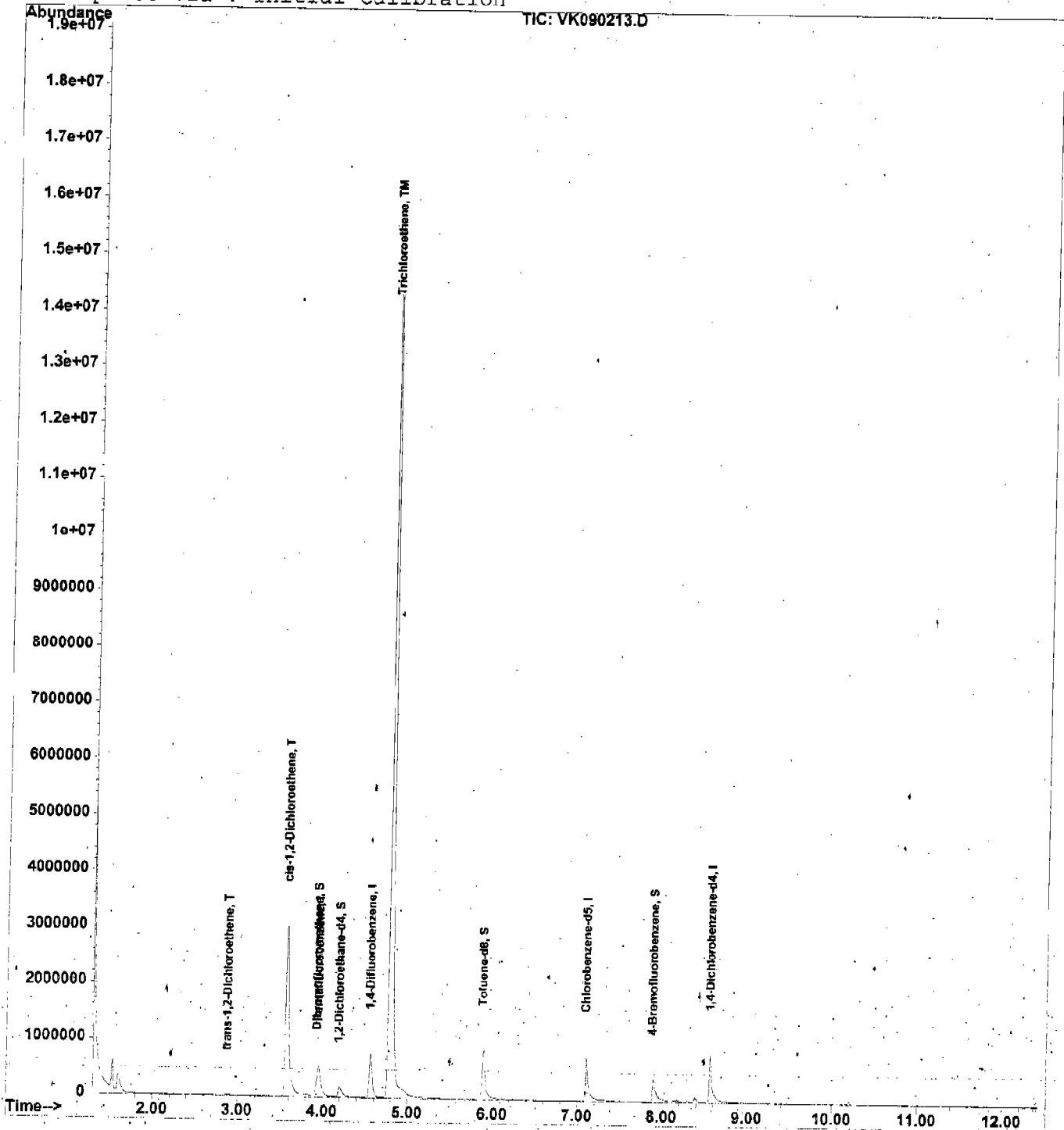
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090213.D  
Acq On : 2 Sep 2004 8:48 am  
Sample : S4436-01  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 2 17:54 2004

Vial: 23  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090213.D  
 Acq On : 2 Sep 2004 8:48 am  
 Sample : S4436-01  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 17:54 2004

Vial: 23  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

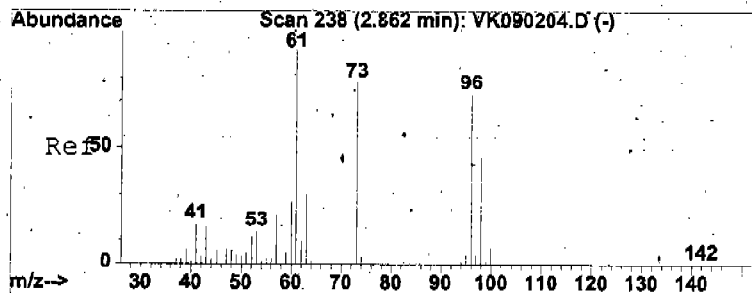
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Pentafluorobenzene	3.96	168	352778	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.56	114	774464	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.10	117	623746	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.56	152	304556	10.00	ug/l	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d	4.21	65	185731	10.47	ug/l	0.00
Spiked Amount	10.000			Recovery	=	104.70%
34) Dibromofluoromethane	3.93	113	217614	10.35	ug/l	0.00
Spiked Amount	10.000			Recovery	=	103.50%
45) Toluene-d8	5.89	98	866928	9.44	ug/l	-0.02
Spiked Amount	10.000			Recovery	=	94.40%
56) 4-Bromofluorobenzene	7.90	95	352547	9.40	ug/l	-0.04
Spiked Amount	10.000			Recovery	=	94.00%
Target Compounds						
21) trans-1,2-Dichloroet	2.88	96	10813	0.46	ug/l	85
27) cis-1,2-Dichloroethe	3.58	96	2063000	80.84	ug/l	86
39) Trichloroethene	4.79	130	6504248	203.17	ug/l	88

Analyst Signature: 1 G Analyst Name: \_\_\_\_\_ Date: 09.02.04

REASONS FOR MANUAL INTEGRATIONS

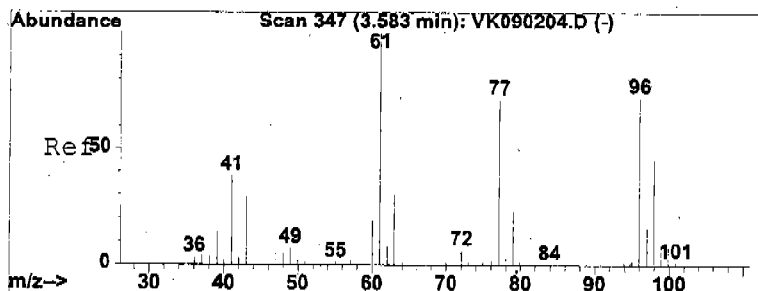
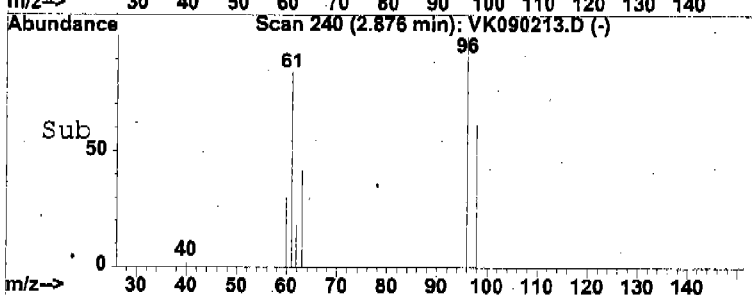
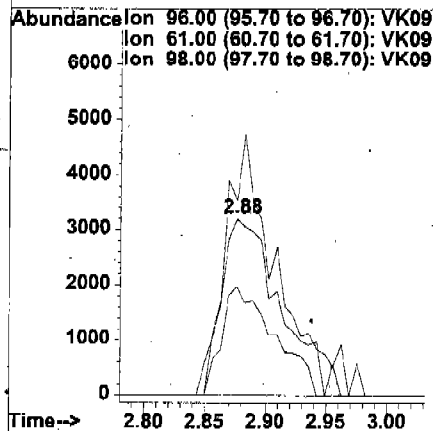
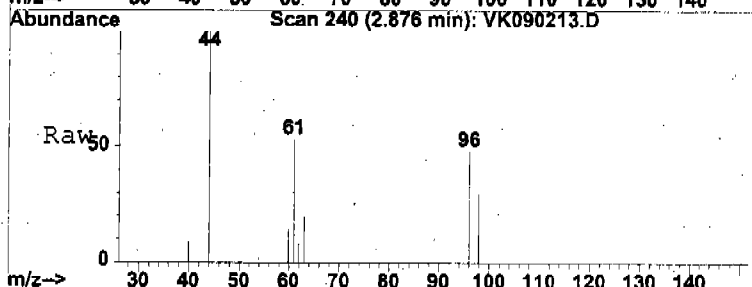
\_\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 \_\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration



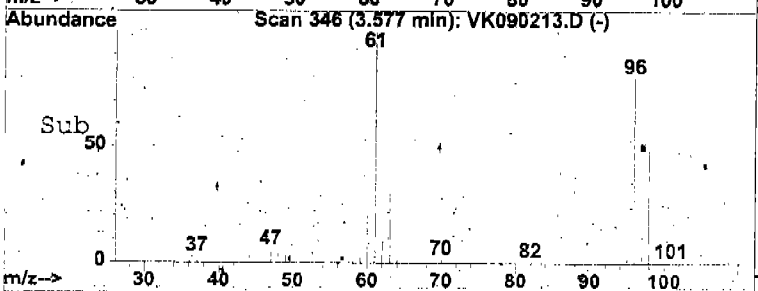
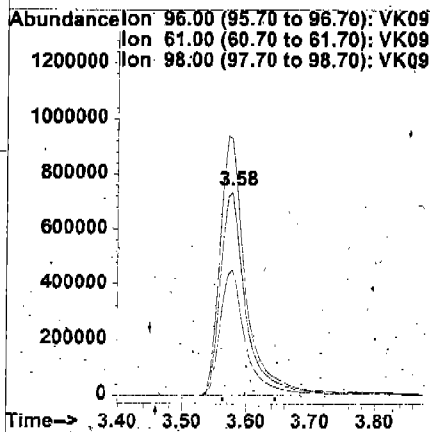
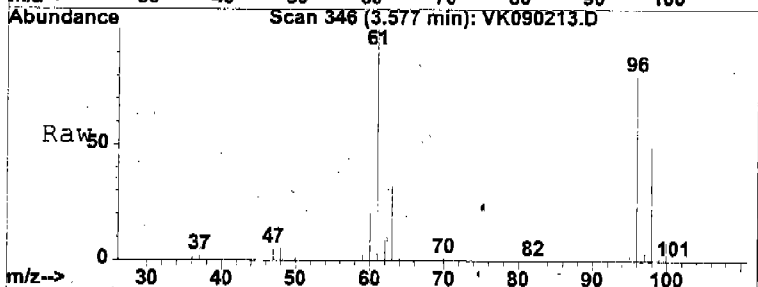
#21  
 trans-1,2-Dichloroethene  
 Concen: 0.46 ug/l  
 RT: 2.88 min Scan# 240  
 Delta R.T. 0,01 min  
 Lab File: VK090213.D  
 Acq: 2 Sep 2004 8:48 am

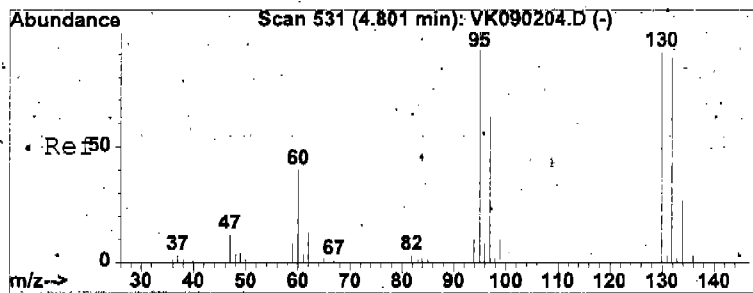
Tgt Ion	Resp	Lower	Upper
96	10813		
61	110.6	109.2	163.8
98	61.8	50.0	75.0



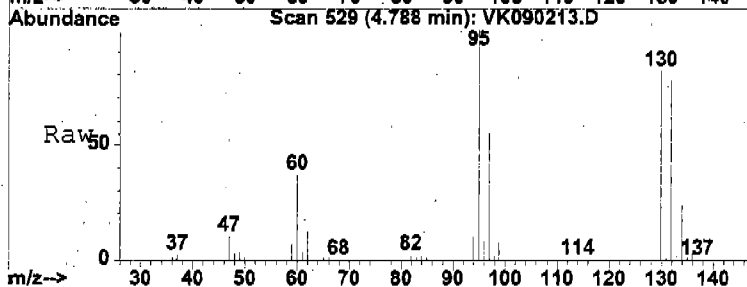
#27  
 cis-1,2-Dichloroethene  
 Concen: 80.84 ug/l  
 RT: 3.58 min Scan# 346  
 Delta R.T. -0.01 min  
 Lab File: VK090213.D  
 Acq: 2 Sep 2004 8:48 am

Tgt Ion	Resp	Lower	Upper
96	2063000		
61	128.6	121.7	182.5
98	62.0	51.3	76.9

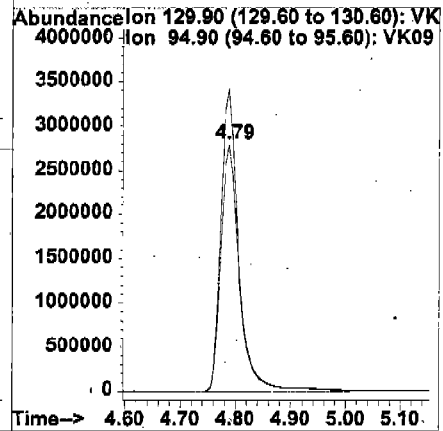
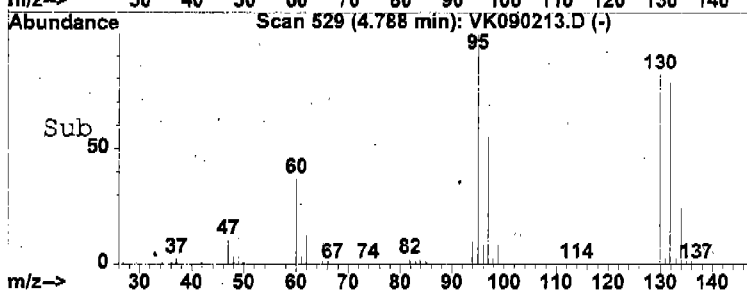




#39  
 Trichloroethene  
 Concen: 203.17 ug/l  
 RT: 4.79 min Scan# 529  
 Delta R.T. -0.03 min  
 Lab File: VK090213.D  
 Acq: 2 Sep 2004 8:48 am



Tgt Ion: 130 Resp: 6504248  
 Ion Ratio Lower Upper  
 130 100  
 95 122.4 88.2 132.2



LSC Area Percent Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090213.D  
 Acq On : 2 Sep 2004 8:48 am  
 Sample : S4436-01  
 Misc : 25mL  
 MS Integration Params: RTEINT.P

Vial: 23  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.02  
 Stop Thrs : 0  
 Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	3.577	336	346	372	rBV	3032385	8583421	23.32%	15.128%
2	3.954	393	403	426	rVB2	542248	1792719	4.87%	3.160%
3	4.563	486	495	520	rBV	776678	1863065	5.06%	3.284%
4	4.788	520	529	589	rBV	15887865	36805406	100.00%	64.870%
5	5.892	689	696	725	rBV	876901	2349354	6.38%	4.141%
6	7.103	872	879	907	rBV	792135	2006361	5.45%	3.536%
7	7.897	993	999	1029	rBV	397575	1349281	3.67%	2.378%
8	8.565	1094	1100	1135	rBV	841401	1987787	5.40%	3.503%

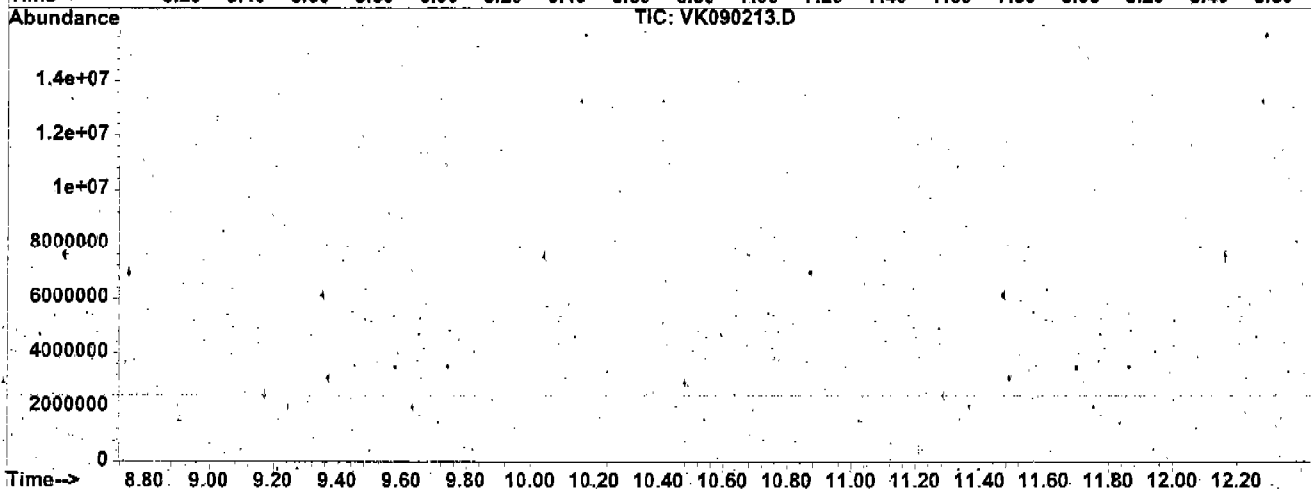
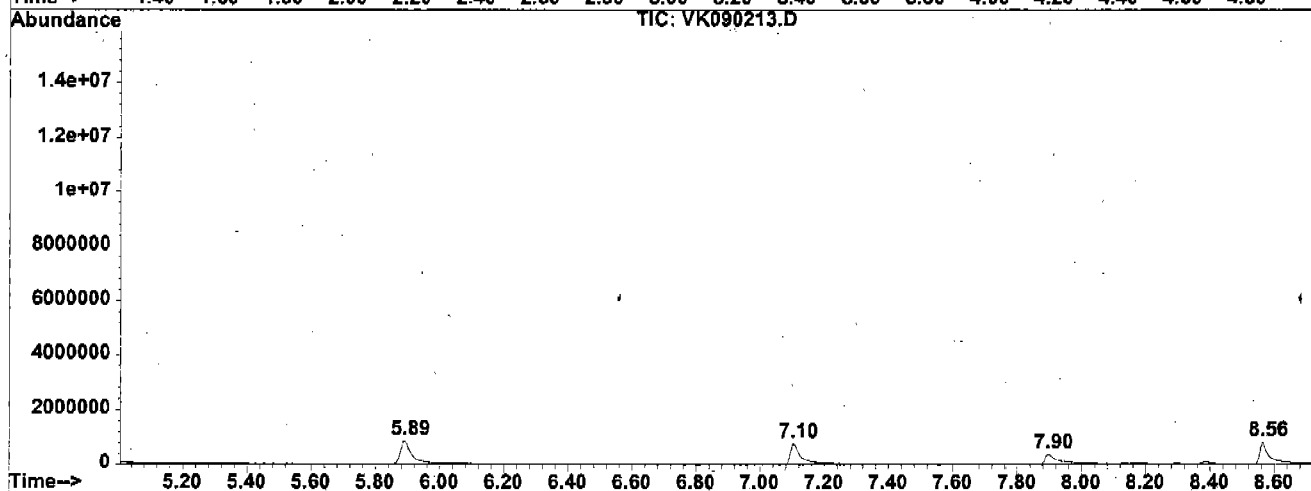
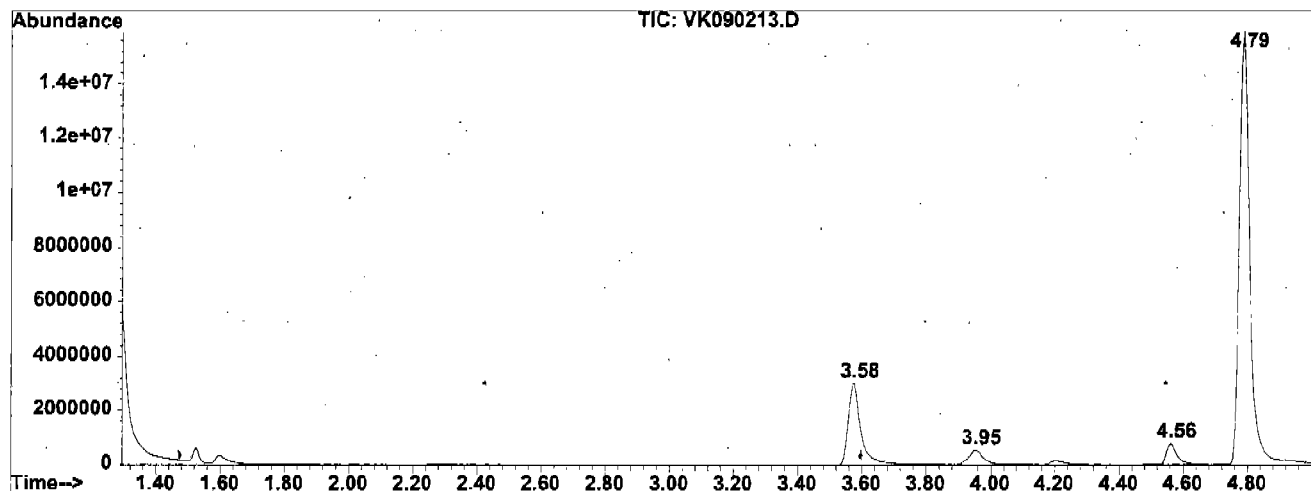
Sum of corrected areas: 56737394

VK090213.D SAK0902W.M Thu Sep 02 17:55:37 2004 LABMANAGER



LSC Report - Integrated Chromatogram

File : K:\1\DATA\MSVOAK\VK090204\VK090213.D  
Operator : KP  
Acquired : 2 Sep 2004 8:48 am using AcqMethod VP  
Instrument : MSVOA J/K  
Sample Name: S4436-01  
Misc Info : 25mL  
Vial Number: 23  
Quant File : SAK0902W.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: KP Date Acquired: 2 Sep 2004 8:48 am  
Data File: K:\1\DATA\MSVOAK\VK090204\VK090213.D  
Name: S4436-01  
Misc: 25mL  
Method: K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title: SW846 8260  
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
VK090213.D SAK0902W.M			Thu Sep 02 17:55:38 2004				LABMANAGER	

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/27/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2254DL</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-01DL</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090337.D</b>	<b>25</b>		<b>9/3/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
74-87-3	Chloromethane	3.9	UD	25	3.9	ug/L
75-01-4	Vinyl chloride	2.8	UD	25	2.8	ug/L
74-83-9	Bromomethane	2.9	UD	25	2.9	ug/L
75-00-3	Chloroethane	4.4	UD	25	4.4	ug/L
75-35-4	1,1-Dichloroethene	5.0	UD	25	5.0	ug/L
67-64-1	Acetone	30	UD	120	30	ug/L
75-15-0	Carbon disulfide	5.4	UD	25	5.4	ug/L
75-09-2	Methylene Chloride	9.1	UD	25	9.1	ug/L
156-60-5	trans-1,2-Dichloroethene	6.2	UD	25	6.2	ug/L
75-34-3	1,1-Dichloroethane	5.4	UD	25	5.4	ug/L
78-93-3	2-Butanone	23	UD	120	23	ug/L
56-23-5	Carbon Tetrachloride	4.2	UD	25	4.2	ug/L
156-59-2	cis-1,2-Dichloroethene	76	D	25	6.7	ug/L
67-66-3	Chloroform	5.7	UD	25	5.7	ug/L
71-55-6	1,1,1-Trichloroethane	5.6	UD	25	5.6	ug/L
71-43-2	Benzene	5.0	UD	25	5.0	ug/L
107-06-2	1,2-Dichloroethane	5.3	UD	25	5.3	ug/L
79-01-6	Trichloroethene	210	D	25	4.7	ug/L
78-87-5	1,2-Dichloropropane	4.4	UD	25	4.4	ug/L
75-27-4	Bromodichloromethane	4.3	UD	25	4.3	ug/L
108-10-1	4-Methyl-2-Pentanone	19	UD	120	19	ug/L
108-88-3	Toluene	4.7	UD	25	4.7	ug/L
10061-02-6	t-1,3-Dichloropropene	3.7	UD	25	3.7	ug/L
10061-01-5	cis-1,3-Dichloropropene	4.8	UD	25	4.8	ug/L
79-00-5	1,1,2-Trichloroethane	5.0	UD	25	5.0	ug/L
591-78-6	2-Hexanone	14	UD	120	14	ug/L
124-48-1	Dibromochloromethane	5.2	UD	25	5.2	ug/L
127-18-4	Tetrachloroethene	5.1	UD	25	5.1	ug/L
108-90-7	Chlorobenzene	4.0	UD	25	4.0	ug/L
100-41-4	Ethyl Benzene	4.5	UD	25	4.5	ug/L
136777-61-2	m&p-Xylenes	9.0	UD	25	9.0	ug/L
95-47-6	o-Xylene	4.3	UD	25	4.3	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/27/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2254DL</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-01DL</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090337.D</b>	<b>25</b>		<b>9/3/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
100-42-5	Styrene	4.3	UD	25	4.3	ug/L
75-25-2	Bromoform	9.2	UD	25	9.2	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	3.2	UD	25	3.2	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	10.37	104 %	72 - 119		SPK: 10
1868-53-7	Dibromofluoromethane	10.48	105 %	85 - 115		SPK: 10
2037-26-5	Toluene-d8	9.29	93 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	9.59	96 %	76 - 119		SPK: 10
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	346315	3.96			
540-36-3	1,4-Difluorobenzene	757241	4.56			
3114-55-4	Chlorobenzene-d5	604469	7.11			
3855-82-1	1,4-Dichlorobenzene-d4	276938	8.57			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

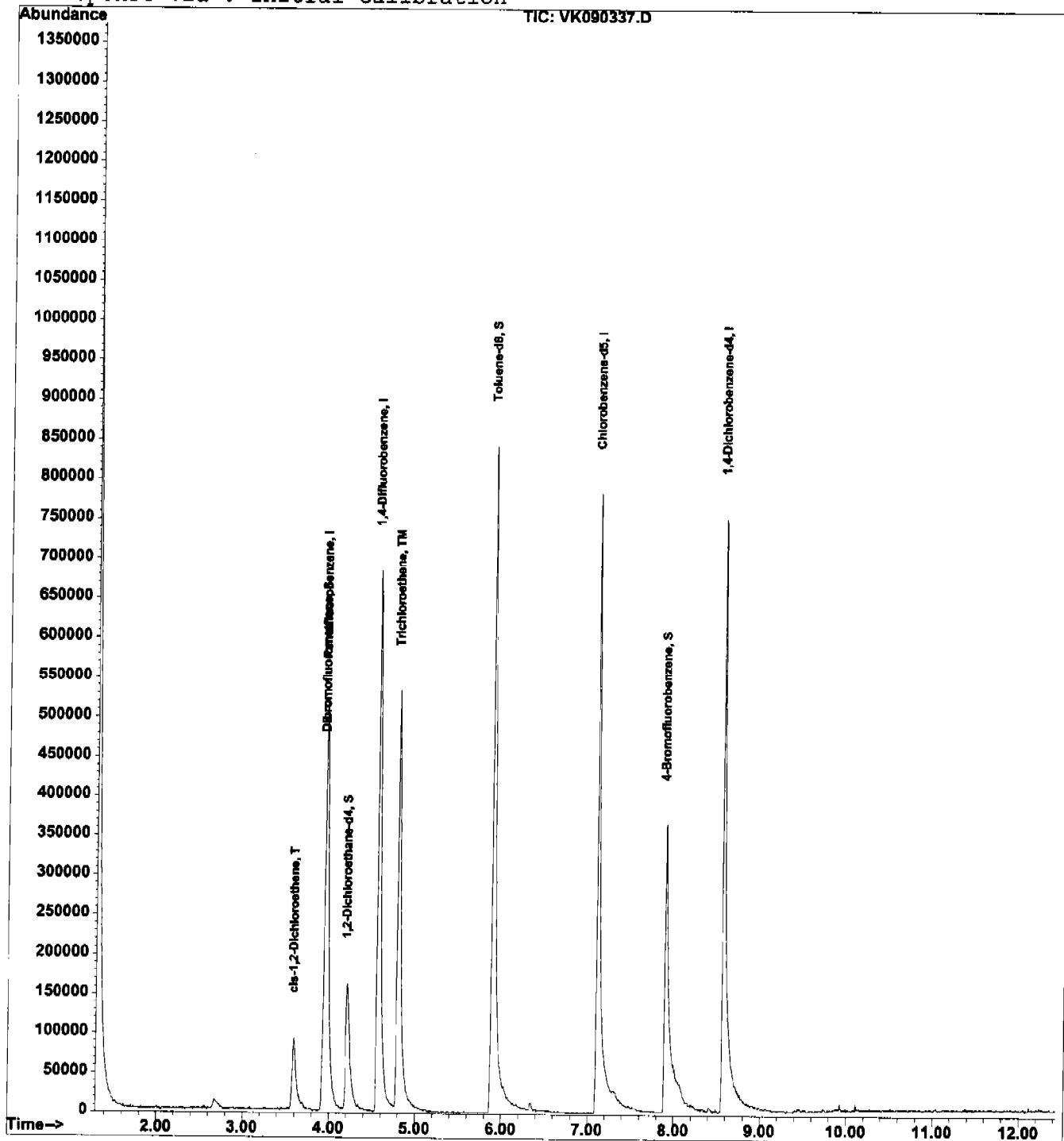
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090337.D  
Acq On : 3 Sep 2004 6:18 pm  
Sample : S4436-01 25X  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 7 11:35 2004

Vial: 5  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090304\VK090337.D  
 Acq On : 3 Sep 2004 6:18 pm  
 Sample : S4436-01 25X  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 7 11:35 2004

Vial: 5  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

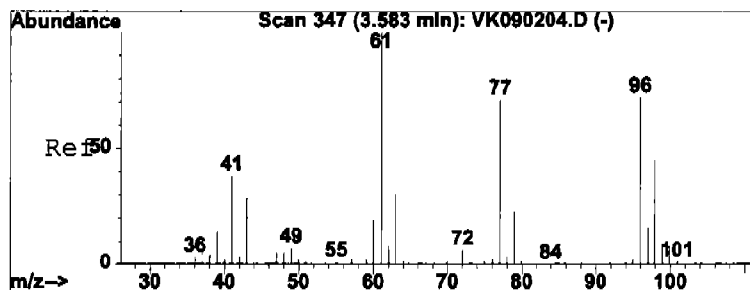
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.96	168	346315	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.56	114	757241	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.11	117	604469	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.57	152	276938	10.00	ug/l	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d	4.21	65	180505	10.37	ug/l	0.00
Spiked Amount	10.000		Recovery	=	103.70%	
34) Dibromofluoromethane	3.94	113	215451	10.48	ug/l	0.00
Spiked Amount	10.000		Recovery	=	104.80%	
45) Toluene-d8	5.89	98	833993	9.29	ug/l	-0.02
Spiked Amount	10.000		Recovery	=	92.90%	
56) 4-Bromofluorobenzene	7.90	95	351394	9.59	ug/l	-0.03
Spiked Amount	10.000		Recovery	=	95.90%	
Target Compounds						
27) cis-1,2-Dichloroethe	3.60	96	75659	3.02	ug/l	Qvalue 87
39) Trichloroethene	4.80	130	268373	8.57	ug/l	100

Analyst Signature: lgp Analyst Name: \_\_\_\_\_ Date: 09/07/04.

REASONS FOR MANUAL INTEGRATIONS

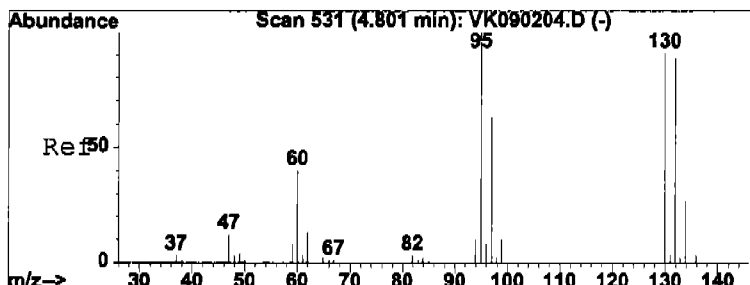
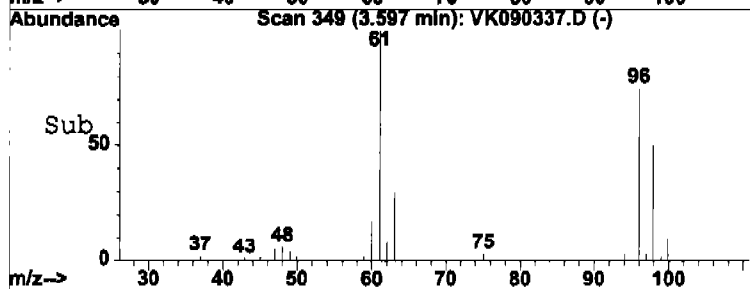
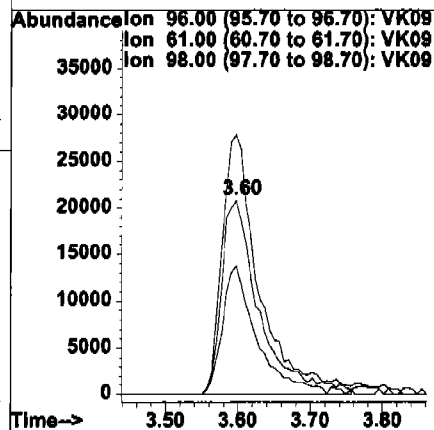
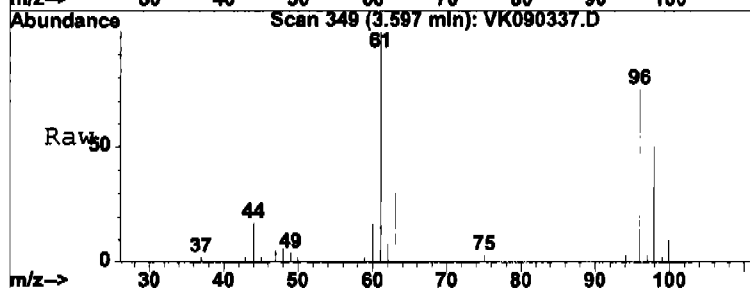
\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration



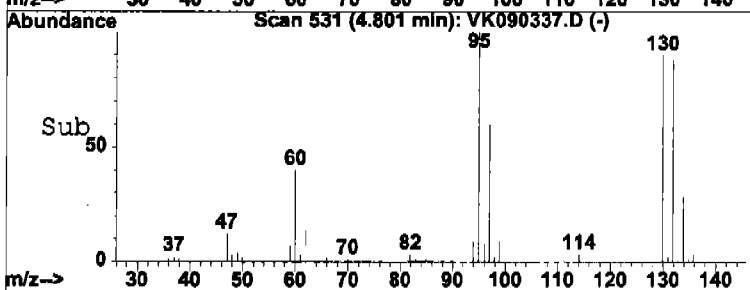
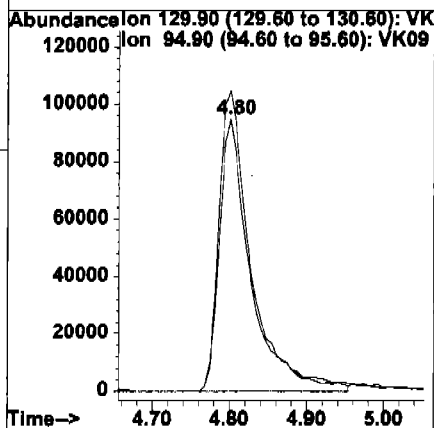
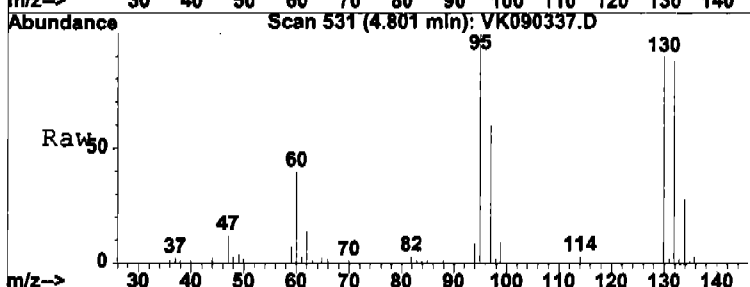
#27  
 cis-1,2-Dichloroethene  
 Concen: 3.02 ug/l  
 RT: 3.60 min Scan# 349  
 Delta R.T. 0.01 min  
 Lab File: VK090337.D  
 Acq: 3 Sep 2004 6:18 pm

Tgt Ion:	96	Resp:	75659
Ion Ratio	Lower	Upper	
96	100		
61	131.6	121.7	182.5
98	60.9	51.3	76.9



#39  
 Trichloroethene  
 Concen: 8.57 ug/l  
 RT: 4.80 min Scan# 531  
 Delta R.T. -0.01 min  
 Lab File: VK090337.D  
 Acq: 3 Sep 2004 6:18 pm

Tgt Ion:	130	Resp:	268373
Ion Ratio	Lower	Upper	
130	100		
95	110.6	88.2	132.2



LSC Area Percent Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090337.D  
 Acq On : 3 Sep 2004 6:18 pm  
 Sample : S4436-01 25X  
 Misc : 25mL  
 MS Integration Params: RTEINT.P

Vial: 5  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.02  
 Stop Thrs : 0  
 Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	3.597	341	349	375	rBV2	90162	313380	13.19%	2.290%
2	3.954	392	403	430	rBV3	515627	1751168	73.72%	12.794%
3	4.206	435	441	461	rBV	157396	513559	21.62%	3.752%
4	4.563	488	495	523	rBV	682405	1782074	75.02%	13.020%
5	4.801	525	531	572	rVB	529323	1509307	63.54%	11.027%
6	5.893	690	696	737	rBV	840810	2375431	100.00%	17.355%
7	7.110	873	880	907	rBV	782566	1975741	83.17%	14.435%
8	7.302	907	909	933	rVB6	20862	106092	4.47%	0.775%
9	7.897	994	999	1041	rBV	362760	1354909	57.04%	9.899%
10	8.565	1094	1100	1149	rBV	748645	2005576	84.43%	14.653%

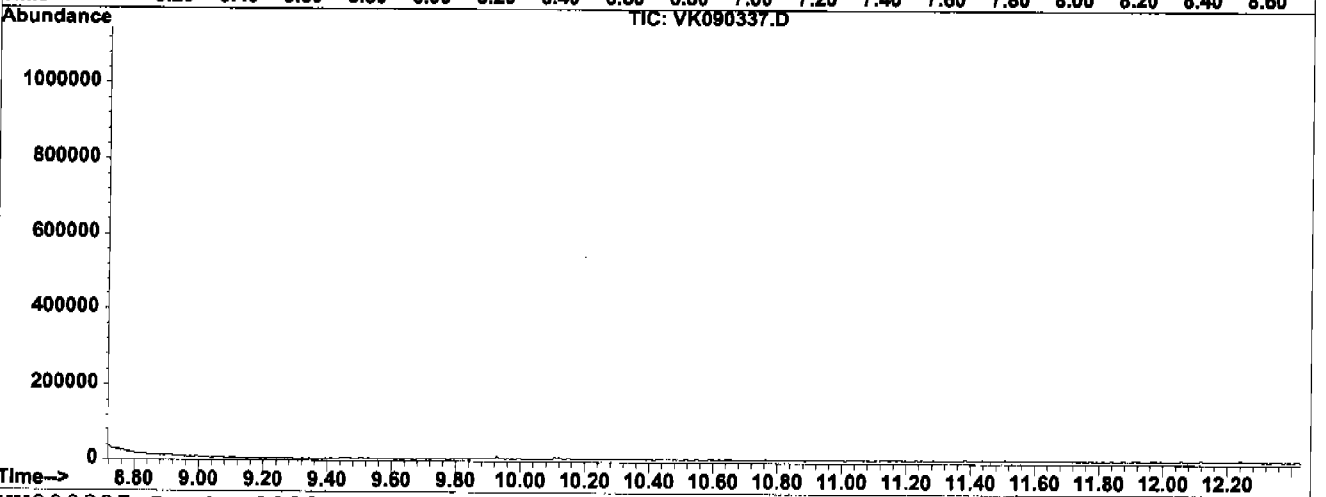
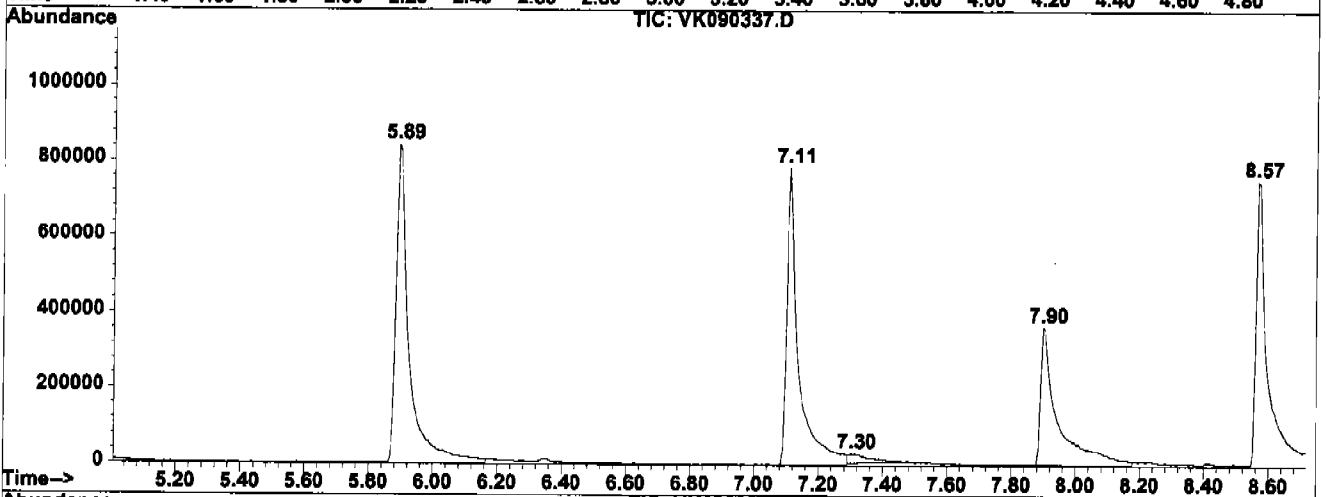
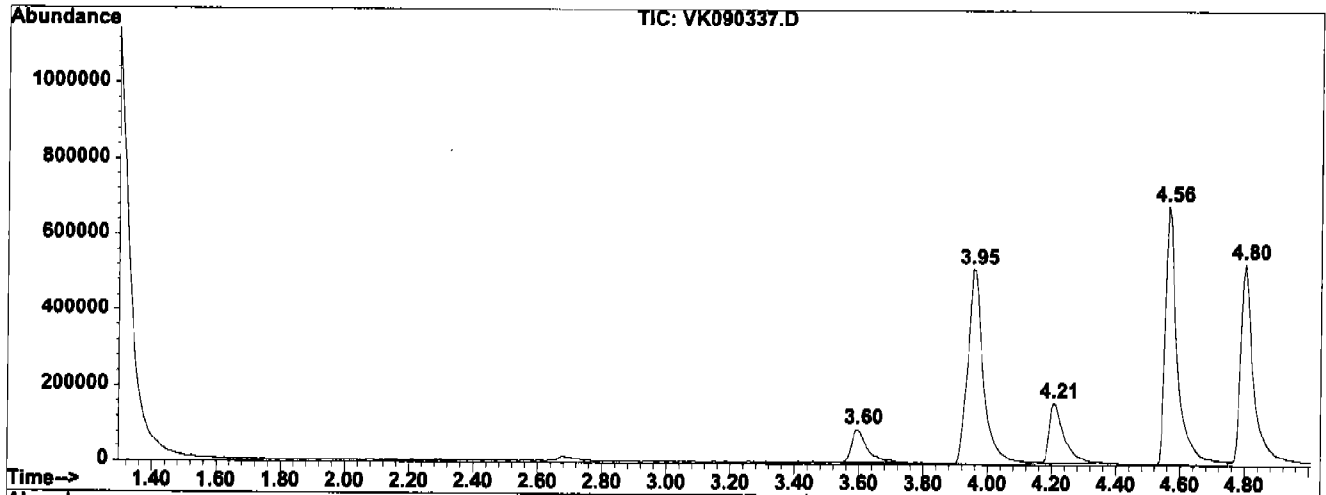
Sum of corrected areas: 13687237

VK090337.D SAK0902W.M Tue Sep 07 11:36:03 2004 LABMANAGER



LSC Report - Integrated Chromatogram

File : K:\1\DATA\MSVOAK\VK090304\VK090337.D  
Operator : KP  
Acquired : 3 Sep 2004 6:18 pm using AcqMethod VP  
Instrument : MSVOA J/K  
Sample Name: S4436-01 25X  
Misc Info : 25mL  
Vial Number: 5  
Quant File : SAK0902W.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: KP      Date Acquired: 3 Sep 2004 6:18 pm  
Data File: K:\1\DATA\MSVOAK\VK090304\VK090337.D  
Name: S4436-01 25X  
Misc: 25mL  
Method: K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title: SW846 8260  
Library Searched: C:\DATABASE\NBS75K.L

TIC	Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
-----									
VK090337.D	SAK0902W.M								
		Tue Sep 07 11:36:04 2004					LABMANAGER		



## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/27/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/31/2004
Client Sample ID:	ARD2255	SDG No.:	S4436
Lab Sample ID:	S4436-02	Matrix:	WATER
Analytical Method:	8260	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VK090214.D	1		9/2/2004	VK090204

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
74-87-3	Chloromethane	0.16	U	1.0	0.16	ug/L
75-01-4	Vinyl chloride	0.11	U	1.0	0.11	ug/L
74-83-9	Bromomethane	0.12	U	1.0	0.12	ug/L
75-00-3	Chloroethane	0.18	U	1.0	0.18	ug/L
75-35-4	1,1-Dichloroethene	0.20	U	1.0	0.20	ug/L
67-64-1	Acetone	1.2	U	5.0	1.2	ug/L
75-15-0	Carbon disulfide	0.21	U	1.0	0.21	ug/L
75-09-2	Methylene Chloride	0.36	U	1.0	0.36	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	1.0	0.25	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.92	U	5.0	0.92	ug/L
56-23-5	Carbon Tetrachloride	0.17	U	1.0	0.17	ug/L
156-59-2	cis-1,2-Dichloroethene	0.27	U	1.0	0.27	ug/L
67-66-3	Chloroform	0.23	U	1.0	0.23	ug/L
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22	ug/L
71-43-2	Benzene	0.20	U	1.0	0.20	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	0.19	U	1.0	0.19	ug/L
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17	ug/L
108-10-1	4-Methyl-2-Pentanone	0.77	U	5.0	0.77	ug/L
108-88-3	Toluene	0.19	U	1.0	0.19	ug/L
10061-02-6	t-1,3-Dichloropropene	0.15	U	1.0	0.15	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L
591-78-6	2-Hexanone	0.58	U	5.0	0.58	ug/L
124-48-1	Dibromochloromethane	0.21	U	1.0	0.21	ug/L
127-18-4	Tetrachloroethene	0.20	U	1.0	0.20	ug/L
108-90-7	Chlorobenzene	0.16	U	1.0	0.16	ug/L
100-41-4	Ethyl Benzene	0.18	U	1.0	0.18	ug/L
136777-61-2	m&p-Xylenes	0.36	U	1.0	0.36	ug/L
95-47-6	o-Xylene	0.17	U	1.0	0.17	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/27/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/31/2004
Client Sample ID:	ARD2255	SDG No.:	S4436
Lab Sample ID:	S4436-02	Matrix:	WATER
Analytical Method:	8260	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VK090214.D	1		9/2/2004	VK090204

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
100-42-5	Styrene	0.17	U	1.0	0.17	ug/L
75-25-2	Bromoform	0.37	U	1.0	0.37	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	11.02	110 %	72 - 119		SPK: 10
1868-53-7	Dibromofluoromethane	10.51	105 %	85 - 115		SPK: 10
2037-26-5	Toluene-d8	9.52	95 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	9.63	96 %	76 - 119		SPK: 10
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	320258	3.96			
540-36-3	1,4-Difluorobenzene	756587	4.56			
3114-55-4	Chlorobenzene-d5	631579	7.11			
3855-82-1	1,4-Dichlorobenzene-d4	295389	8.56			

U = Not Detected  
RL = Reporting Limit  
MDL = Method Detection Limit  
E = Value Exceeds Calibration Range

J = Estimated Value  
B = Analyte Found in Associated Method Blank  
N = Presumptive Evidence of a Compound

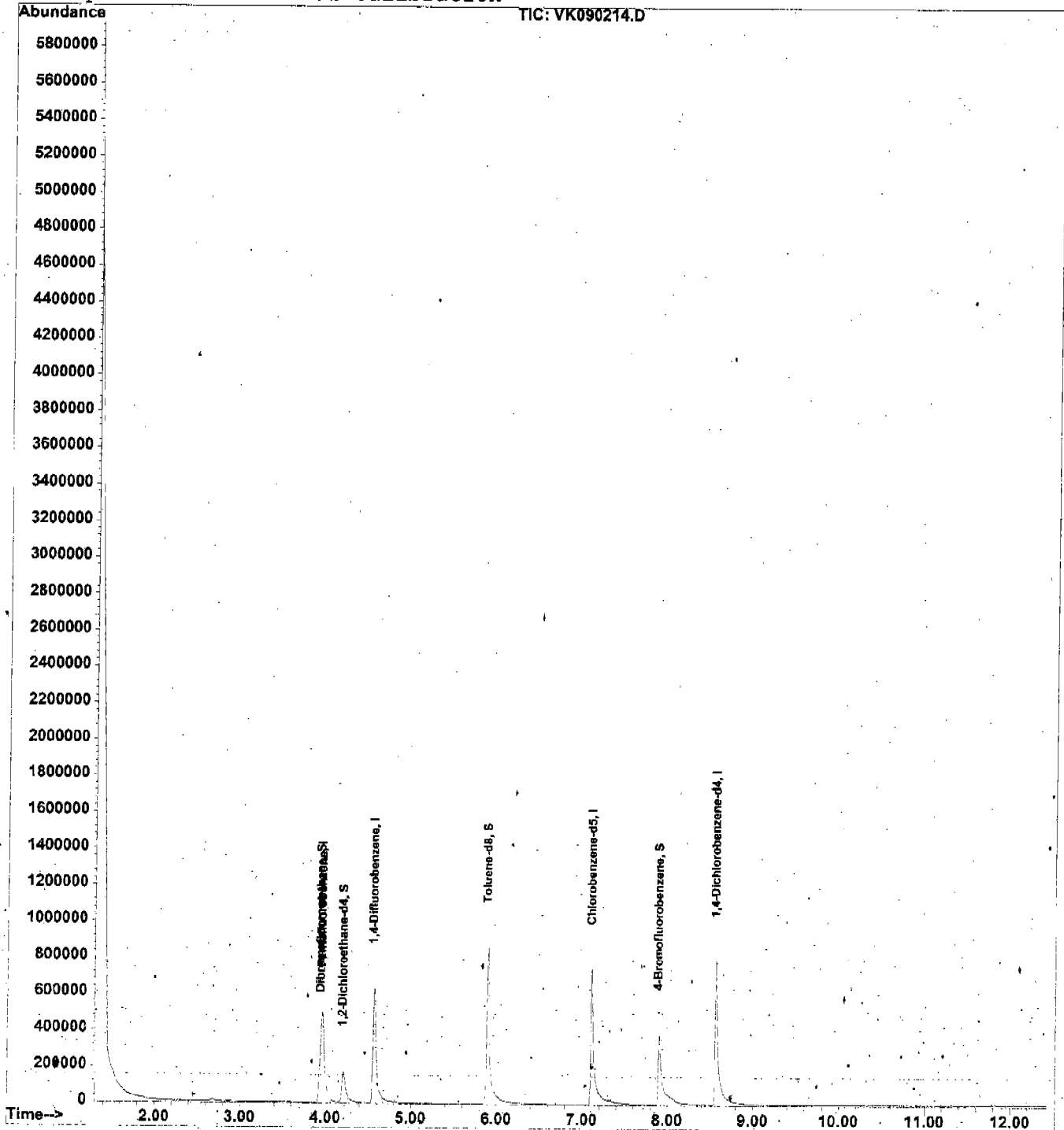
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090214.D  
Acq On : 2 Sep 2004 9:27 am  
Sample : S4436-02  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 2 17:56 2004

Vial: 24  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090214.D Vial: 24  
 Acq On : 2 Sep 2004 9:27 am Operator: KP  
 Sample : S4436-02 Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 17:56 2004 Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.96	168	320258	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.56	114	756587	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.11	117	631579	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.56	152	295389	10.00	ug/l	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d	4.21	65	177366	11.02	ug/l	0.00
Spiked Amount	10.000		Recovery	=	110.20%	
34) Dibromofluoromethane	3.93	113	215800	10.51	ug/l	0.00
Spiked Amount	10.000		Recovery	=	105.10%	
45) Toluene-d8	5.89	98	853854	9.52	ug/l	-0.02
Spiked Amount	10.000		Recovery	=	95.20%	
56) 4-Bromofluorobenzene	7.90	95	352505	9.63	ug/l	-0.04
Spiked Amount	10.000		Recovery	=	96.30%	

Target Compounds

Qvalue

Analyst Signature: JP Analyst Name: \_\_\_\_\_ Date: 09.02.04

REASONS FOR MANUAL INTEGRATIONS

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

LSC Area Percent Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090214.D  
 Acq On : 2 Sep 2004 9:27 am  
 Sample : S4436-02  
 Misc : 25mL  
 MS Integration Params: RTEINT.P

Vial: 24  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.02  
 Stop Thrs : 0  
 Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

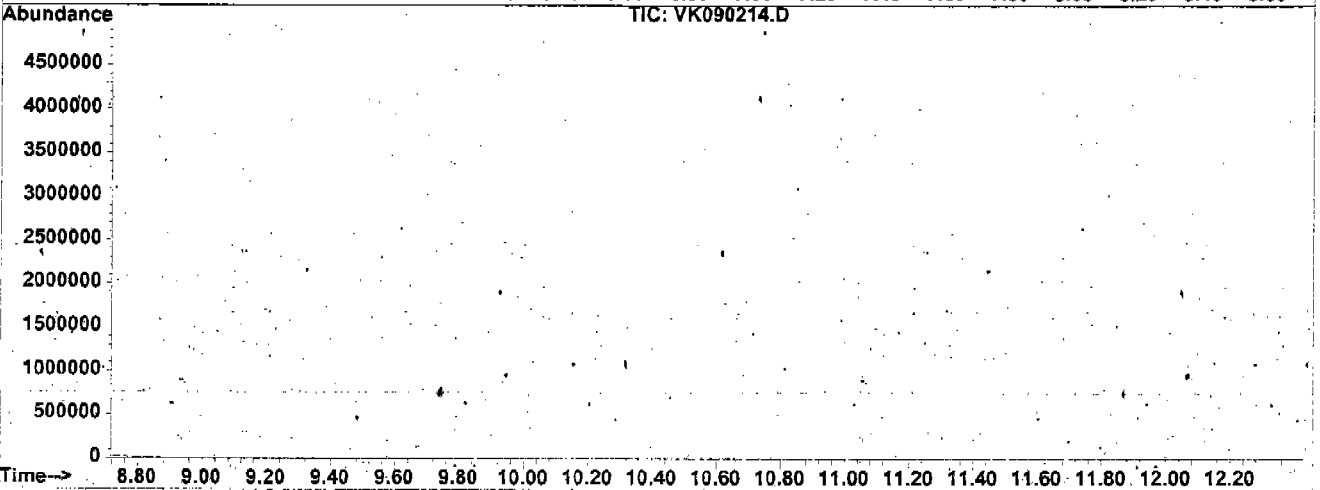
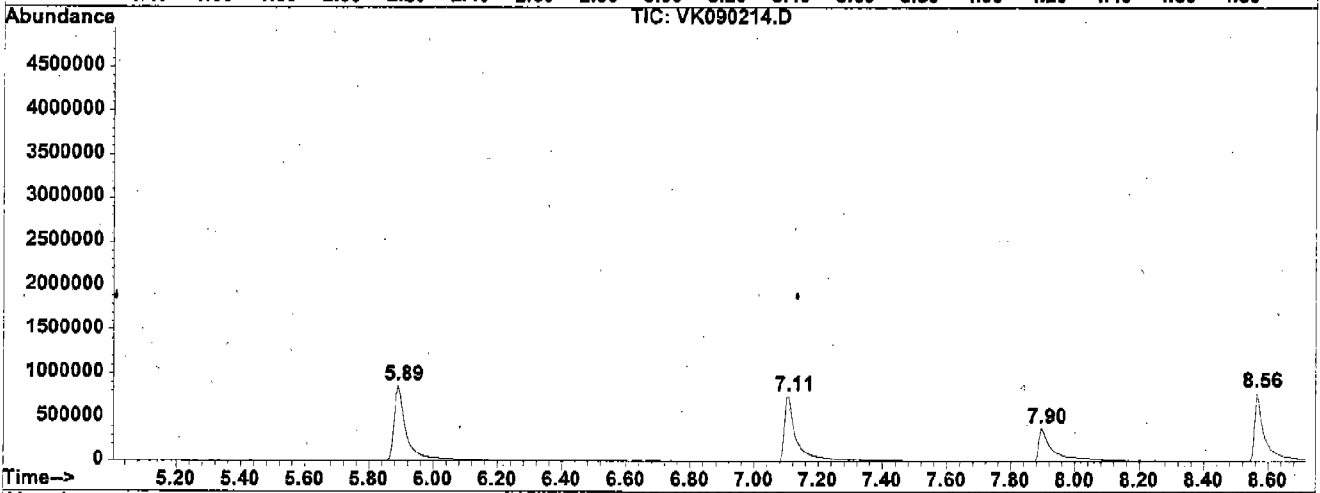
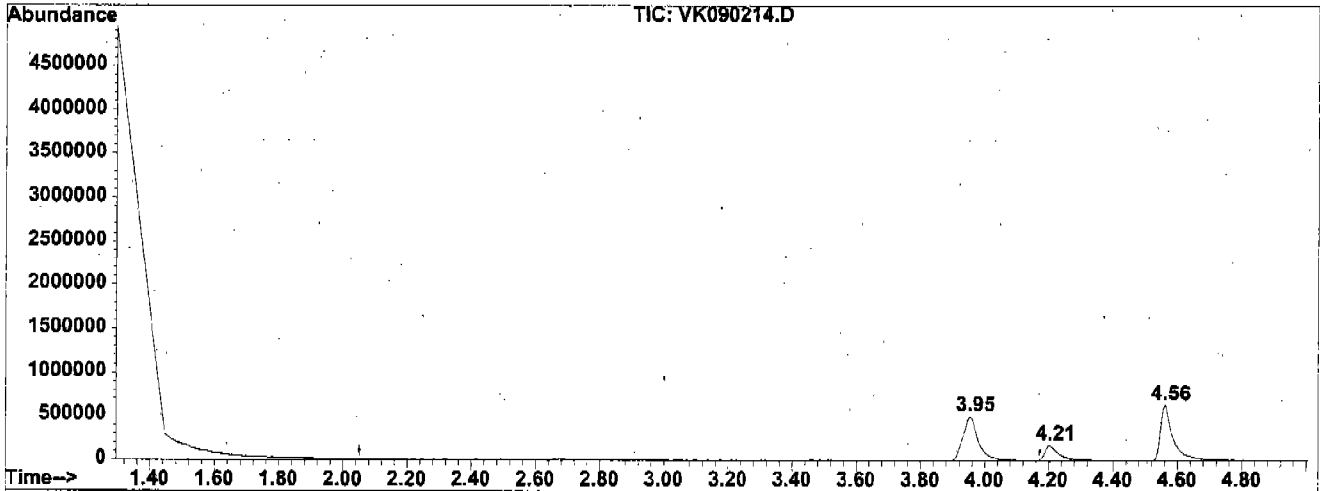
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	3.954	371	381	412	rBV3	498258	1729594	72.10%	14.694%
2	4.205	412	419	448	rVB	169740	553642	23.08%	4.704%
3	4.562	463	473	507	rBV	628907	1770224	73.79%	15.039%
4	5.892	664	674	714	rBV	859173	2398879	100.00%	20.380%
5	7.109	850	858	886	rBV	744130	1986340	82.80%	16.875%
6	7.896	970	977	1015	rBV	382993	1351678	56.35%	11.483%
7	8.564	1074	1078	1122	rBV	787125	1980354	82.55%	16.824%

Sum of corrected areas: 11770711

VK090214.D SAK0902W.M Thu Sep 02 17:57:11 2004 LABMANAGER

LSC Report - Integrated Chromatogram

File : K:\1\DATA\MSVOAK\VK090204\VK090214.D  
Operator : KP  
Acquired : 2 Sep 2004 9:27 am using AcqMethod VP  
Instrument : MSVOA J/K  
Sample Name: S4436-02  
Misc Info : 25mL  
Vial Number: 24  
Quant File : SAK0902W.RES (RTE Integrator)





Tentatively Identified Compound (LSC) summary

Operator ID: KP      Date Acquired: 2 Sep 2004 9:27 am  
Data File: K:\1\DATA\MSVOAK\VK090204\VK090214.D  
Name: S4436-02  
Misc: 25mL  
Method: K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title: SW846 8260  
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
-----								
VK090214.D SAK0902W.M			Thu Sep 02 17:57:12 2004				LABMANAGER	



## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/28/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/31/2004
Client Sample ID:	ARD2259	SDG No.:	S4436
Lab Sample ID:	S4436-03	Matrix:	WATER
Analytical Method:	8260	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VK090215.D	1		9/2/2004	VK090204

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
74-87-3	Chloromethane	0.16	U	1.0	0.16	ug/L
75-01-4	Vinyl chloride	0.11	U	1.0	0.11	ug/L
74-83-9	Bromomethane	0.12	U	1.0	0.12	ug/L
75-00-3	Chloroethane	0.18	U	1.0	0.18	ug/L
75-35-4	1,1-Dichloroethene	0.20	U	1.0	0.20	ug/L
67-64-1	Acetone	1.2	U	5.0	1.2	ug/L
75-15-0	Carbon disulfide	0.21	U	1.0	0.21	ug/L
75-09-2	Methylene Chloride	0.36	U	1.0	0.36	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	1.0	0.25	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.92	U	5.0	0.92	ug/L
56-23-5	Carbon Tetrachloride	0.17	U	1.0	0.17	ug/L
156-59-2	cis-1,2-Dichloroethene	0.27	U	1.0	0.27	ug/L
67-66-3	Chloroform	0.23	U	1.0	0.23	ug/L
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22	ug/L
71-43-2	Benzene	0.20	U	1.0	0.20	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	0.19	U	1.0	0.19	ug/L
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17	ug/L
108-10-1	4-Methyl-2-Pentanone	0.77	U	5.0	0.77	ug/L
108-88-3	Toluene	0.19	U	1.0	0.19	ug/L
10061-02-6	t-1,3-Dichloropropene	0.15	U	1.0	0.15	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L
591-78-6	2-Hexanone	0.58	U	5.0	0.58	ug/L
124-48-1	Dibromochloromethane	0.21	U	1.0	0.21	ug/L
127-18-4	Tetrachloroethene	0.20	U	1.0	0.20	ug/L
108-90-7	Chlorobenzene	0.16	U	1.0	0.16	ug/L
100-41-4	Ethyl Benzene	0.18	U	1.0	0.18	ug/L
136777-61-2	m&p-Xylenes	0.36	U	1.0	0.36	ug/L
95-47-6	o-Xylene	0.17	U	1.0	0.17	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/28/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2259</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-03</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090215.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
100-42-5	Styrene	0.17	U	1.0	0.17	ug/L
75-25-2	Bromoform	0.37	U	1.0	0.37	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	11.2	112 %	72 - 119		SPK: 10
1868-53-7	Dibromofluoromethane	10.56	106 %	85 - 115		SPK: 10
2037-26-5	Toluene-d8	9.69	97 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	10.34	103 %	76 - 119		SPK: 10
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	327938	3.96			
540-36-3	1,4-Difluorobenzene	749919	4.56			
3114-55-4	Chlorobenzene-d5	614669	7.10			
3855-82-1	1,4-Dichlorobenzene-d4	302659	8.57			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

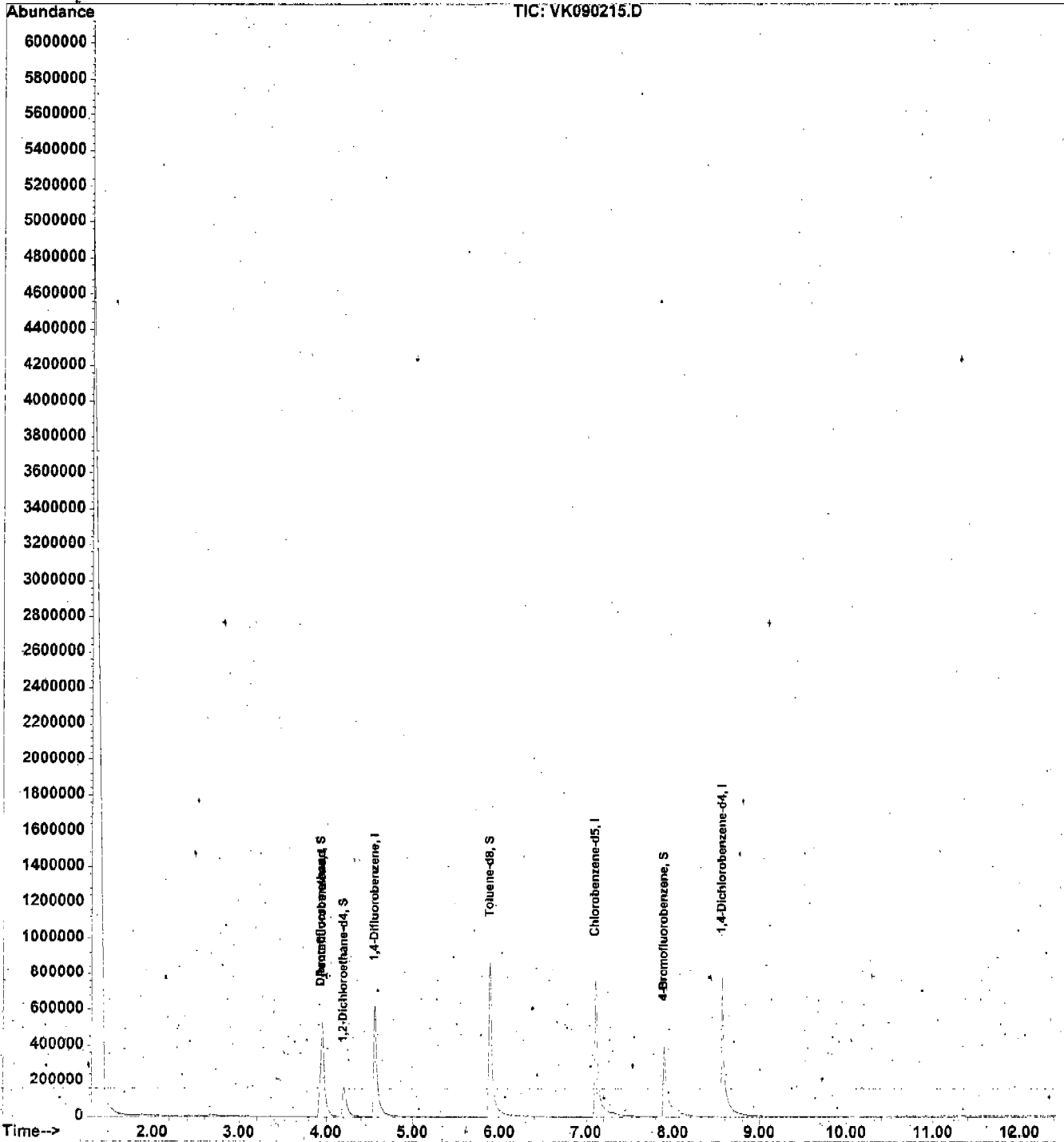
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090215.D  
Acq On : 2 Sep 2004 10:06 am  
Sample : S4436-03  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 2 17:58.2004

Vial: 25  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090215.D Vial: 25  
 Acq On : 2 Sep 2004 10:06 am Operator: KP  
 Sample : S4436-03 Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 17:58 2004 Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.96	168	327938	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.56	114	749919	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.10	117	614669	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.57	152	302659	10.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) 1,2-Dichloroethane-d	4.21	65	184666	11.20	ug/l	0.00
Spiked Amount						
						Recovery = 112.00%
34) Dibromofluoromethane	3.94	113	215019	10.56	ug/l	0.00
Spiked Amount						
						Recovery = 105.60%
45) Toluene-d8	5.89	98	861694	9.69	ug/l	-0.02
Spiked Amount						
						Recovery = 96.90%
56) 4-Bromofluorobenzene	7.90	95	375348m	10.34	ug/l	-0.04
Spiked Amount						
						Recovery = 103.40%

Target Compounds Qvalue

Analyst Signature: 1 Gp Analyst Name: \_\_\_\_\_ Date: 09.02.04

REASONS FOR MANUAL INTEGRATIONS

Poor resolution of peaks exhibited on chromatogram. Compound #: 56

Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

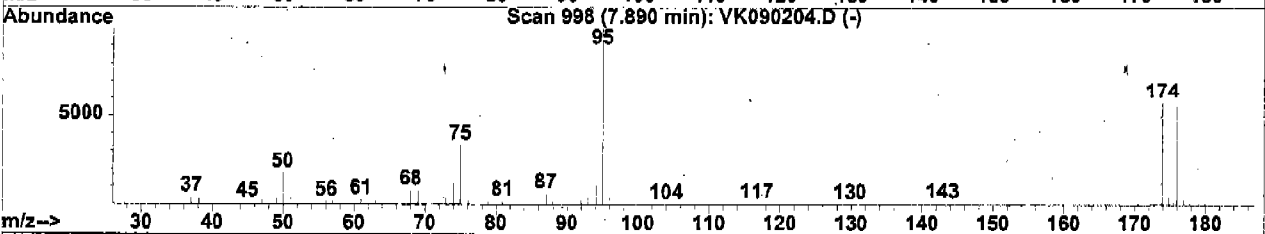
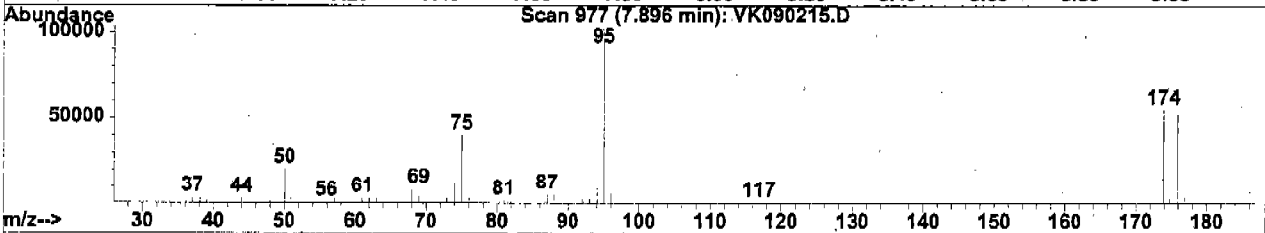
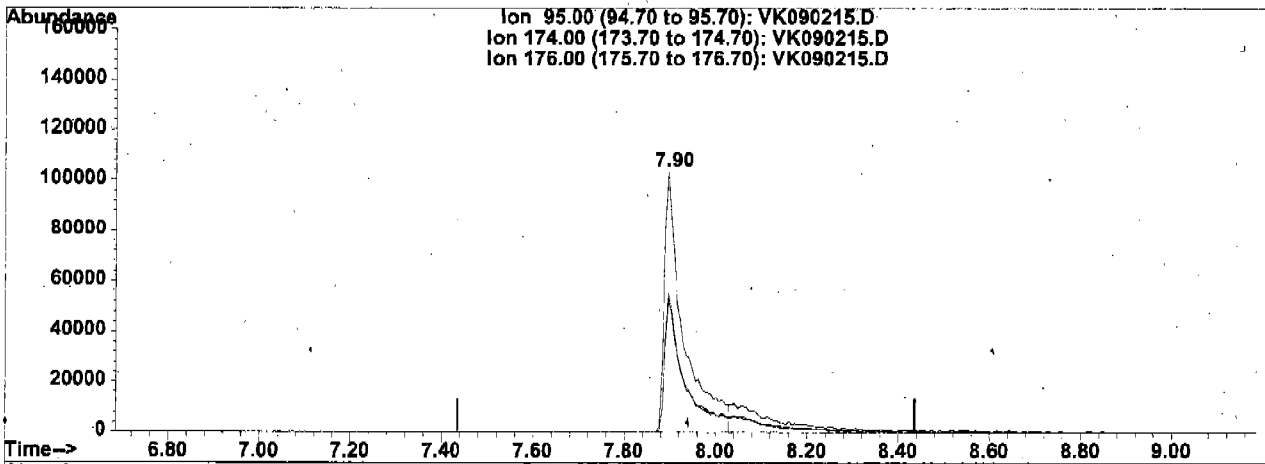
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090215.D  
 Acq On : 2 Sep 2004 10:06 am  
 Sample : S4436-03  
 Misc : 25mL  
 Quant Time: Sep 2 17:58 2004

Vial: 25  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



TIC: VK090215.D

(56) 4-Bromofluorobenzene (S)

7.90min 8.35ug/l

response 303219

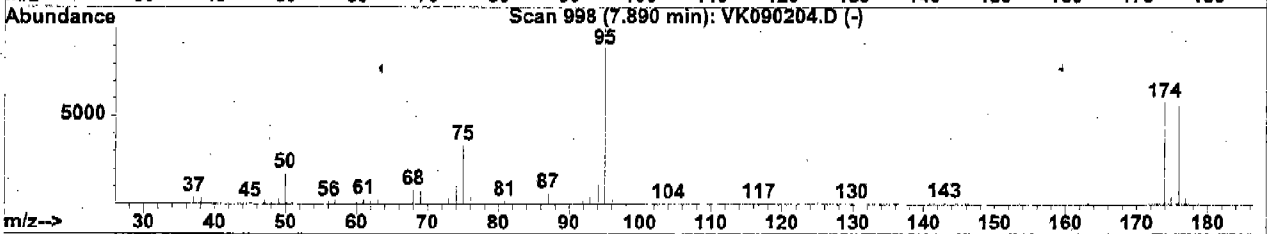
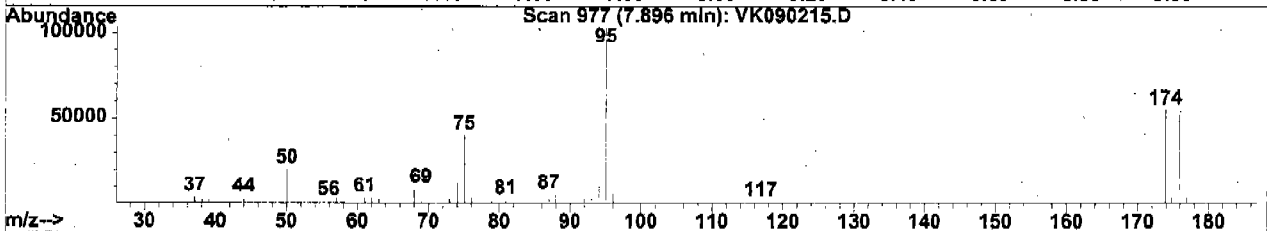
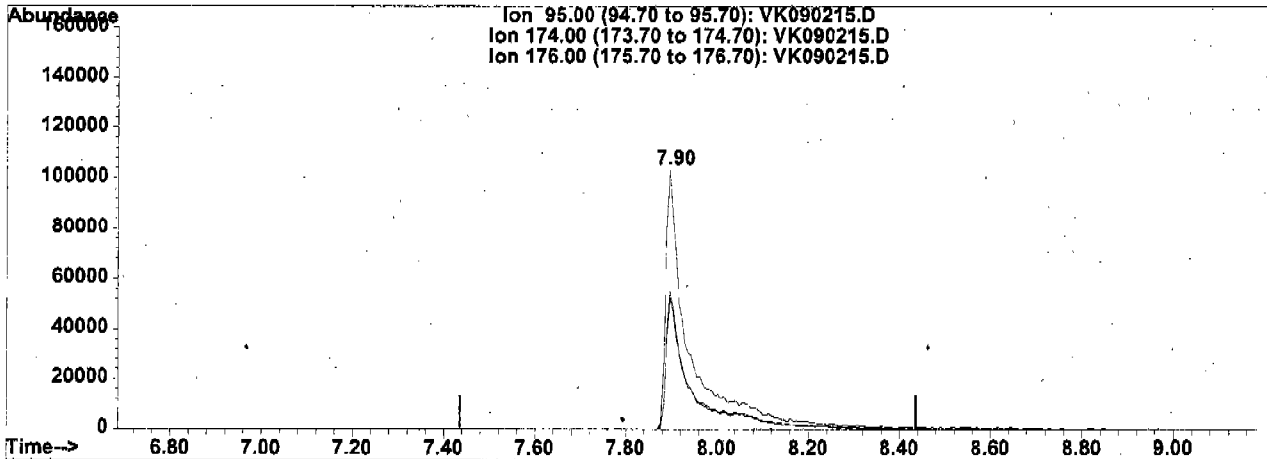
Ion	Exp%	Act%
95.00	100	100
174.00	56.30	51.89
176.00	54.20	52.39
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090215.D  
 Acq On : 2 Sep 2004 10:06 am  
 Sample : S4436-03  
 Misc : 25mL  
 Quant Time: Sep 2 17:58 2004

Vial: 25  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(56) 4-Bromofluorobenzene (S)

7.90min 10.34ug/l m

response 375348

Ion	Exp%	Act%
95.00	100	100
174.00	56.30	41.91#
176.00	54.20	42.32#
0.00	0.00	0.00

LSC Area Percent Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090215.D  
 Acq On : 2 Sep 2004 10:06 am  
 Sample : S4436-03  
 Misc : 25mL

Vial: 25  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.02  
 Stop Thrs : 0

Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	3.954	369	381	408	rBV2	527087	1727647	73.40%	14.850%
2	4.205	412	419	449	rVB2	159643	552062	23.46%	4.745%
3	4.562	464	473	516	rBV	615527	1788113	75.97%	15.370%
4	5.892	665	674	711	rBV	865440	2353674	100.00%	20.231%
5	7.103	851	857	885	rBV	757631	1961802	83.35%	16.863%
6	7.896	969	977	991	rBV	390760	1046213	44.45%	8.993%
7	7.996	991	992	1020	rVB6	54850	248578	10.56%	2.137%
8	8.571	1069	1079	1119	rBV	771626	1956020	83.10%	16.813%

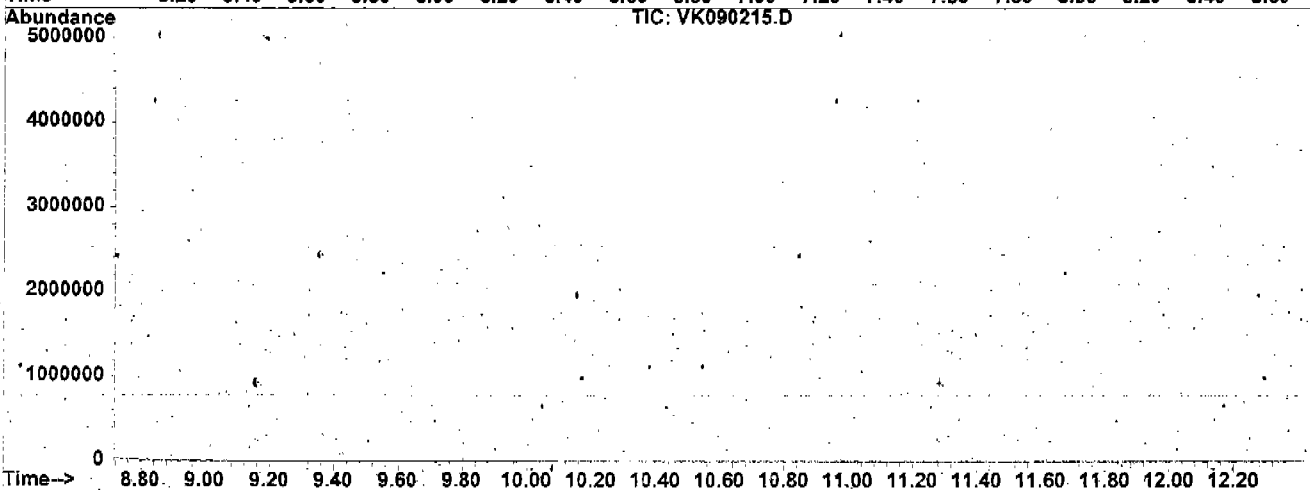
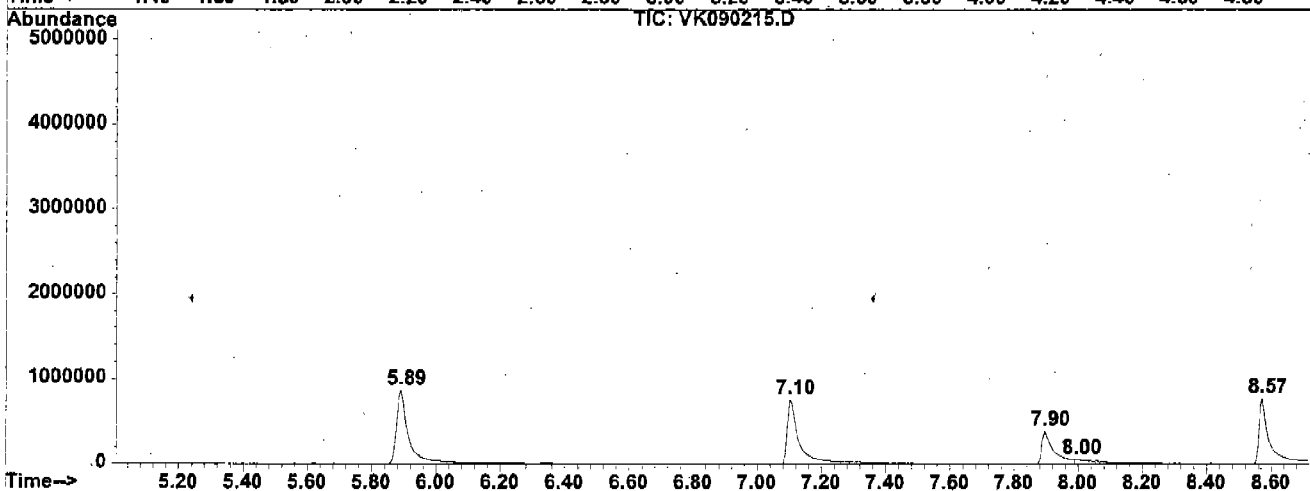
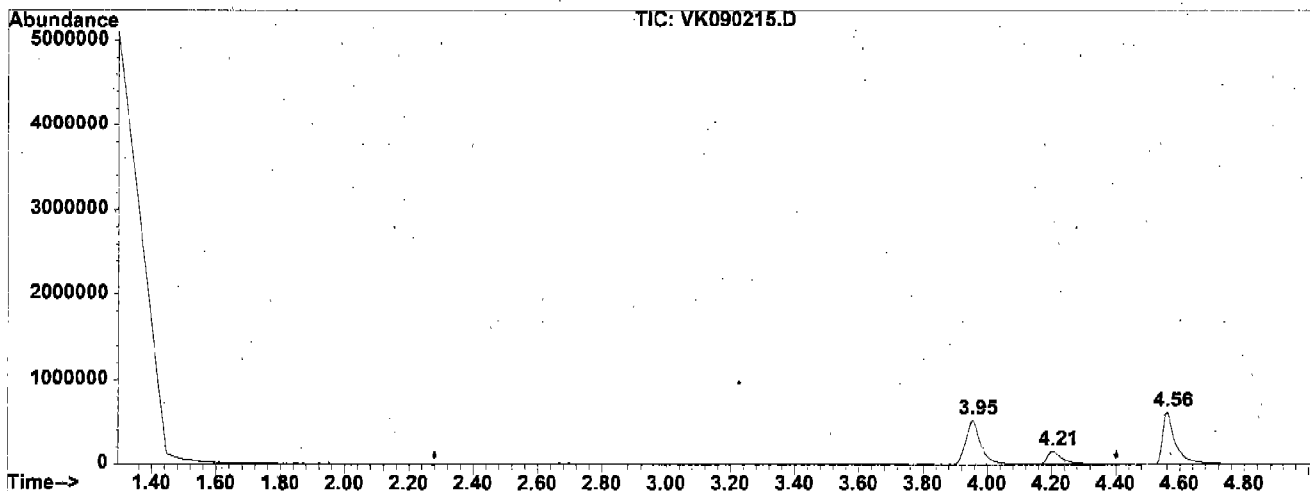
Sum of corrected areas: 11634109

VK090215.D SAK0902W.M Thu Sep 02 17:59:19 2004 LABMANAGER



LSC Report - Integrated Chromatogram

File : K:\1\DATA\MSVCAK\VK090204\VK090215.D  
Operator : KP  
Acquired : 2 Sep 2004 10:06 am using AcqMethod VP  
Instrument : MSVOA J/K  
Sample Name: S4436-03  
Misc Info : 25mL  
Vial Number: 25  
Quant File : SAK0902W.RES (RTE Integrator)



Library Search Compound Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090215.D  
 Acq On : 2 Sep 2004 10:06 am  
 Sample : S4436-03  
 Misc : 25mL  
 MS Integration Params: RTEINT.P

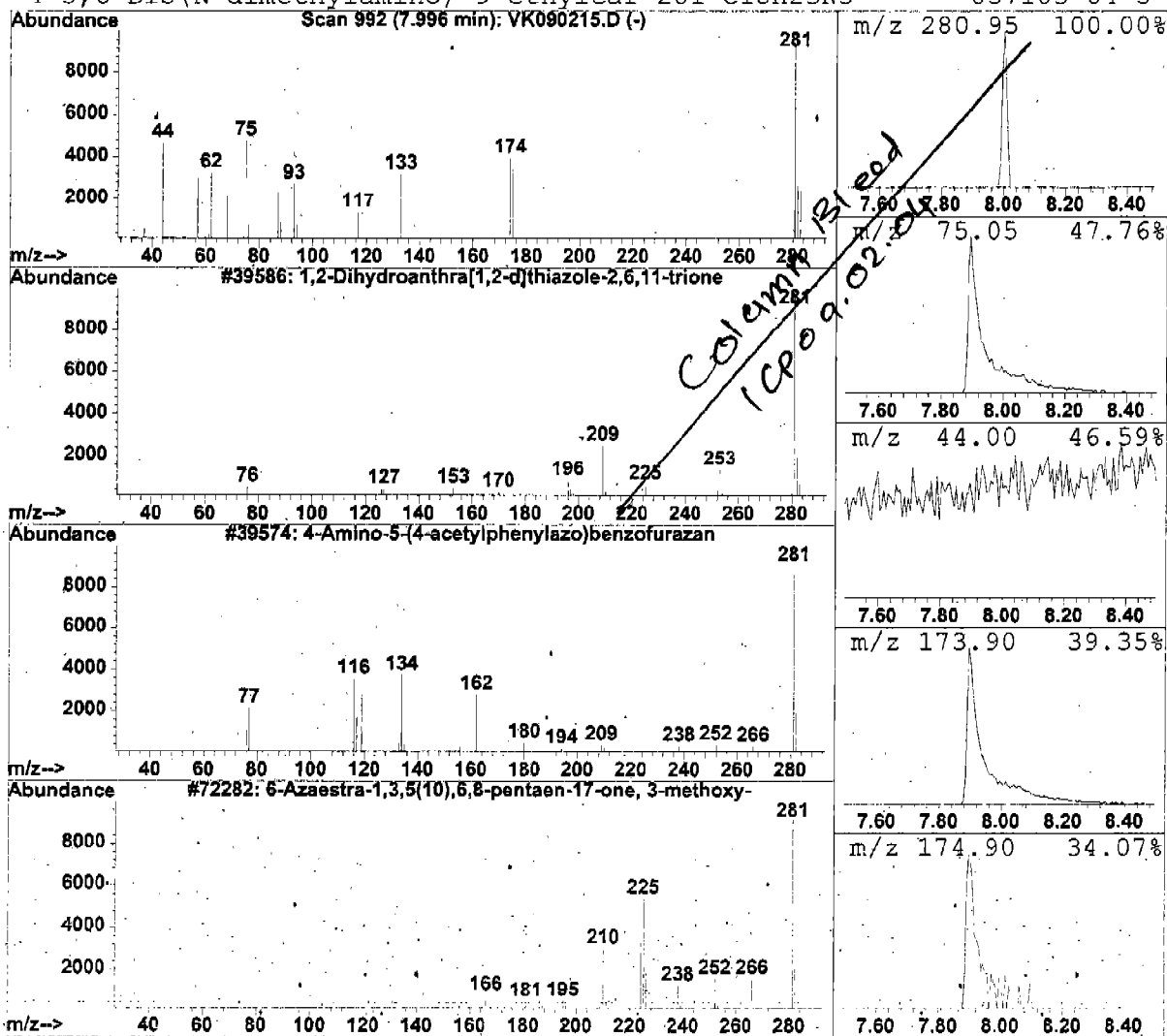
Vial: 25  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 1 1,2-Dihydroanthra[1,2-d]thiazole Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.00	1.27 ug/l	248578	1,4-Dichlorobenzene-d4	8.57

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	1,2-Dihydroanthra[1,2-d]thiazole-2,	281	C15H7NO3S	000000-00-0	9
2		4-Amino-5-(4-acetylphenylazo)benzof	281	C14H11N5O2	000000-00-0	9
3		6-Azaestra-1,3,5(10),6,8-pentaen-17	281	C18H19NO2	005144-20-7	5
4		3,6-Bis(N-dimethylamino)-9-ethylcar	281	C18H23N3	057103-04-5	5



Tentatively Identified Compound (LSC) summary

Operator ID: KP Date Acquired: 2 Sep 2004 10:06 am  
Data File: K:\1\DATA\MSVOAK\VK090204\VK090215.D  
Name: S4436-03  
Misc: 25mL  
Method: K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title: SW846 8260  
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
1,2-Dihydroanthra[1,	8.00	1.3	ug/l	248578	ISTD04	8.57	1956020	10.0
VK090215.D SAK0902W.M								
			Thu Sep 02 17:59:20 2004				LABMANAGER	

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/28/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2256</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-04</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090216.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
74-87-3	Chloromethane	0.16	U	1.0	0.16	ug/L
75-01-4	Vinyl chloride	0.11	U	1.0	0.11	ug/L
74-83-9	Bromomethane	0.12	U	1.0	0.12	ug/L
75-00-3	Chloroethane	0.18	U	1.0	0.18	ug/L
75-35-4	1,1-Dichloroethene	0.20	U	1.0	0.20	ug/L
67-64-1	Acetone	1.2	U	5.0	1.2	ug/L
75-15-0	Carbon disulfide	0.21	U	1.0	0.21	ug/L
75-09-2	Methylene Chloride	0.36	U	1.0	0.36	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	1.0	0.25	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.92	U	5.0	0.92	ug/L
56-23-5	Carbon Tetrachloride	0.17	U	1.0	0.17	ug/L
156-59-2	cis-1,2-Dichloroethene	0.27	U	1.0	0.27	ug/L
67-66-3	Chloroform	0.23	U	1.0	0.23	ug/L
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22	ug/L
71-43-2	Benzene	0.20	U	1.0	0.20	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	0.19	U	1.0	0.19	ug/L
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17	ug/L
108-10-1	4-Methyl-2-Pentanone	0.77	U	5.0	0.77	ug/L
108-88-3	Toluene	0.19	U	1.0	0.19	ug/L
10061-02-6	t-1,3-Dichloropropene	0.15	U	1.0	0.15	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L
591-78-6	2-Hexanone	0.58	U	5.0	0.58	ug/L
124-48-1	Dibromochloromethane	0.21	U	1.0	0.21	ug/L
127-18-4	Tetrachloroethene	0.20	U	1.0	0.20	ug/L
108-90-7	Chlorobenzene	0.16	U	1.0	0.16	ug/L
100-41-4	Ethyl Benzene	0.18	U	1.0	0.18	ug/L
136777-61-2	m&p-Xylenes	0.36	U	1.0	0.36	ug/L
95-47-6	o-Xylene	0.17	U	1.0	0.17	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/28/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2256</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-04</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090216.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
100-42-5	Styrene	0.17	U	1.0	0.17	ug/L
75-25-2	Bromoform	0.37	U	1.0	0.37	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13	ug/L

**SURROGATES**

17060-07-0	1,2-Dichloroethane-d4	9.99	100 %	72 - 119	SPK: 10
1868-53-7	Dibromofluoromethane	10.74	107 %	85 - 115	SPK: 10
2037-26-5	Toluene-d8	9.55	96 %	81 - 120	SPK: 10
460-00-4	4-Bromofluorobenzene	9.95	100 %	76 - 119	SPK: 10

**INTERNAL STANDARDS**

363-72-4	Pentafluorobenzene	333893	3.96		
540-36-3	1,4-Difluorobenzene	717662	4.56		
3114-55-4	Chlorobenzene-d5	645259	7.11		
3855-82-1	1,4-Dichlorobenzene-d4	289697	8.57		

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

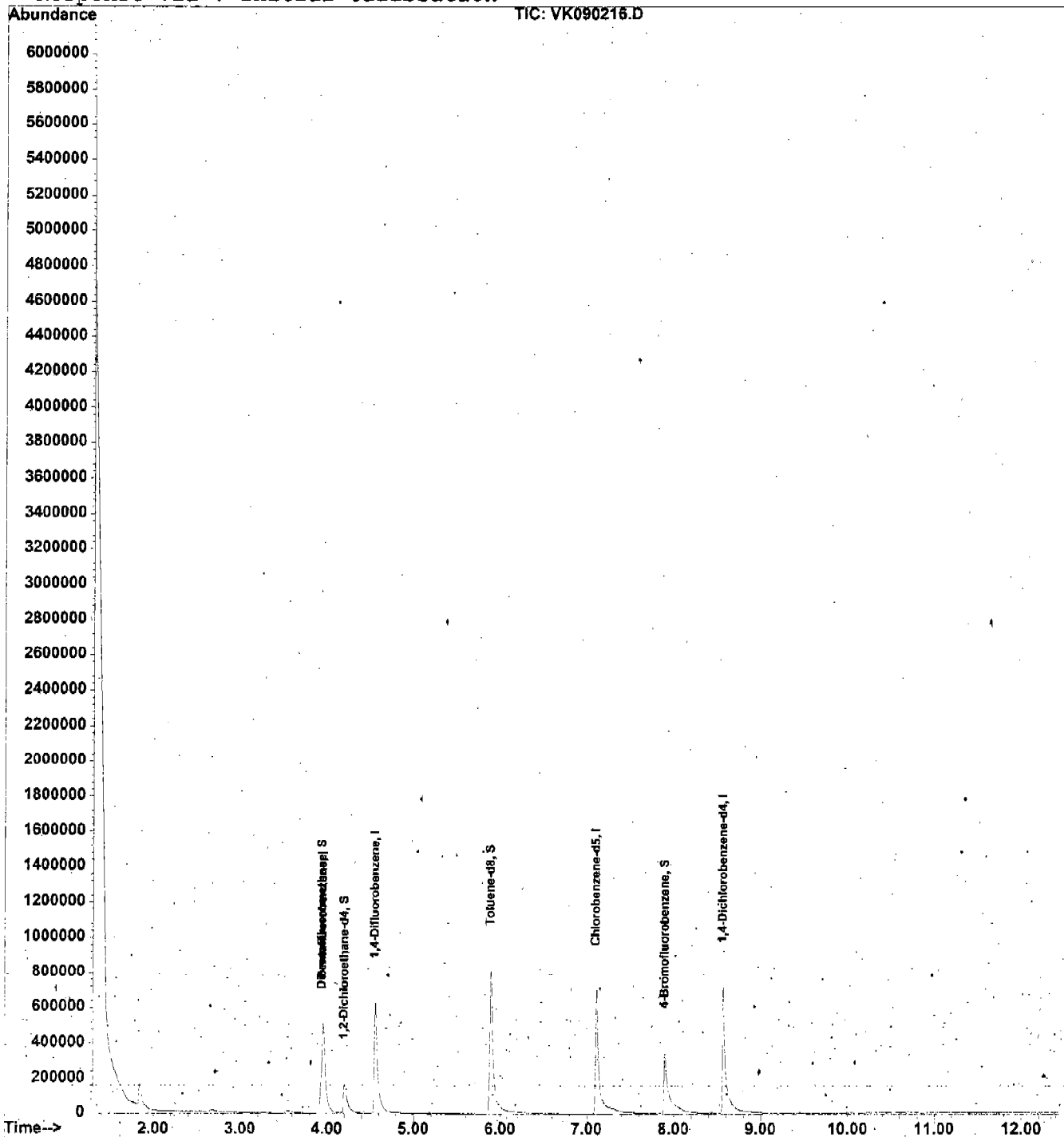
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090216.D  
Acq On : 2 Sep 2004 10:44 am  
Sample : S4436-04  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep. 2 18:00 2004

Vial: 26  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090216.D  
 Acq On : 2 Sep 2004 10:44 am  
 Sample : S4436-04  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 18:00 2004

Vial: 26  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth: VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.96	168	333893	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.56	114	717662	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.11	117	645259	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.57	152	289697	10.00	ug/l	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d	4.20	65	167670	9.99	ug/l	0.00
Spiked Amount	10.000		Recovery	=	99.90%	
34) Dibromofluoromethane	3.94	113	209320	10.74	ug/l	0.00
Spiked Amount	10.000		Recovery	=	107.40%	
45) Toluene-d8	5.89	98	812564	9.55	ug/l	-0.02
Spiked Amount	10.000		Recovery	=	95.50%	
56) 4-Bromofluorobenzene	7.90	95	345622	9.95	ug/l	-0.04
Spiked Amount	10.000		Recovery	=	99.50%	

Target Compounds Qvalue

Analyst Signature: lp Analyst Name: \_\_\_\_\_ Date: 09.02.04

-----REASONS FOR MANUAL INTEGRATIONS-----

Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

LSC Area Percent Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090216.D  
 Acq On : 2 Sep 2004 10:44 am  
 Sample : S4436-04  
 Misc : 25mL  
 MS Integration Params: RTEINT.P

Vial: 26  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.02  
 Stop Thrs : 0  
 Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.842	56	62	87	rVB	153171	470436	20.99%	3.954%
2	3.953	370	381	410	rBV3	507538	1696835	75.69%	14.262%
3	4.204	413	419	447	rVB2	161426	522947	23.33%	4.395%
4	4.561	463	473	502	rBV	624575	1678702	74.89%	14.110%
5	5.891	662	674	705	rBV	811429	2241700	100.00%	18.842%
6	7.108	851	858	909	rBV	699187	2064012	92.07%	17.348%
7	7.902	972	978	1020	rBV	339453	1331549	59.40%	11.192%
8	8.570	1074	1079	1110	rBV	712774	1891266	84.37%	15.896%

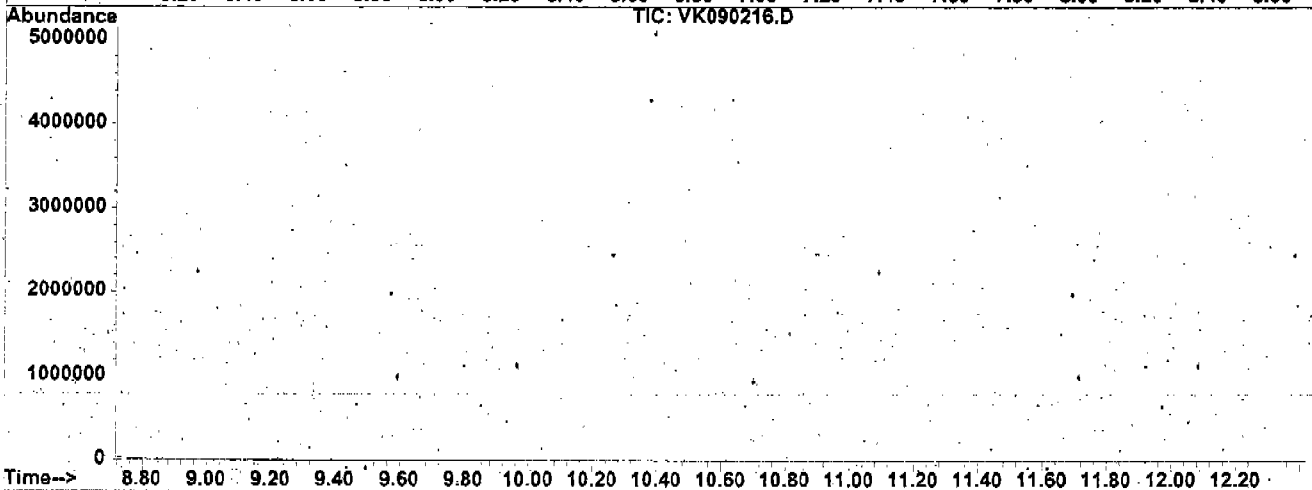
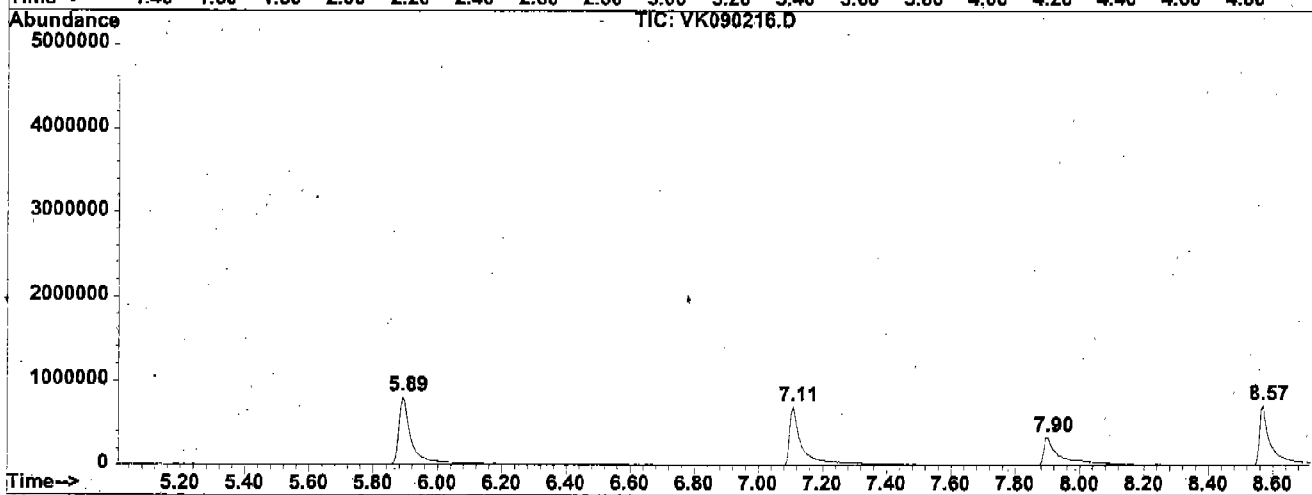
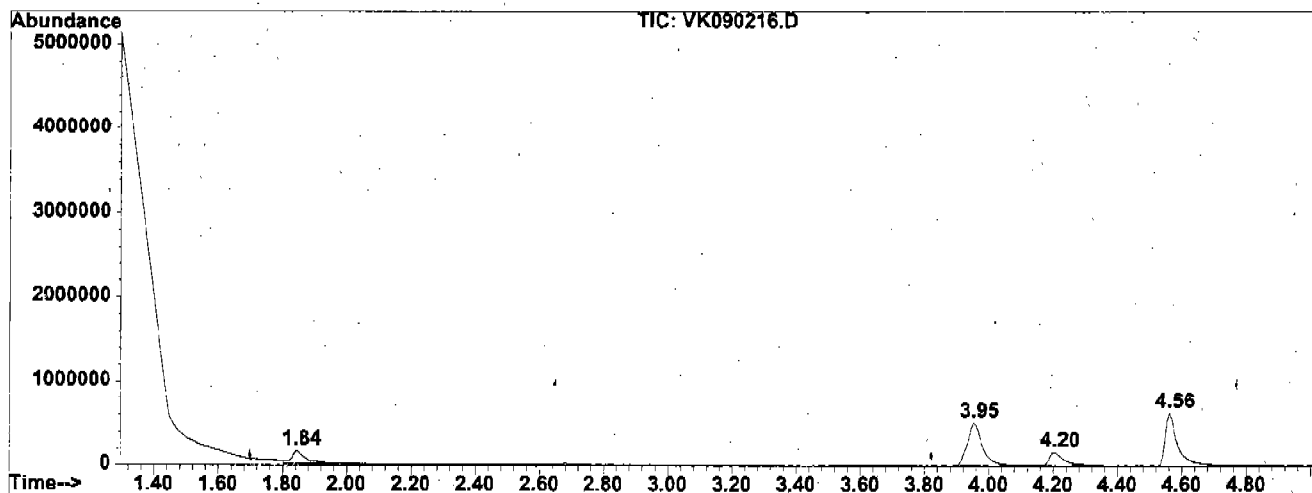
Sum of corrected areas: 11897447

VK090216.D SAK0902W.M Thu Sep 02 18:01:14 2004 LABMANAGER



LSC Report - Integrated Chromatogram

File : K:\1\DATA\MSVOAK\VK090204\VK090216.D  
Operator : KP  
Acquired : 2 Sep 2004 10:44 am using AcqMethod VP  
Instrument : MSVOA J/K  
Sample Name: S4436-04  
Misc Info : 25mL  
Vial Number: 26  
Quant File :SAK0902W.RES (RTE Integrator)



Library Search Compound Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090216.D  
 Acq On : 2 Sep 2004 10:44 am  
 Sample : S4436-04  
 Misc : 25mL  
 MS Integration Params: RTEINT.P

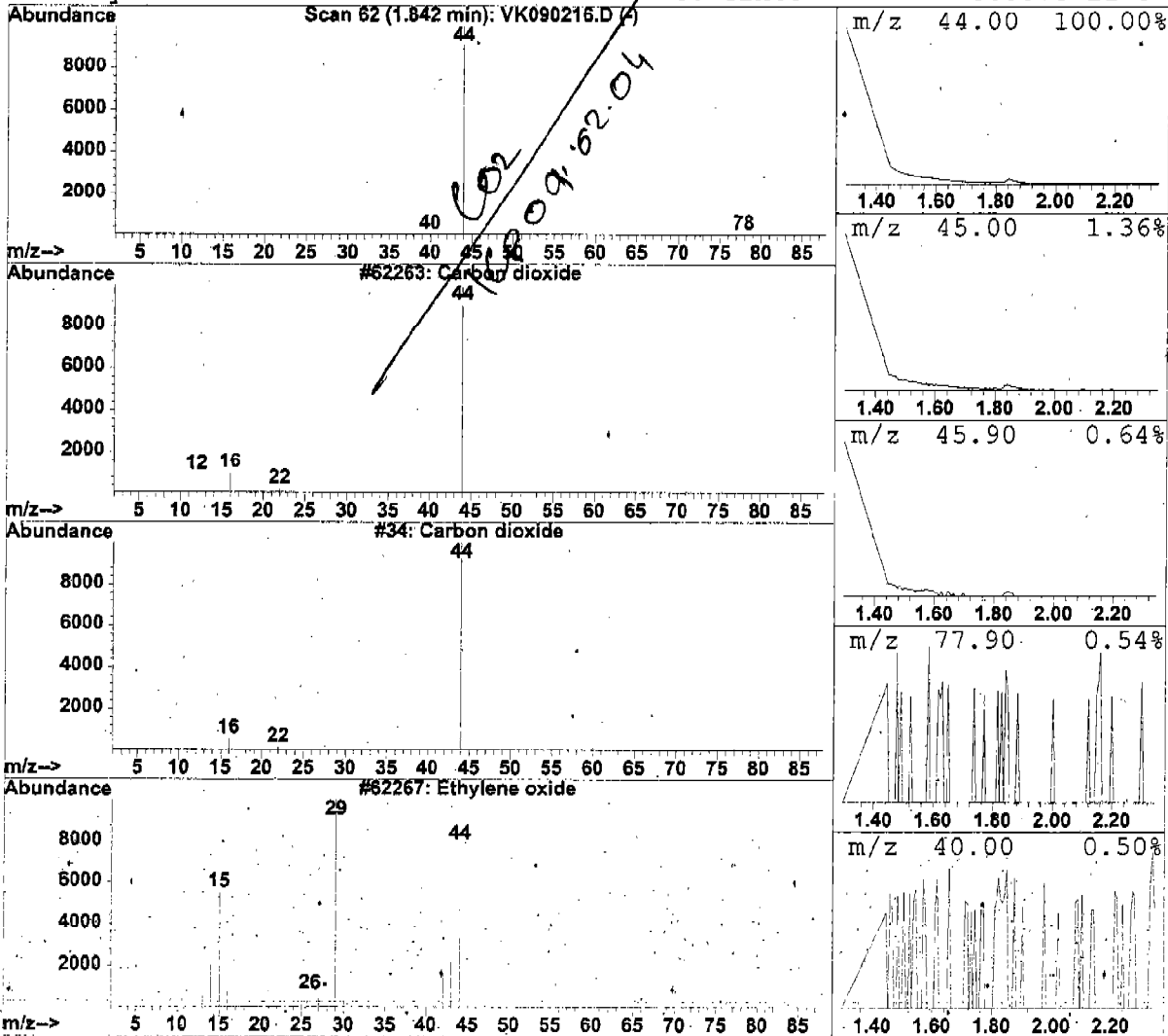
Vial: 26  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Library : C:\DATABASE\NBS75K.L

\*\*\*\*\*  
 Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.84	2.77 ug/l	470436	Pentafluorobenzene	3.96

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Carbon dioxide	44	CO2	000124-38-9	4
2			Carbon dioxide	44	CO2	000124-38-9	4
3			Ethylene oxide	44	C2H4O	000075-21-8	3
4			Ethylene oxide	44	C2H4O	000075-21-8	3



Tentatively Identified Compound (LSC) summary

Operator ID: KP Date Acquired: 2 Sep 2004 10:44 am  
Data File: K:\1\DATA\MSVOAK\VK090204\VK090216.D  
Name: S4436-04  
Misc: 25mL  
Method: K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title: SW846 8260  
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.84	2.8	ug/l	470436	ISTD01	3.96	1696840	10.0
VK090216.D SAK0902W.M			Thu Sep 02 18:01:16 2004				LABMANAGER	

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/28/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2245</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-05</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090217.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
74-87-3	Chloromethane	0.16	U	1.0	0.16	ug/L
75-01-4	Vinyl chloride	0.11	U	1.0	0.11	ug/L
74-83-9	Bromomethane	0.12	U	1.0	0.12	ug/L
75-00-3	Chloroethane	0.18	U	1.0	0.18	ug/L
75-35-4	1,1-Dichloroethene	0.20	U	1.0	0.20	ug/L
67-64-1	Acetone	1.2	U	5.0	1.2	ug/L
75-15-0	Carbon disulfide	0.21	U	1.0	0.21	ug/L
75-09-2	Methylene Chloride	0.36	U	1.0	0.36	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	1.0	0.25	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.92	U	5.0	0.92	ug/L
56-23-5	Carbon Tetrachloride	0.17	U	1.0	0.17	ug/L
156-59-2	cis-1,2-Dichloroethene	0.27	U	1.0	0.27	ug/L
67-66-3	Chloroform	0.23	U	1.0	0.23	ug/L
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22	ug/L
71-43-2	Benzene	0.20	U	1.0	0.20	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	0.19	U	1.0	0.19	ug/L
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17	ug/L
108-10-1	4-Methyl-2-Pentanone	0.77	U	5.0	0.77	ug/L
108-88-3	Toluene	0.19	U	1.0	0.19	ug/L
10061-02-6	t-1,3-Dichloropropene	0.15	U	1.0	0.15	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L
591-78-6	2-Hexanone	0.58	U	5.0	0.58	ug/L
124-48-1	Dibromochloromethane	0.21	U	1.0	0.21	ug/L
127-18-4	Tetrachloroethene	0.20	U	1.0	0.20	ug/L
108-90-7	Chlorobenzene	0.16	U	1.0	0.16	ug/L
100-41-4	Ethyl Benzene	0.18	U	1.0	0.18	ug/L
136777-61-2	m&p-Xylenes	0.36	U	1.0	0.36	ug/L
95-47-6	o-Xylene	0.17	U	1.0	0.17	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/28/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2245</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-05</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090217.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
100-42-5	Styrene	0.17	U	1.0	0.17	ug/L
75-25-2	Bromoform	0.37	U	1.0	0.37	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	10.89	109 %	72 - 119		SPK: 10
1868-53-7	Dibromofluoromethane	10.21	102 %	85 - 115		SPK: 10
2037-26-5	Toluene-d8	9.4	94 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	10.13	101 %	76 - 119		SPK: 10
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	342397	3.96			
540-36-3	1,4-Difluorobenzene	755426	4.56			
3114-55-4	Chlorobenzene-d5	667365	7.11			
3855-82-1	1,4-Dichlorobenzene-d4	299173	8.56			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

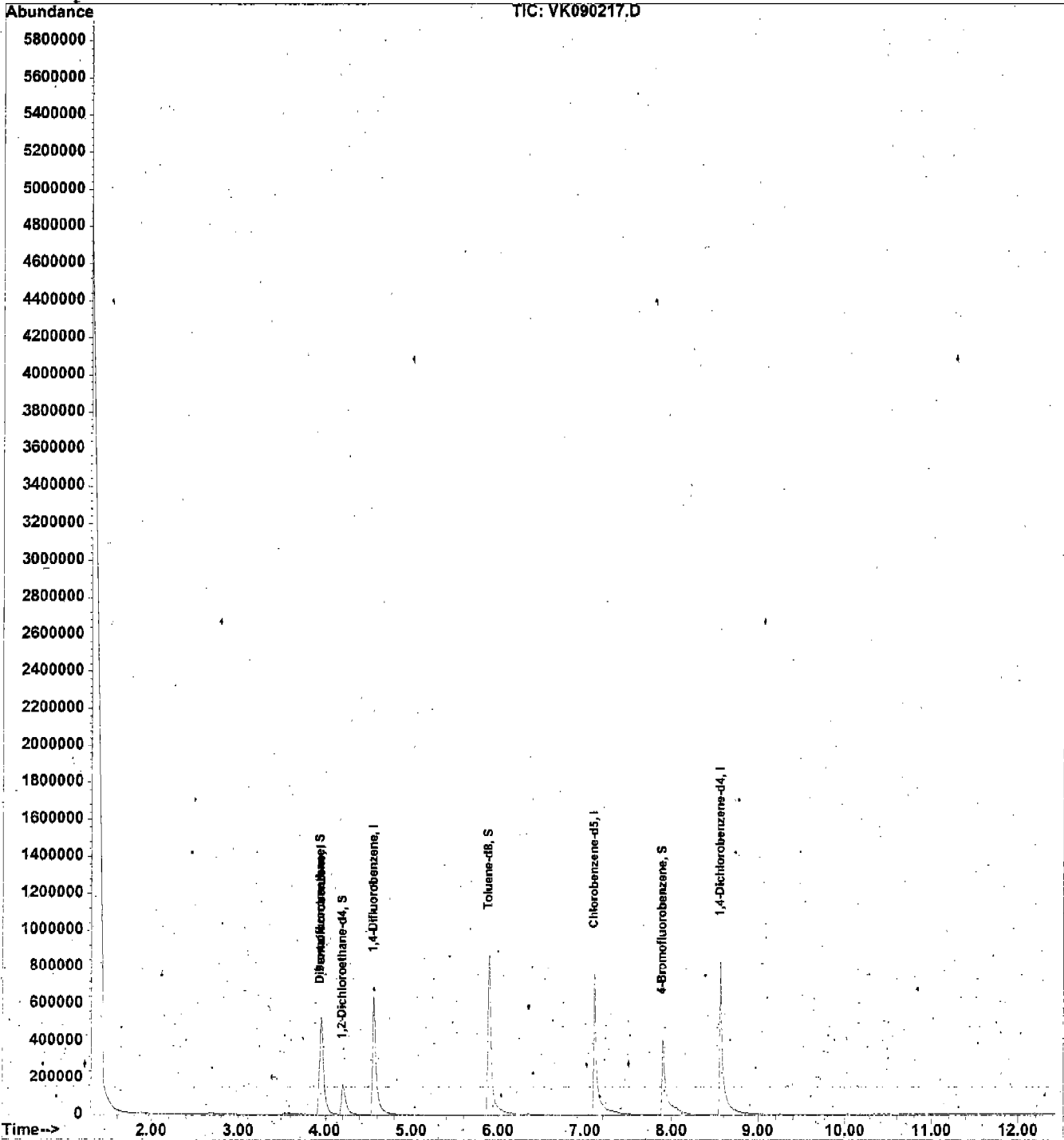
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090217.D  
Acq On : 2 Sep 2004 11:23 am  
Sample : S4436-05  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 2 18:02 2004

Vial: 27  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090217.D  
 Acq On : 2 Sep 2004 11:23 am  
 Sample : S4436-05  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 18:02 2004

Vial: 27  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.96	168	342397	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.56	114	755426	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.11	117	667365	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.56	152	299173	10.00	ug/l	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d	4.20	65	187453	10.89	ug/l	0.00
Spiked Amount	10.000					Recovery = 108.90%
34) Dibromofluoromethane	3.94	113	209374	10.21	ug/l	0.00
Spiked Amount	10.000					Recovery = 102.10%
45) Toluene-d8	5.89	98	842118	9.40	ug/l	-0.02
Spiked Amount	10.000					Recovery = 94.00%
56) 4-Bromofluorobenzene	7.90	95	370599m	10.13	ug/l	-0.04
Spiked Amount	10.000					Recovery = 101.30%

Target Compounds

Qvalue

Analyst Signature: IGp Analyst Name: \_\_\_\_\_ Date: 09.02.04

REASONS FOR MANUAL INTEGRATIONS

Poor resolution of peaks exhibited on chromatogram. Compound #: 56

Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

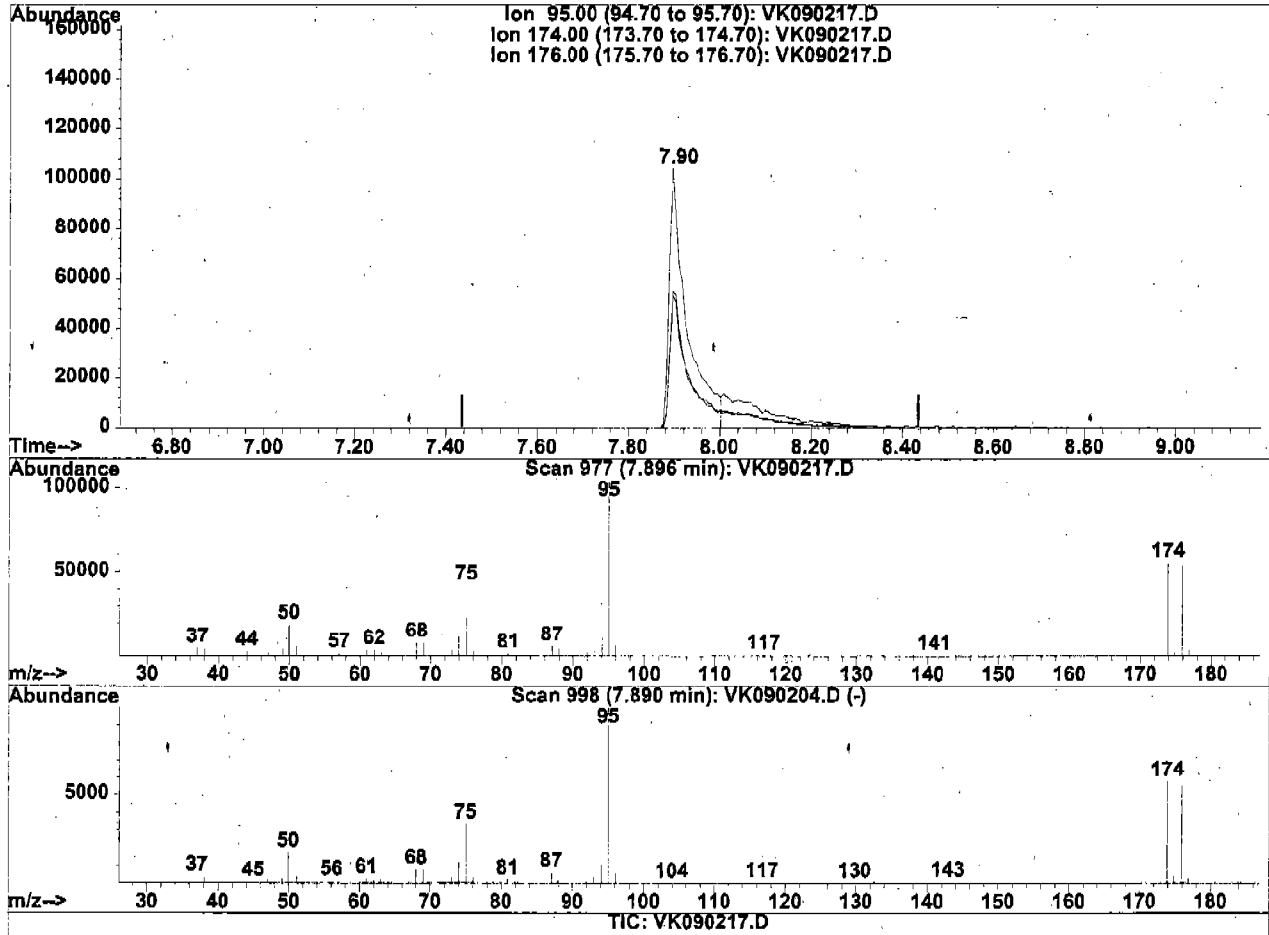
(#) = qualifier out of range (m) ≠ manual integration

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090217.D  
 Acq On : 2 Sep 2004 11:23 am  
 Sample : S4436-05  
 Misc : 25mL  
 Quant Time: Sep 2 18:02 2004

Vial: 27  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(56) 4-Bromofluorobenzene (S)

7.90min 7.78ug/l

response 284549

Ion	Exp%	Act%
95.00	100	100
174.00	56.30	54.20
176.00	54.20	53.54
0.00	0.00	0.00

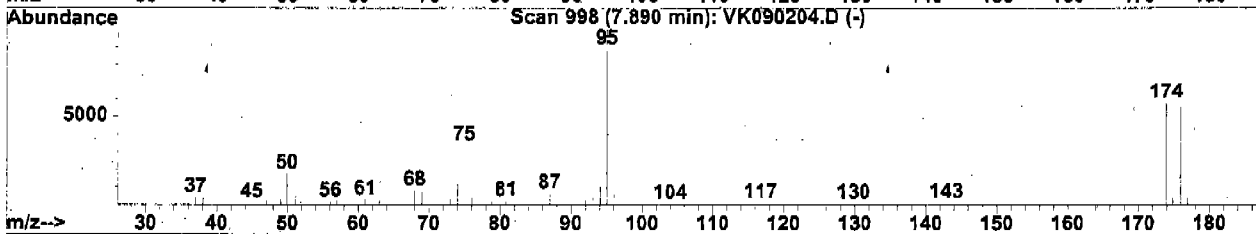
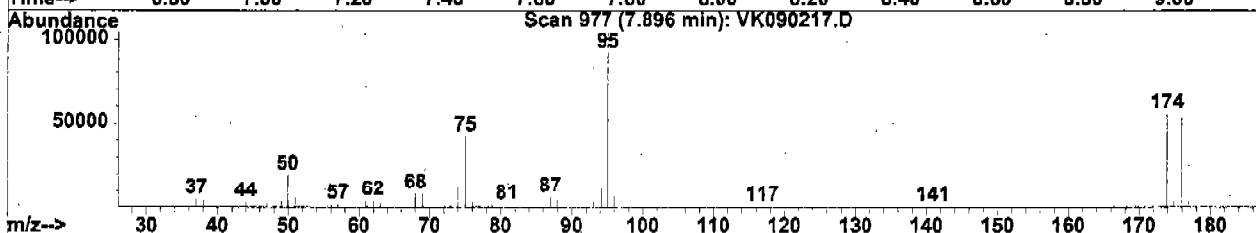
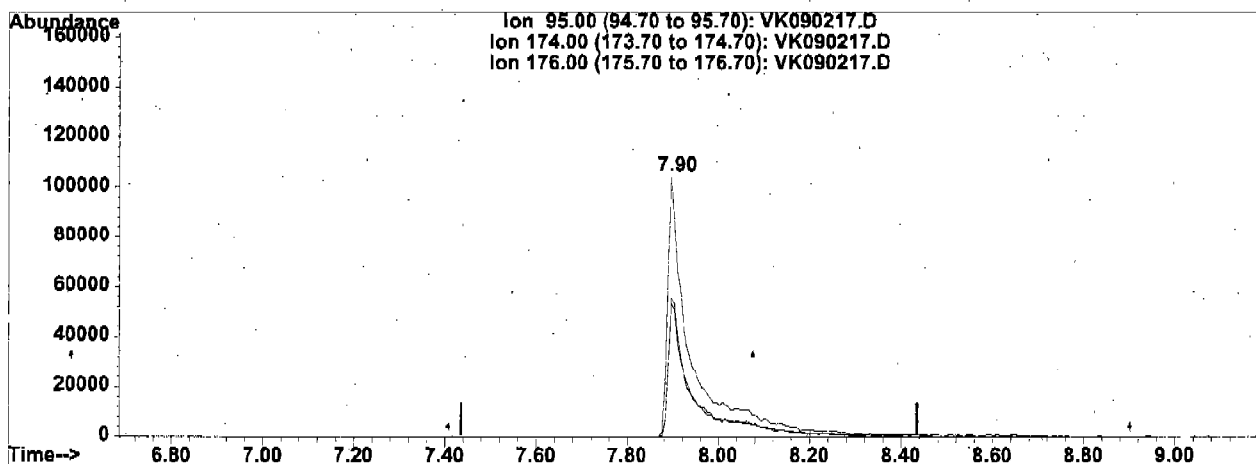


Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090217.D  
 Acq On : 2 Sep 2004 11:23 am  
 Sample : S4436-05  
 Misc : 25mL  
 Quant Time: Sep 2 18:02 2004

Vial: 27  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



TIC: VK090217.D

(56) 4-Bromofluorobenzene (S)

7.90min 10.13ug/l m

response 370599

Ion	Exp%	Act%
95.00	100	100
174.00	56.30	41.61#
176.00	54.20	41.11#
0.00	0.00	0.00

LSC Area Percent Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090217.D  
 Acq On : 2 Sep 2004 11:23 am  
 Sample : S4436-05  
 Misc : 25mL  
 MS Integration Params: RTEINT.P

Vial: 27  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.02  
 Stop Thrs : 0

Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

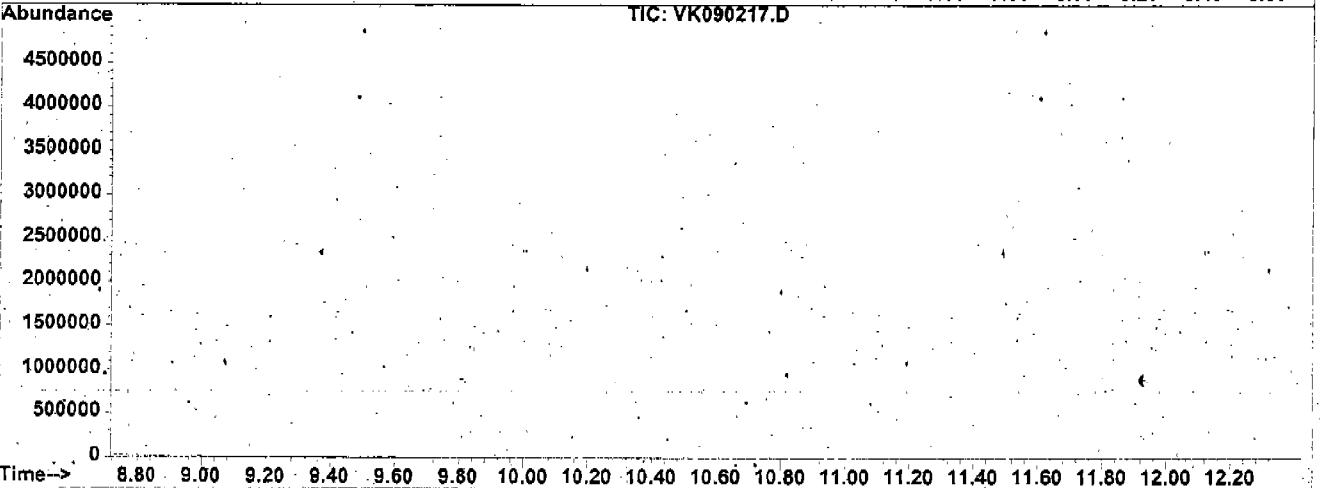
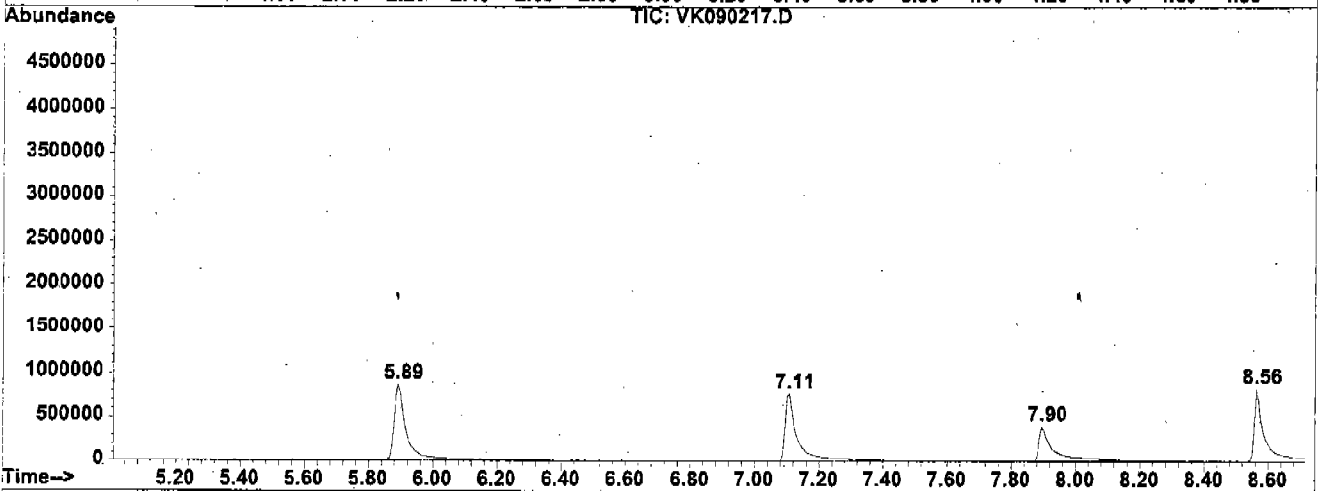
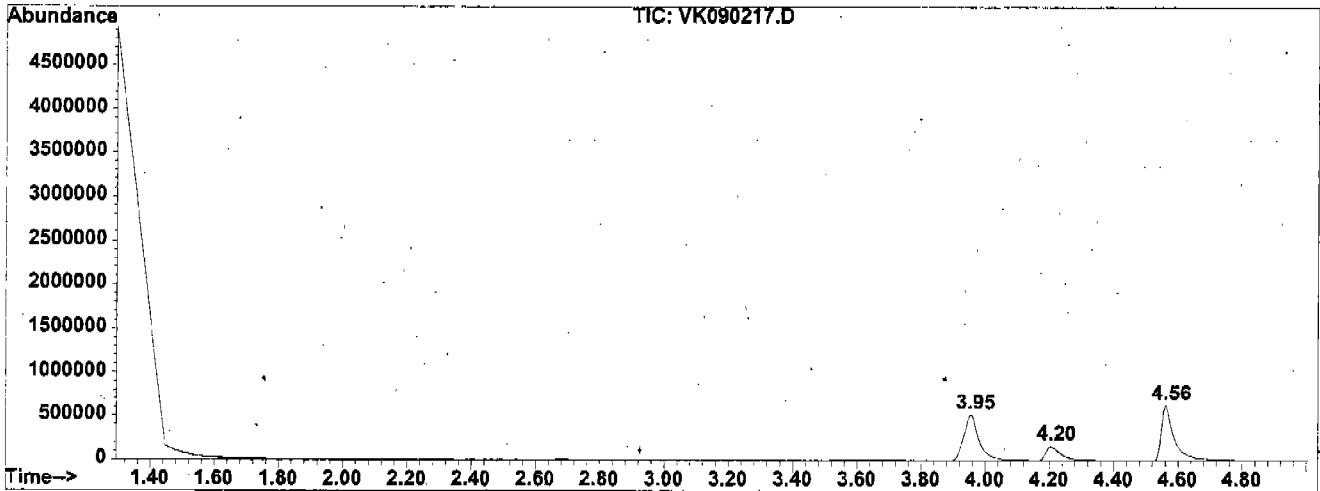
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	3.954	370	381	404	rBV3	524896	1736092	72.96%	14.598%
2	4.205	411	419	462	rVB	163661	583470	24.52%	4.906%
3	4.562	465	473	503	rBV	632750	1769773	74.38%	14.881%
4	5.892	665	674	711	rBV	865886	2379457	100.00%	20.007%
5	7.109	850	858	887	rBV	765740	2030064	85.32%	17.069%
6	7.896	970	977	1026	rBV	403291	1429277	60.07%	12.018%
7	8.564	1071	1078	1112	rBV	826330	1964807	82.57%	16.521%

Sum of corrected areas: 11892942

VK090217.D SAK0902W.M Thu Sep 02 18:03:48 2004 LABMANAGER

LSC Report - Integrated Chromatogram

File : K:\1\DATA\MSVOAK\VK090204\VK090217.D  
Operator : KP  
Acquired : 2 Sep 2004 11:23 am using AcqMethod VP  
Instrument : MSVOA J/K  
Sample Name: S4436-05  
Misc Info : 25mL  
Vial Number: 27  
Quant File : SAK0902W.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: KP Date Acquired: 2 Sep 2004 11:23 am  
Data File: K:\1\DATA\MSVOAK\VK090204\VK090217.D  
Name: S4436-05  
Misc: 25mL  
Method: K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title: SW846 8260  
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
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VK090217.D SAK0902W.M			Thu Sep 02 18:03:49 2004				LABMANAGER	
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**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/28/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2257</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-06</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090224.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
74-87-3	Chloromethane	0.16	U	1.0	0.16	ug/L
75-01-4	Vinyl chloride	0.11	U	1.0	0.11	ug/L
74-83-9	Bromomethane	0.12	U	1.0	0.12	ug/L
75-00-3	Chloroethane	0.18	U	1.0	0.18	ug/L
75-35-4	1,1-Dichloroethene	0.20	U	1.0	0.20	ug/L
67-64-1	Acetone	1.2	U	5.0	1.2	ug/L
75-15-0	Carbon disulfide	0.21	U	1.0	0.21	ug/L
75-09-2	Methylene Chloride	0.36	U	1.0	0.36	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	1.0	0.25	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.92	U	5.0	0.92	ug/L
56-23-5	Carbon Tetrachloride	0.17	U	1.0	0.17	ug/L
156-59-2	cis-1,2-Dichloroethene	18		1.0	0.27	ug/L
67-66-3	Chloroform	0.23	U	1.0	0.23	ug/L
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22	ug/L
71-43-2	Benzene	0.20	U	1.0	0.20	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	20		1.0	0.19	ug/L
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17	ug/L
108-10-1	4-Methyl-2-Pentanone	0.77	U	5.0	0.77	ug/L
108-88-3	Toluene	0.19	U	1.0	0.19	ug/L
10061-02-6	t-1,3-Dichloropropene	0.15	U	1.0	0.15	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L
591-78-6	2-Hexanone	0.58	U	5.0	0.58	ug/L
124-48-1	Dibromochloromethane	0.21	U	1.0	0.21	ug/L
127-18-4	Tetrachloroethene	0.20	U	1.0	0.20	ug/L
108-90-7	Chlorobenzene	0.16	U	1.0	0.16	ug/L
100-41-4	Ethyl Benzene	0.18	U	1.0	0.18	ug/L
136777-61-2	m&tp-Xylenes	0.36	U	1.0	0.36	ug/L
95-47-6	o-Xylene	0.17	U	1.0	0.17	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/28/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/31/2004
Client Sample ID:	ARD2257	SDG No.:	S4436
Lab Sample ID:	S4436-06	Matrix:	WATER
Analytical Method:	8260	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VK090224.D	1		9/2/2004	VK090204

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
100-42-5	Styrene	0.17	U	1.0	0.17	ug/L
75-25-2	Bromoform	0.37	U	1.0	0.37	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13	ug/L

## SURROGATES

17060-07-0	1,2-Dichloroethane-d4	10.81	108 %	72 - 119	SPK: 10
1868-53-7	Dibromofluoromethane	10.61	106 %	85 - 115	SPK: 10
2037-26-5	Toluene-d8	9.4	94 %	81 - 120	SPK: 10
460-00-4	4-Bromofluorobenzene	10.01	100 %	76 - 119	SPK: 10

## INTERNAL STANDARDS

363-72-4	Pentafluorobenzene	345462	3.96
540-36-3	1,4-Difluorobenzene	767694	4.56
3114-55-4	Chlorobenzene-d5	624781	7.11
3855-82-1	1,4-Dichlorobenzene-d4	302560	8.57

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

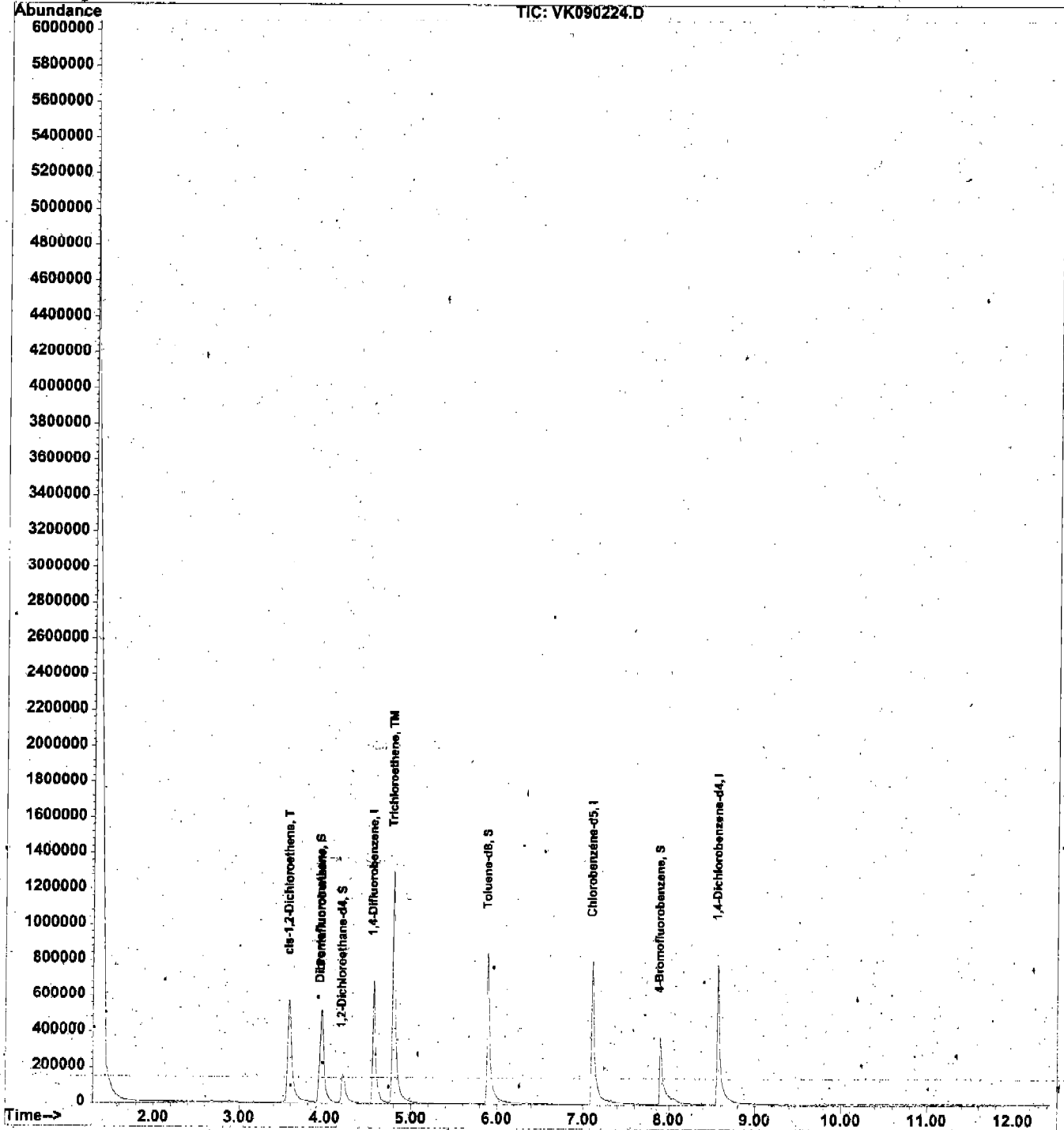
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090224.D  
Acq On : 2 Sep 2004 4:05 pm  
Sample : S4436-06  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 2 18:24 2004

Vial: 6  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



Data File : K:\1\DATA\MSVOAK\VK090204\VK090224.D  
 Acq On : 2 Sep 2004 4:05 pm  
 Sample : S4436-06  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 18:24 2004

Vial: 6  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.96	168	345462	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.56	114	767694	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.11	117	624781	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.57	152	302560	10.00	ug/l	0.00
<b>System Monitoring Compounds</b>						
32) 1,2-Dichloroethane-d	4.20	65	187736	10.81	ug/l	0.00
Spiked Amount	10.000			Recovery	=	108.10%
34) Dibromofluoromethane	3.94	113	221052	10.61	ug/l	0.00
Spiked Amount	10.000			Recovery	=	106.10%
45) Toluene-d8	5.89	98	856305	9.40	ug/l	-0.02
Spiked Amount	10.000			Recovery	=	94.00%
56) 4-Bromofluorobenzene	7.90	95	371955m	10.01	ug/l	-0.04
Spiked Amount	10.000			Recovery	=	100.10%
<b>Target Compounds</b>						
27) cis-1,2-Dichloroethe	3.58	96	441478	17.67	ug/l	87
39) Trichloroethene	4.79	130	624872	19.69	ug/l	98

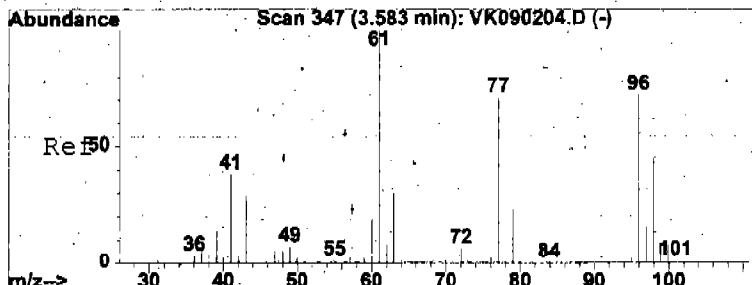
Analyst Signature: JOP Analyst Name: \_\_\_\_\_ Date: 09-02-04

REASONS FOR MANUAL INTEGRATIONS

- Poor resolution of peaks exhibited on chromatogram. Compound #: 56
- Peak integrated by software incorrectly. Compound #:
- OTHER: \_\_\_\_\_ Compound #:

(#) = qualifier out of range (m) = manual integration

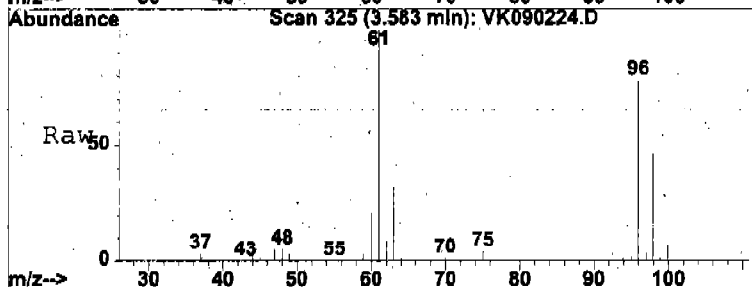




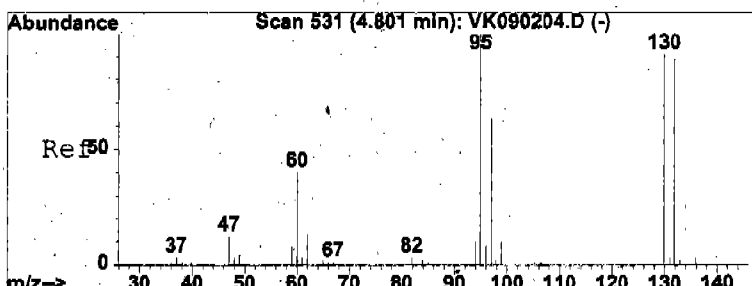
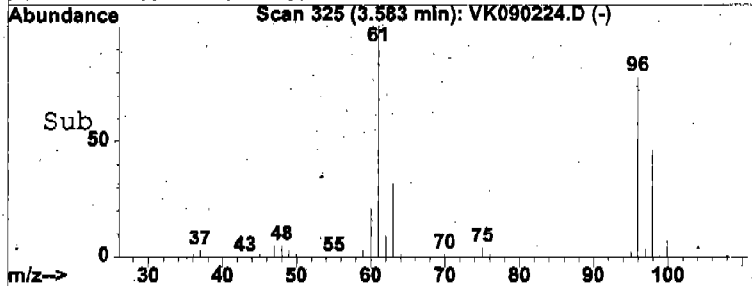
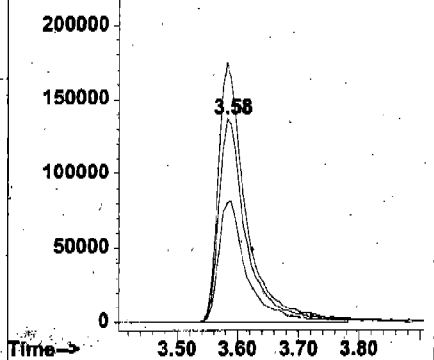
#27  
 cis-1,2-Dichloroethene  
 Concen: 17.67 ug/l  
 RT: 3.58 min Scan# 325  
 Delta R.T. -0.01 min  
 Lab File: VK090224.D  
 Acq: 2 Sep 2004 4:05 pm

Tgt Ion: 96 Resp: 441478

Ion	Ratio	Lower	Upper
96	100		
61	130.3	121.7	182.5
98	61.9	51.3	76.9



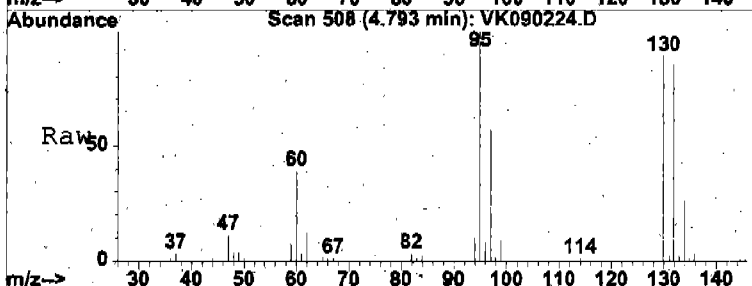
Abundance Ion 96.00 (95.70 to 96.70): VK09  
 Ion 61.00 (60.70 to 61.70): VK09  
 Ion 98.00 (97.70 to 98.70): VK09



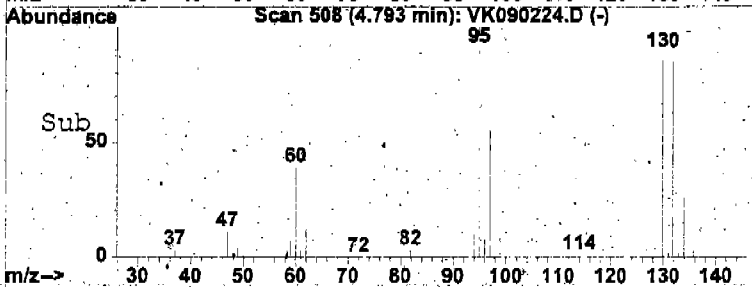
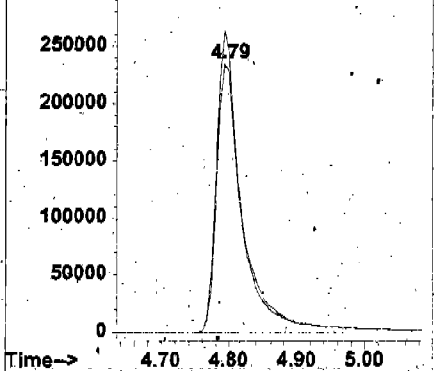
#39  
 Trichloroethene  
 Concen: 19.69 ug/l  
 RT: 4.79 min Scan# 508  
 Delta R.T. -0.02 min  
 Lab File: VK090224.D  
 Acq: 2 Sep 2004 4:05 pm

Tgt Ion: 130 Resp: 624872

Ion	Ratio	Lower	Upper
130	100		
95	112.5	88.2	132.2



Abundance Ion 129.90 (129.60 to 130.60): VK  
 Ion 94.90 (94.60 to 95.60): VK09

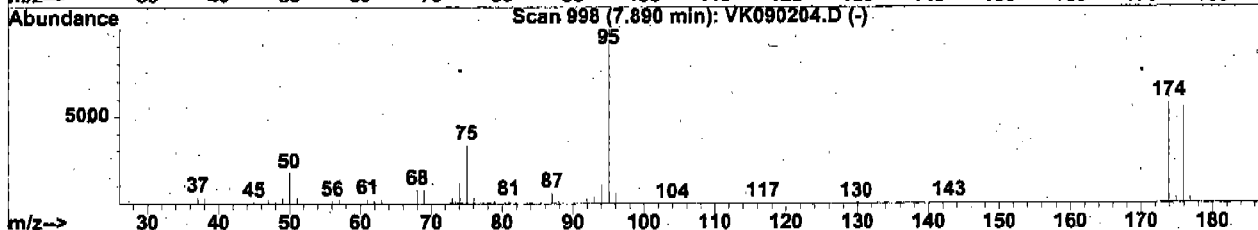
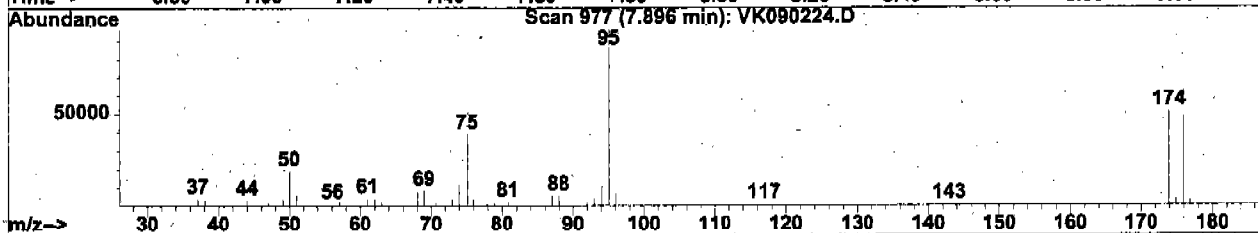
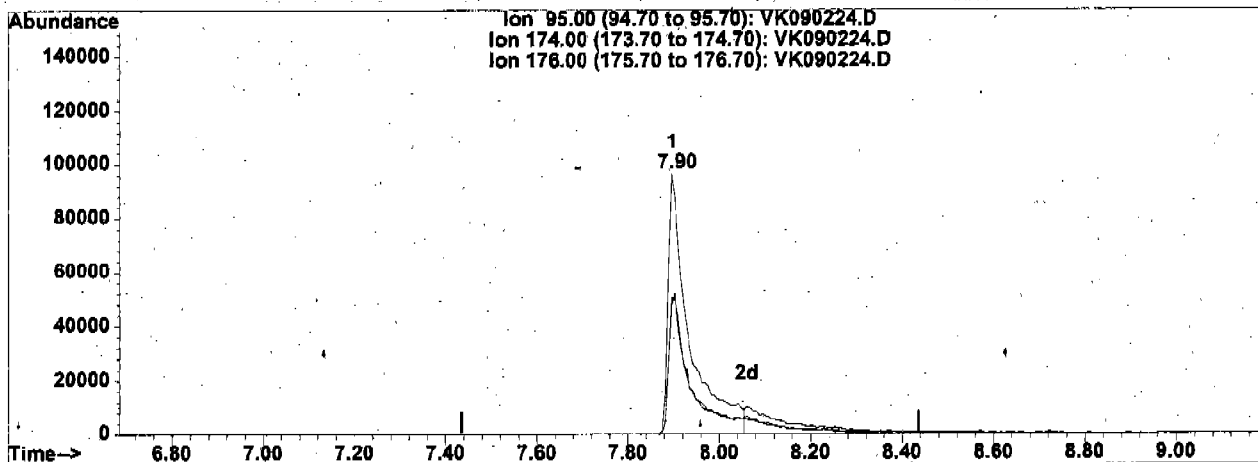


Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090224.D  
 Acq On : 2 Sep 2004 4:05 pm  
 Sample : S4436-06  
 Misc : 25mL  
 Quant Time: Sep 2 18:24 2004

Vial: 6  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



TIC: VK090224.D

(56) 4-Bromofluorobenzene (S)

7.90min 8.41ug/l

response 312390

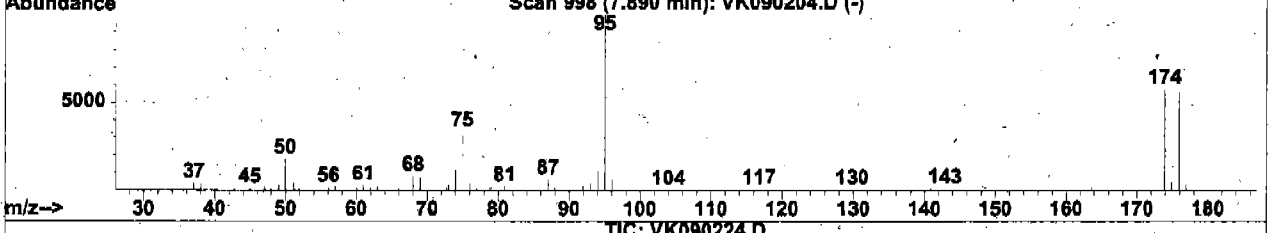
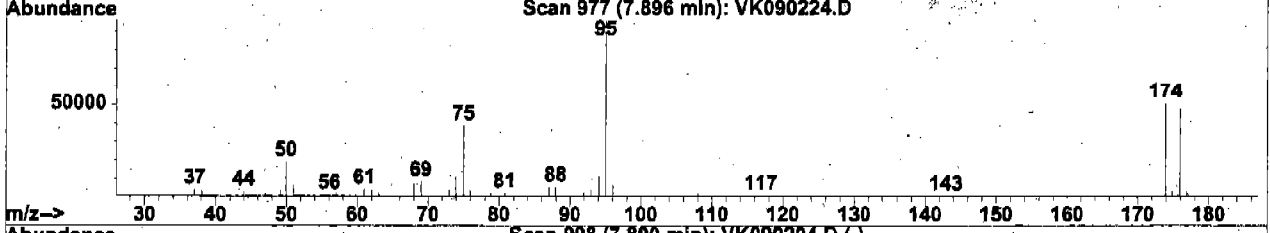
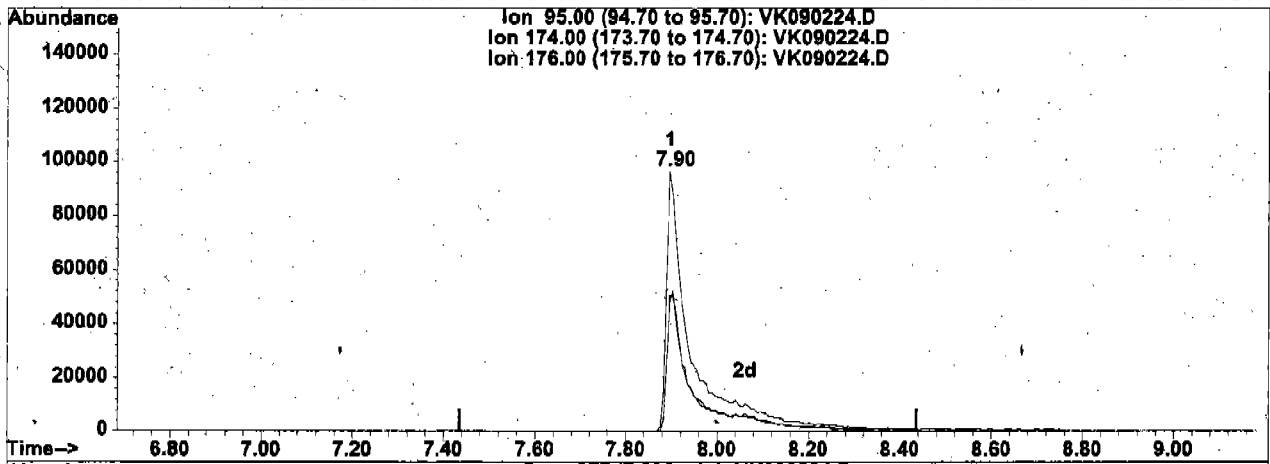
Ion	Exp%	Act%
95.00	100	100
174.00	56.30	52.45
176.00	54.20	50.42
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090224.D  
 Acq On : 2 Sep 2004 4:05 pm  
 Sample : S4436-06  
 Misc : 25mL  
 Quant Time: Sep 2 18:24 2004

Vial: 6  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(56) 4-Bromofluorobenzene (S)

7.90min 10.01ug/l m

response 371955

Ion	Exp%	Act%
95.00	100	100
174.00	56.30	44.05#
176.00	54.20	42.35#
0.00	0.00	0.00

LSC Area Percent Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090224.D  
 Acq On : 2 Sep 2004 4:05 pm  
 Sample : S4436-06  
 Misc : 25mL  
 MS Integration Params: RTEINT.P

Vial: 6  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs: 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

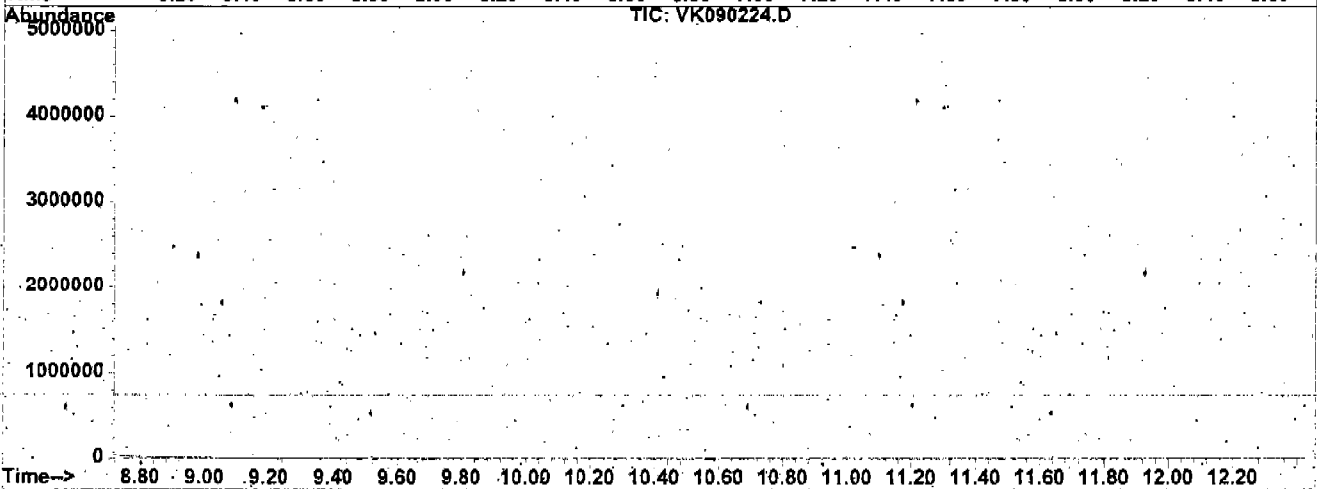
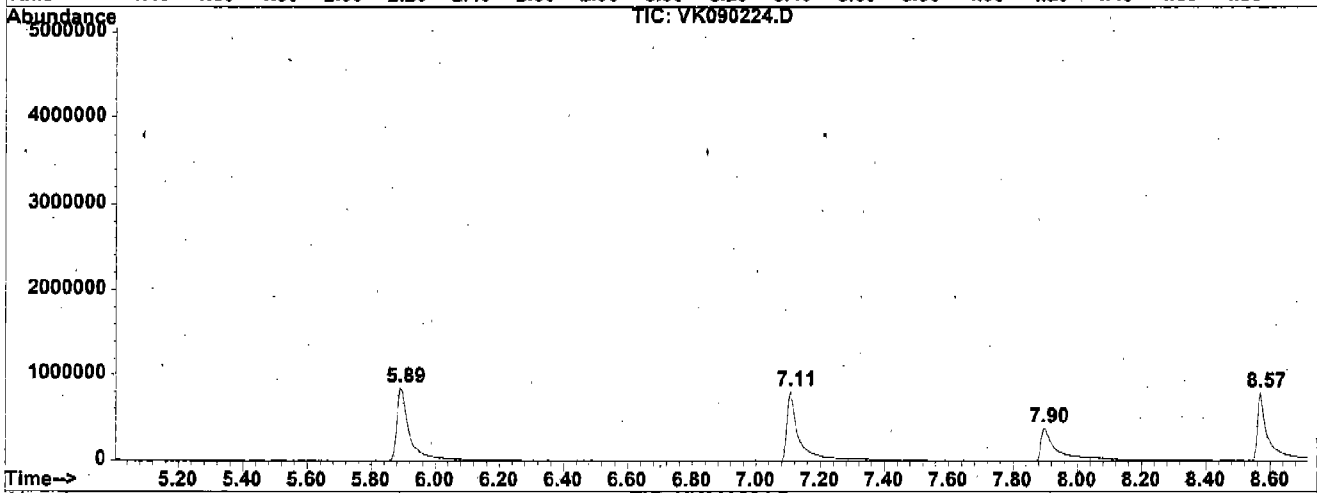
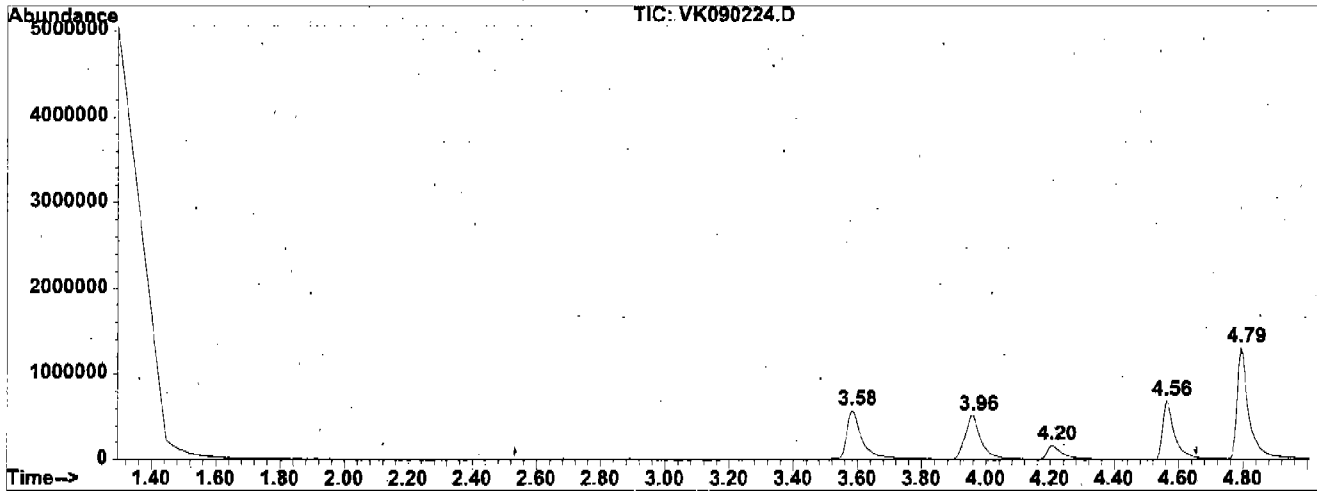
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	3.583	310	325	354	rBV	573923	1931780	56.36%	11.315%
2	3.960	370	382	410	rVV3	512806	1771069	51.67%	10.373%
3	4.205	410	419	455	rVB	164465	595045	17.36%	3.485%
4	4.562	467	473	501	rBV	686251	1794842	52.37%	10.513%
5	4.793	501	508	550	rVV	1293583	3427409	100.00%	20.075%
6	5.892	668	674	713	rBV	842153	2378430	69.39%	13.931%
7	7.109	852	858	885	rBV	800476	1996145	58.24%	11.692%
8	7.896	971	977	999	rBV	375365	1183614	34.53%	6.933%
9	8.571	1073	1079	1124	rBV	783314	1994702	58.20%	11.683%

Sum of corrected areas: 17073036

VK090224.D SAK0902W.M Fri Sep 03 10:16:32 2004 LABMANAGER

LSC Report - Integrated Chromatogram

File : K:\1\DATA\MSVOAK\VK090204\VK090224.D  
Operator : KP  
Acquired : 2 Sep 2004 4:05 pm using AcqMethod VP  
Instrument : MSVOA J/K  
Sample Name: S4436-06  
Misc Info : 25mL  
Vial Number: 6  
Quant File : SAK0902W.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: KP      Date Acquired: 2 Sep 2004 4:05 pm  
Data File: K:\1\DATA\MSVOAK\VK090204\VK090224.D  
Name: S4436-06  
Misc: 25mL  
Method: K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title: SW846 8260  
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
VK090224.D SAK0902W.M						Fri Sep 03 10:16:33 2004		LABMANAGER

Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/28/2004
Project:	Seneca Ash Landfill Quarterly Monit	Date Received:	8/31/2004
Client Sample ID:	ARD2248	SDG No.:	S4436
Lab Sample ID:	S4436-08	Matrix:	WATER
Analytical Method:	8260	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VK090225.D	1		9/2/2004	VK090204

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
74-87-3	Chloromethane	0.16	U	1.0	0.16	ug/L
75-01-4	Vinyl chloride	0.11	U	1.0	0.11	ug/L
74-83-9	Bromomethane	0.12	U	1.0	0.12	ug/L
75-00-3	Chloroethane	0.18	U	1.0	0.18	ug/L
75-35-4	1,1-Dichloroethene	0.20	U	1.0	0.20	ug/L
67-64-1	Acetone	1.2	U	5.0	1.2	ug/L
75-15-0	Carbon disulfide	0.21	U	1.0	0.21	ug/L
75-09-2	Methylene Chloride	0.36	U	1.0	0.36	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	1.0	0.25	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.92	U	5.0	0.92	ug/L
56-23-5	Carbon Tetrachloride	0.17	U	1.0	0.17	ug/L
156-59-2	cis-1,2-Dichloroethene	25		1.0	0.27	ug/L
67-66-3	Chloroform	0.23	U	1.0	0.23	ug/L
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22	ug/L
71-43-2	Benzene	0.20	U	1.0	0.20	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	2.4		1.0	0.19	ug/L
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17	ug/L
108-10-1	4-Methyl-2-Pentanone	0.77	U	5.0	0.77	ug/L
108-88-3	Toluene	0.19	U	1.0	0.19	ug/L
10061-02-6	t-1,3-Dichloropropene	0.15	U	1.0	0.15	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L
591-78-6	2-Hexanone	0.58	U	5.0	0.58	ug/L
124-48-1	Dibromochloromethane	0.21	U	1.0	0.21	ug/L
127-18-4	Tetrachloroethene	0.20	U	1.0	0.20	ug/L
108-90-7	Chlorobenzene	0.16	U	1.0	0.16	ug/L
100-41-4	Ethyl Benzene	0.18	U	1.0	0.18	ug/L
136777-61-2	m&p-Xylenes	0.36	U	1.0	0.36	ug/L
95-47-6	o-Xylene	0.17	U	1.0	0.17	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/28/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2248</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-08</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090225.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

<b>CAS Number</b>	<b>Parameter</b>	<b>Conc.</b>	<b>Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
100-42-5	Styrene	0.17	U	1.0	0.17	ug/L
75-25-2	Bromoform	0.37	U	1.0	0.37	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	10.55	106 %	72 - 119		SPK: 10
1868-53-7	Dibromofluoromethane	10.99	110 %	85 - 115		SPK: 10
2037-26-5	Toluene-d8	9.57	96 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	9.95	100 %	76 - 119		SPK: 10
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	338749	3.96			
540-36-3	1,4-Difluorobenzene	746132	4.56			
3114-55-4	Chlorobenzene-d5	610291	7.11			
3855-82-1	1,4-Dichlorobenzene-d4	277667	8.57			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound



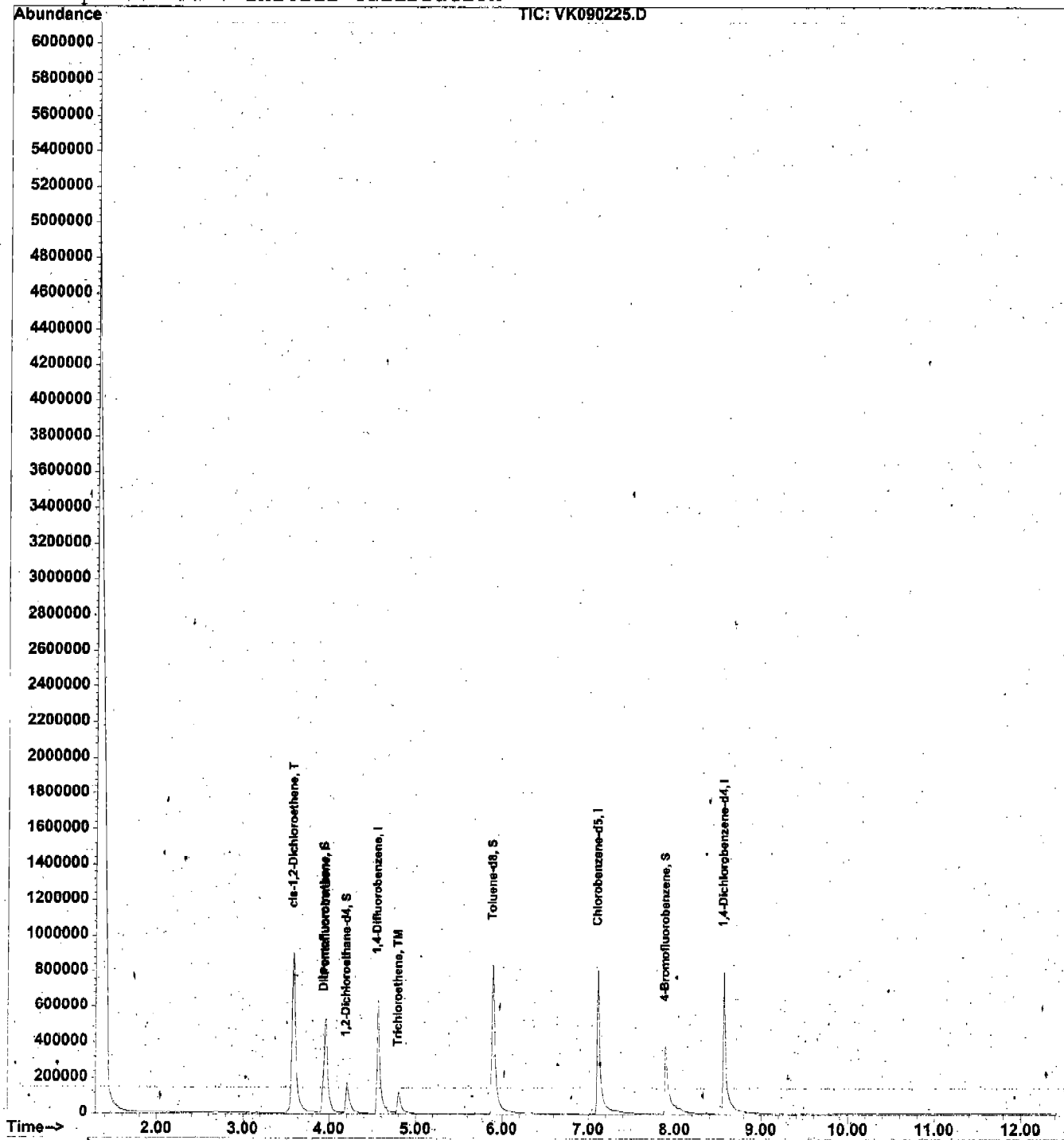
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090225.D  
Acq On : 2 Sep 2004 4:44 pm  
Sample : S4436-08  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 2 18:26 2004

Vial: 7  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



Data File : K:\1\DATA\MSVOAK\VK090204\VK090225.D Vial: 7  
 Acq On : 2 Sep 2004 4:44 pm Operator: KP  
 Sample : S4436-08 Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 18:26 2004 Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

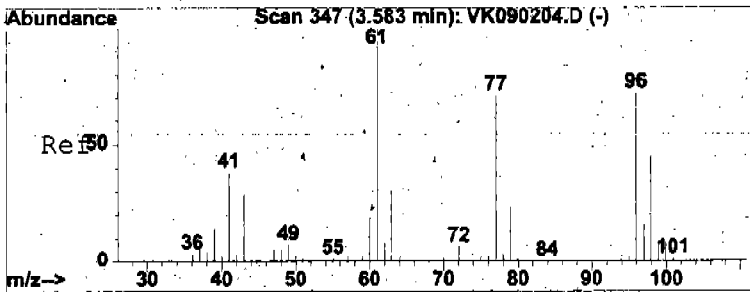
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Pentafluorobenzene	3.96	168	338749	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.56	114	746132	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.11	117	610291	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.57	152	277667	10.00	ug/l	0.00
<b>System Monitoring Compounds</b>						
32) 1,2-Dichloroethane-d	4.20	65	179682	10.55	ug/l	0.00
Spiked Amount	10.000		Recovery	=	105.50%	
34) Dibromofluoromethane	3.94	113	222660	10.99	ug/l	0.00
Spiked Amount	10.000		Recovery	=	109.90%	
45) Toluene-d8	5.89	98	846569	9.57	ug/l	-0.02
Spiked Amount	10.000		Recovery	=	95.70%	
56) 4-Bromofluorobenzene	7.90	95	359541	9.95	ug/l	-0.04
Spiked Amount	10.000		Recovery	=	99.50%	
<b>Target Compounds</b>						
27) cis-1,2-Dichloroethe	3.58	96	623300	25.44	ug/l	87
39) Trichloroethene	4.81	130	74023	2.40	ug/l	96

Analyst Signature: JCP Analyst Name: \_\_\_\_\_ Date: 09.02.04

REASONS FOR MANUAL INTEGRATIONS

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

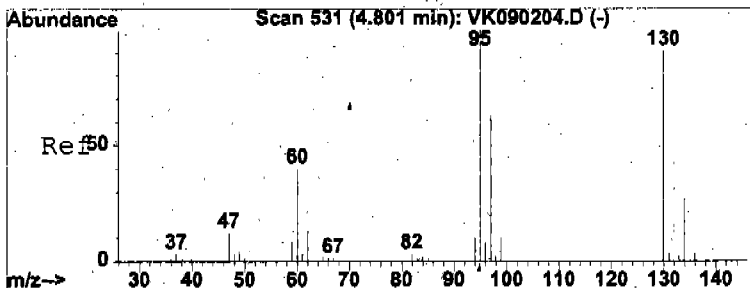
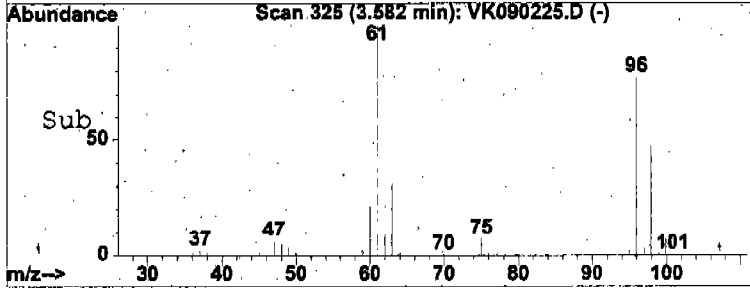
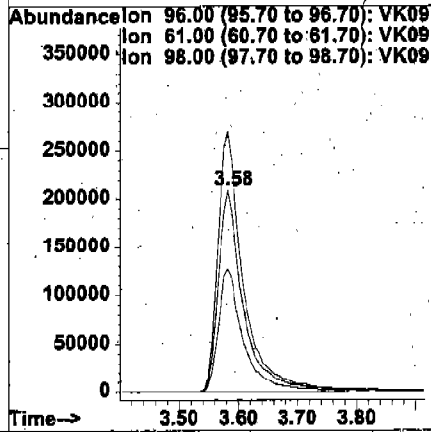
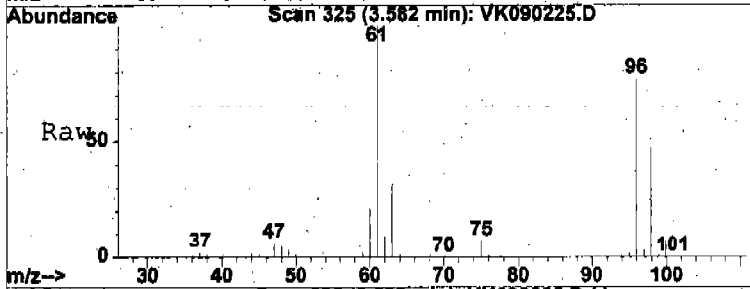
(#) = qualifier out of range (m) = manual integration



#27  
 cis-1,2-Dichloroethene  
 Concen: 25.44 ug/l  
 RT: 3.58 min Scan# 325  
 Delta R.T. -0.01 min  
 Lab File: VK090225.D  
 Acq: 2 Sep 2004 4:44 pm

Tgt Ion: 96 Resp: 623300

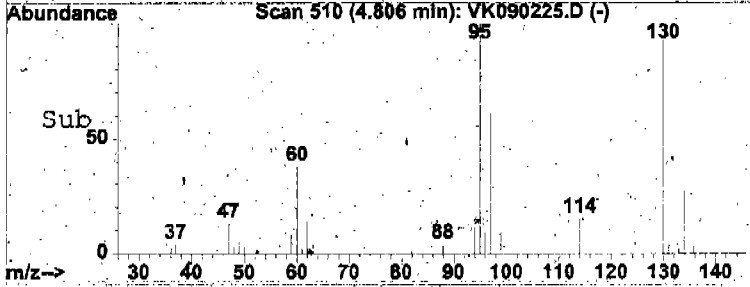
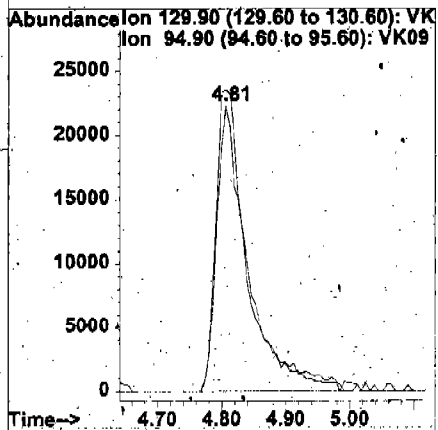
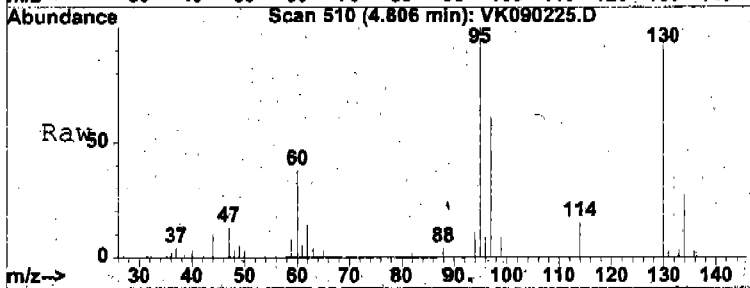
Ion	Ratio	Lower	Upper
96	100		
61	130.3	121.7	182.5
98	61.9	51.3	76.9



#39  
 Trichloroethene  
 Concen: 2.40 ug/l  
 RT: 4.81 min Scan# 510  
 Delta R.T. -0.01 min  
 Lab File: VK090225.D  
 Acq: 2 Sep 2004 4:44 pm

Tgt Ion: 130 Resp: 74023

Ion	Ratio	Lower	Upper
130	100		
95	105.8	88.2	132.2



LSC Area Percent Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090225.D Vial: 7  
 Acq On : 2 Sep 2004 4:44 pm Operator: KP  
 Sample : S4436-08 Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs: 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

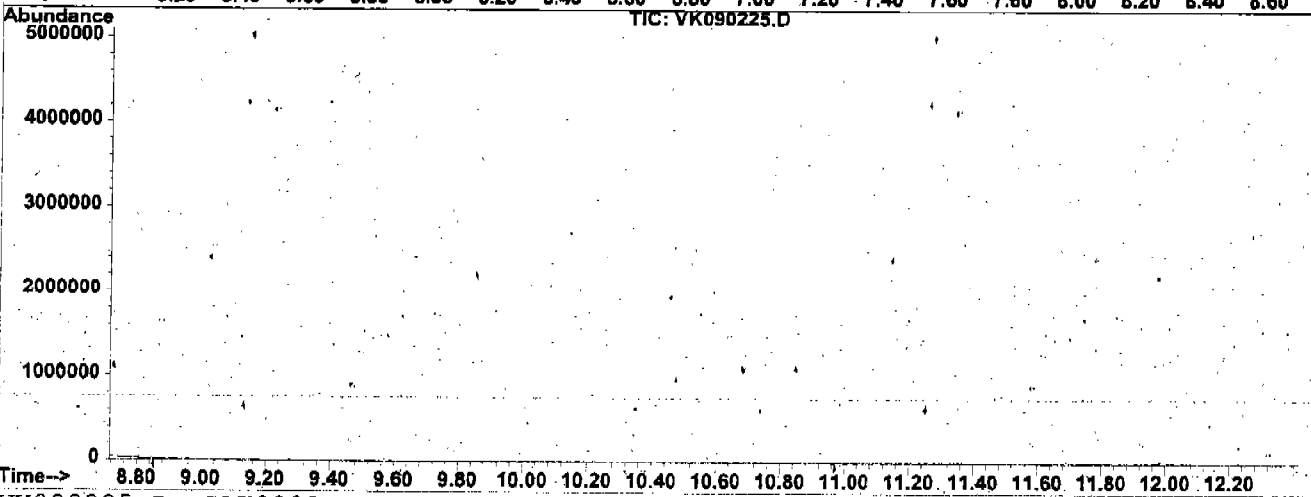
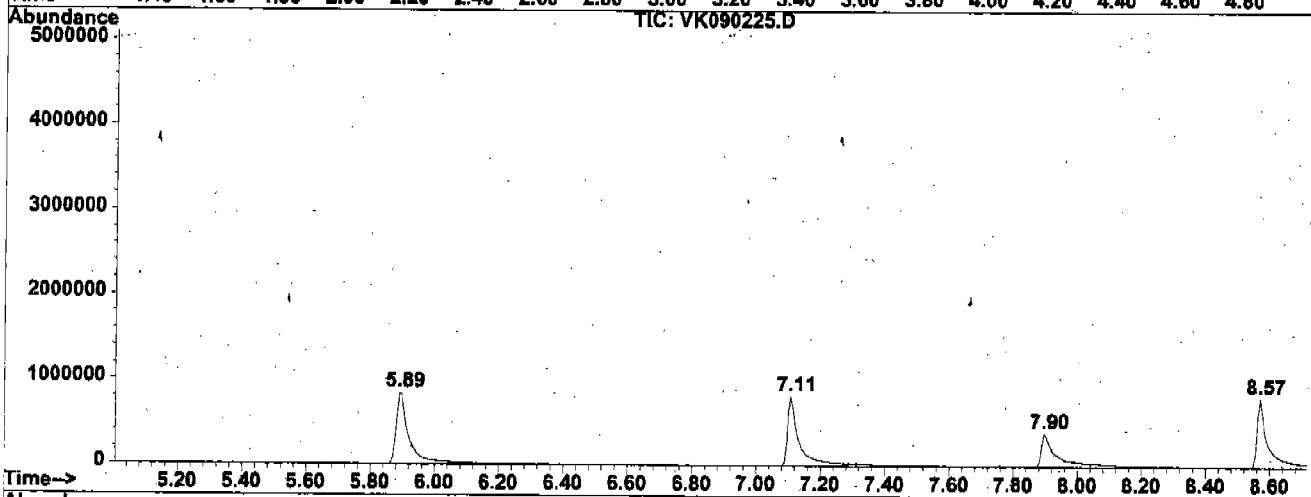
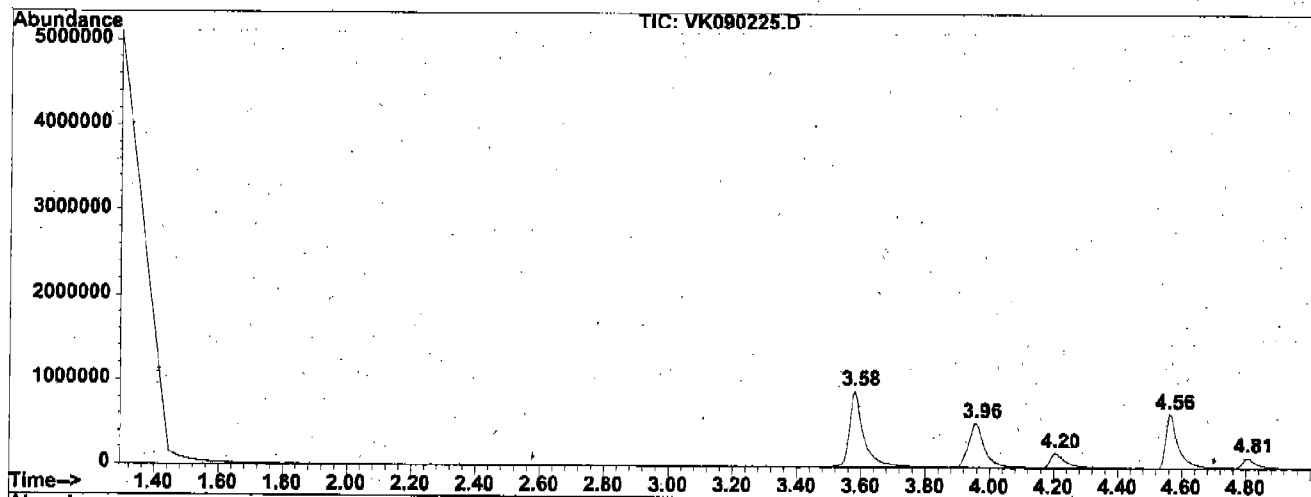
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	3.582	311	325	356	rBV	899488	2866102	100.00%	19.107%
2	3.959	371	382	411	rVV3	523338	1798672	62.76%	11.991%
3	4.204	411	419	442	rVB	171578	562852	19.64%	3.752%
4	4.561	464	473	504	rBV	641530	1775977	61.96%	11.840%
5	4.806	504	510	535	rVB	121772	392913	13.71%	2.619%
6	5.891	667	674	718	rBV	837371	2364315	82.49%	15.762%
7	7.108	848	858	885	rBV	806193	2004121	69.92%	13.361%
8	7.895	970	977	999	rBV	379468	1194562	41.68%	7.964%
9	8.570	1072	1079	1136	rBV	798086	2040568	71.20%	13.604%

Sum of corrected areas: 15000082

VK090225.D SAK0902W.M Thu Sep 02 18:27:58 2004 LABMANAGER

LSC Report - Integrated Chromatogram

File : K:\1\DATA\MSVOAK\VK090204\VK090225.D  
Operator : KP  
Acquired : 2 Sep 2004 4:44 pm using AcqMethod VP  
Instrument : MSVOA J/K  
Sample Name: S4436-08  
Misc Info : 25mL  
Vial Number: 7  
Quant File :SAK0902W.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: KP      Date Acquired: 2 Sep 2004 4:44 pm  
Data File: K:\1\DATA\MSVOAK\VK090204\VK090225.D  
Name: S4436-08  
Misc: 25mL  
Method: K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title: SW846 8260  
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
VK090225.D SAK0902W.M						Thu Sep 02 18:27:59 2004		LABMANAGER

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2253</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-09</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090226.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
74-87-3	Chloromethane	0.16	U	1.0	0.16	ug/L
75-01-4	Vinyl chloride	46	E	1.0	0.11	ug/L
74-83-9	Bromomethane	0.12	U	1.0	0.12	ug/L
75-00-3	Chloroethane	0.18	U	1.0	0.18	ug/L
75-35-4	1,1-Dichloroethene	0.20	U	1.0	0.20	ug/L
67-64-1	Acetone	1.2	U	5.0	1.2	ug/L
75-15-0	Carbon disulfide	0.21	U	1.0	0.21	ug/L
75-09-2	Methylene Chloride	0.36	U	1.0	0.36	ug/L
156-60-5	trans-1,2-Dichloroethene	2.3		1.0	0.25	ug/L
75-34-3	1,1-Dichloroethane	5.6		1.0	0.21	ug/L
78-93-3	2-Butanone	0.92	U	5.0	0.92	ug/L
56-23-5	Carbon Tetrachloride	0.17	U	1.0	0.17	ug/L
156-59-2	cis-1,2-Dichloroethene	250	E	1.0	0.27	ug/L
67-66-3	Chloroform	0.23	U	1.0	0.23	ug/L
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22	ug/L
71-43-2	Benzene	0.20	U	1.0	0.20	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	11		1.0	0.19	ug/L
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17	ug/L
108-10-1	4-Methyl-2-Pentanone	0.77	U	5.0	0.77	ug/L
108-88-3	Toluene	0.19	U	1.0	0.19	ug/L
10061-02-6	t-1,3-Dichloropropene	0.15	U	1.0	0.15	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L
591-78-6	2-Hexanone	0.58	U	5.0	0.58	ug/L
124-48-1	Dibromochloromethane	0.21	U	1.0	0.21	ug/L
127-18-4	Tetrachloroethene	0.20	U	1.0	0.20	ug/L
108-90-7	Chlorobenzene	0.16	U	1.0	0.16	ug/L
100-41-4	Ethyl Benzene	0.18	U	1.0	0.18	ug/L
136777-61-2	m&p-Xylenes	0.36	U	1.0	0.36	ug/L
95-47-6	o-Xylene	0.17	U	1.0	0.17	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2253</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-09</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090226.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

<b>CAS Number</b>	<b>Parameter</b>	<b>Conc.</b>	<b>Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
100-42-5	Styrene	0.17	U	1.0	0.17	ug/L
75-25-2	Bromoform	0.37	U	1.0	0.37	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	12.27	123 %	72 - 119		SPK: 10
1868-53-7	Dibromofluoromethane	10.6	106 %	85 - 115		SPK: 10
2037-26-5	Toluene-d8	9.38	94 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	9.69	97 %	76 - 119		SPK: 10
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	309586	3.96			
540-36-3	1,4-Difluorobenzene	752801	4.57			
3114-55-4	Chlorobenzene-d5	616580	7.11			
3855-82-1	1,4-Dichlorobenzene-d4	289565	8.57			

U = Not Detected  
RL = Reporting Limit  
MDL = Method Detection Limit  
E = Value Exceeds Calibration Range

J = Estimated Value  
B = Analyte Found in Associated Method Blank  
N = Presumptive Evidence of a Compound



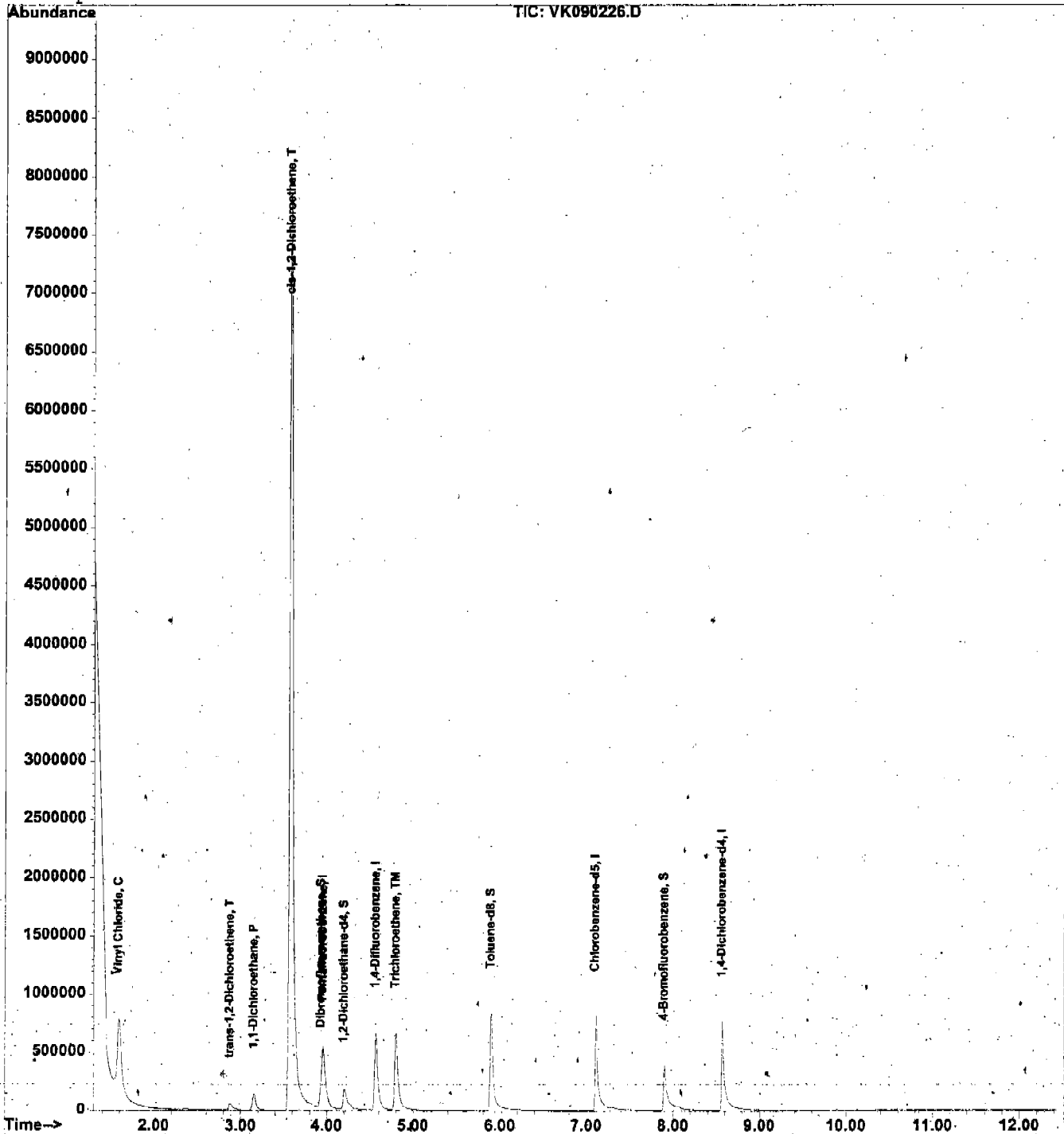
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090226.D  
Acq On : 2 Sep 2004 5:23 pm  
Sample : S4436-09  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 2 18:31 2004

Vial: 8  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090226.D

Vial: 8

Acq On : 2 Sep 2004 5:23 pm

Operator: KP

Sample : S4436-09

Inst : MSVOA J/K

Misc : 25mL

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 2 18:31 2004

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)

Title : SW846 8260

Last Update : Thu Sep 02 10:57:19 2004

Response via : Initial Calibration

DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.96	168	309586	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.57	114	752801	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.11	117	616580	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.57	152	289565	10.00	ug/l	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d	4.20	65	191009	12.27	ug/l	0.00
Spiked Amount						
						10.000
						Recovery = 122.70%
34) Dibromofluoromethane	3.93	113	216716	10.60	ug/l	0.00
Spiked Amount						10.000
						Recovery = 106.00%
45) Toluene-d8	5.90	98	837836	9.38	ug/l	-0.02
Spiked Amount						10.000
						Recovery = 93.80%
56) 4-Bromofluorobenzene	7.90	95	353103	9.69	ug/l	-0.03
Spiked Amount						10.000
						Recovery = 96.90%
Target Compounds						
4) Vinyl Chloride	1.59	62	1472875	46.02	ug/l	97
21) trans-1,2-Dichloroet	2.88	96	47057	2.26	ug/l	95
23) 1,1-Dichloroethane	3.16	63	213210	5.61	ug/l	98
27) cis-1,2-Dichloroethe	3.57	96	5596799	249.91	ug/l	87
39) Trichloroethene	4.80	130	327393	10.52	ug/l	99

Analyst Signature: IQ Analyst Name: \_\_\_\_\_ Date: 09.02.04

REASONS FOR MANUAL INTEGRATIONS

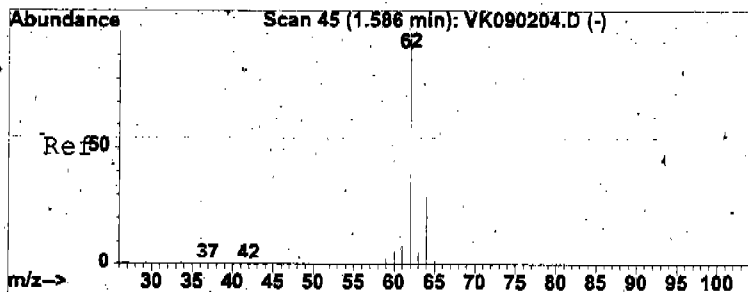
Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

OTHER: \_\_\_\_\_

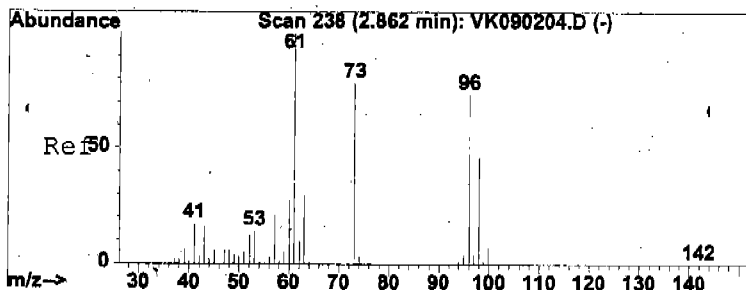
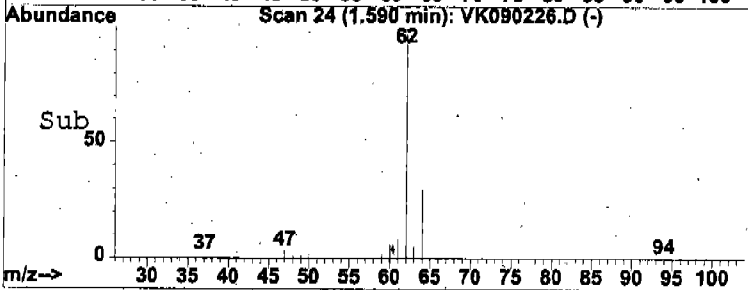
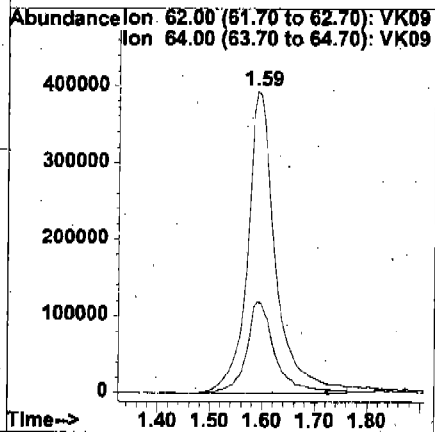
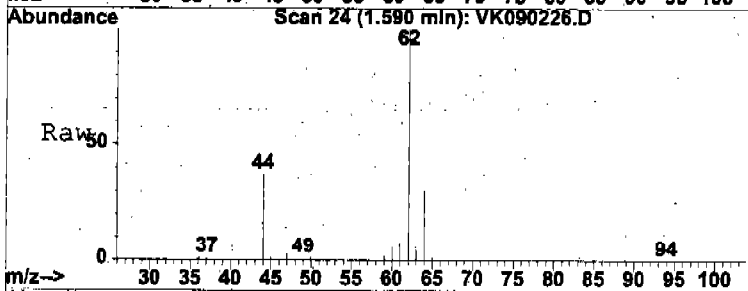
Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration



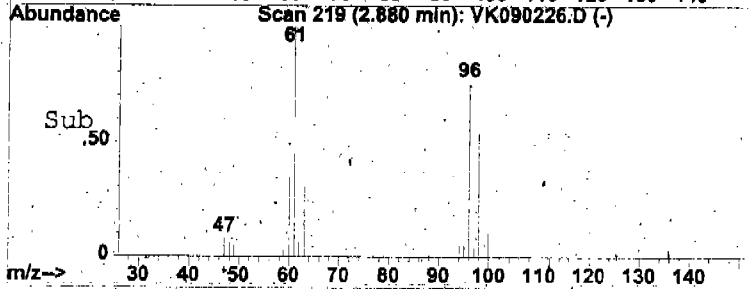
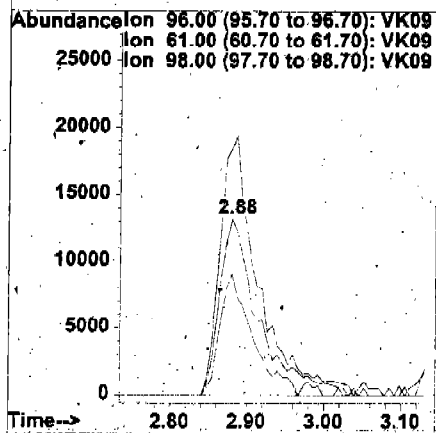
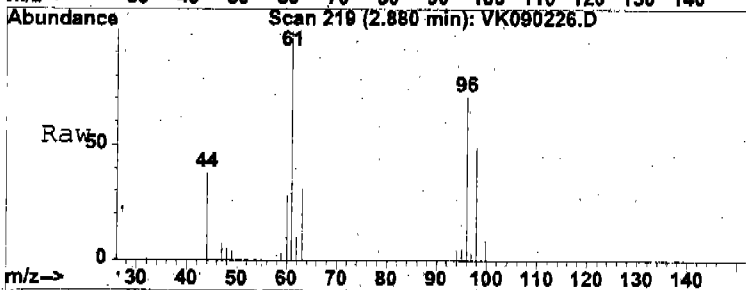
#4  
 Vinyl Chloride  
 Concen: 46.02 ug/l  
 RT: 1.59 min Scan# 24  
 Delta R.T.: 0.04 min  
 Lab File: VK090226.D  
 Acq: 2 Sep 2004 5:23 pm

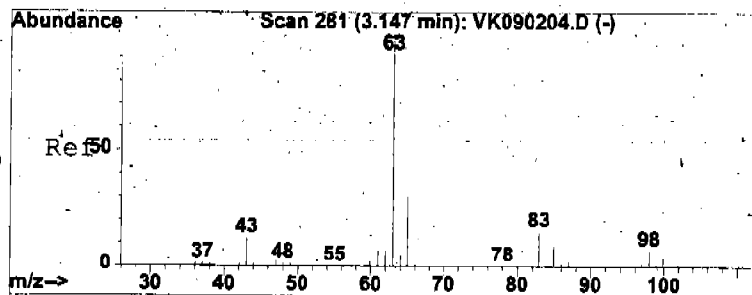
Tgt Ion: 62 Resp: 1472875  
 Ion Ratio Lower Upper  
 62 100  
 64 30.1 22.9 34.3



#21  
 trans-1,2-Dichloroethene  
 Concen: 2.26 ug/l  
 RT: 2.88 min Scan# 219  
 Delta R.T.: 0.01 min  
 Lab File: VK090226.D  
 Acq: 2 Sep 2004 5:23 pm

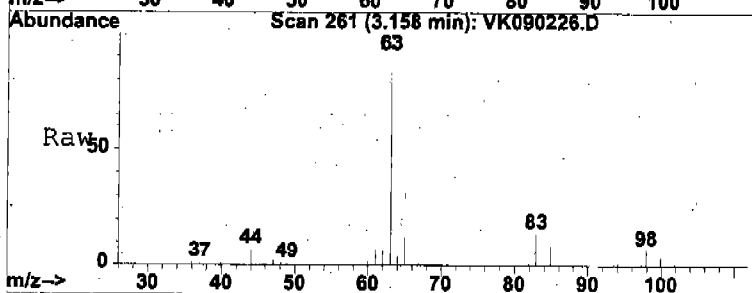
Tgt Ion: 96 Resp: 47057  
 Ion Ratio Lower Upper  
 96 100  
 61 140.7 109.2 163.8  
 98 68.9 50.0 75.0



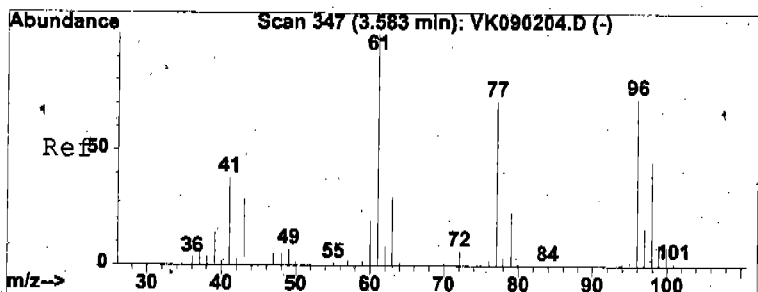
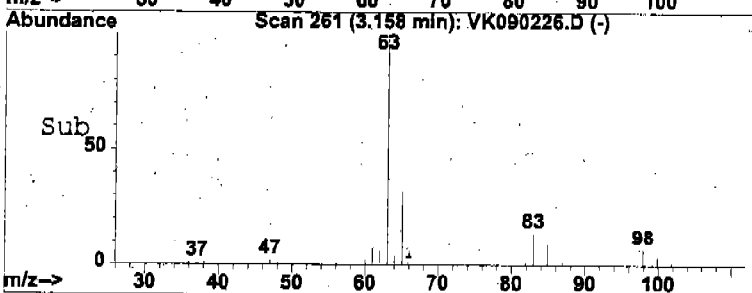
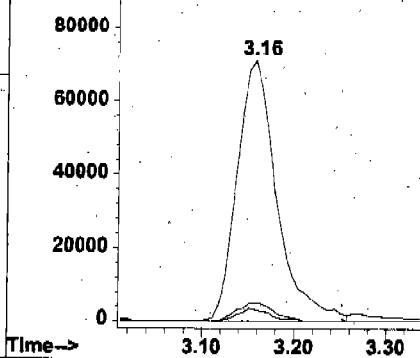


#23  
 1,1-Dichloroethane  
 Concen: 5.61 ug/l  
 RT: 3.16 min Scan# 261  
 Delta R.T. 0.00 min  
 Lab File: VK090226.D  
 Acq: 2 Sep 2004 5:23 pm

Tgt Ion:	63	Resp:	213210
Ion Ratio	Lower	Upper	
63	100		
98	7.0	4.0	11.9
100	4.3	2.1	6.2

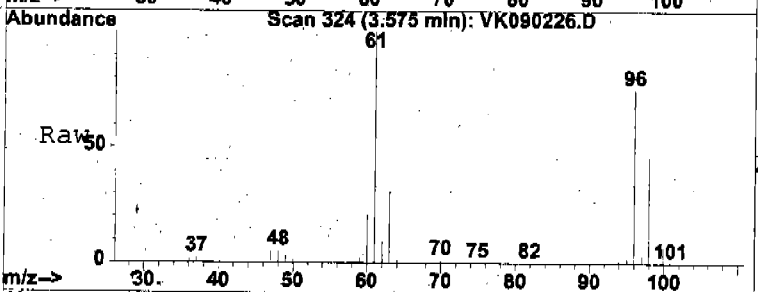


Abundance Ion 63.00 (62.70 to 63.70): VK09  
 Ion 98.00 (97.70 to 98.70): VK09  
 Ion 100.00 (99.70 to 100.70): VK0

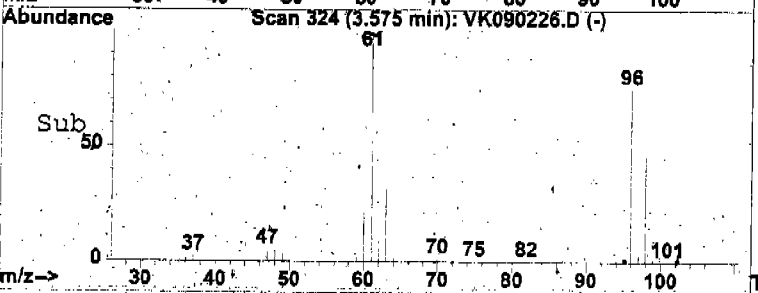
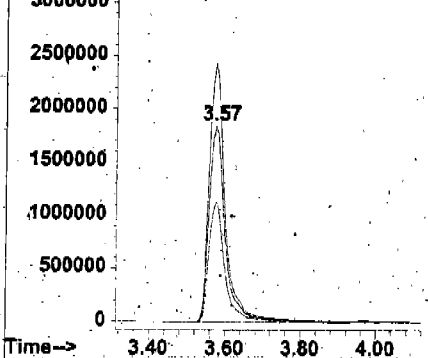


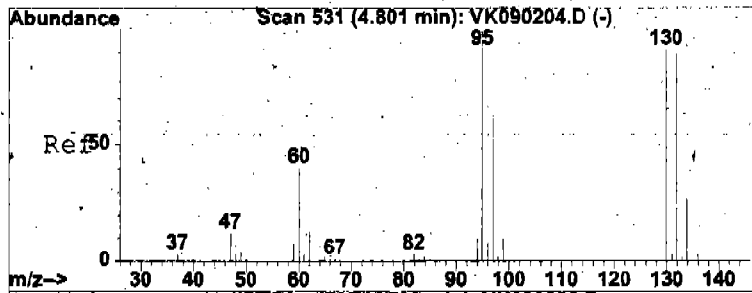
#27  
 cis-1,2-Dichloroethene  
 Concen: 249.91 ug/l  
 RT: 3.57 min Scan# 324  
 Delta R.T. -0.02 min  
 Lab File: VK090226.D  
 Acq: 2 Sep 2004 5:23 pm

Tgt Ion:	96	Resp:	5596799
Ion Ratio	Lower	Upper	
96	100		
61	130.7	121.7	182.5
98	60.8	51.3	76.9



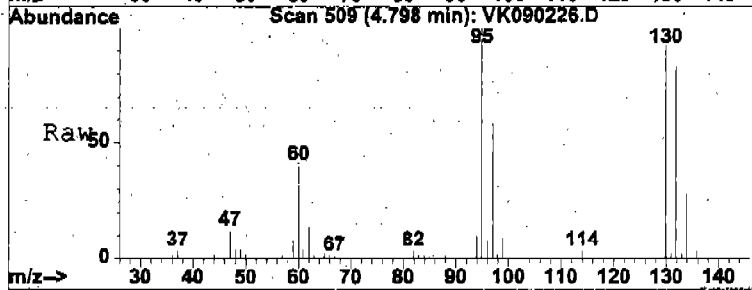
Abundance Ion 96.00 (95.70 to 96.70): VK09  
 Ion 61.00 (60.70 to 61.70): VK09  
 Ion 98.00 (97.70 to 98.70): VK09



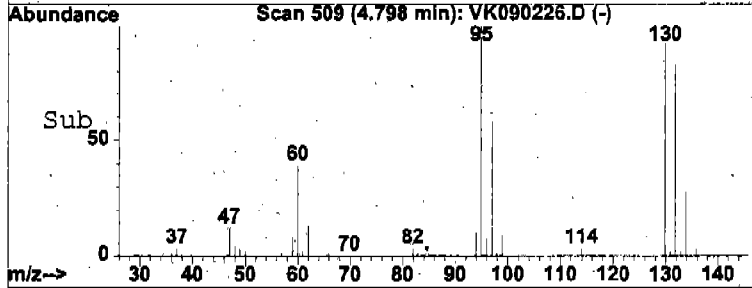
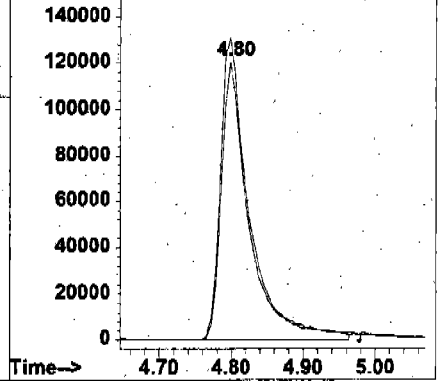


#39  
 Trichloroethene  
 Concen: 10.52 ug/l  
 RT: 4.80 min Scan# 509  
 Delta R.T. -0.01 min  
 Lab File: VK090226.D  
 Acq: 2 Sep 2004 5:23 pm

Tgt Ion: 130 Resp: 327393  
 Ion Ratio Lower Upper  
 130 100  
 95 108.7 88.2 132.2



Abundance Ion 129.90 (129.60 to 130.60): VK  
 Ion 94.90 (94.60 to 95.60): VK09



LSC Area Percent Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090226.D  
 Acq On : 2 Sep 2004 5:23 pm  
 Sample : S4436-09  
 Misc : 25mL  
 MS Integration Params: RTEINT.P

Vial: 8  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

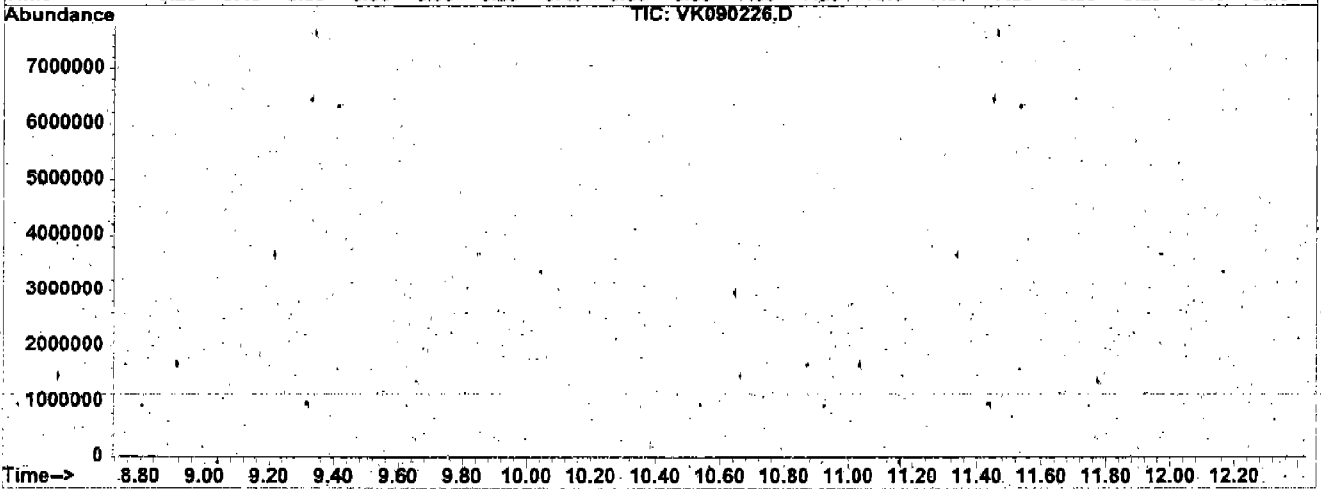
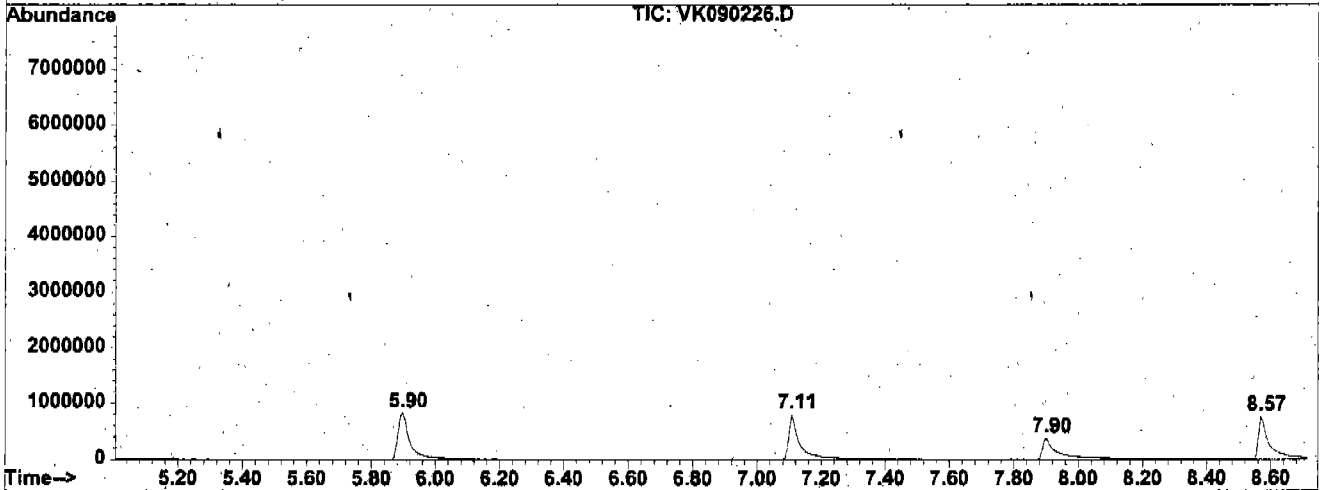
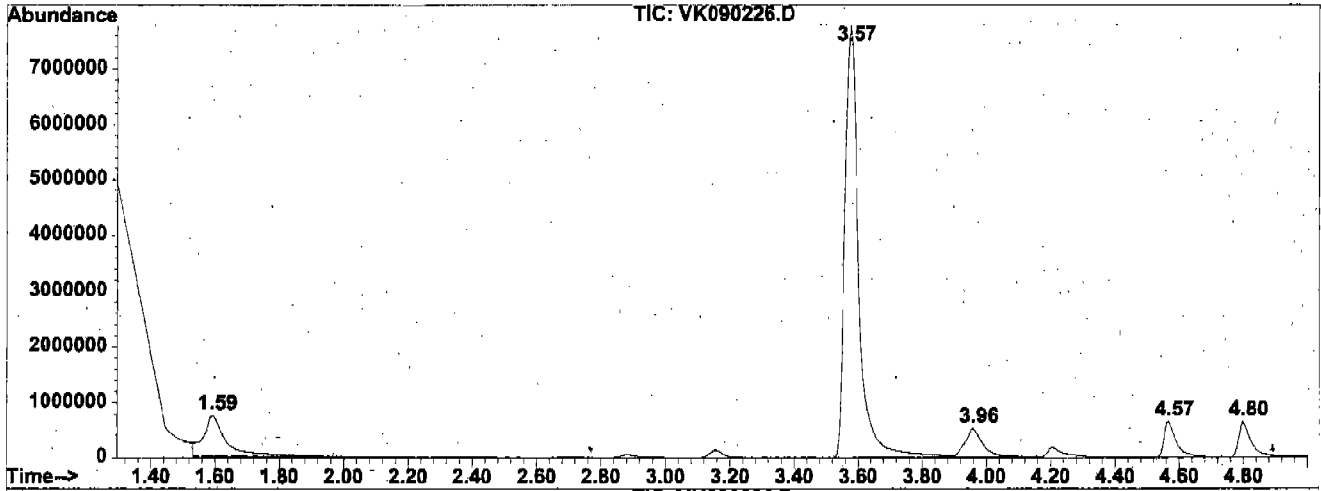
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.590	15	24	83	rVB2	757463	3849955	16.42%	9.504%
2	3.575	312	324	372	rBV	7769701	23452877	100.00%	57.894%
3	3.958	372	382	413	rVV3	542142	2095542	8.94%	5.173%
4	4.567	467	474	496	rBV	658689	1718098	7.33%	4.241%
5	4.798	503	509	547	rVB	656228	1797999	7.67%	4.438%
6	5.897	665	675	706	rBV	832145	2316693	9.88%	5.719%
7	7.107	850	858	885	rBV	808099	1994753	8.51%	4.924%
8	7.901	973	978	1022	rBV	383495	1392149	5.94%	3.437%
9	8.569	1073	1079	1114	rBV	755510	1891838	8.07%	4.670%

Sum of corrected areas: 40509904

VK090226.D SAK0902W.M Thu Sep 02 18:33:43 2004 LABMANAGER

LSC Report - Integrated Chromatogram

File : K:\1\DATA\MSVOAK\VK090204\VK090226.D  
Operator : KP  
Acquired : 2 Sep 2004 5:23 pm using AcqMethod VP  
Instrument : MSVOA J/K  
Sample Name: S4436-09  
Misc Info : 25mL  
Vial Number: 8  
Quant File : SAK0902W.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: KP      Date Acquired: 2 Sep 2004 5:23 pm  
Data File: K:\1\DATA\MSVOAK\VK090204\VK090226.D  
Name: S4436-09  
Misc: 25mL  
Method: K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title: SW846 8260  
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
VK090226.D SAK0902W.M						Thu Sep 02 18:33:44 2004		LABMANAGER



**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2253DL</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-09DL</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090338.D</b>	<b>25</b>		<b>9/3/2004</b>	<b>VK090204</b>

<b>CAS Number</b>	<b>Parameter</b>	<b>Conc.</b>	<b>Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
<b>TARGETS</b>						
74-87-3	Chloromethane	3.9	UD	25	3.9	ug/L
75-01-4	Vinyl chloride	41	D	25	2.8	ug/L
74-83-9	Bromomethane	2.9	UD	25	2.9	ug/L
75-00-3	Chloroethane	4.4	UD	25	4.4	ug/L
75-35-4	1,1-Dichloroethene	5.0	UD	25	5.0	ug/L
67-64-1	Acetone	30	UD	120	30	ug/L
75-15-0	Carbon disulfide	5.4	UD	25	5.4	ug/L
75-09-2	Methylene Chloride	9.1	UD	25	9.1	ug/L
156-60-5	trans-1,2-Dichloroethene	6.2	UD	25	6.2	ug/L
75-34-3	1,1-Dichloroethane	5.4	UD	25	5.4	ug/L
78-93-3	2-Butanone	23	UD	120	23	ug/L
56-23-5	Carbon Tetrachloride	4.2	UD	25	4.2	ug/L
156-59-2	cis-1,2-Dichloroethene	250	D	25	6.7	ug/L
67-66-3	Chloroform	5.7	UD	25	5.7	ug/L
71-55-6	1,1,1-Trichloroethane	5.6	UD	25	5.6	ug/L
71-43-2	Benzene	5.0	UD	25	5.0	ug/L
107-06-2	1,2-Dichloroethane	5.3	UD	25	5.3	ug/L
79-01-6	Trichloroethene	8.2	JD	25	4.7	ug/L
78-87-5	1,2-Dichloropropane	4.4	UD	25	4.4	ug/L
75-27-4	Bromodichloromethane	4.3	UD	25	4.3	ug/L
108-10-1	4-Methyl-2-Pentanone	19	UD	120	19	ug/L
108-88-3	Toluene	4.7	UD	25	4.7	ug/L
10061-02-6	t-1,3-Dichloropropene	3.7	UD	25	3.7	ug/L
10061-01-5	cis-1,3-Dichloropropene	4.8	UD	25	4.8	ug/L
79-00-5	1,1,2-Trichloroethane	5.0	UD	25	5.0	ug/L
591-78-6	2-Hexanone	14	UD	120	14	ug/L
124-48-1	Dibromochloromethane	5.2	UD	25	5.2	ug/L
127-18-4	Tetrachloroethene	5.1	UD	25	5.1	ug/L
108-90-7	Chlorobenzene	4.0	UD	25	4.0	ug/L
100-41-4	Ethyl Benzene	4.5	UD	25	4.5	ug/L
136777-61-2	m&p-Xylenes	9.0	UD	25	9.0	ug/L
95-47-6	o-Xylene	4.3	UD	25	4.3	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



## Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2253DL</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-09DL</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090338.D</b>	<b>25</b>		<b>9/3/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
100-42-5	Styrene	4.3	UD	25	4.3	ug/L
75-25-2	Bromoform	9.2	UD	25	9.2	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	3.2	UD	25	3.2	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	11.01	110 %	72 - 119		SPK: 10
1868-53-7	Dibromofluoromethane	10.62	106 %	85 - 115		SPK: 10
2037-26-5	Toluene-d8	9.34	93 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	10.01	100 %	76 - 119		SPK: 10
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	333954	3.96			
540-36-3	1,4-Difluorobenzene	764622	4.57			
3114-55-4	Chlorobenzene-d5	617966	7.11			
3855-82-1	1,4-Dichlorobenzene-d4	305475	8.57			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

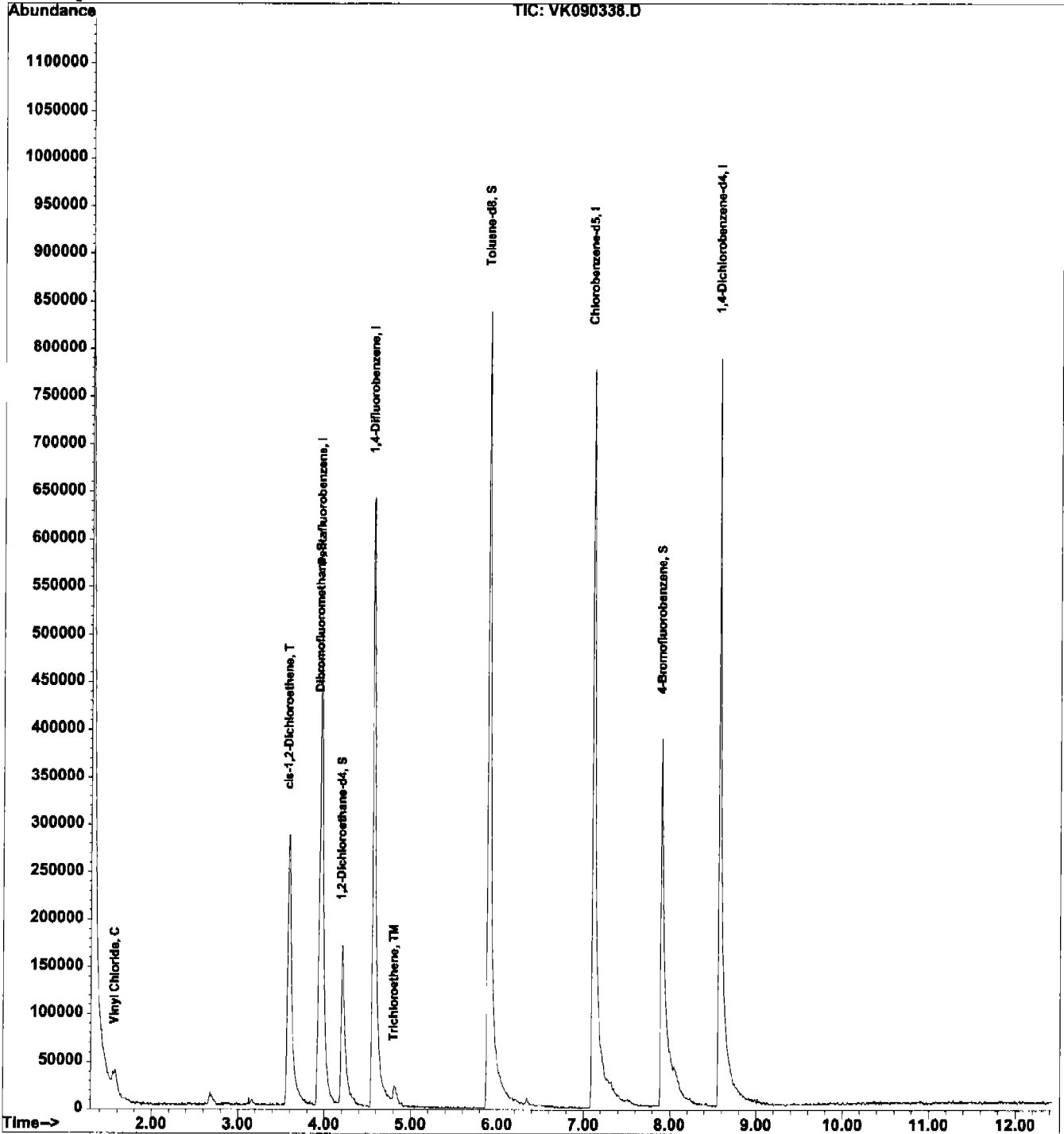
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090338.D  
Acq On : 3 Sep 2004 6:57 pm  
Sample : S4436-09 25X  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 7 11:45 2004

Vial: 6  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090304\VK090338.D Vial: 6  
 Acq On : 3 Sep 2004 6:57 pm Operator: KP  
 Sample : S4436-09 25X Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 7 11:45 2004 Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

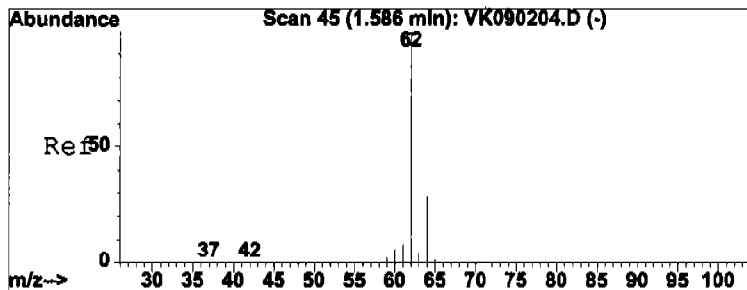
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.96	168	333954	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.57	114	764622	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.11	117	617966	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.57	152	305475	10.00	ug/l	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d	4.20	65	184901	11.01	ug/l	0.00
Spiked Amount	10.000		Recovery	=	110.10%	
34) Dibromofluoromethane	3.94	113	220521	10.62	ug/l	0.00
Spiked Amount	10.000		Recovery	=	106.20%	
45) Toluene-d8	5.90	98	846720	9.34	ug/l	-0.01
Spiked Amount	10.000		Recovery	=	93.40%	
56) 4-Bromofluorobenzene	7.90	95	370675m	10.01	ug/l	-0.03
Spiked Amount	10.000		Recovery	=	100.10%	
Target Compounds						
4) Vinyl Chloride	1.58	62	56419	1.63	ug/l	92
27) cis-1,2-Dichloroethe	3.59	96	241496m	10.00	ug/l	
39) Trichloroethene	4.82	130	10522	0.33	ug/l	93

Analyst Signature: 1 Gp Analyst Name: \_\_\_\_\_ Date: 09/07/04

-----REASONS FOR MANUAL INTEGRATIONS-----

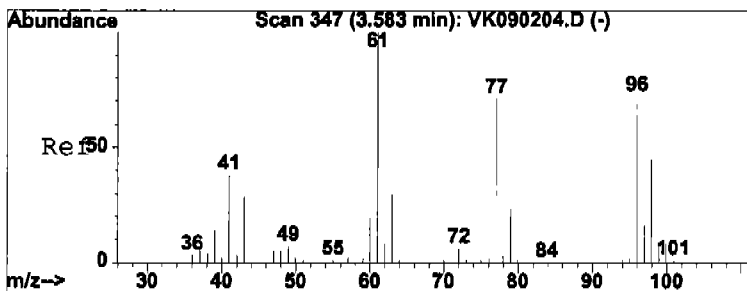
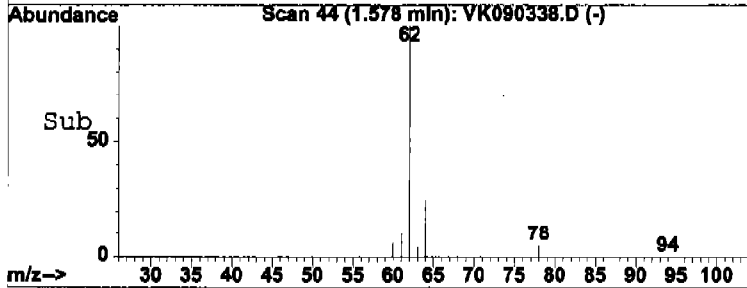
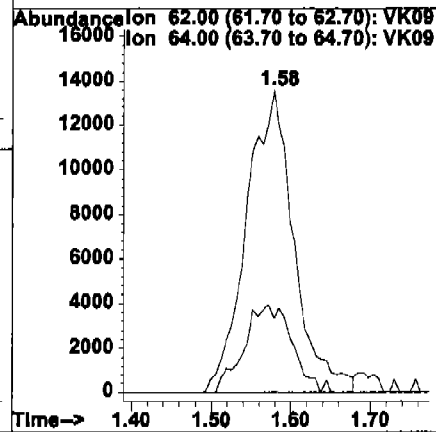
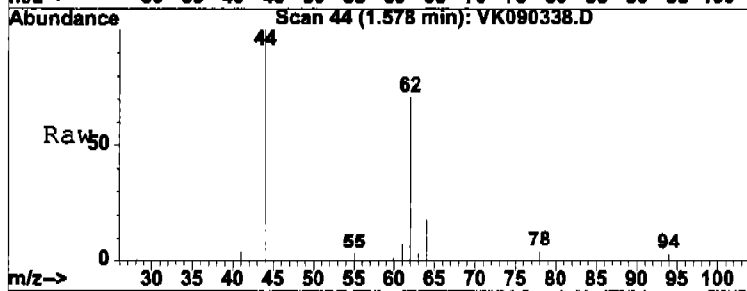
\_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly.Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration



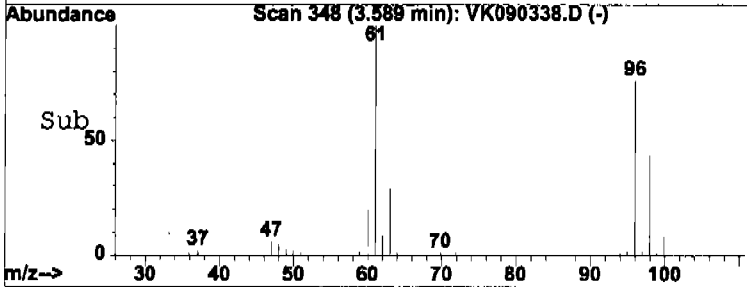
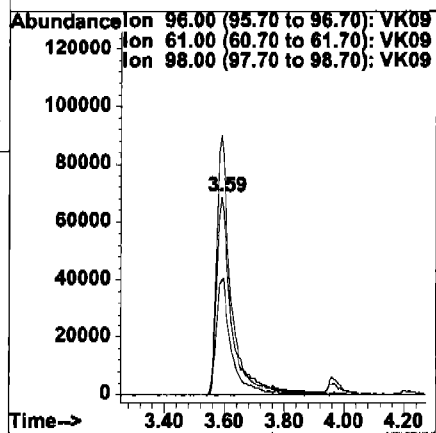
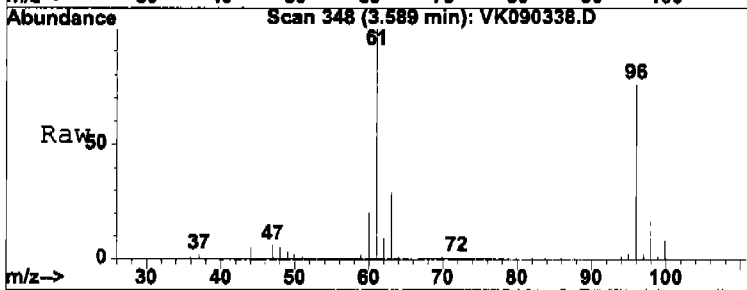
#4  
 Vinyl Chloride  
 Concen: 1.63 ug/l  
 RT: 1.58 min Scan# 44  
 Delta R.T. 0.03 min  
 Lab File: VK090338.D  
 Acq: 3 Sep 2004 6:57 pm

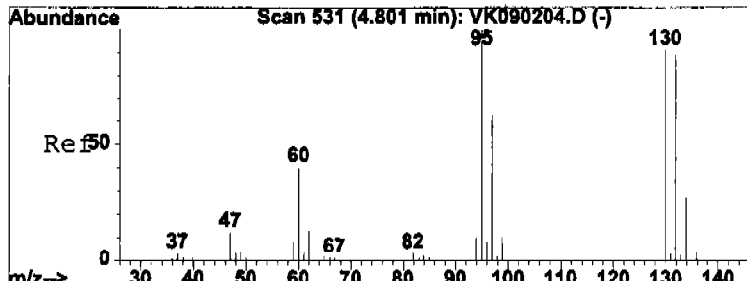
Tgt Ion: 62 Resp: 56419  
 Ion Ratio Lower Upper  
 62 100  
 64 24.6 22.9 34.3



#27  
 cis-1,2-Dichloroethene  
 Concen: 10.00 ug/l m  
 RT: 3.59 min Scan# 348  
 Delta R.T. -0.00 min  
 Lab File: VK090338.D  
 Acq: 3 Sep 2004 6:57 pm

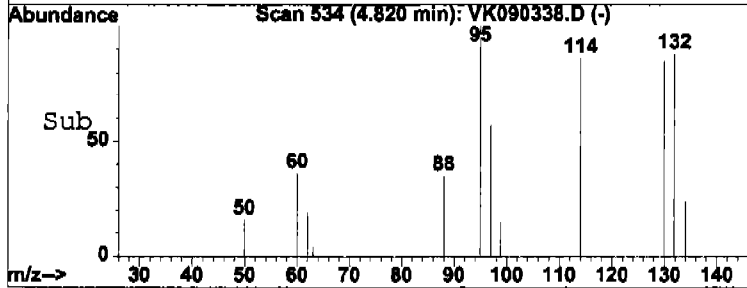
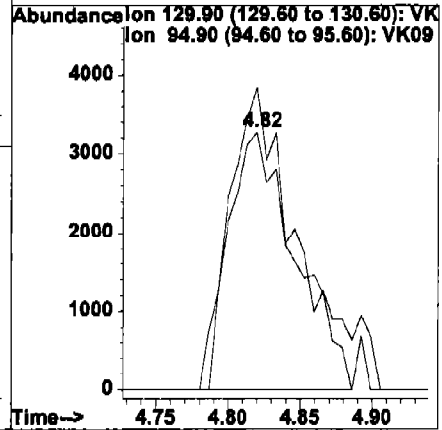
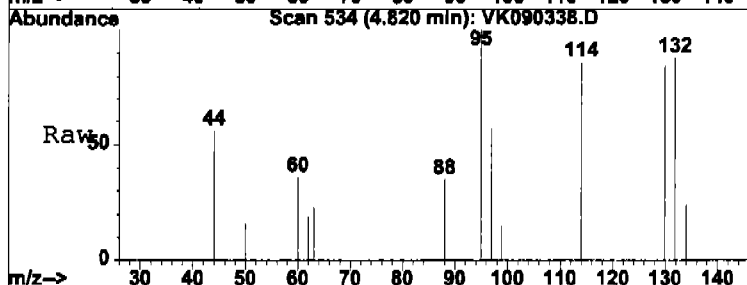
Tgt Ion: 96 Resp: 241496  
 Ion Ratio Lower Upper  
 96 100  
 61 120.6 121.7 182.5#  
 98 57.2 51.3 76.9





#39  
 Trichloroethene  
 Concen: 0.33 ug/l  
 RT: 4.82 min Scan# 534  
 Delta R.T. 0.01 min  
 Lab File: VK090338.D  
 Acq: 3 Sep 2004 6:57 pm

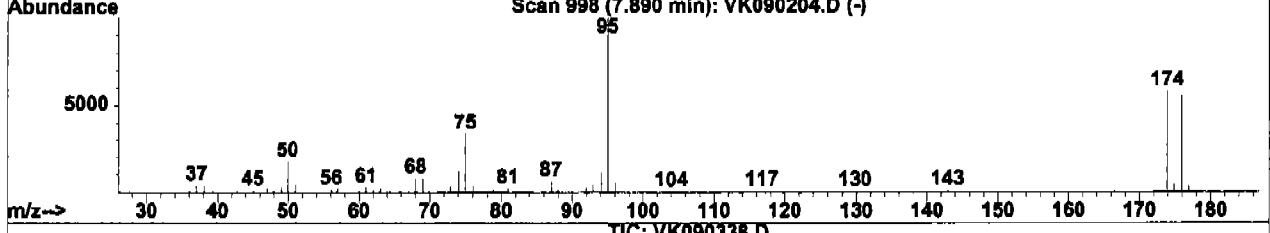
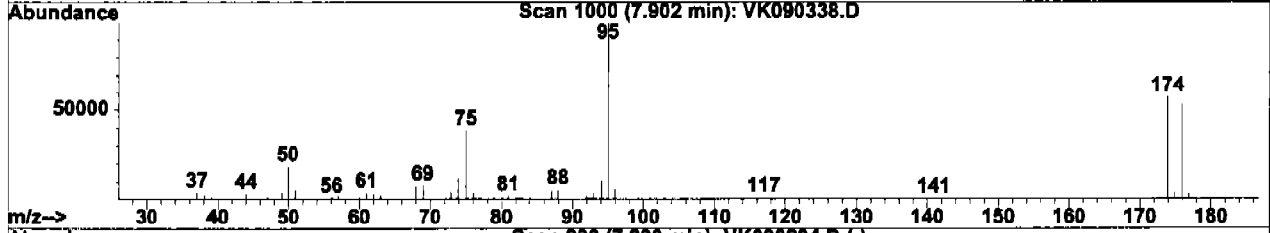
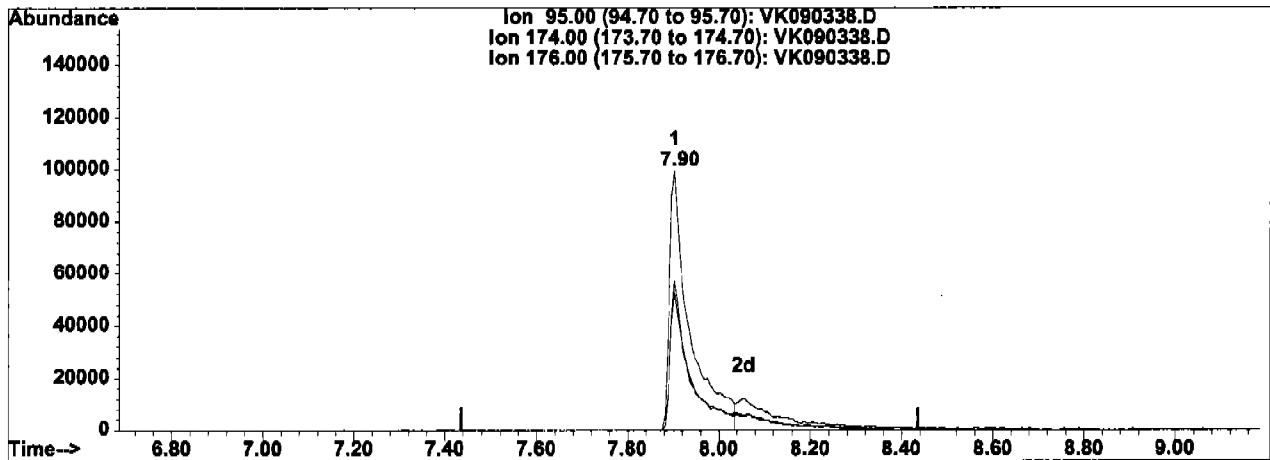
Tgt Ion: 130 Resp: 10522  
 Ion Ratio Lower Upper  
 130 100  
 95 117.7 88.2 132.2



Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090338.D Vial: 6  
 Acq On : 3 Sep 2004 6:57 pm Operator: KP  
 Sample : S4436-09 25X Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 Quant Time: Sep 7 11:37 2004 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(56) 4-Bromofluorobenzene (S)

7.90min 8.35ug/l

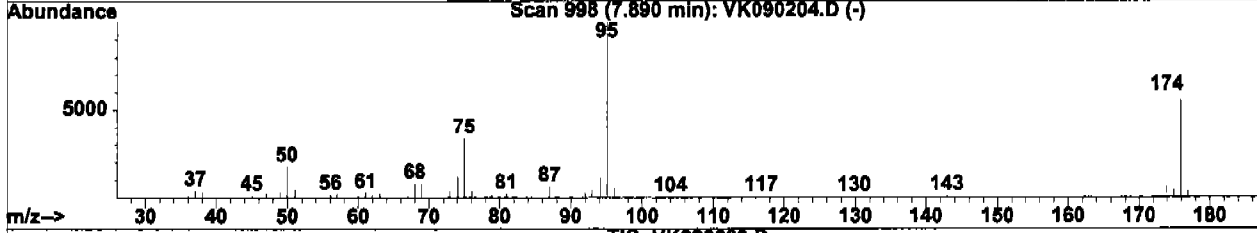
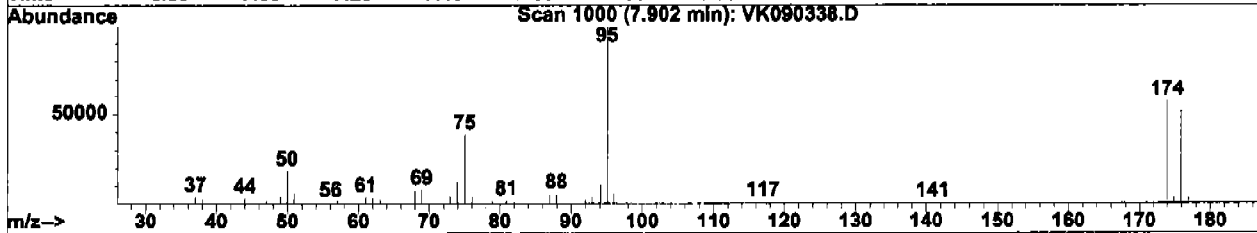
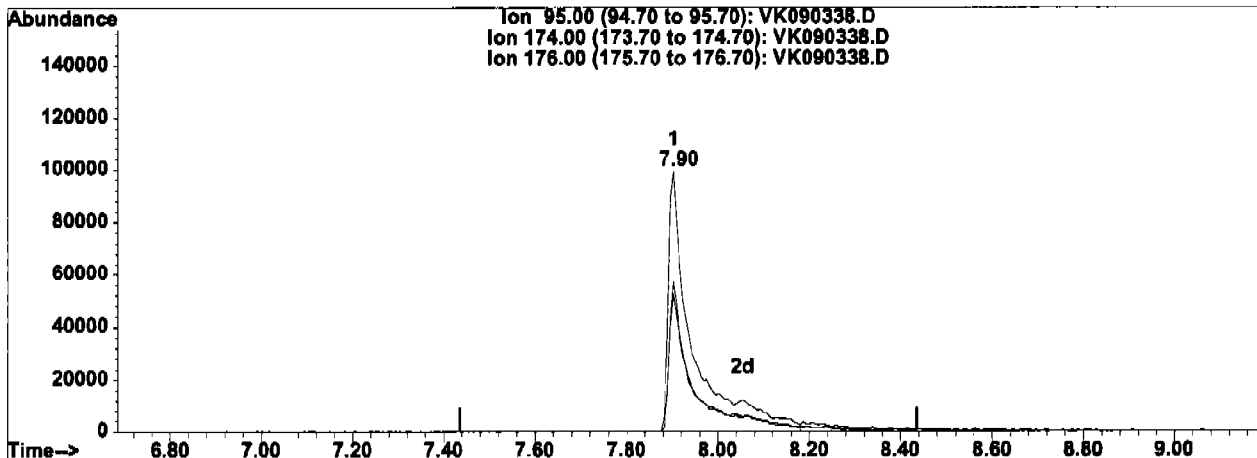
response 309116

Ion	Exp%	Act%
95.00	100	100
174.00	56.30	54.83
176.00	54.20	51.39
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090338.D Vial: 6  
 Acq On : 3 Sep 2004 6:57 pm Operator: KP  
 Sample : S4436-09 25X Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 Quant Time: Sep 7 11:44 2004 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



TIC: VK090338.D

(56) 4-Bromofluorobenzene (S)

7.90min 10.01ug/l m

response 370675

Ion	Exp%	Act%
95.00	100	100
174.00	56.30	45.73
176.00	54.20	42.86#
0.00	0.00	0.00



LSC Area Percent Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090338.D Vial: 6  
 Acq On : 3 Sep 2004 6:57 pm Operator: KP  
 Sample : S4436-09 25X Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

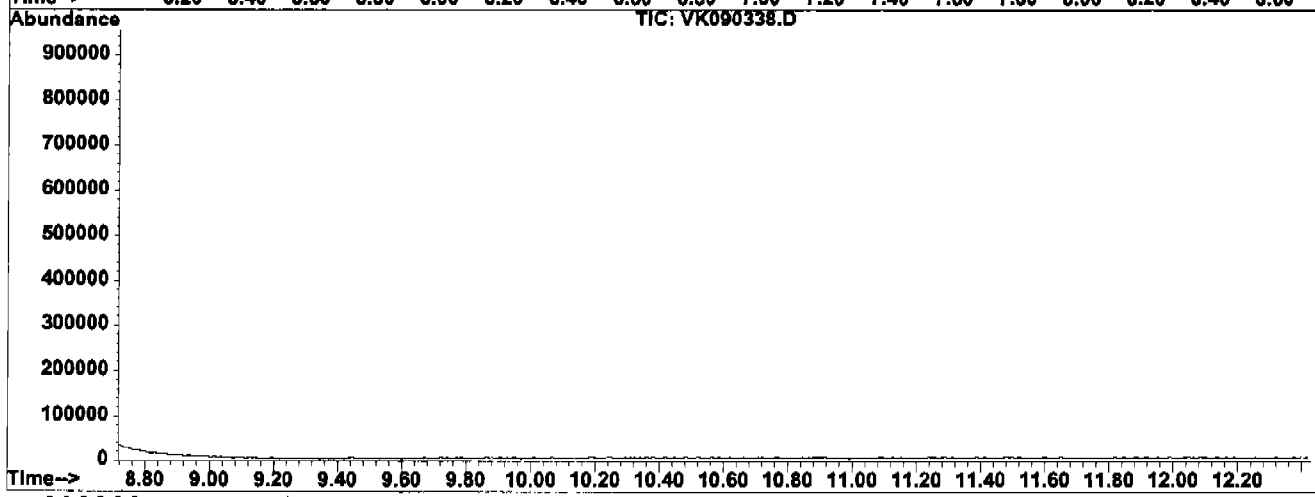
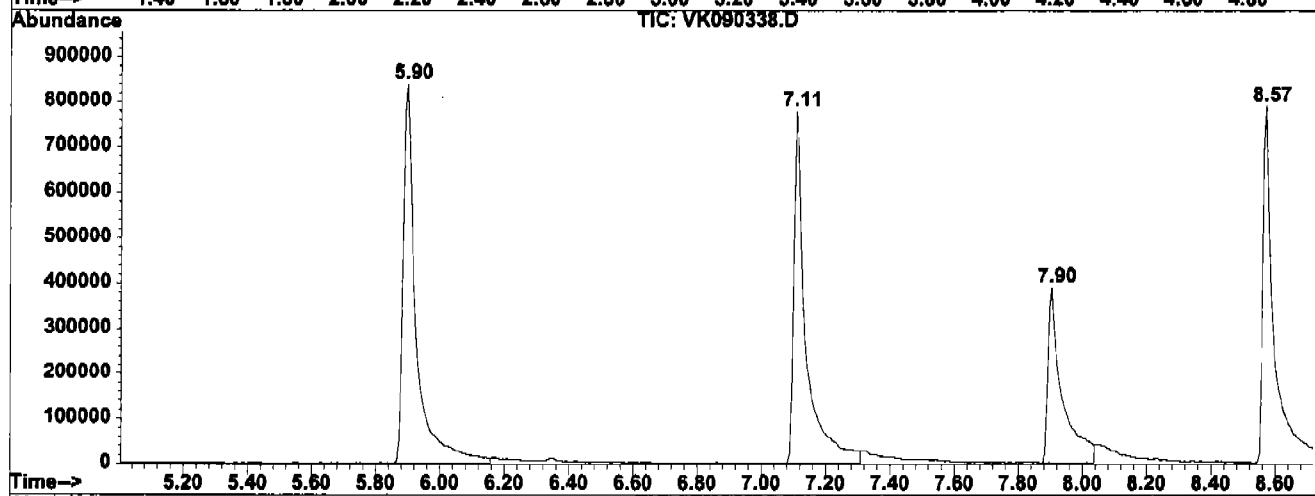
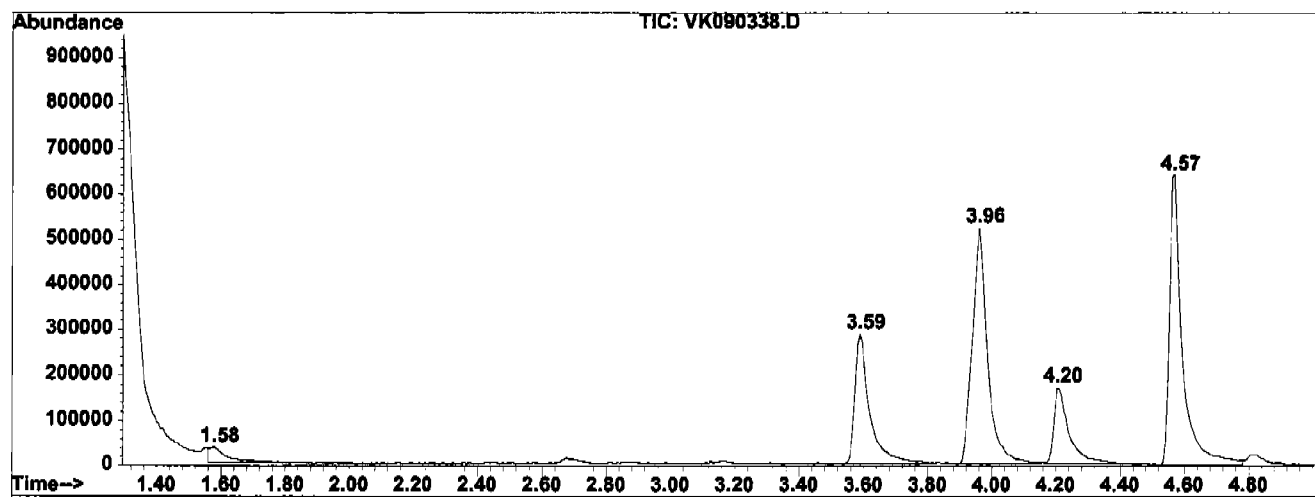
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.578	41	44	73	rVB2	34283	131561	5.55%	1.033%
2	3.589	340	348	381	rBV	284993	945972	39.90%	7.425%
3	3.960	394	404	433	rBV2	521486	1725828	72.79%	13.545%
4	4.205	435	441	472	rVB2	167365	554392	23.38%	4.351%
5	4.568	489	496	528	rBV	640308	1770719	74.68%	13.898%
6	5.898	689	697	736	rBV	838133	2370933	100.00%	18.609%
7	7.108	875	880	910	rBV	776039	2031020	85.66%	15.941%
8	7.902	995	1000	1020	rBV	386369	1192127	50.28%	9.357%
9	8.570	1095	1101	1139	rBV	787019	2018473	85.13%	15.842%

Sum of corrected areas: 12741025

VK090338.D SAK0902W.M Tue Sep 07 11:46:58 2004 LABMANAGER

LSC Report - Integrated Chromatogram

File : K:\1\DATA\MSVOAK\VK090304\VK090338.D  
Operator : KP  
Acquired : 3 Sep 2004 6:57 pm using AcqMethod VP  
Instrument : MSVOA J/K  
Sample Name: S4436-09 25X  
Misc Info : 25mL  
Vial Number: 6  
Quant File : SAK0902W.RES (RTE Integrator)







## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/29/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/31/2004
Client Sample ID:	ARD2247	SDG No.:	S4436
Lab Sample ID:	S4436-12	Matrix:	WATER
Analytical Method:	8260	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VK090229.D	1		9/2/2004	VK090204

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
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## TARGETS

74-87-3	Chloromethane	0.16	U	1.0	0.16	ug/L
75-01-4	Vinyl chloride	0.64	J	1.0	0.11	ug/L
74-83-9	Bromomethane	0.12	U	1.0	0.12	ug/L
75-00-3	Chloroethane	0.18	U	1.0	0.18	ug/L
75-35-4	1,1-Dichloroethene	0.20	U	1.0	0.20	ug/L
67-64-1	Acetone	1.2	U	5.0	1.2	ug/L
75-15-0	Carbon disulfide	0.21	U	1.0	0.21	ug/L
75-09-2	Methylene Chloride	0.36	U	1.0	0.36	ug/L
156-60-5	trans-1,2-Dichloroethene	4.9		1.0	0.25	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.92	U	5.0	0.92	ug/L
56-23-5	Carbon Tetrachloride	0.17	U	1.0	0.17	ug/L
156-59-2	cis-1,2-Dichloroethene	99	E	1.0	0.27	ug/L
67-66-3	Chloroform	0.23	U	1.0	0.23	ug/L
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22	ug/L
71-43-2	Benzene	0.20	U	1.0	0.20	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	18		1.0	0.19	ug/L
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17	ug/L
108-10-1	4-Methyl-2-Pentanone	0.77	U	5.0	0.77	ug/L
108-88-3	Toluene	0.19	U	1.0	0.19	ug/L
10061-02-6	t-1,3-Dichloropropene	0.15	U	1.0	0.15	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L
591-78-6	2-Hexanone	0.58	U	5.0	0.58	ug/L
124-48-1	Dibromochloromethane	0.21	U	1.0	0.21	ug/L
127-18-4	Tetrachloroethene	0.20	U	1.0	0.20	ug/L
108-90-7	Chlorobenzene	0.16	U	1.0	0.16	ug/L
100-41-4	Ethyl Benzene	0.18	U	1.0	0.18	ug/L
136777-61-2	m&p-Xylenes	0.36	U	1.0	0.36	ug/L
95-47-6	o-Xylene	0.17	U	1.0	0.17	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2247</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-12</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Allquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090229.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
100-42-5	Styrene	0.17	U	1.0	0.17	ug/L
75-25-2	Bromoform	0.37	U	1.0	0.37	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	11.34	113 %	72 - 119		SPK: 10
1868-53-7	Dibromofluoromethane	10.53	105 %	85 - 115		SPK: 10
2037-26-5	Toluene-d8	9.46	95 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	10.08	101 %	76 - 119		SPK: 10
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	329596	3.96			
540-36-3	1,4-Difluorobenzene	757234	4.56			
3114-55-4	Chlorobenzene-d5	617339	7.11			
3855-82-1	1,4-Dichlorobenzene-d4	291110	8.57			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

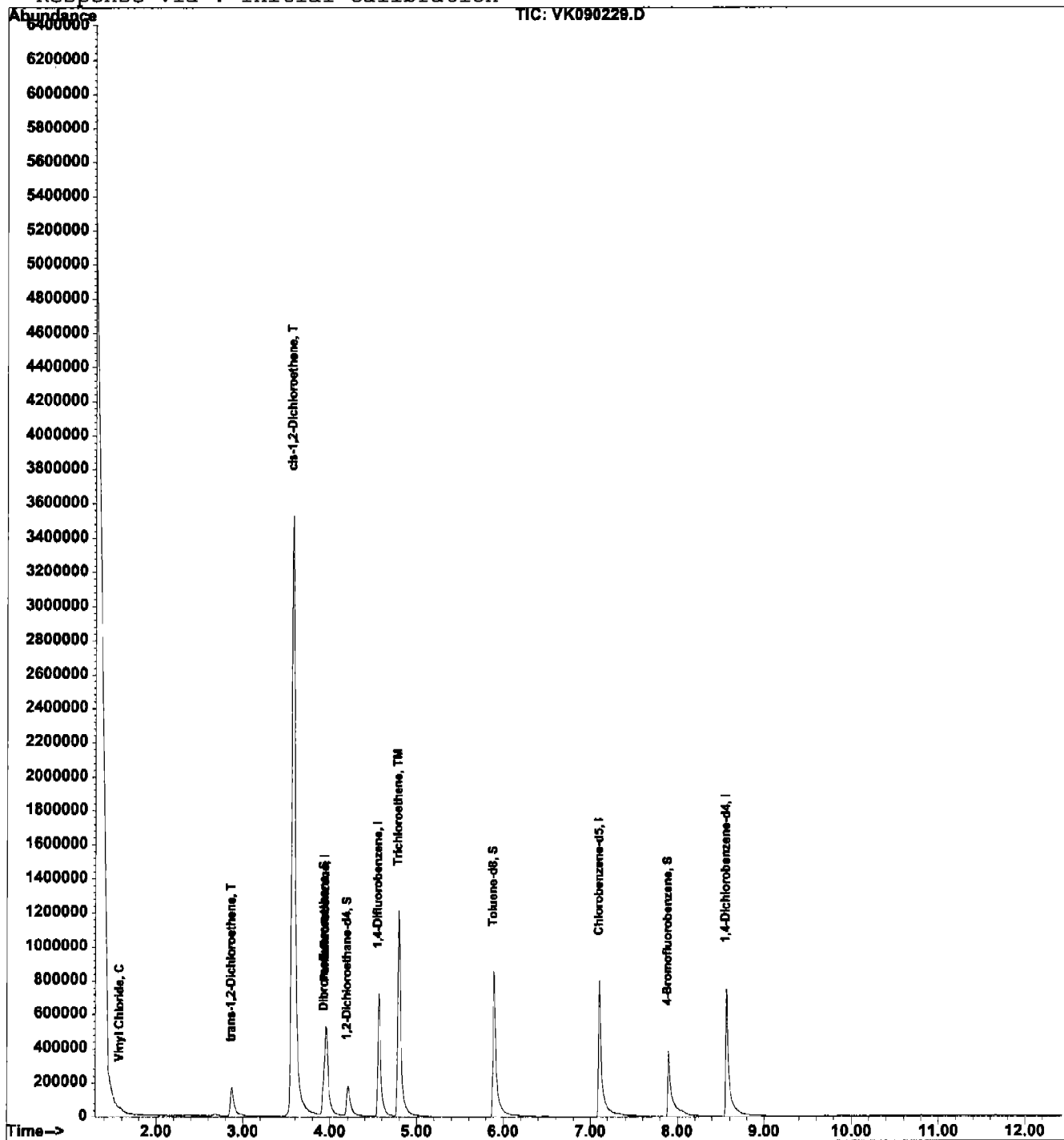
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090229.D  
Acq On : 2 Sep 2004 7:20 pm  
Sample : S4436-12  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 3 14:02 2004

Vial: 11  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090229.D  
 Acq On : 2 Sep 2004 7:20 pm  
 Sample : S4436-12  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 3 14:02 2004

Vial: 11  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.96	168	329596	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.56	114	757234	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.11	117	617339	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.57	152	291110	10.00	ug/l	0.00

System Monitoring Compounds

32) 1,2-Dichloroethane-d	4.20	65	187903	11.34	ug/l	0.00
Spiked Amount			10.000	Recovery =		113.40%
34) Dibromofluoromethane	3.93	113	216556	10.53	ug/l	0.00
Spiked Amount			10.000	Recovery =		105.30%
45) Toluene-d8	5.89	98	849348	9.46	ug/l	-0.02
Spiked Amount			10.000	Recovery =		94.60%
56) 4-Bromofluorobenzene	7.90	95	369441m	10.08	ug/l	-0.04
Spiked Amount			10.000	Recovery =		100.80%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
4) Vinyl Chloride	1.59	62	21670	0.64	ug/l	# 86
21) trans-1,2-Dichloroet	2.87	96	107894	4.87	ug/l	98
27) cis-1,2-Dichloroethe	3.58	96	2349800	98.55	ug/l	88
39) Trichloroethene	4.79	130	561553	17.94	ug/l	97

Analyst Signature: YCP Analyst Name: \_\_\_\_\_ Date: 09/03/04

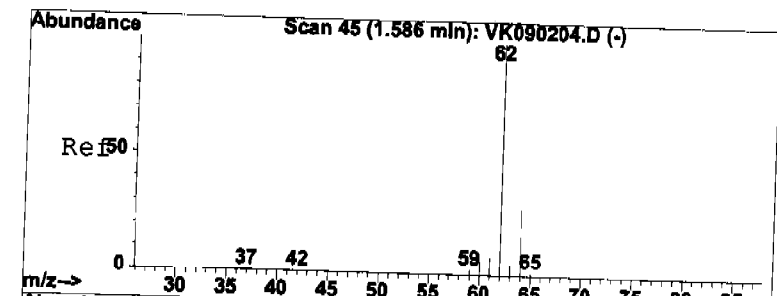
REASONS FOR MANUAL INTEGRATIONS

Poor resolution of peaks exhibited on chromatogram. Compound #: 56

Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

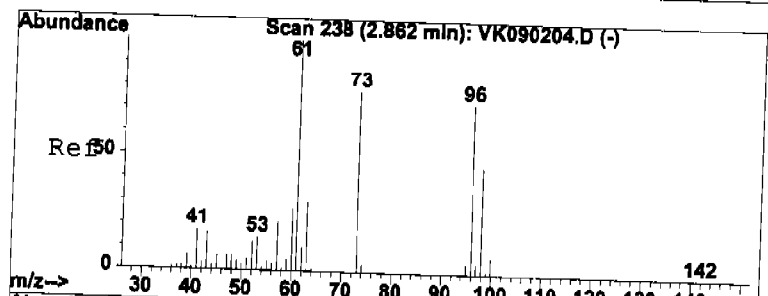
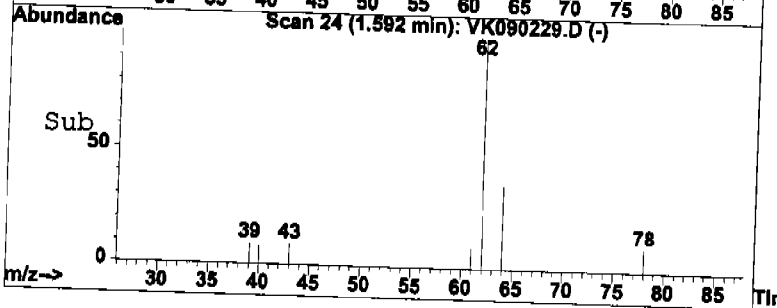
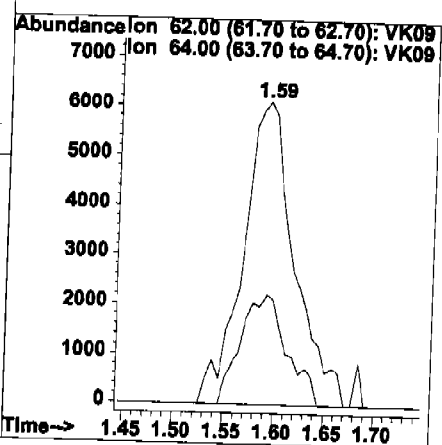
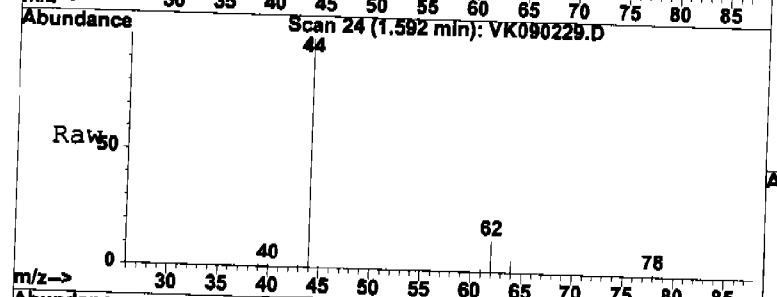
OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration



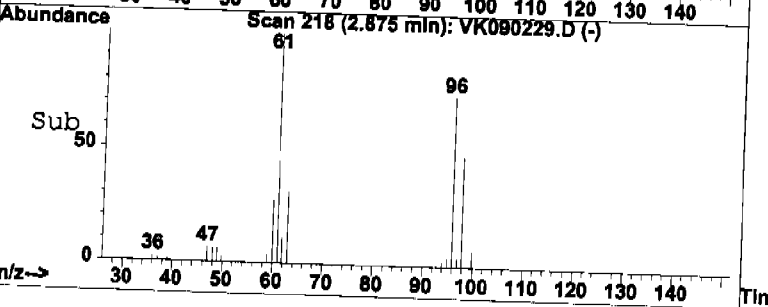
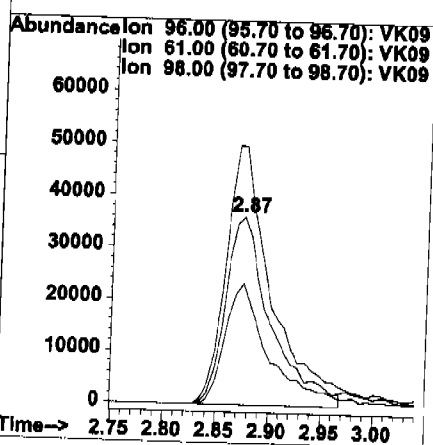
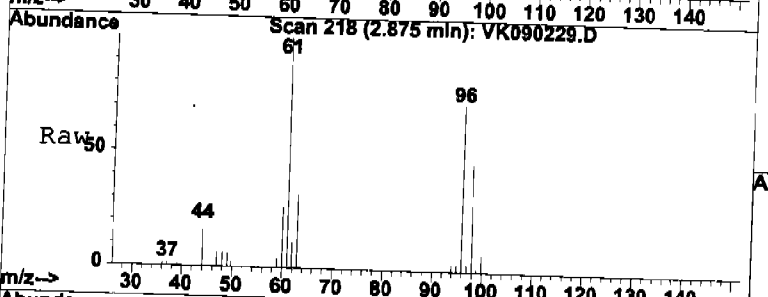
#4  
 Vinyl Chloride  
 Concen: 0.64 ug/l  
 RT: 1.59 min Scan# 24  
 Delta R.T. 0.05 min  
 Lab File: VK090229.D  
 Acq: 2 Sep 2004 7:20 pm

Tgt Ion: 62 Resp: 21670  
 Ion Ratio Lower Upper  
 62 100  
 64 36.2 22.9 34.3#

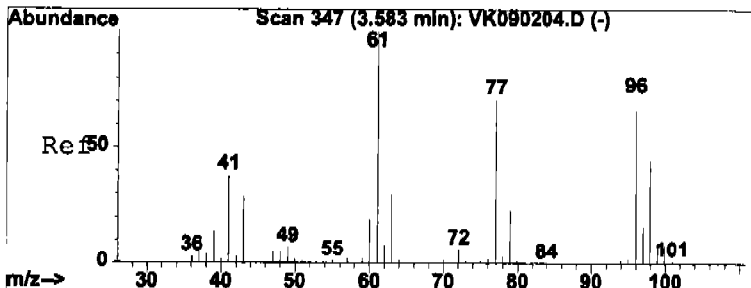


#21  
 trans-1,2-Dichloroethene  
 Concen: 4.87 ug/l  
 RT: 2.87 min Scan# 218  
 Delta R.T. 0.01 min  
 Lab File: VK090229.D  
 Acq: 2 Sep 2004 7:20 pm

Tgt Ion: 96 Resp: 107894  
 Ion Ratio Lower Upper  
 96 100  
 61 138.2 109.2 163.8  
 98 65.0 50.0 75.0



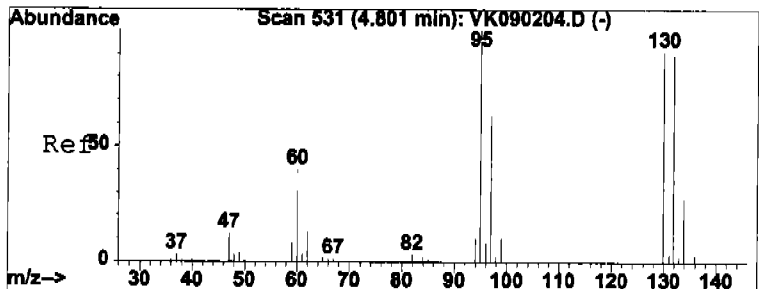
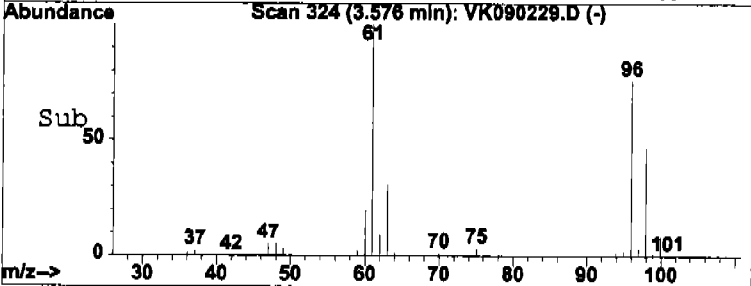
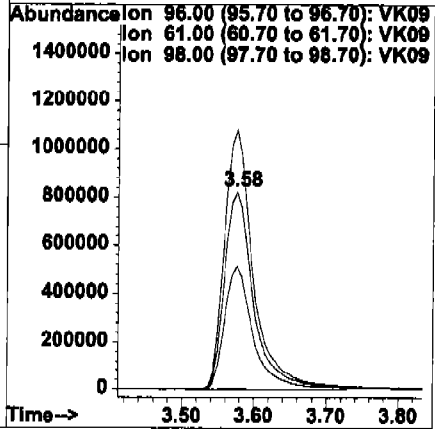
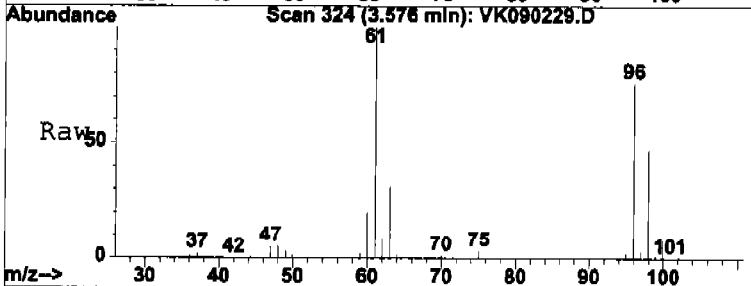




#27  
 cis-1,2-Dichloroethene  
 Concen: 98.55 ug/l  
 RT: 3.58 min Scan# 324  
 Delta R.T. -0.01 min  
 Lab File: VK090229.D  
 Acq: 2 Sep 2004 7:20 pm

Tgt Ion: 96 Resp: 2349800

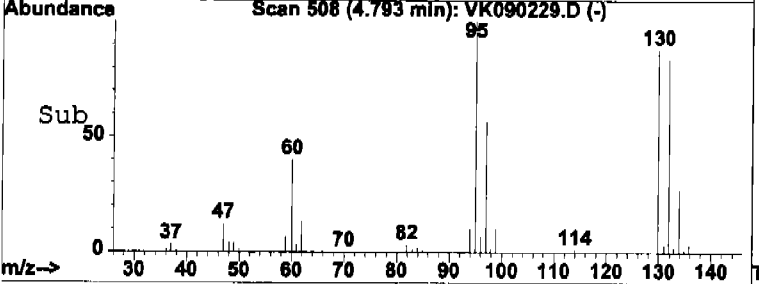
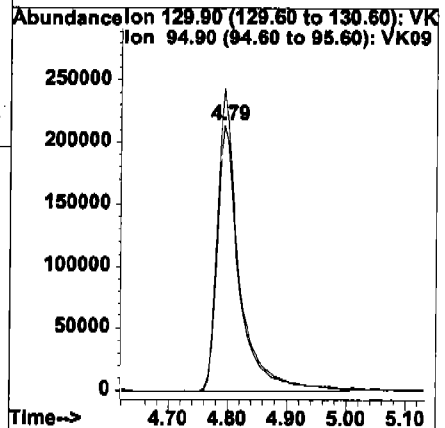
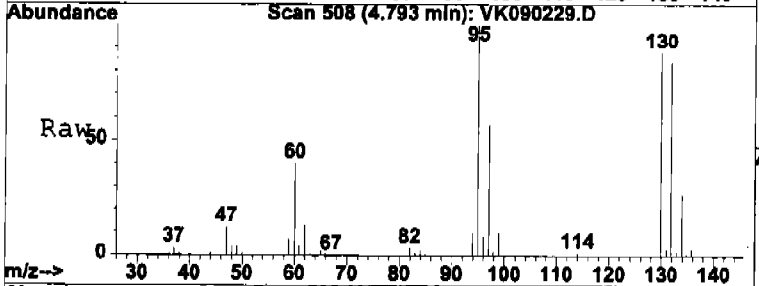
Ion	Ratio	Lower	Upper
96	100		
61	132.0	121.7	182.5
98	62.2	51.3	76.9



#39  
 Trichloroethene  
 Concen: 17.94 ug/l  
 RT: 4.79 min Scan# 508  
 Delta R.T. -0.02 min  
 Lab File: VK090229.D  
 Acq: 2 Sep 2004 7:20 pm

Tgt Ion: 130 Resp: 561553

Ion	Ratio	Lower	Upper
130	100		
95	113.8	88.2	132.2

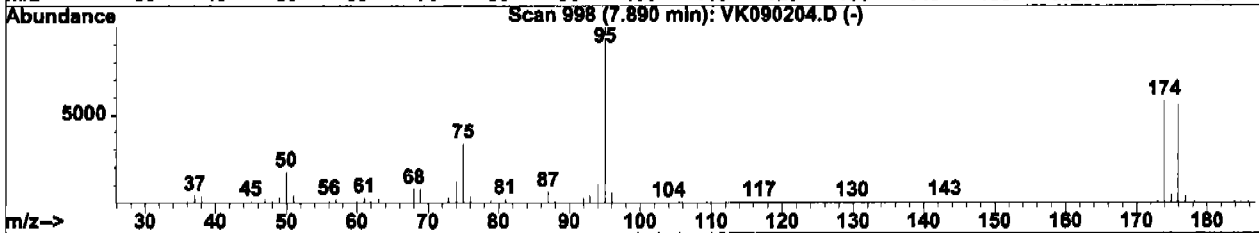
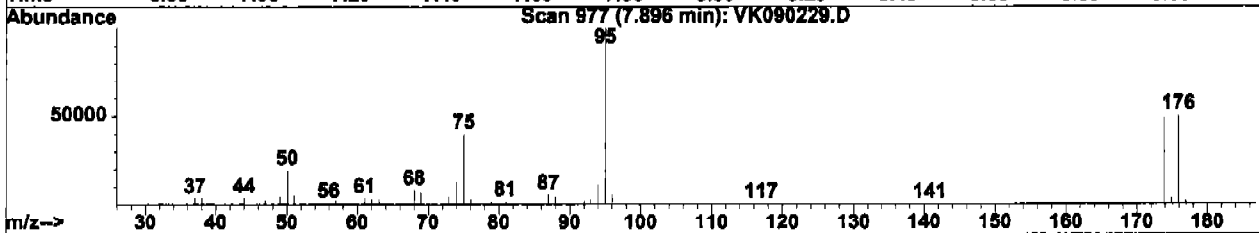
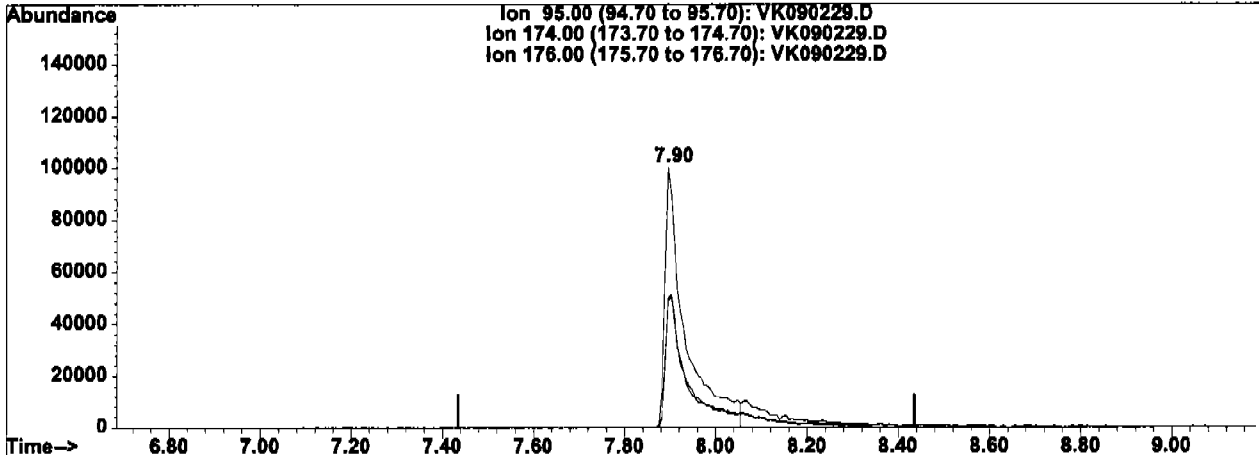


Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090229.D  
 Acq On : 2 Sep 2004 7:20 pm  
 Sample : S4436-12  
 Misc : 25mL  
 Quant Time: Sep 3 14:01 2004

Vial: 11  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



TIC: VK090229.D

(56) 4-Bromofluorobenzene (S)

7.90min 8.43ug/l

response 309105

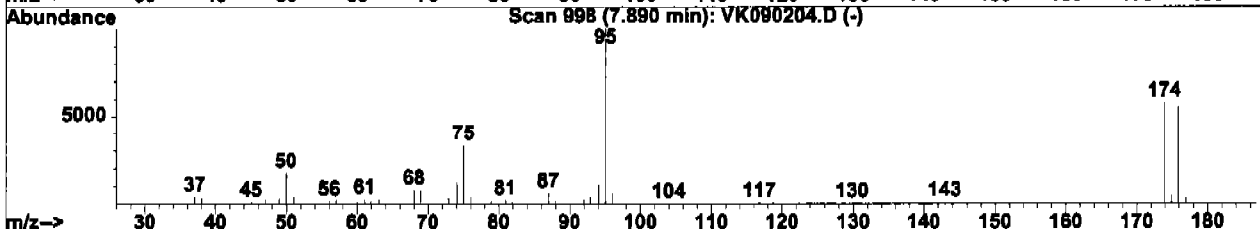
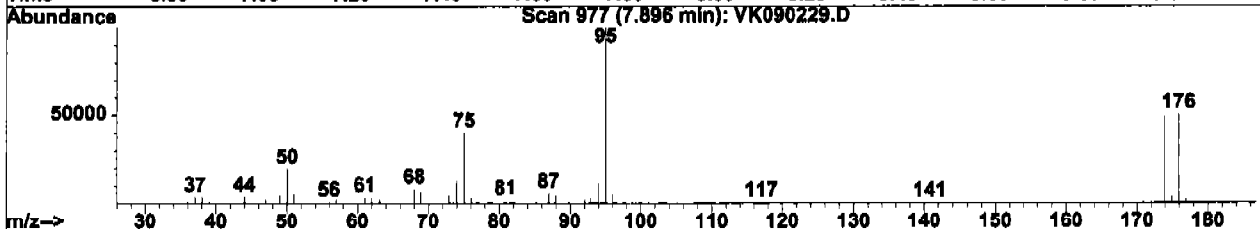
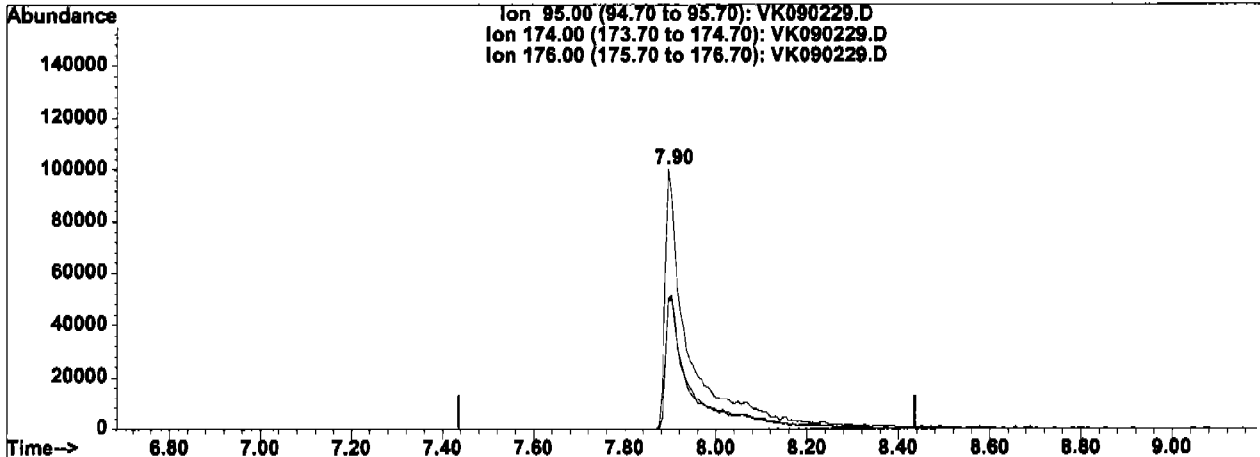
Ion	Exp%	Act%
95.00	100	100
174.00	56.30	49.09
176.00	54.20	52.28
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090229.D  
 Acq On : 2 Sep 2004 7:20 pm  
 Sample : S4436-12  
 Misc : 25mL  
 Quant Time: Sep 3 14:01 2004

Vial: 11  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



TIC: VK090229.D

(56) 4-Bromofluorobenzene (S)

7.90min 10.08ug/l m

response 369441

Ion	Exp%	Act%
95.00	100	100
174.00	56.30	41.07#
176.00	54.20	43.74
0.00	0.00	0.00

LSC Area Percent Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090229.D Vial: 11  
 Acq On : 2 Sep 2004 7:20 pm Operator: KP  
 Sample : S4436-12 Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

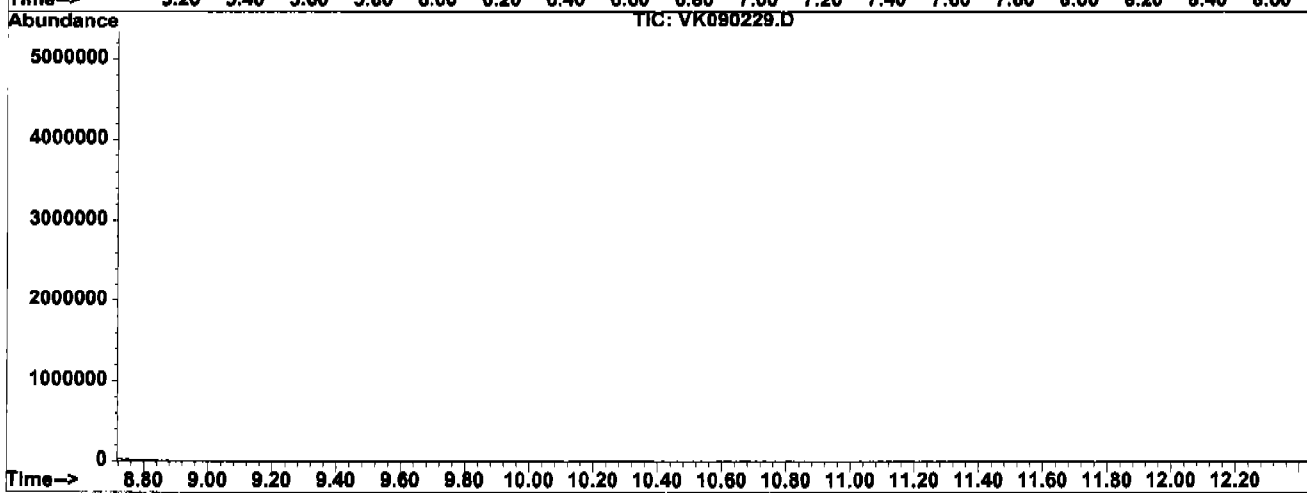
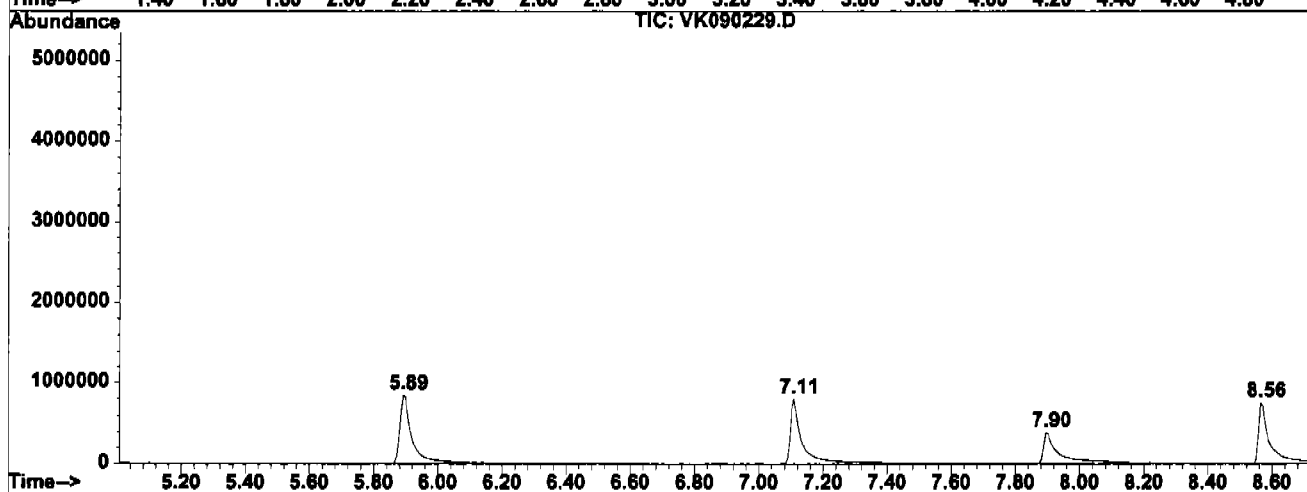
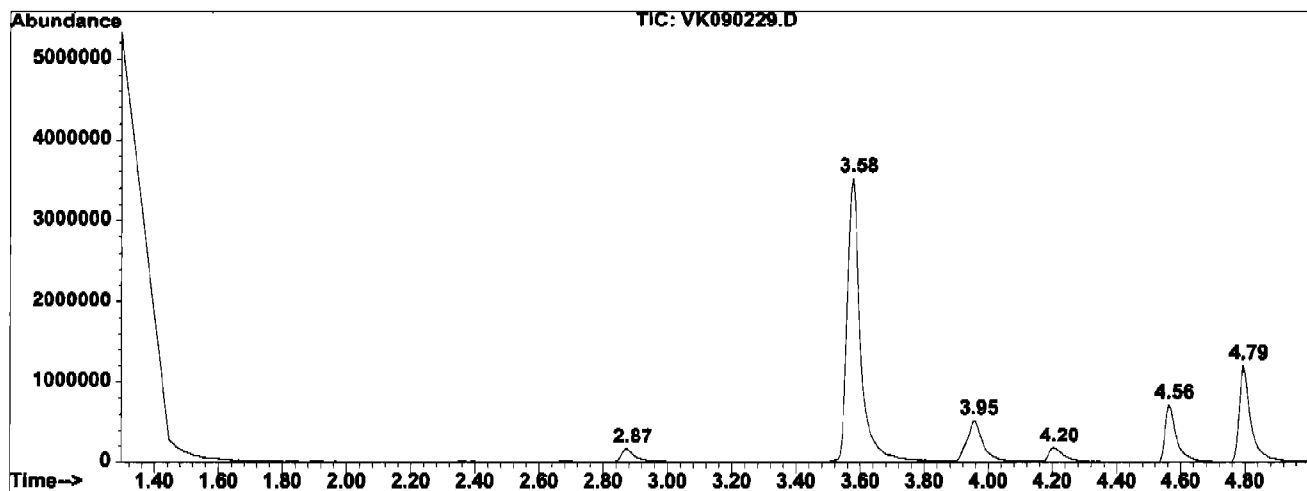
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	2.875	211	218	242	rVB	166427	508065	4.84%	1.971%
2	3.576	310	324	371	rBV	3522291	10494238	100.00%	40.709%
3	3.953	371	381	411	rVV3	522521	1865660	17.78%	7.237%
4	4.205	411	419	447	rVB	175167	598232	5.70%	2.321%
5	4.562	465	473	499	rBV	719803	1782655	16.99%	6.915%
6	4.793	499	508	551	rVB	1204344	3106547	29.60%	12.051%
7	5.891	668	674	709	rBV	850721	2325532	22.16%	9.021%
8	7.108	849	858	885	rBV	799795	1978896	18.86%	7.676%
9	7.896	970	977	999	rBV	385605	1184892	11.29%	4.596%
10	8.564	1073	1078	1115	rBV	752587	1933995	18.43%	7.502%

Sum of corrected areas: 25778712

VK090229.D SAK0902W.M Fri Sep 03 14:04:04 2004 LABMANAGER

LSC Report - Integrated Chromatogram

File : K:\1\DATA\MSVOAK\VK090204\VK090229.D  
Operator : KP  
Acquired : 2 Sep 2004 7:20 pm using AcqMethod VP  
Instrument : MSVOA J/K  
Sample Name: S4436-12  
Misc Info : 25mL  
Vial Number: 11  
Quant File : SAK0902W.RES (RTE Integrator)





**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2247DL</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-12DL</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090339.D</b>	<b>10</b>		<b>9/3/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
74-87-3	Chloromethane	1.6	UD	10	1.6	ug/L
75-01-4	Vinyl chloride	1.1	UD	10	1.1	ug/L
74-83-9	Bromomethane	1.2	UD	10	1.2	ug/L
75-00-3	Chloroethane	1.8	UD	10	1.8	ug/L
75-35-4	1,1-Dichloroethene	2.0	UD	10	2.0	ug/L
67-64-1	Acetone	12	UD	50	12	ug/L
75-15-0	Carbon disulfide	2.1	UD	10	2.1	ug/L
75-09-2	Methylene Chloride	3.6	UD	10	3.6	ug/L
156-60-5	trans-1,2-Dichloroethene	4.3	JD	10	2.5	ug/L
75-34-3	1,1-Dichloroethane	2.1	UD	10	2.1	ug/L
78-93-3	2-Butanone	9.2	UD	50	9.2	ug/L
56-23-5	Carbon Tetrachloride	1.7	UD	10	1.7	ug/L
156-59-2	cis-1,2-Dichloroethene	98	D	10	2.7	ug/L
67-66-3	Chloroform	2.3	UD	10	2.3	ug/L
71-55-6	1,1,1-Trichloroethane	2.2	UD	10	2.2	ug/L
71-43-2	Benzene	2.0	UD	10	2.0	ug/L
107-06-2	1,2-Dichloroethane	2.1	UD	10	2.1	ug/L
79-01-6	Trichloroethene	17	D	10	1.9	ug/L
78-87-5	1,2-Dichloropropane	1.8	UD	10	1.8	ug/L
75-27-4	Bromodichloromethane	1.7	UD	10	1.7	ug/L
108-10-1	4-Methyl-2-Pentanone	7.7	UD	50	7.7	ug/L
108-88-3	Toluene	1.9	UD	10	1.9	ug/L
10061-02-6	t-1,3-Dichloropropene	1.5	UD	10	1.5	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.9	UD	10	1.9	ug/L
79-00-5	1,1,2-Trichloroethane	2.0	UD	10	2.0	ug/L
591-78-6	2-Hexanone	5.8	UD	50	5.8	ug/L
124-48-1	Dibromochloromethane	2.1	UD	10	2.1	ug/L
127-18-4	Tetrachloroethene	2.0	UD	10	2.0	ug/L
108-90-7	Chlorobenzene	1.6	UD	10	1.6	ug/L
100-41-4	Ethyl Benzene	1.8	UD	10	1.8	ug/L
136777-61-2	m&p-Xylenes	3.6	UD	10	3.6	ug/L
95-47-6	o-Xylene	1.7	UD	10	1.7	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2247DL</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-12DL</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Allquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090339.D</b>	<b>10</b>		<b>9/3/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
100-42-5	Styrene	1.7	UD	10	1.7	ug/L
75-25-2	Bromoform	3.7	UD	10	3.7	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.3	UD	10	1.3	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	11.44	114 %	72 - 119		SPK: 10
1868-53-7	Dibromofluoromethane	10.69	107 %	85 - 115		SPK: 10
2037-26-5	Toluene-d8	9.48	95 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	10.07	101 %	76 - 119		SPK: 10
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	331403	3.96			
540-36-3	1,4-Difluorobenzene	769010	4.57			
3114-55-4	Chlorobenzene-d5	626829	7.11			
3855-82-1	1,4-Dichlorobenzene-d4	313598	8.57			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound



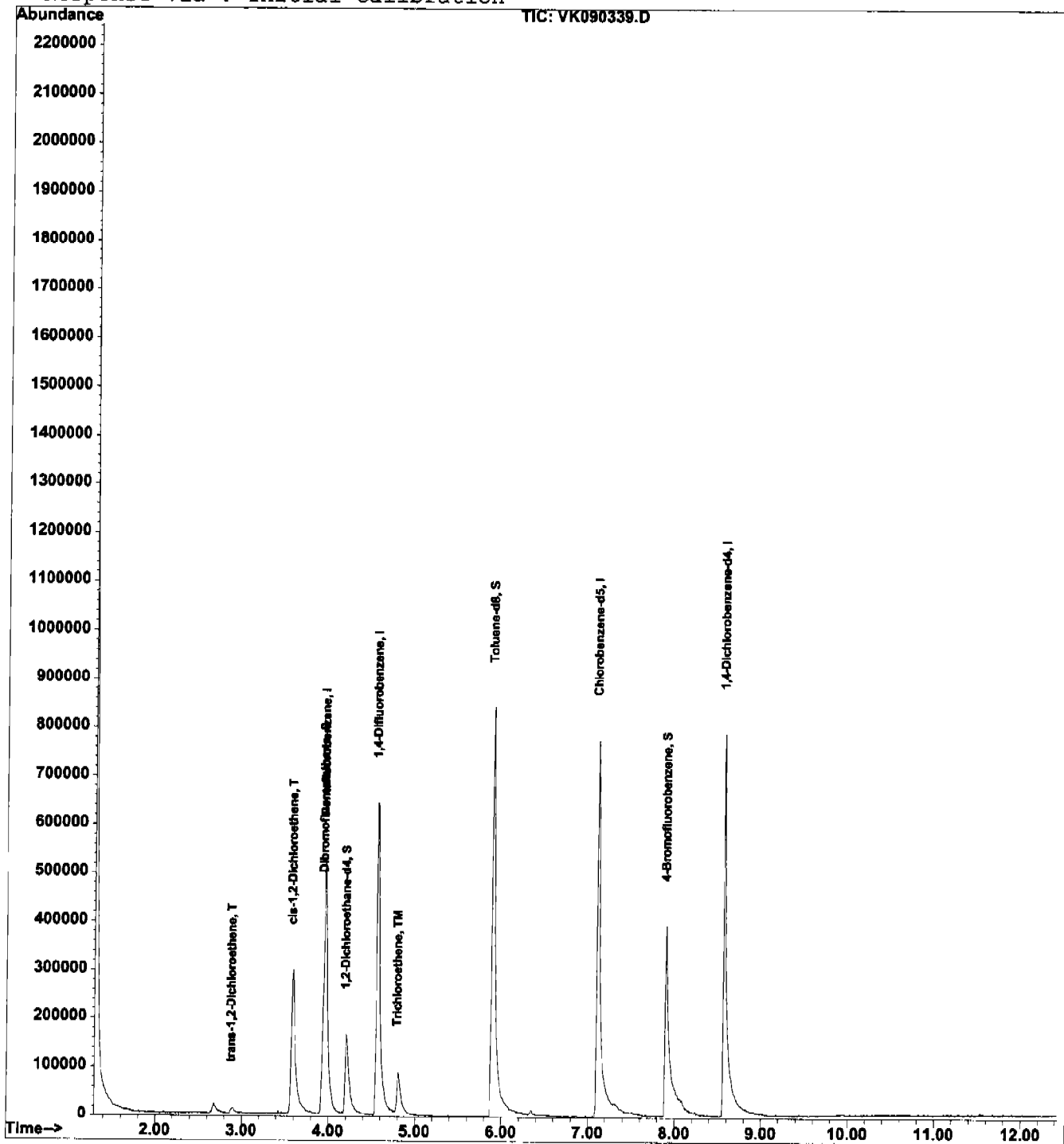
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090339.D  
Acq On : 3 Sep 2004 7:36 pm  
Sample : S4436-12 10X  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 7 11:53 2004

Vial: 7  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090304\VK090339.D  
 Acq On : 3 Sep 2004 7:36 pm  
 Sample : S4436-12 10X  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 7 11:53 2004

Vial: 7  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

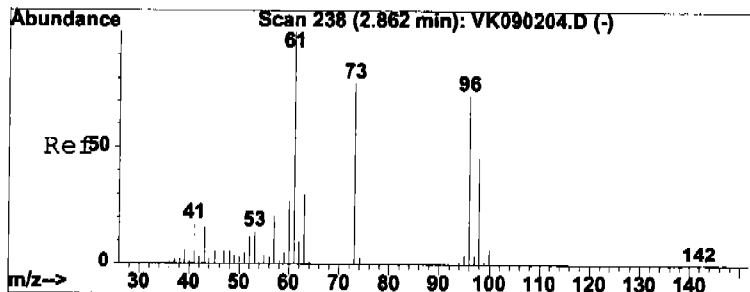
Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Pentafluorobenzene	3.96	168	331403	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.57	114	769010	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.11	117	626829	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.57	152	313598	10.00	ug/l	0.00
<b>System Monitoring Compounds</b>						
32) 1,2-Dichloroethane-d	4.20	65	190562	11.44	ug/l	0.00
Spiked Amount	10.000			Recovery	=	114.40%
34) Dibromofluoromethane	3.94	113	223138	10.69	ug/l	0.00
Spiked Amount	10.000			Recovery	=	106.90%
45) Toluene-d8	5.90	98	864423	9.48	ug/l	-0.01
Spiked Amount	10.000			Recovery	=	94.80%
56) 4-Bromofluorobenzene	7.90	95	374912m	10.07	ug/l	-0.03
Spiked Amount	10.000			Recovery	=	100.70%
<b>Target Compounds</b>						
21) trans-1,2-Dichloroet	2.90	96	9486m	0.43	ug/l	
27) cis-1,2-Dichloroethe	3.59	96	235413	9.82	ug/l	84
39) Trichloroethene	4.81	130	55306m	1.74	ug/l	

-----  
 Analyst Signature: 1gp Analyst Name: \_\_\_\_\_ Date: 09/07/04

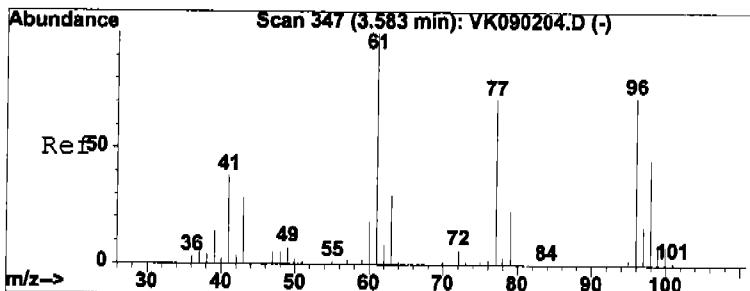
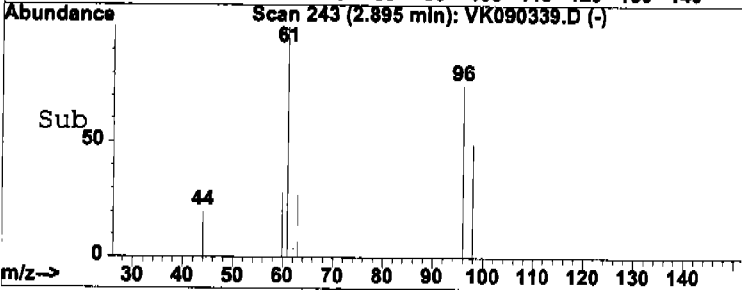
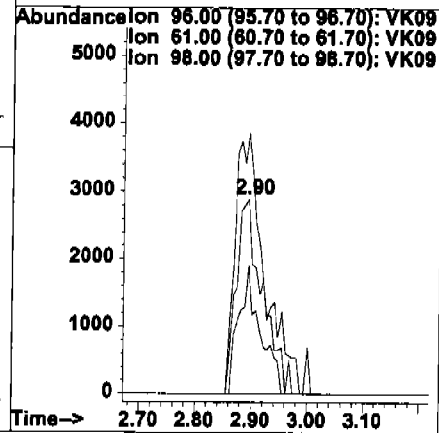
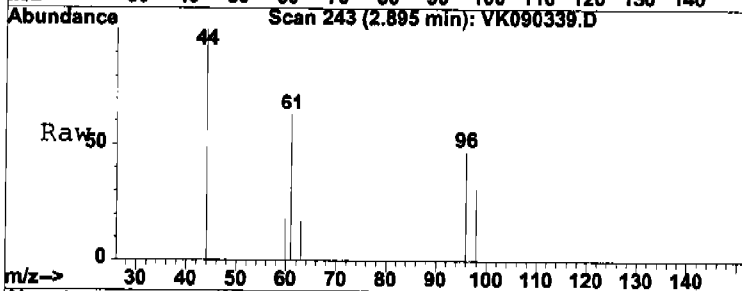
-----REASONS FOR MANUAL INTEGRATIONS-----  
 Poor resolution of peaks exhibited on chromatogram. Compound #: 56  
 Peak integrated by software incorrectly. Compound #:  
 OTHER: \_\_\_\_\_ Compound #:

(#) = qualifier out of range (m) = manual integration



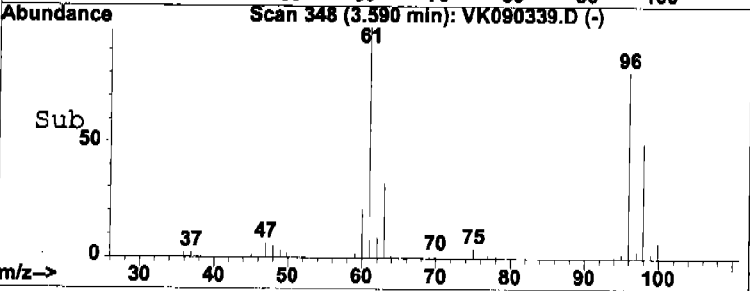
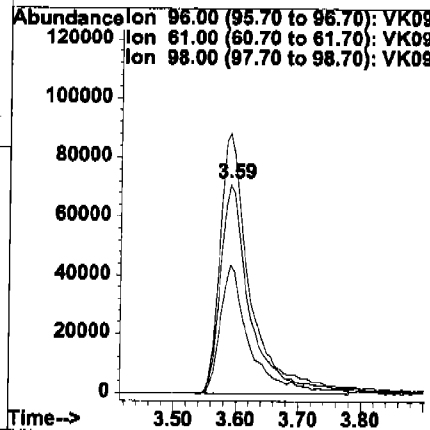
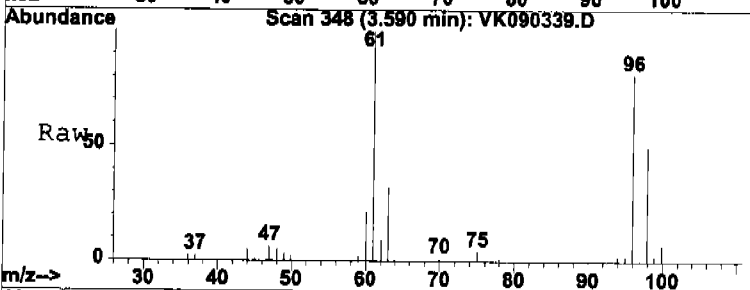
#21  
 trans-1,2-Dichloroethene  
 Concen: 0.43 ug/l m  
 RT: 2.90 min Scan# 243  
 Delta R.T. 0.03 min  
 Lab File: VK090339.D  
 Acq: 3 Sep 2004 7:36 pm

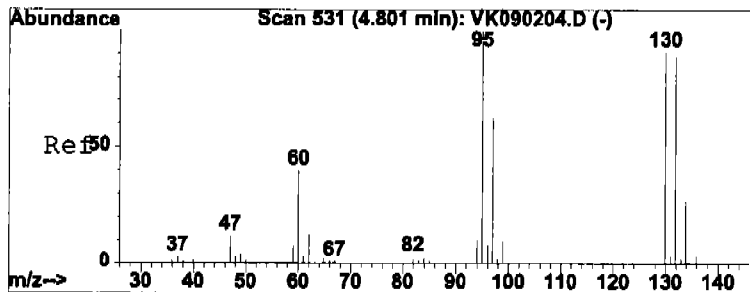
Tgt Ion	Resp	Lower	Upper
96	9486		
Ion Ratio			
96	100		
61	133.6	109.2	163.8
98	65.6	50.0	75.0



#27  
 cis-1,2-Dichloroethene  
 Concen: 9.82 ug/l  
 RT: 3.59 min Scan# 348  
 Delta R.T. 0.00 min  
 Lab File: VK090339.D  
 Acq: 3 Sep 2004 7:36 pm

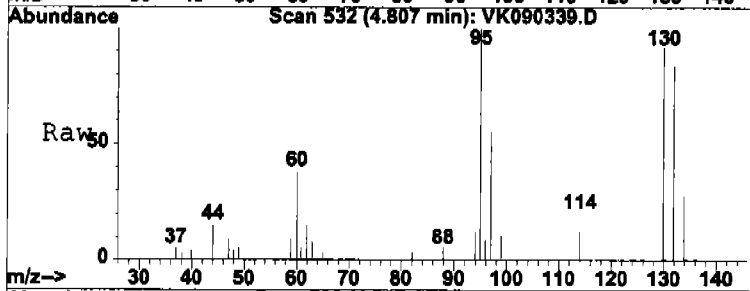
Tgt Ion	Resp	Lower	Upper
96	235413		
Ion Ratio			
96	100		
61	125.9	121.7	182.5
98	60.2	51.3	76.9



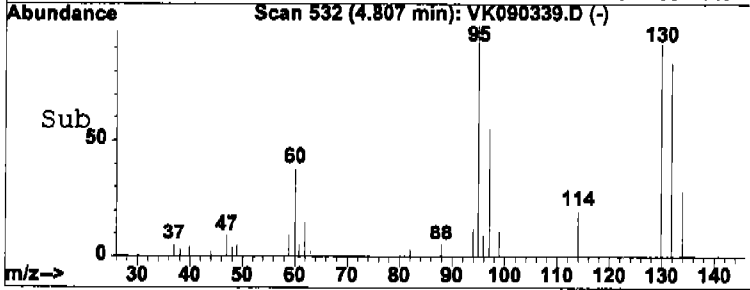
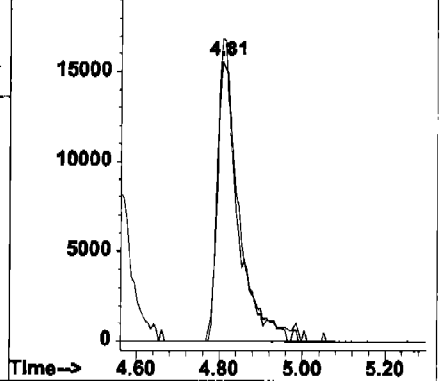


#39  
 Trichloroethene  
 Concen: 1.74 ug/l m  
 RT: 4.81 min Scan# 532  
 Delta R.T. -0.01 min  
 Lab File: VK090339.D  
 Acq: 3 Sep 2004 7:36 pm

Tgt Ion:130 Resp: 55306  
 Ion Ratio Lower Upper  
 130 100  
 95 108.2 88.2 132.2



Abundance Ion 128.80 (129.60 to 130.60): VK  
 20000 Ion 94.90 (94.60 to 95.60): VK09

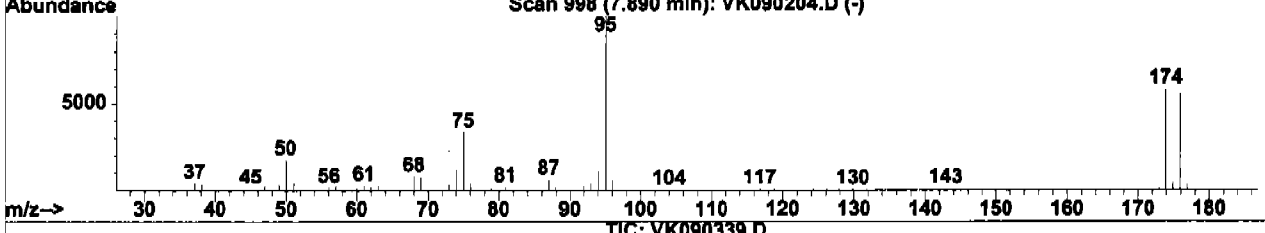
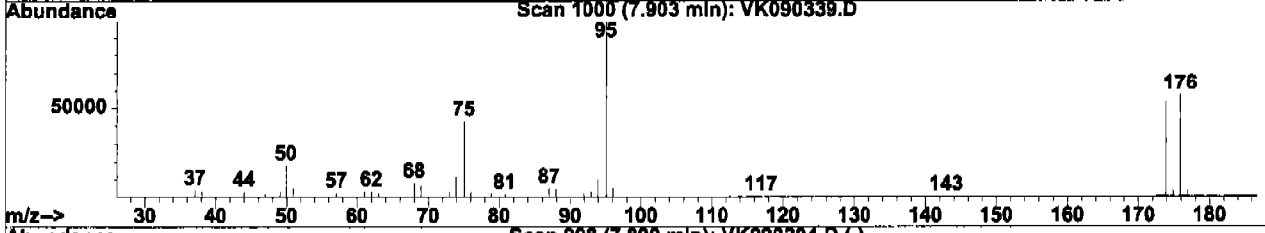
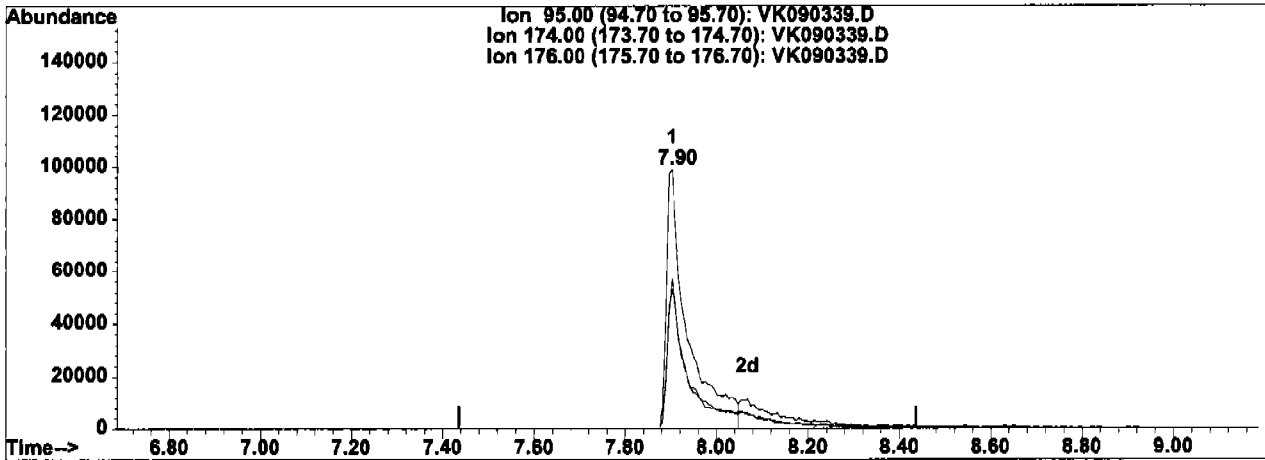


Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090339.D  
 Acq On : 3 Sep 2004 7:36 pm  
 Sample : S4436-12 10X  
 Misc : 25mL  
 Quant Time: Sep 7 11:52 2004

Vial: 7  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(56) 4-Bromofluorobenzene (S)

7.90min 8.53ug/l

response 317354

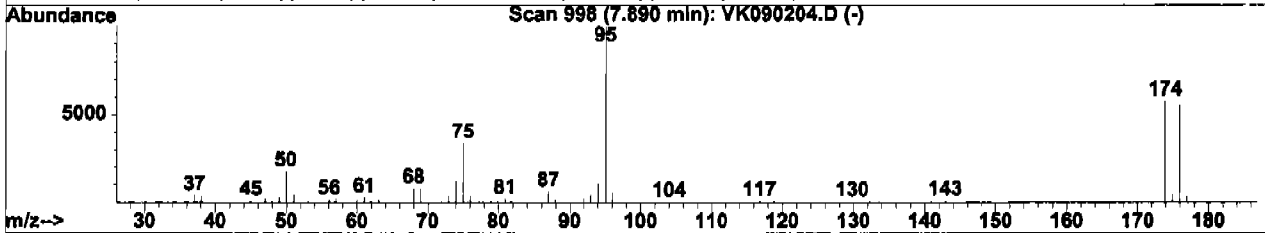
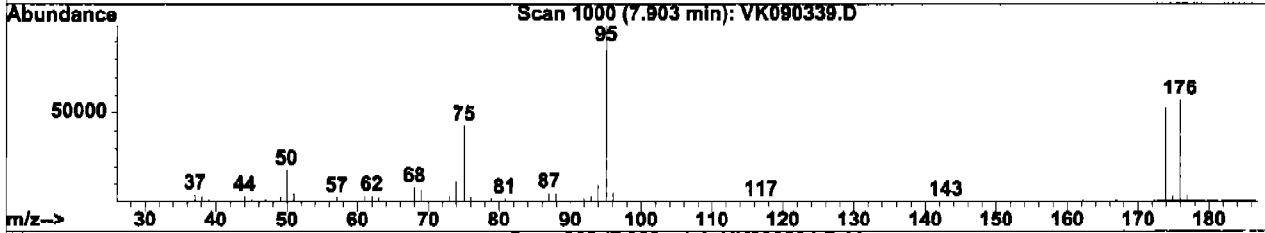
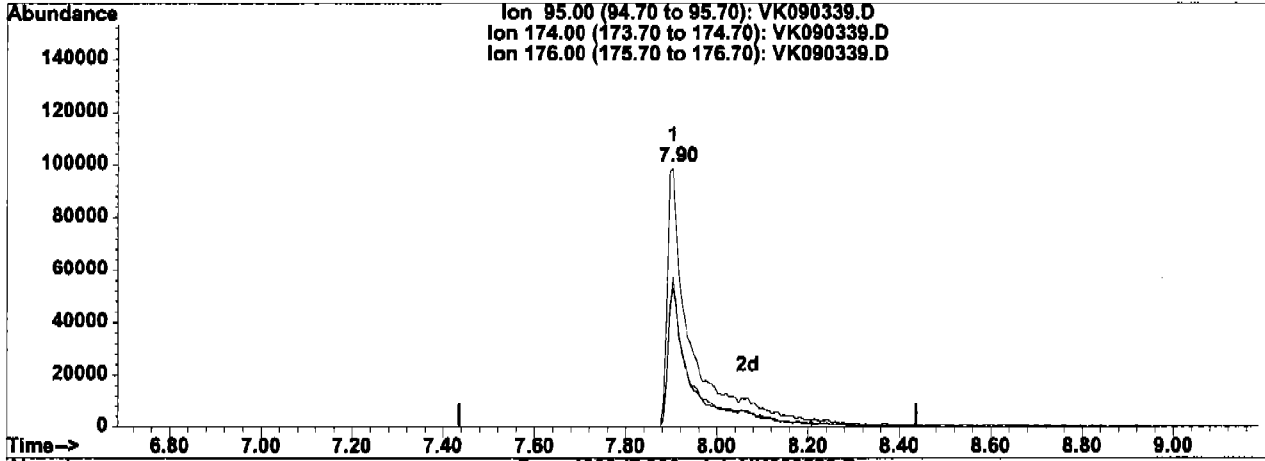
Ion	Exp%	Act%
95.00	100	100
174.00	56.30	54.06
176.00	54.20	53.96
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090339.D  
 Acq On : 3 Sep 2004 7:36 pm  
 Sample : S4436-12 10X  
 Misc : 25mL  
 Quant Time: Sep 7 11:53 2004

Vial: 7  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(56) 4-Bromofluorobenzene (S)

7.90min 10.07ug/l m

response 374912

Ion	Exp%	Act%
95.00	100	100
174.00	56.30	45.76
176.00	54.20	45.67
0.00	0.00	0.00

LSC Area Percent Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090339.D  
 Acq On : 3 Sep 2004 7:36 pm  
 Sample : S4436-12 10X  
 Misc : 25mL  
 MS Integration Params: RTEINT.P

Vial: 7  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.02  
 Stop Thrs : 0  
 Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

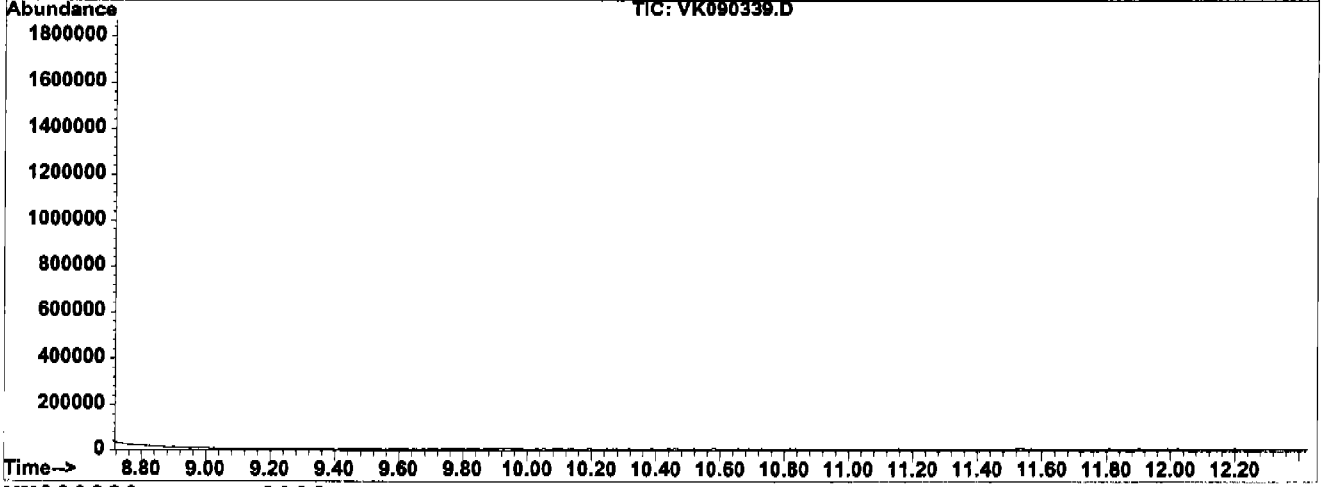
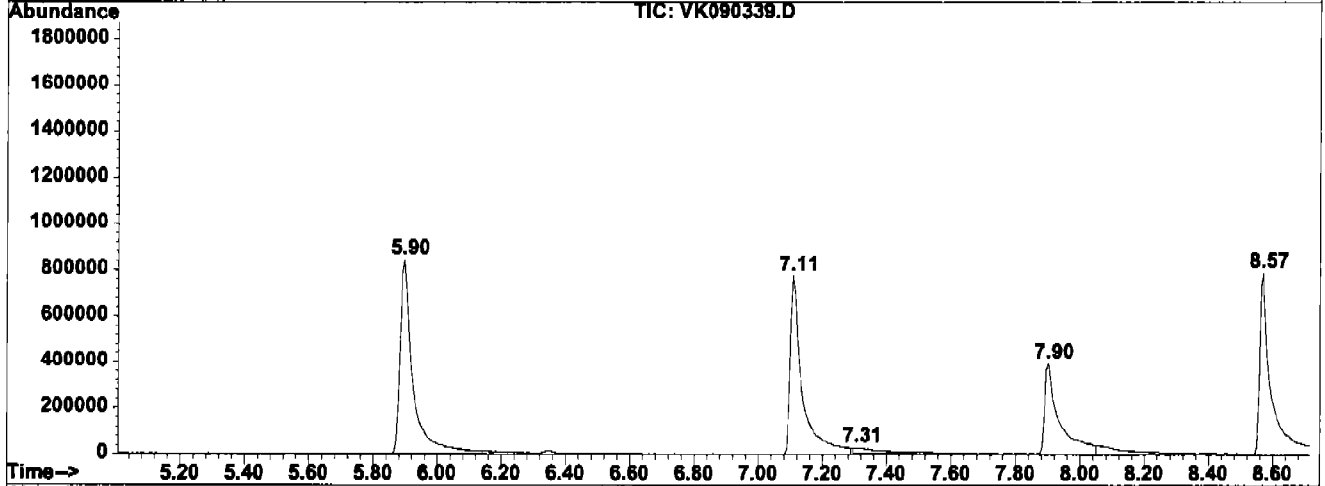
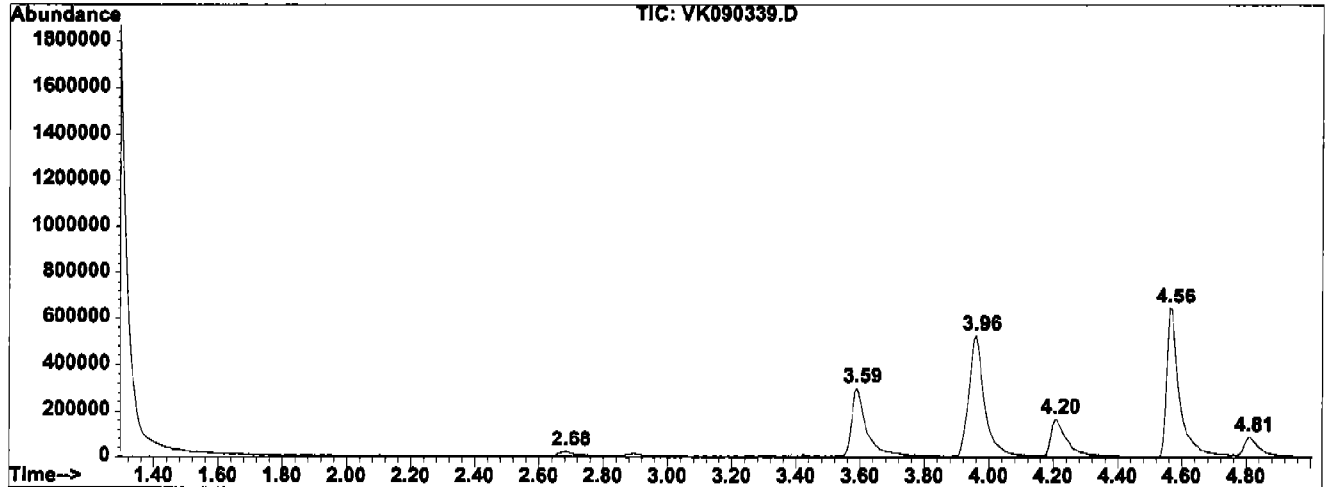
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	2.683	202	211	229	rVB2	22603	85494	3.58%	0.640%
2	3.590	334	348	377	rBV	296654	1001361	41.98%	7.496%
3	3.960	392	404	433	rBV4	521327	1770796	74.23%	13.255%
4	4.205	433	441	473	rVB	163364	564187	23.65%	4.223%
5	4.562	488	495	524	rBV	642187	1783947	74.78%	13.354%
6	4.807	526	532	556	rVB	87565	298599	12.52%	2.235%
7	5.898	688	697	739	rBV	841402	2385485	100.00%	17.856%
8	7.109	874	880	907	rBV	773530	2019452	84.66%	15.116%
9	7.307	908	910	937	rVB6	23196	121512	5.09%	0.910%
10	7.903	994	1000	1022	rBV	392915	1252006	52.48%	9.372%
11	8.571	1093	1101	1148	rBV	786466	2076520	87.05%	15.544%

Sum of corrected areas: 13359359

VK090339.D SAK0902W.M Tue Sep 07 11:54:18 2004 LABMANAGER

LSC Report - Integrated Chromatogram

File : K:\1\DATA\MSVOAK\VK090304\VK090339.D  
Operator : KP  
Acquired : 3 Sep 2004 7:36 pm using AcqMethod VP  
Instrument : MSVOA J/K  
Sample Name: S4436-12 10X  
Misc Info : 25mL  
Vial Number: 7  
Quant File : SAK0902W.RES (RTE Integrator)





Tentatively Identified Compound (LSC) summary

Operator ID: KP      Date Acquired: 3 Sep 2004 7:36 pm  
Data File: K:\1\DATA\MSVOAK\VK090304\VK090339.D  
Name: S4436-12 10X  
Misc: 25mL  
Method: K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title: SW846 8260  
Library Searched: C:\DATABASE\NBS75K.L

TIC	Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
-----									
VK090339.D	SAK0902W.M								

Tue Sep 07 11:54:19 2004      LABMANAGER

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2249</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-13</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090230.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
74-87-3	Chloromethane	0.16	U	1.0	0.16	ug/L
75-01-4	Vinyl chloride	0.11	U	1.0	0.11	ug/L
74-83-9	Bromomethane	0.12	U	1.0	0.12	ug/L
75-00-3	Chloroethane	0.18	U	1.0	0.18	ug/L
75-35-4	1,1-Dichloroethene	0.20	U	1.0	0.20	ug/L
67-64-1	Acetone	1.2	U	5.0	1.2	ug/L
75-15-0	Carbon disulfide	0.21	U	1.0	0.21	ug/L
75-09-2	Methylene Chloride	0.36	U	1.0	0.36	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	1.0	0.25	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.92	U	5.0	0.92	ug/L
56-23-5	Carbon Tetrachloride	0.17	U	1.0	0.17	ug/L
156-59-2	cis-1,2-Dichloroethene	2.2		1.0	0.27	ug/L
67-66-3	Chloroform	0.23	U	1.0	0.23	ug/L
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22	ug/L
71-43-2	Benzene	0.20	U	1.0	0.20	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	0.19	U	1.0	0.19	ug/L
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17	ug/L
108-10-1	4-Methyl-2-Pentanone	0.77	U	5.0	0.77	ug/L
108-88-3	Toluene	0.19	U	1.0	0.19	ug/L
10061-02-6	t-1,3-Dichloropropene	0.15	U	1.0	0.15	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L
591-78-6	2-Hexanone	0.58	U	5.0	0.58	ug/L
124-48-1	Dibromochloromethane	0.21	U	1.0	0.21	ug/L
127-18-4	Tetrachloroethene	0.20	U	1.0	0.20	ug/L
108-90-7	Chlorobenzene	0.16	U	1.0	0.16	ug/L
100-41-4	Ethyl Benzene	0.18	U	1.0	0.18	ug/L
136777-61-2	m&p-Xylenes	0.36	U	1.0	0.36	ug/L
95-47-6	o-Xylene	0.17	U	1.0	0.17	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



## Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2249</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-13</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Allquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090230.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
100-42-5	Styrene	0.17	U	1.0	0.17	ug/L
75-25-2	Bromoform	0.37	U	1.0	0.37	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	11.16	112 %	72 - 119		SPK: 10
1868-53-7	Dibromofluoromethane	10.52	105 %	85 - 115		SPK: 10
2037-26-5	Toluene-d8	9.23	92 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	10.23	102 %	76 - 119		SPK: 10
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	340286	3.96			
540-36-3	1,4-Difluorobenzene	753640	4.56			
3114-55-4	Chlorobenzene-d5	624315	7.11			
3855-82-1	1,4-Dichlorobenzene-d4	286537	8.56			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

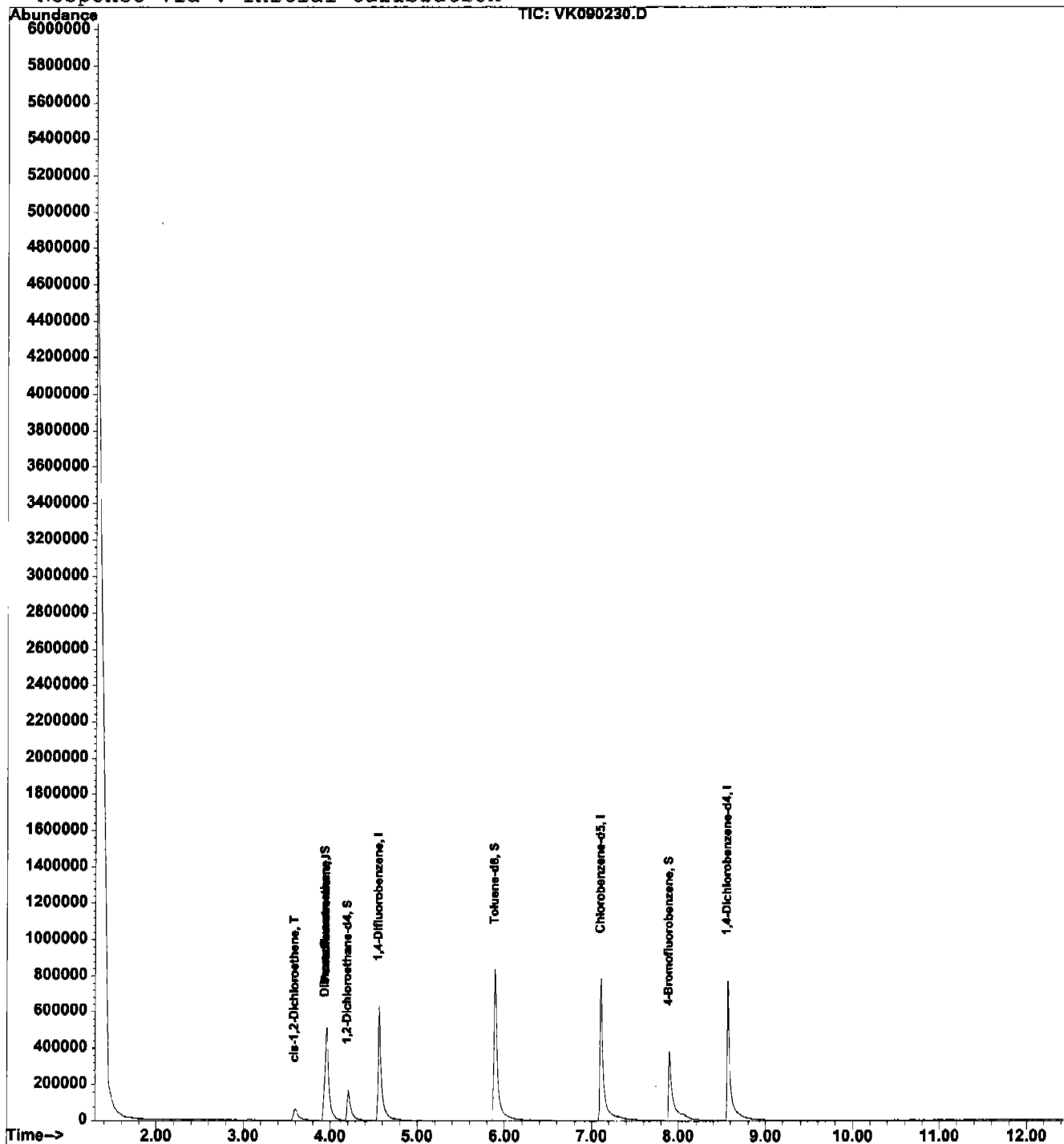
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090230.D  
Acq On : 2 Sep 2004 7:59 pm  
Sample : S4436-13  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 3 14:05 2004

Vial: 12  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090230.D Vial: 12  
 Acq On : 2 Sep 2004 7:59 pm Operator: KP  
 Sample : S4436-13 Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 3 14:05 2004 Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

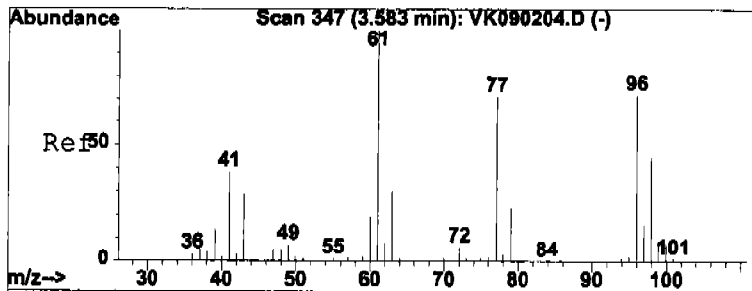
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.96	168	340286	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.56	114	753640	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.11	117	624315	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.56	152	286537	10.00	ug/l	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d	4.20	65	190842	11.16	ug/l	0.00
Spiked Amount	10.000		Recovery	=	111.60%	
34) Dibromofluoromethane	3.94	113	215271	10.52	ug/l	0.00
Spiked Amount	10.000		Recovery	=	105.20%	
45) Toluene-d8	5.89	98	825454	9.23	ug/l	-0.02
Spiked Amount	10.000		Recovery	=	92.30%	
56) 4-Bromofluorobenzene	7.90	95	373286m	10.23	ug/l	-0.04
Spiked Amount	10.000		Recovery	=	102.30%	
Target Compounds						
27) cis-1,2-Dichloroethe	3.60	96	53067	2.16	ug/l	Qvalue 94

Analyst Signature: JCP Analyst Name: \_\_\_\_\_ Date: 09/03/04

-----REASONS FOR MANUAL INTEGRATIONS-----

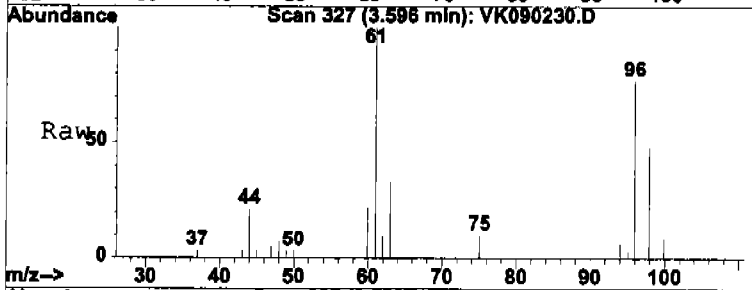
Poor resolution of peaks exhibited on chromatogram. Compound #: 56  
 Peak integrated by software incorrectly. Compound #:  
 OTHER: \_\_\_\_\_ Compound #:

(#) = qualifier out of range (m) = manual integration

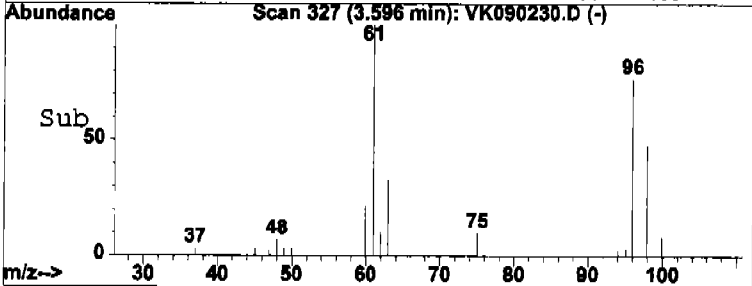
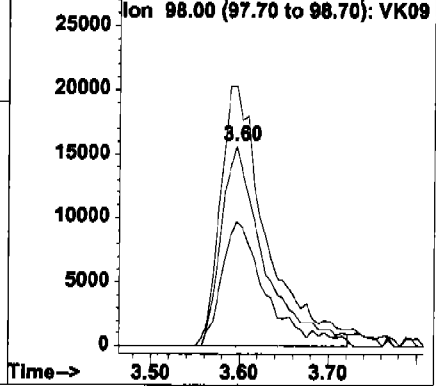


#27  
 cis-1,2-Dichloroethene  
 Concen: 2.16 ug/l  
 RT: 3.60 min Scan# 327  
 Delta R.T. 0.01 min  
 Lab File: VK090230.D  
 Acq: 2 Sep 2004 7:59 pm

Tgt Ion:	96	Resp:	53067
Ion Ratio	Lower	Upper	
96	100		
61	143.3	121.7	182.5
98	59.8	51.3	76.9



Abundance  
 Ion 96.00 (95.70 to 96.70): VK09  
 Ion 61.00 (60.70 to 61.70): VK09  
 Ion 98.00 (97.70 to 98.70): VK09

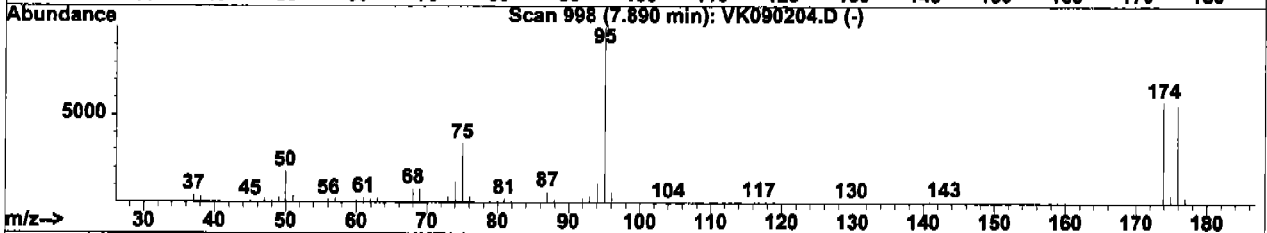
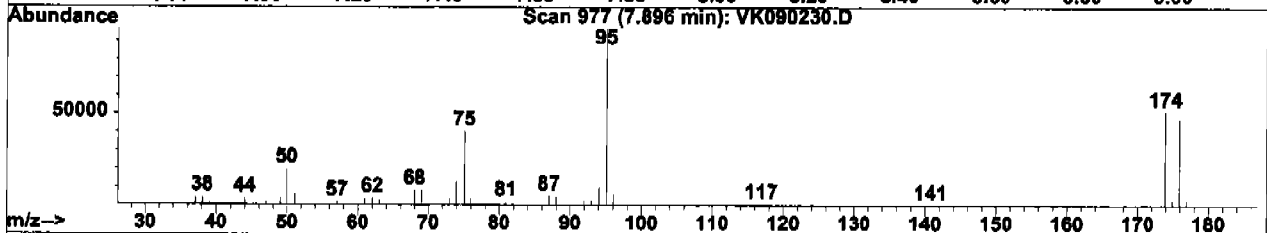
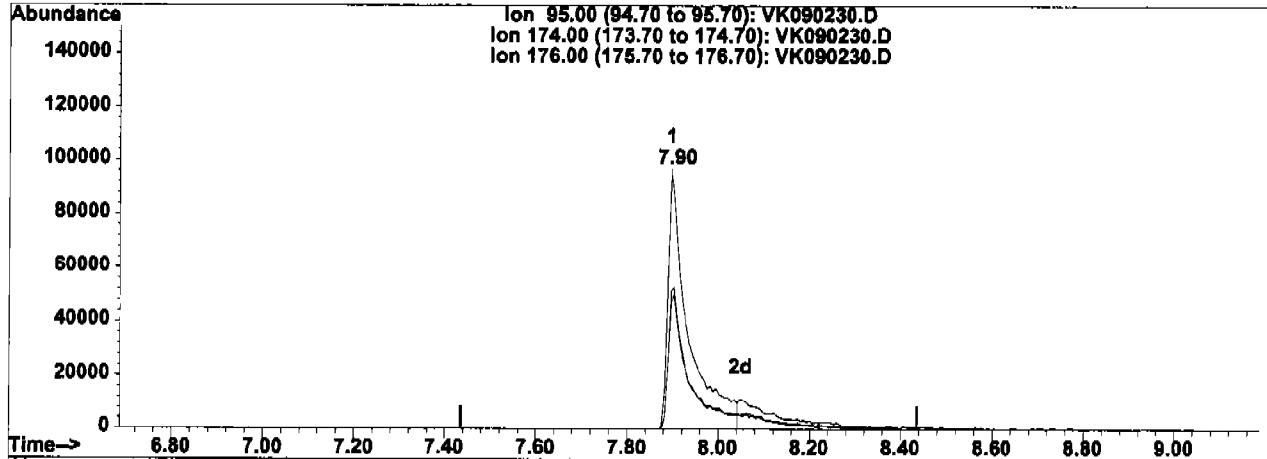


Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090230.D  
 Acq On : 2 Sep 2004 7:59 pm  
 Sample : S4436-13  
 Misc : 25mL  
 Quant Time: Sep 3 14:05 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



TIC: VK090230.D

(56) 4-Bromofluorobenzene (S)

7.90min 8.29ug/l

response 302302

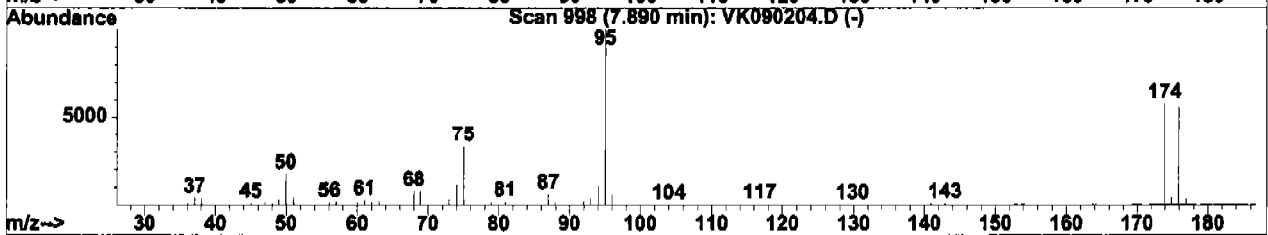
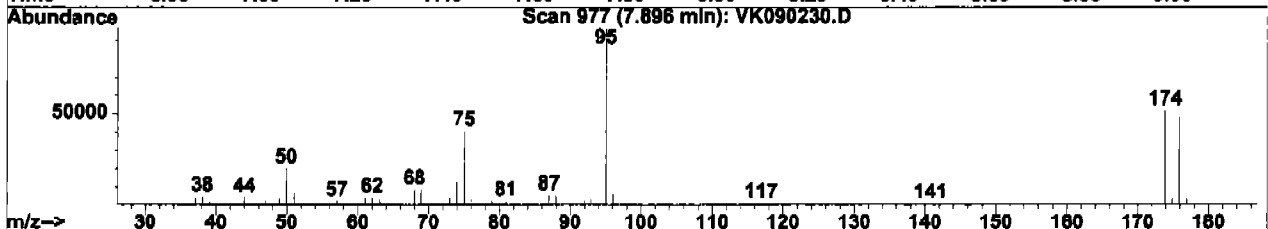
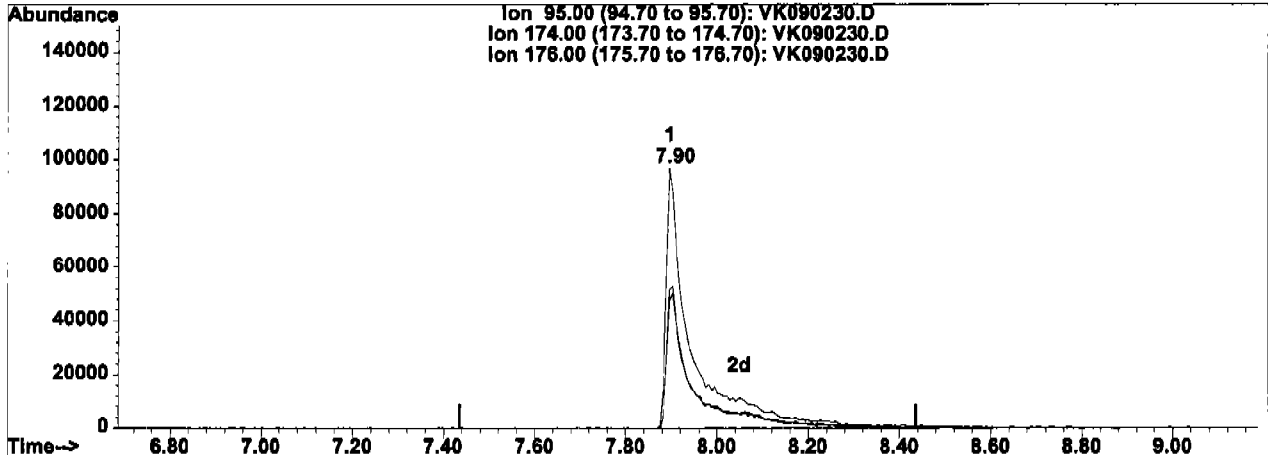
Ion	Exp%	Act%
95.00	100	100
174.00	56.30	55.40
176.00	54.20	52.02
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090230.D  
Acq On : 2 Sep 2004 7:59 pm  
Sample : S4436-13  
Misc : 25mL  
Quant Time: Sep 3 14:05 2004

Vial: 12  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00  
Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Multiple Level Calibration



(56) 4-Bromofluorobenzene (S)

7.90min 10.23ug/l m

response 373286

Ion	Exp%	Act%
95.00	100	100
174.00	56.30	44.87#
176.00	54.20	42.13#
0.00	0.00	0.00



LSC Area Percent Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090230.D Vial: 12  
 Acq On : 2 Sep 2004 7:59 pm Operator: KP  
 Sample : S4436-13 Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

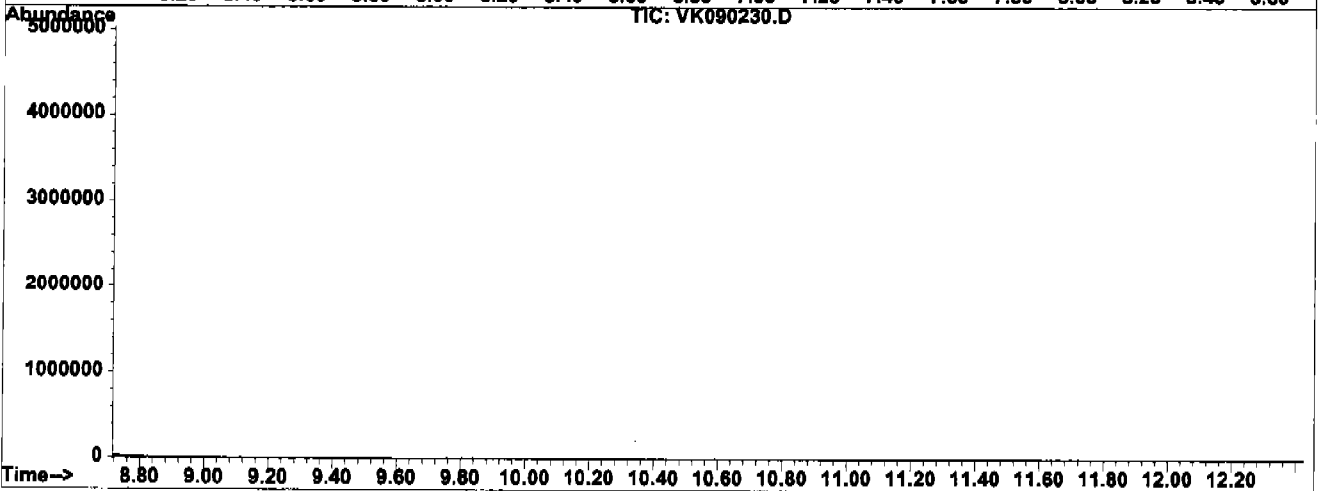
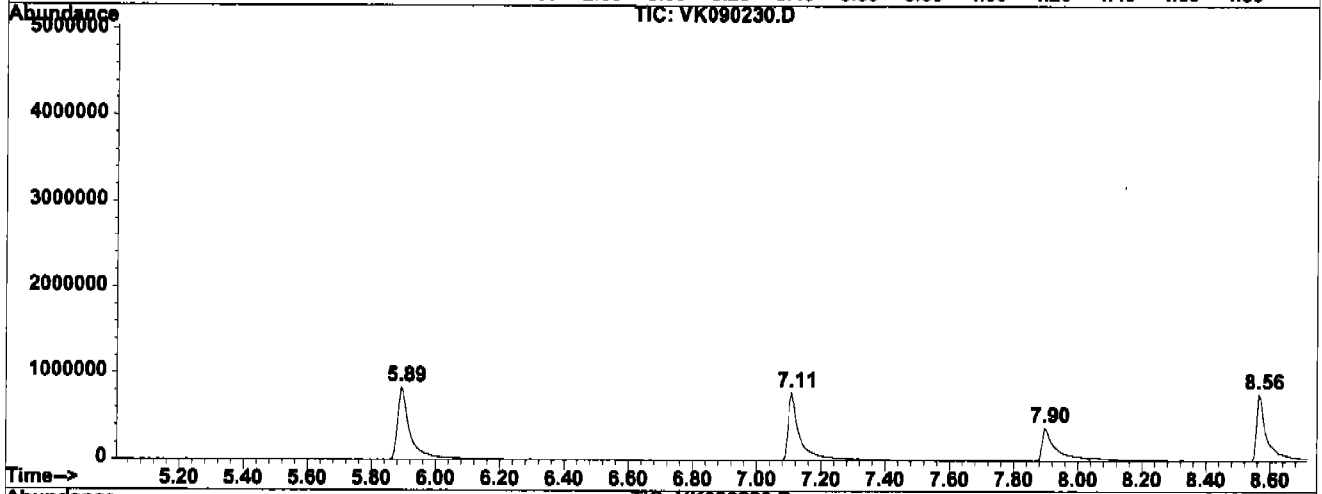
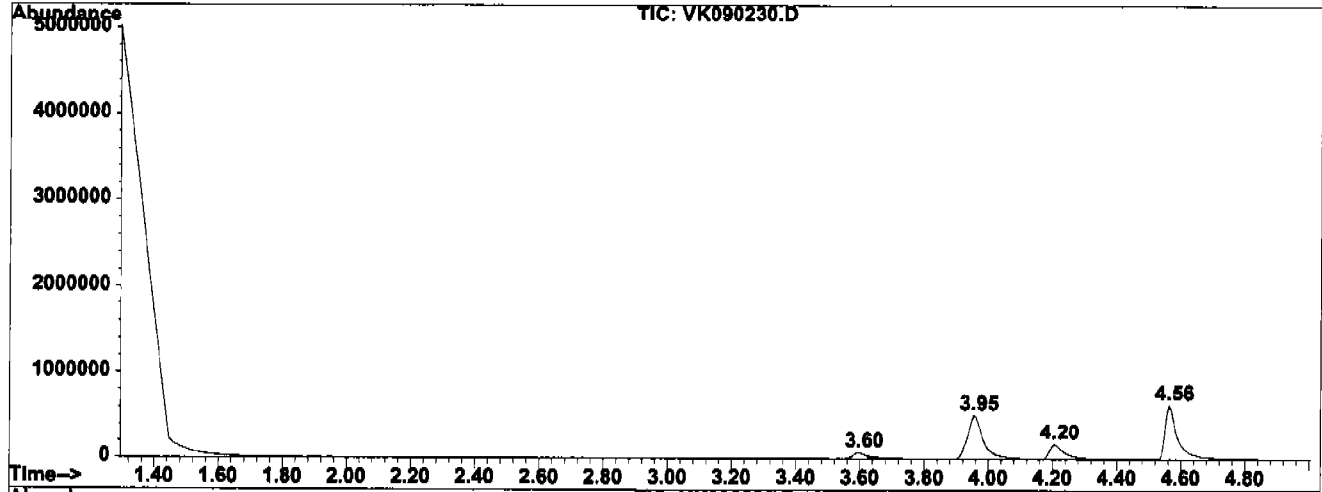
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	3.596	320	327	342	rBV	68397	238966	10.22%	2.029%
2	3.953	371	381	412	rBV3	511240	1761932	75.33%	14.958%
3	4.205	412	419	451	rVB2	168359	569816	24.36%	4.837%
4	4.562	464	473	498	rBV	631066	1722048	73.63%	14.619%
5	5.892	666	674	717	rBV	834333	2338876	100.00%	19.856%
6	7.109	849	858	887	rBV	785438	2014987	86.15%	17.106%
7	7.896	972	977	998	rBV	381665	1172473	50.13%	9.954%
8	8.564	1073	1078	1122	rBV	772056	1960348	83.82%	16.642%

Sum of corrected areas: 11779446

VK090230.D SAK0902W.M Fri Sep 03 14:06:37 2004 LABMANAGER

LSC Report - Integrated Chromatogram

File : K:\1\DATA\MSVOAK\VK090204\VK090230.D  
Operator : KP  
Acquired : 2 Sep 2004 7:59 pm using AcqMethod VP  
Instrument : MSVOA J/K  
Sample Name: S4436-13  
Misc Info : 25mL  
Vial Number: 12  
Quant File :SAK0902W.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: KP      Date Acquired: 2 Sep 2004 7:59 pm  
Data File: K:\1\DATA\MSVOAK\VK090204\VK090230.D  
Name: S4436-13  
Misc: 25mL  
Method: K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title: SW846 8260  
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
-----								
VK090230.D SAK0902W.M			Fri Sep 03 14:06:38 2004				LABMANAGER	

**Report of Analysis**

Client:	Parsons Engineering	Date Collected:	8/29/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/31/2004
Client Sample ID:	ARD2258	SDG No.:	S4436
Lab Sample ID:	S4436-14	Matrix:	WATER
Analytical Method:	8260	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VK090231.D	1		9/2/2004	VK090204

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
74-87-3	Chloromethane	0.16	U	1.0	0.16	ug/L
75-01-4	Vinyl chloride	0.11	U	1.0	0.11	ug/L
74-83-9	Bromomethane	0.12	U	1.0	0.12	ug/L
75-00-3	Chloroethane	0.18	U	1.0	0.18	ug/L
75-35-4	1,1-Dichloroethene	0.20	U	1.0	0.20	ug/L
67-64-1	Acetone	1.2	U	5.0	1.2	ug/L
75-15-0	Carbon disulfide	0.21	U	1.0	0.21	ug/L
75-09-2	Methylene Chloride	0.36	U	1.0	0.36	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	1.0	0.25	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.92	U	5.0	0.92	ug/L
56-23-5	Carbon Tetrachloride	0.17	U	1.0	0.17	ug/L
156-59-2	cis-1,2-Dichloroethene	0.27	U	1.0	0.27	ug/L
67-66-3	Chloroform	0.23	U	1.0	0.23	ug/L
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22	ug/L
71-43-2	Benzene	0.20	U	1.0	0.20	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	0.19	U	1.0	0.19	ug/L
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17	ug/L
108-10-1	4-Methyl-2-Pentanone	0.77	U	5.0	0.77	ug/L
108-88-3	Toluene	0.19	U	1.0	0.19	ug/L
10061-02-6	t-1,3-Dichloropropene	0.15	U	1.0	0.15	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L
591-78-6	2-Hexanone	0.58	U	5.0	0.58	ug/L
124-48-1	Dibromochloromethane	0.21	U	1.0	0.21	ug/L
127-18-4	Tetrachloroethene	0.20	U	1.0	0.20	ug/L
108-90-7	Chlorobenzene	0.16	U	1.0	0.16	ug/L
100-41-4	Ethyl Benzene	0.18	U	1.0	0.18	ug/L
136777-61-2	m&p-Xylenes	0.36	U	1.0	0.36	ug/L
95-47-6	o-Xylene	0.17	U	1.0	0.17	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2258</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-14</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090231.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

<b>CAS Number</b>	<b>Parameter</b>	<b>Conc.</b>	<b>Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
100-42-5	Styrene	0.17	U	1.0	0.17	ug/L
75-25-2	Bromoform	0.37	U	1.0	0.37	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13	ug/L

**SURROGATES**

17060-07-0	1,2-Dichloroethane-d4	11.17	112 %	72 - 119	SPK: 10
1868-53-7	Dibromofluoromethane	10.47	105 %	85 - 115	SPK: 10
2037-26-5	Toluene-d8	9.46	95 %	81 - 120	SPK: 10
460-00-4	4-Bromofluorobenzene	10.35	104 %	76 - 119	SPK: 10

**INTERNAL STANDARDS**

363-72-4	Pentafluorobenzene	321288	3.96		
540-36-3	1,4-Difluorobenzene	742730	4.56		
3114-55-4	Chlorobenzene-d5	583400	7.11		
3855-82-1	1,4-Dichlorobenzene-d4	272919	8.57		

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

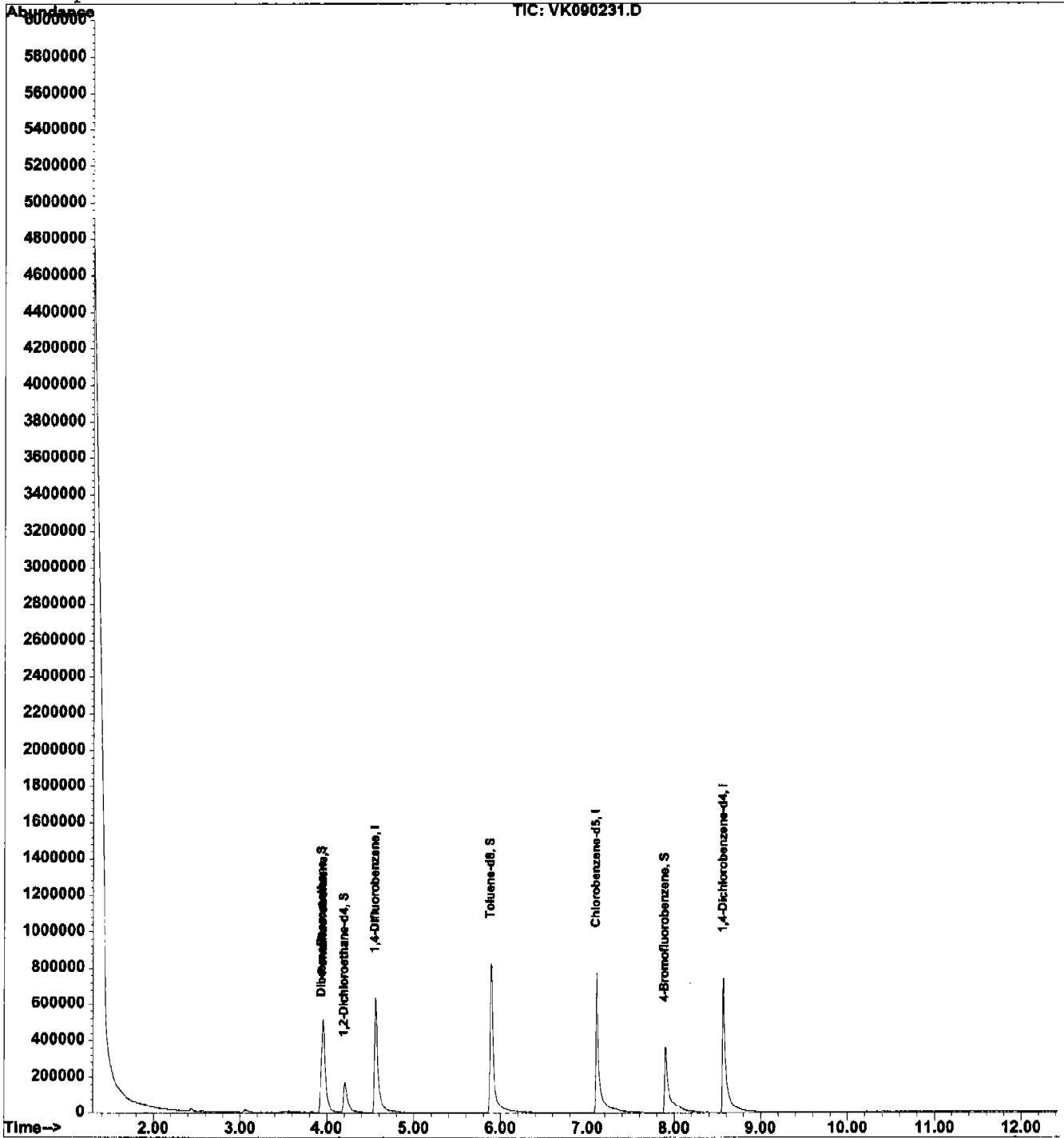
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090231.D  
Acq On : 2 Sep 2004 8:38 pm  
Sample : S4436-14  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 3 14:08 2004

Vial: 13  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090231.D Vial: 13  
 Acq On : 2 Sep 2004 8:38 pm Operator: KP  
 Sample : S4436-14 Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 3 14:08 2004 Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.96	168	321288	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.56	114	742730	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.11	117	583400	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.57	152	272919	10.00	ug/l	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d	4.21	65	180353	11.17	ug/l	0.00
Spiked Amount	10.000		Recovery	=	111.70%	
34) Dibromofluoromethane	3.94	113	211110	10.47	ug/l	0.00
Spiked Amount	10.000		Recovery	=	104.70%	
45) Toluene-d8	5.90	98	832950	9.46	ug/l	-0.01
Spiked Amount	10.000		Recovery	=	94.60%	
56) 4-Bromofluorobenzene	7.90	95	372177m	10.35	ug/l	-0.03
Spiked Amount	10.000		Recovery	=	103.50%	

Target Compounds Qvalue

Analyst Signature: JP Analyst Name: \_\_\_\_\_ Date: 09/03/04

-----REASONS FOR MANUAL INTEGRATIONS-----

Poor resolution of peaks exhibited on chromatogram. Compound #: 56  
 Peak integrated by software incorrectly. Compound #:  
 OTHER: \_\_\_\_\_ Compound #:

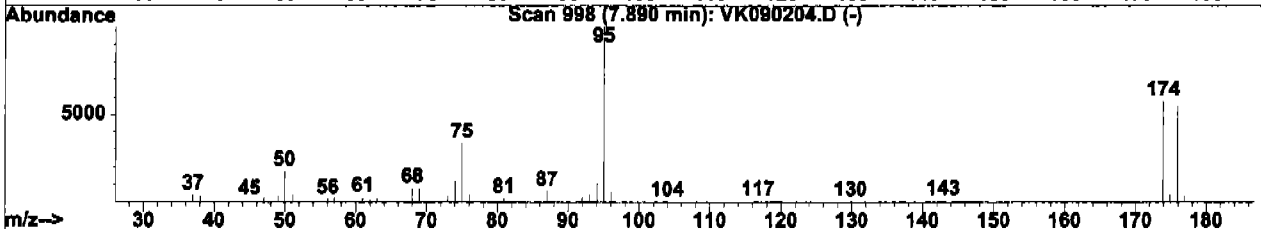
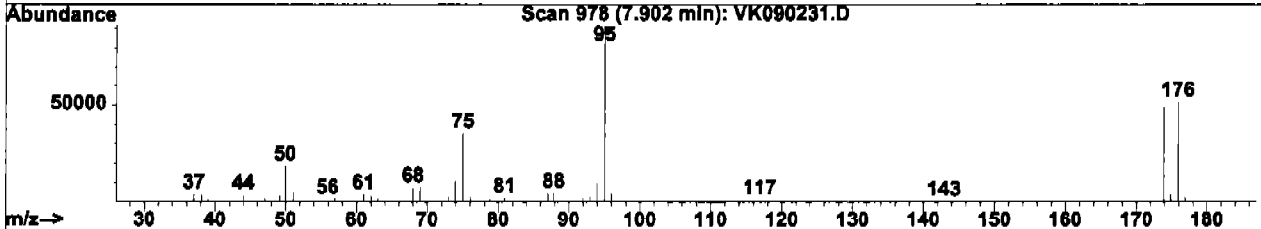
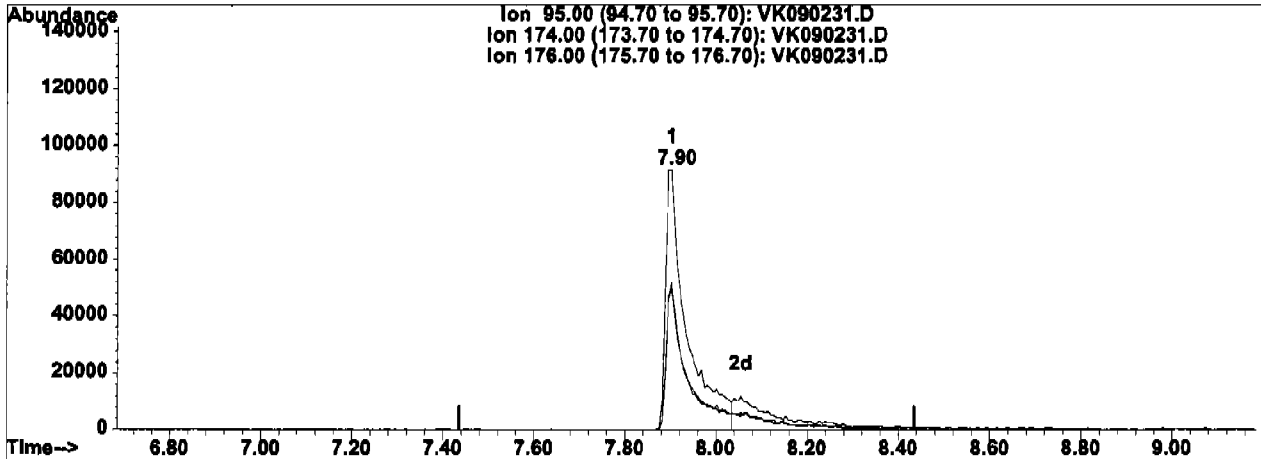
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090231.D  
 Acq On : 2 Sep 2004 8:38 pm  
 Sample : S4436-14  
 Misc : 25mL  
 Quant Time: Sep 3 14:08 2004

Vial: 13  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(56) 4-Bromofluorobenzene (S)

7.90min 8.25ug/l

response 296675

Ion	Exp%	Act%
95.00	100	100
174.00	56.30	55.79
176.00	54.20	55.02
0.00	0.00	0.00

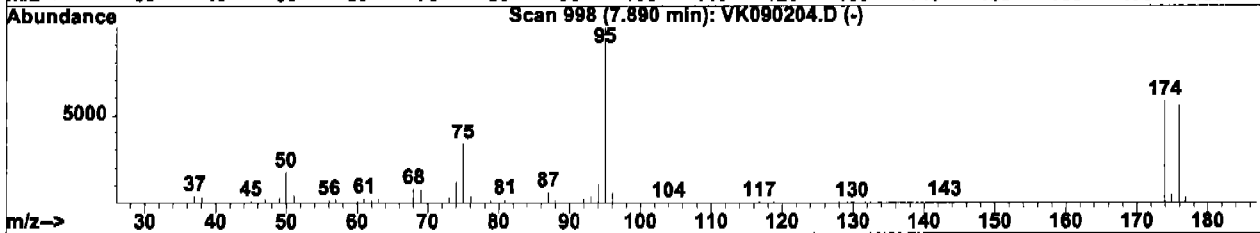
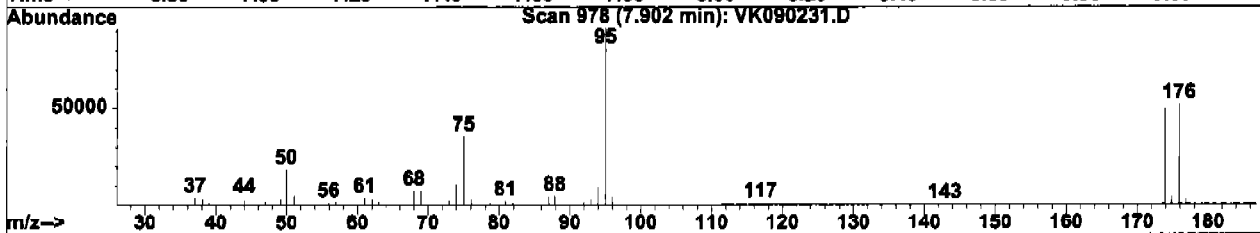
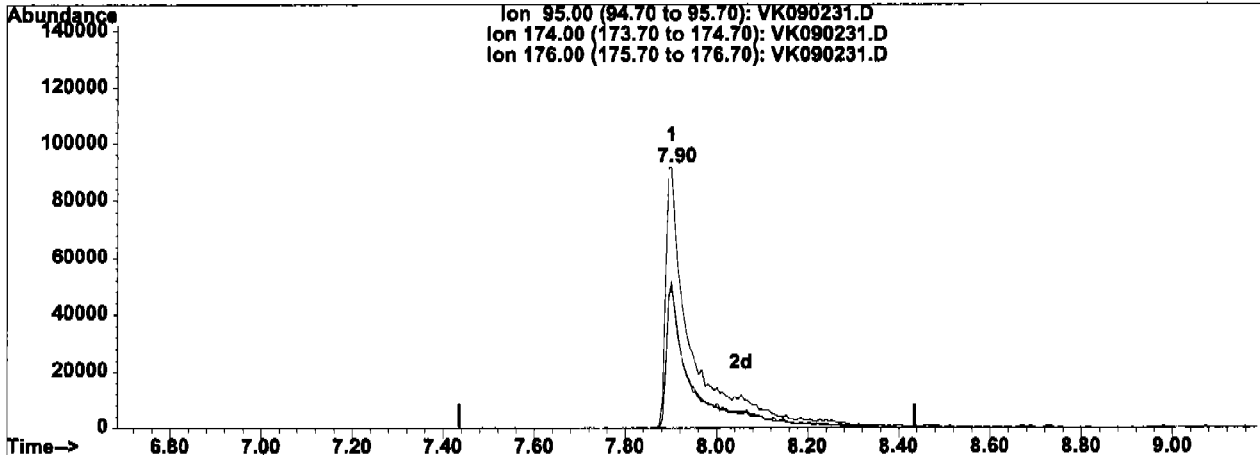


Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090231.D  
 Acq On : 2 Sep 2004 8:38 pm  
 Sample : S4436-14  
 Misc : 25mL  
 Quant Time: Sep 3 14:08 2004

Vial: 13  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(56) 4-Bromofluorobenzene (S)

7.90min 10.35ug/l m

response 372177

Ion	Exp%	Act%
95.00	100	100
174.00	56.30	44.47#
176.00	54.20	43.86
0.00	0.00	0.00

LSC Area Percent Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090231.D Vial: 13  
 Acq On : 2 Sep 2004 8:38 pm Operator: KP  
 Sample : S4436-14 Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

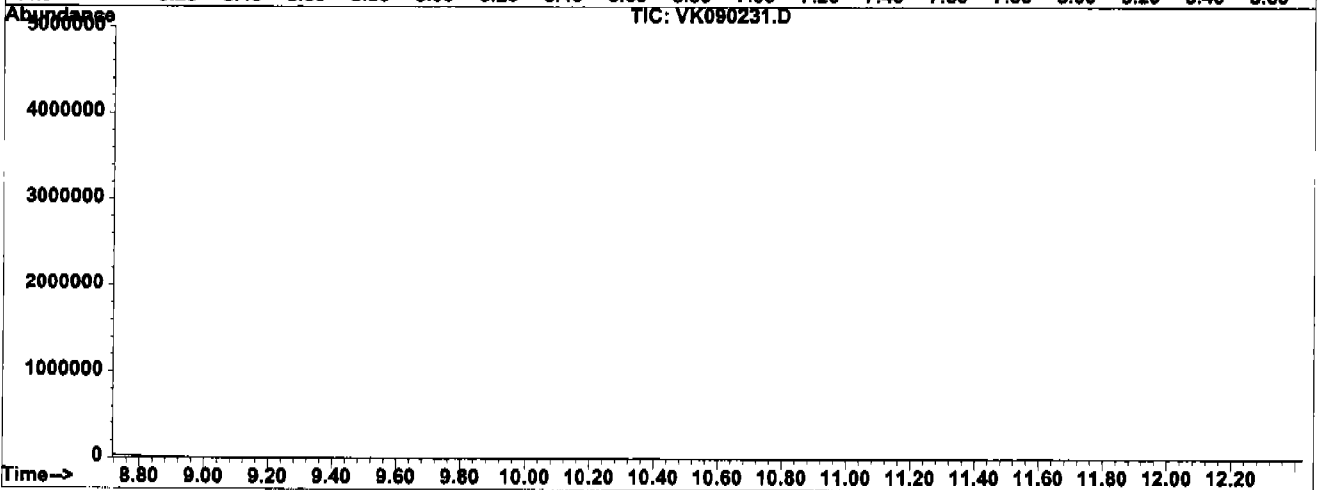
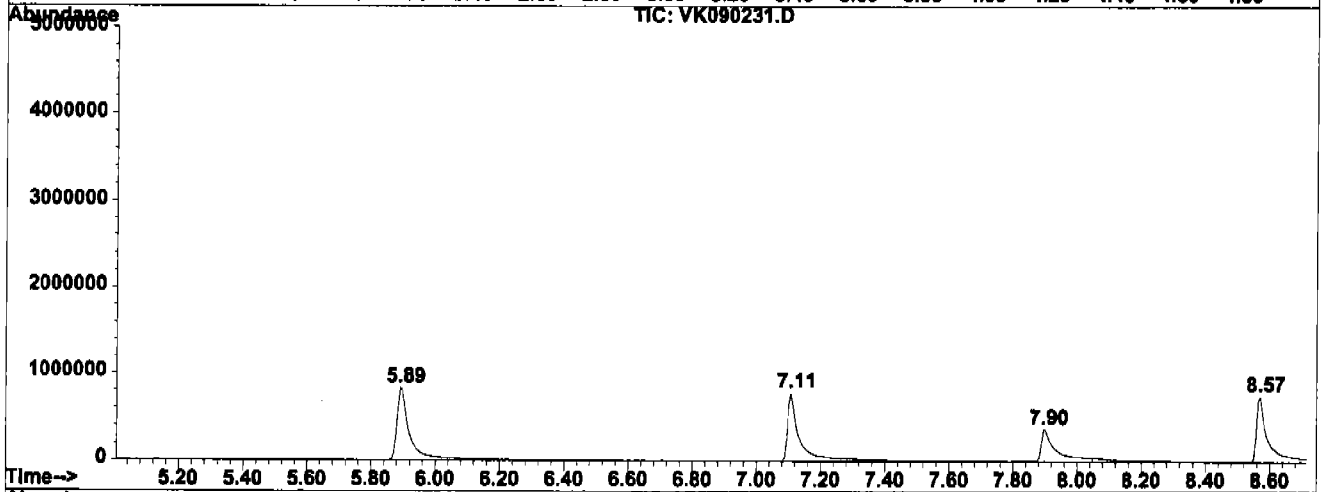
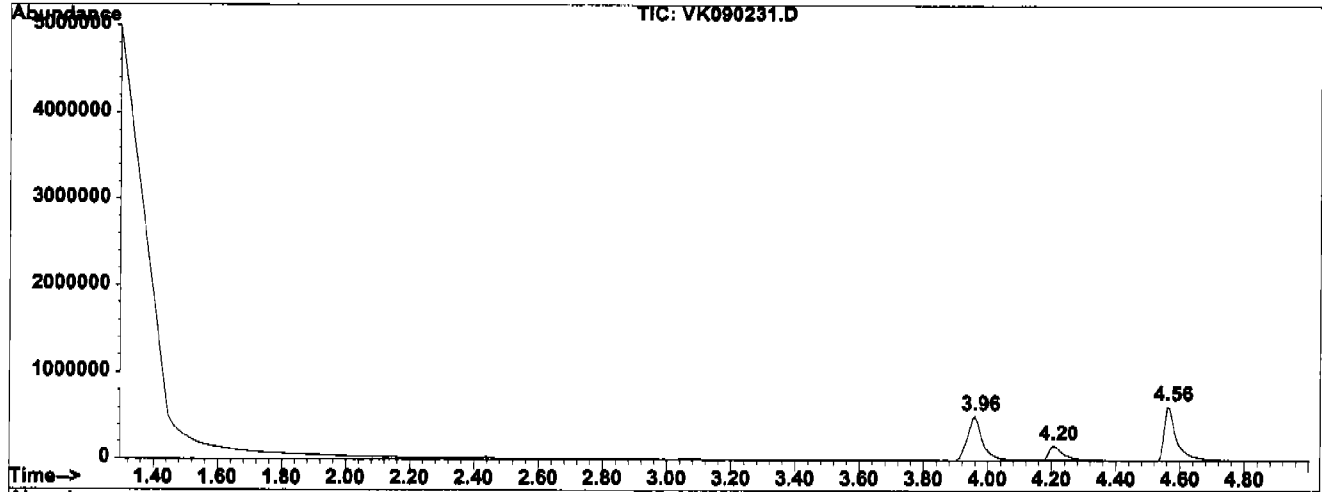
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	3.959	372	382	409	rBV3	515563	1682016	72.35%	14.635%
2	4.204	409	419	438	rVV	165174	499980	21.51%	4.350%
3	4.561	463	473	502	rBV	632707	1710148	73.56%	14.880%
4	5.891	667	674	718	rBV	822381	2324855	100.00%	20.228%
5	7.108	852	858	911	rBV	775245	2125246	91.41%	18.491%
6	7.895	972	977	1000	rBV	359701	1186739	51.05%	10.325%
7	8.570	1072	1079	1121	rBV	742486	1964323	84.49%	17.091%

Sum of corrected areas: 11493307

VK090231.D SAK0902W.M Fri Sep 03 14:09:32 2004 LABMANAGER

LSC Report - Integrated Chromatogram

File : K:\1\DATA\MSVOAK\VK090204\VK090231.D  
Operator : KP  
Acquired : 2 Sep 2004 8:38 pm using AcqMethod VP  
Instrument : MSVOA J/K  
Sample Name: S4436-14  
Misc Info : 25mL  
Vial Number: 13  
Quant File :SAK0902W.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: KP      Date Acquired: 2 Sep 2004 8:38 pm  
Data File: K:\1\DATA\MSVOAK\VK090204\VK090231.D  
Name: S4436-14  
Misc: 25mL  
Method: K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title: SW846 8260  
Library Searched: C:\DATABASE\NBS75K.L

TIC	Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
VK090231.D	SAK0902W.M		Fri Sep 03	14:09:33	2004		LABMANAGER		

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2250</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-15</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090232.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
74-87-3	Chloromethane	0.16	U	1.0	0.16	ug/L
75-01-4	Vinyl chloride	110	E	1.0	0.11	ug/L
74-83-9	Bromomethane	0.12	U	1.0	0.12	ug/L
75-00-3	Chloroethane	0.18	U	1.0	0.18	ug/L
75-35-4	1,1-Dichloroethene	5.8		1.0	0.20	ug/L
67-64-1	Acetone	1.2	U	5.0	1.2	ug/L
75-15-0	Carbon disulfide	0.21	U	1.0	0.21	ug/L
75-09-2	Methylene Chloride	0.36	U	1.0	0.36	ug/L
156-60-5	trans-1,2-Dichloroethene	22		1.0	0.25	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.92	U	5.0	0.92	ug/L
56-23-5	Carbon Tetrachloride	0.17	U	1.0	0.17	ug/L
156-59-2	cis-1,2-Dichloroethene	370	E	1.0	0.27	ug/L
67-66-3	Chloroform	0.23	U	1.0	0.23	ug/L
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22	ug/L
71-43-2	Benzene	0.32	J	1.0	0.20	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	170	E	1.0	0.19	ug/L
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17	ug/L
108-10-1	4-Methyl-2-Pentanone	0.77	U	5.0	0.77	ug/L
108-88-3	Toluene	0.19	U	1.0	0.19	ug/L
10061-02-6	t-1,3-Dichloropropene	0.15	U	1.0	0.15	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L
591-78-6	2-Hexanone	0.58	U	5.0	0.58	ug/L
124-48-1	Dibromochloromethane	0.21	U	1.0	0.21	ug/L
127-18-4	Tetrachloroethene	0.20	U	1.0	0.20	ug/L
108-90-7	Chlorobenzene	0.16	U	1.0	0.16	ug/L
100-41-4	Ethyl Benzene	0.18	U	1.0	0.18	ug/L
136777-61-2	m&p-Xylenes	0.36	U	1.0	0.36	ug/L
95-47-6	o-Xylene	0.17	U	1.0	0.17	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2250</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-15</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Allquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090232.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
100-42-5	Styrene	0.17	U	1.0	0.17	ug/L
75-25-2	Bromoform	0.37	U	1.0	0.37	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	11.93	119 %	72 - 119		SPK: 10
1868-53-7	Dibromofluoromethane	6.94	69 %	85 - 115		SPK: 10
2037-26-5	Toluene-d8	6.19	62 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	5.37	54 %	76 - 119		SPK: 10
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	333141	3.96			
540-36-3	1,4-Difluorobenzene	1148306	4.57			
3114-55-4	Chlorobenzene-d5	628356	7.11			
3855-82-1	1,4-Dichlorobenzene-d4	299750	8.57			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

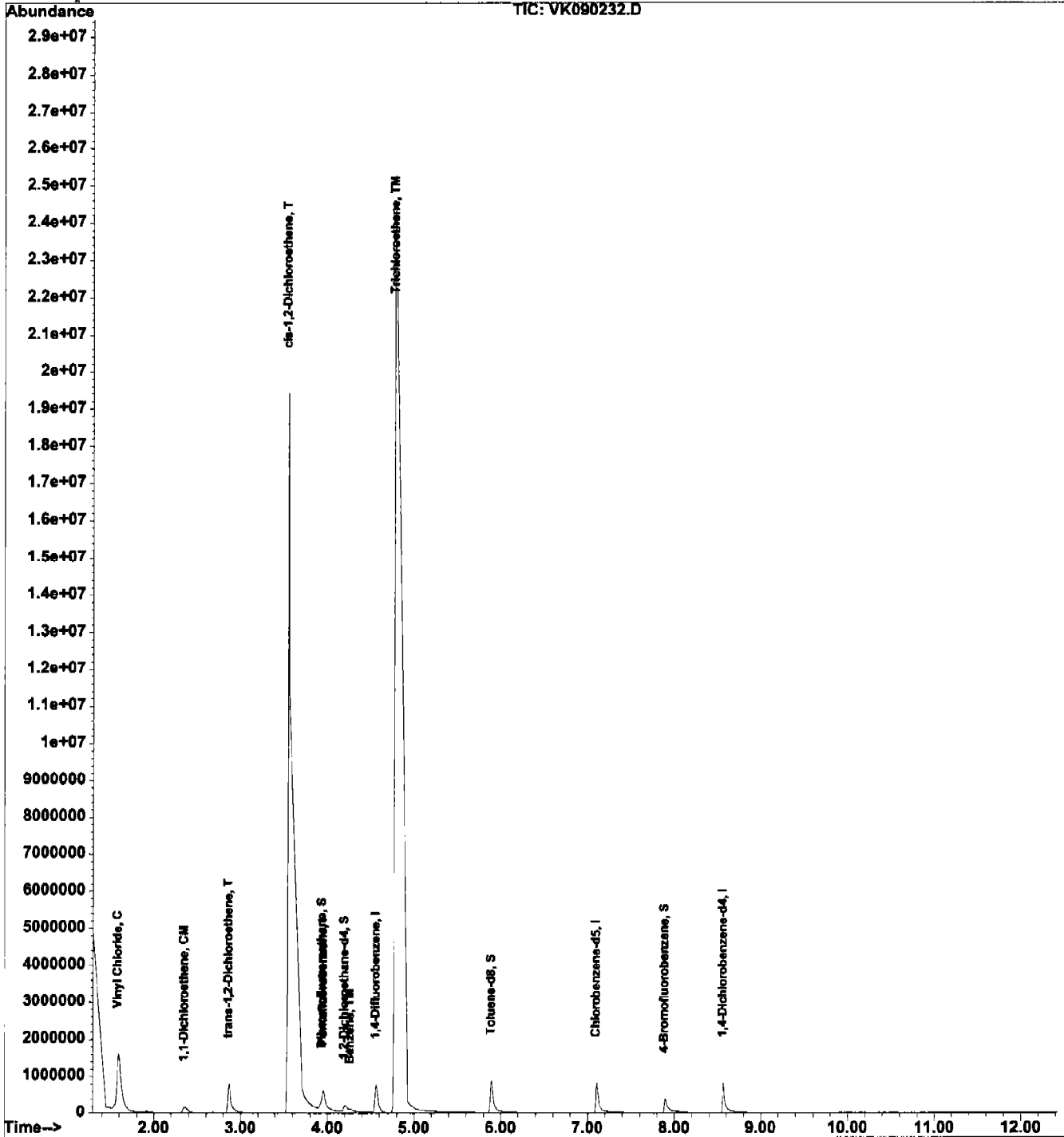
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090232.D  
Acq On : 2 Sep 2004 9:17 pm  
Sample : S4436-15  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 3 14:17 2004

Vial: 14  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090232.D Vial: 14  
 Acq On : 2 Sep 2004 9:17 pm Operator: KP  
 Sample : S4436-15 Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 3 14:17 2004 Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.96	168	333141	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.57	114	1148306	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.11	117	628356	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.57	152	299750	10.00	ug/l	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d	4.20	65	199795	11.93	ug/l	0.00
Spiked Amount	10.000		Recovery	=	119.30%	
34) Dibromofluoromethane	3.94	113	216472	6.94	ug/l	0.00
Spiked Amount	10.000		Recovery	=	69.40%	
45) Toluene-d8	5.90	98	842407	6.19	ug/l	-0.01
Spiked Amount	10.000		Recovery	=	61.90%	
56) 4-Bromofluorobenzene	7.89	95	298300	5.37	ug/l	-0.04
Spiked Amount	10.000		Recovery	=	53.70%	
Target Compounds						
4) Vinyl Chloride	1.59	62	3765484	109.33	ug/l	96
13) 1,1-Dichloroethene	2.36	96	122529	5.85	ug/l	92
21) trans-1,2-Dichloroet	2.87	96	495722	22.13	ug/l	96
27) cis-1,2-Dichloroethe	3.56	96	8872268	368.15	ug/l	94
37) Benzene	4.28	78	64243	0.32	ug/l	100
39) Trichloroethene	4.79	130	8163868	171.99	ug/l	84

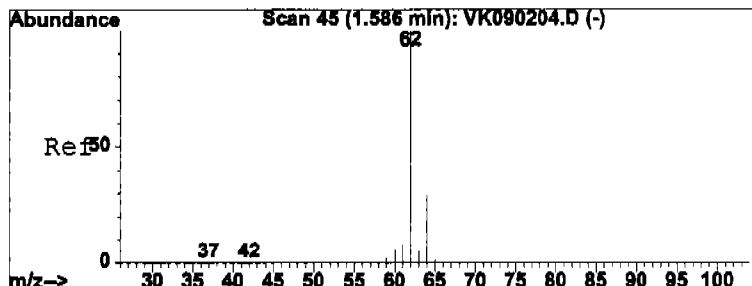
Analyst Signature: 1 GP Analyst Name: \_\_\_\_\_ Date: 09/03/04

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound #: \_\_\_\_\_  
 \_\_\_\_ Peak integrated by software incorrectly.Compound #: \_\_\_\_\_  
 \_\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

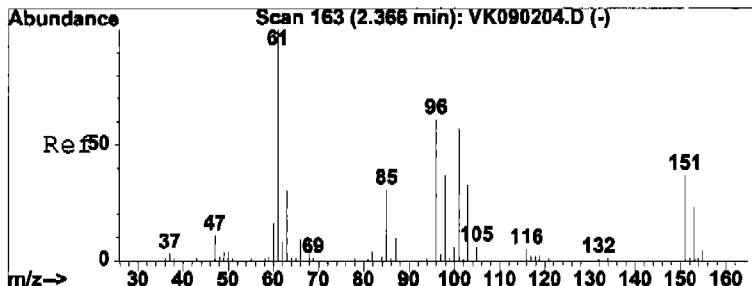
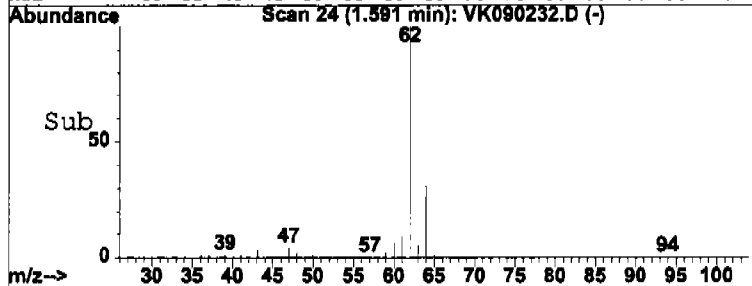
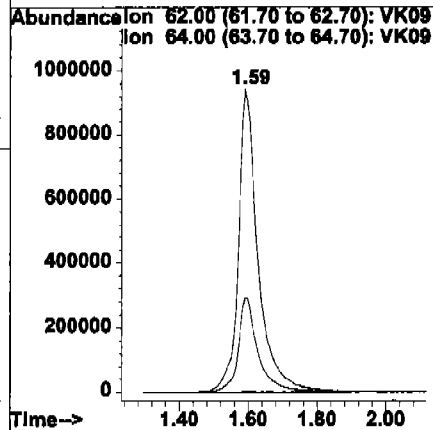
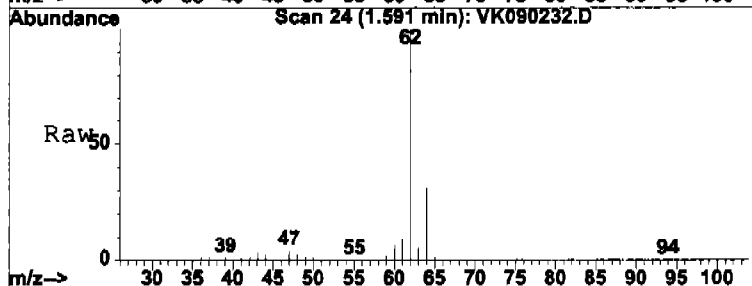
(#) = qualifier out of range (m) = manual integration





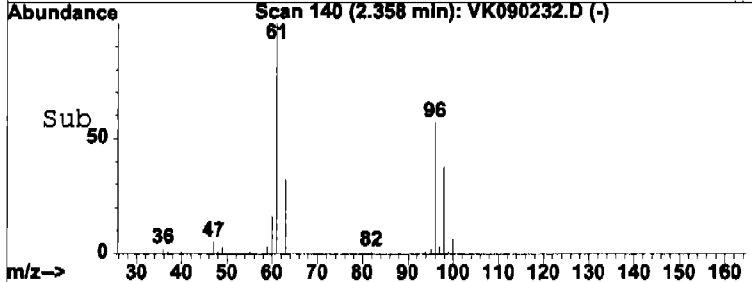
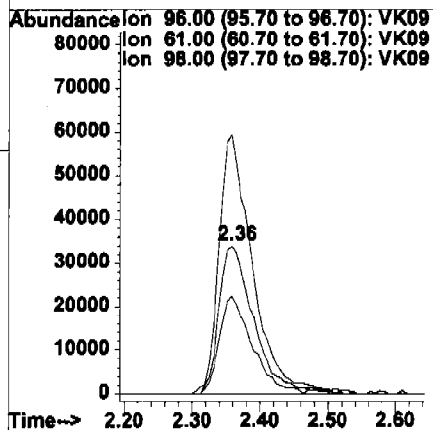
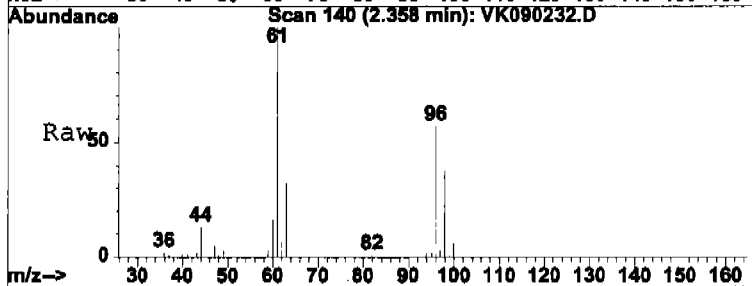
#4  
 Vinyl Chloride  
 Concen: 109.33 ug/l  
 RT: 1.59 min Scan# 24  
 Delta R.T. 0.05 min  
 Lab File: VK090232.D  
 Acq: 2 Sep 2004 9:17 pm

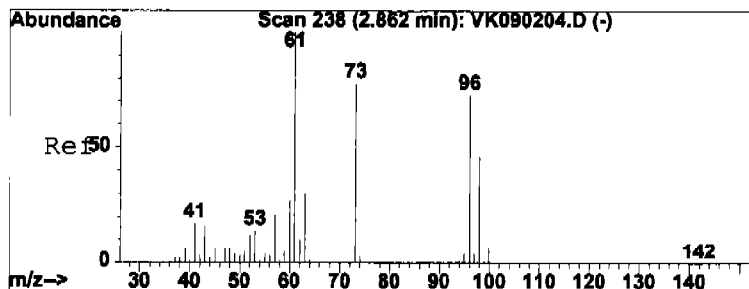
Tgt Ion: 62 Resp: 3765484  
 Ion Ratio Lower Upper  
 62 100  
 64 31.0 22.9 34.3



#13  
 1,1-Dichloroethene  
 Concen: 5.85 ug/l  
 RT: 2.36 min Scan# 140  
 Delta R.T. 0.02 min  
 Lab File: VK090232.D  
 Acq: 2 Sep 2004 9:17 pm

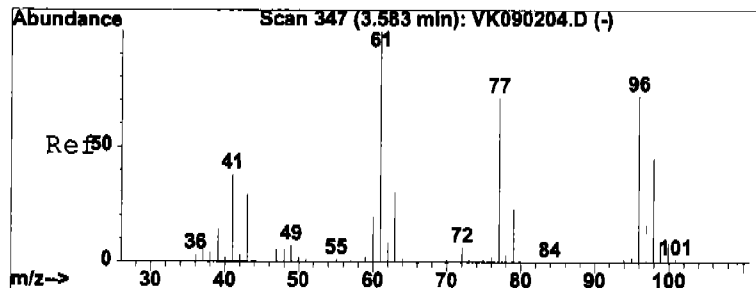
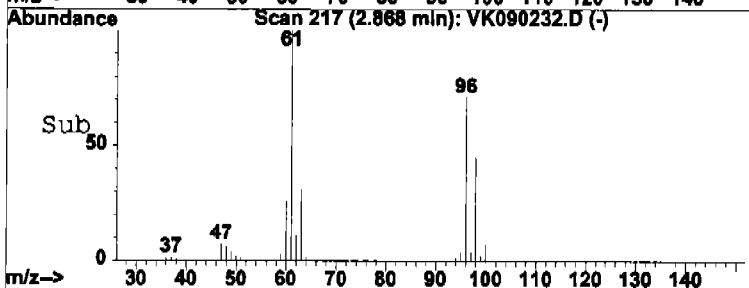
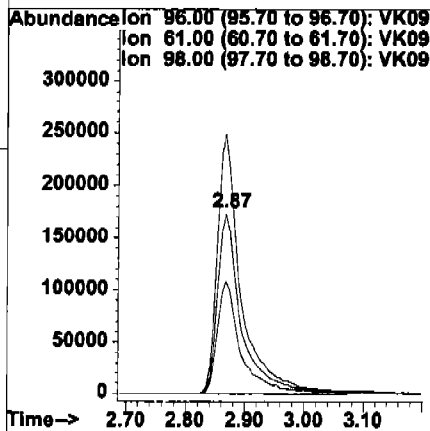
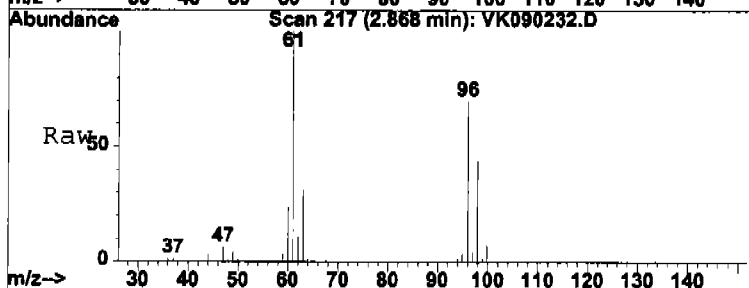
Tgt Ion: 96 Resp: 122529  
 Ion Ratio Lower Upper  
 96 100  
 61 174.0 130.9 196.3  
 98 66.4 48.1 72.1





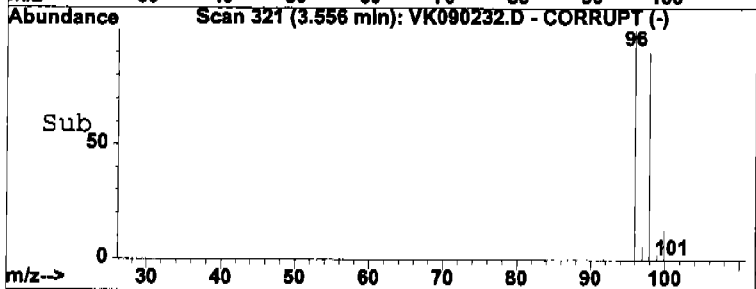
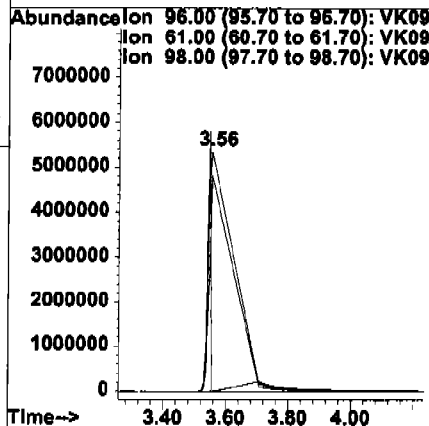
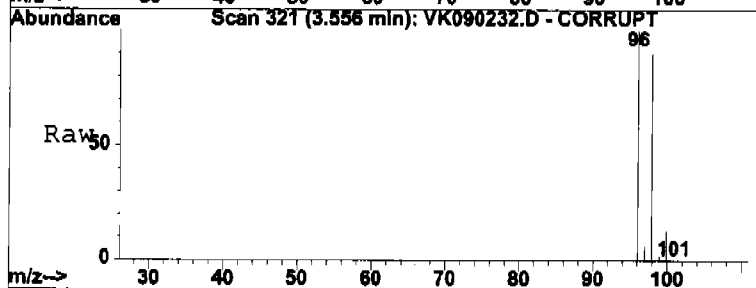
#21  
 trans-1,2-Dichloroethene  
 Concen: 22.13 ug/l  
 RT: 2.87 min Scan# 217  
 Delta R.T. -0.00 min  
 Lab File: VK090232.D  
 Acq: 2 Sep 2004 9:17 pm

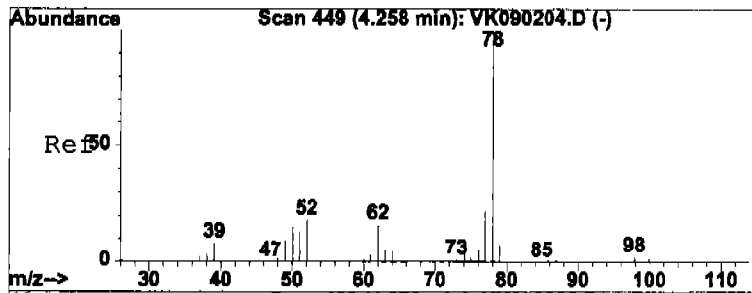
Tgt Ion:	96	Resp:	495722
Ion Ratio	Lower	Upper	
96	100		
61	143.4	109.2	163.8
98	62.7	50.0	75.0



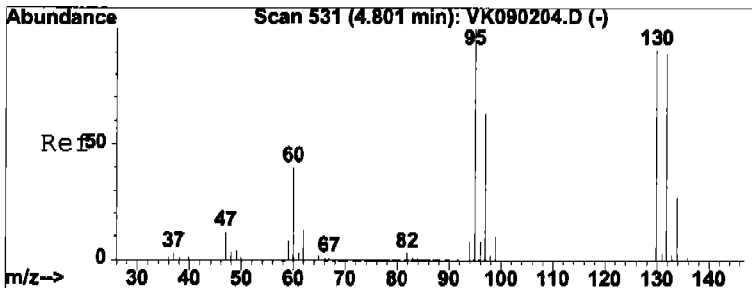
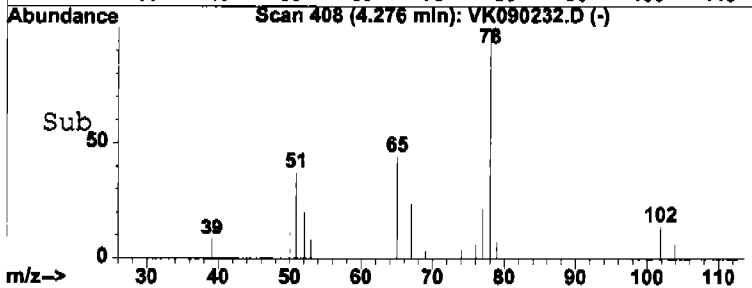
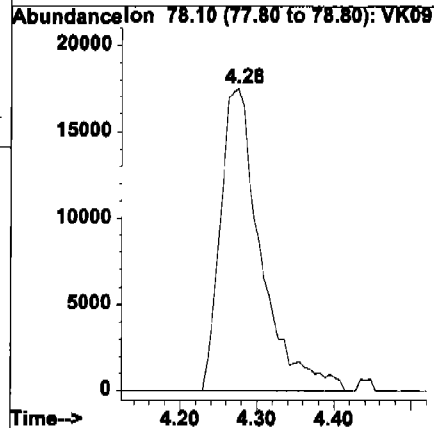
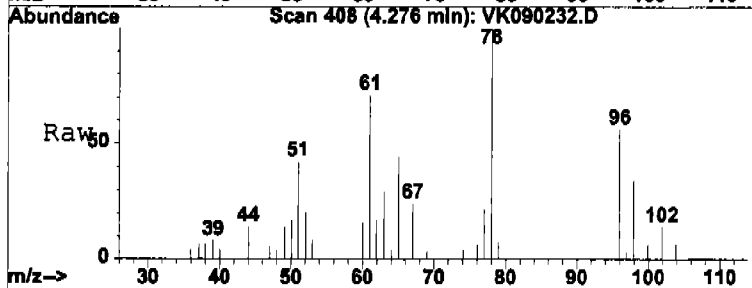
#27  
 cis-1,2-Dichloroethene  
 Concen: 368.15 ug/l  
 RT: 3.56 min Scan# 321  
 Delta R.T. -0.03 min  
 Lab File: VK090232.D  
 Acq: 2 Sep 2004 9:17 pm

Tgt Ion:	96	Resp:	8872268
Ion Ratio	Lower	Upper	
96	100		
61	154.8	121.7	182.5
98	76.0	51.3	76.9



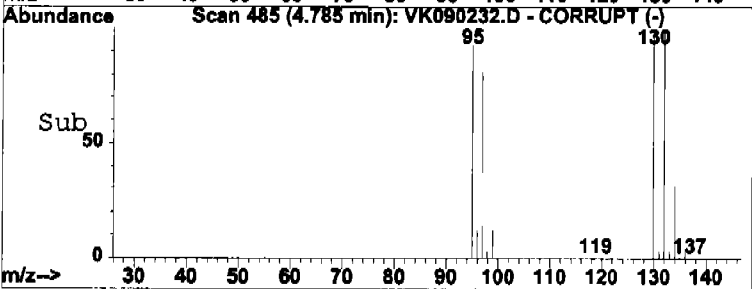
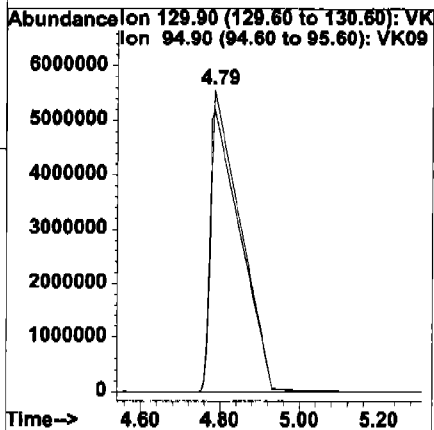
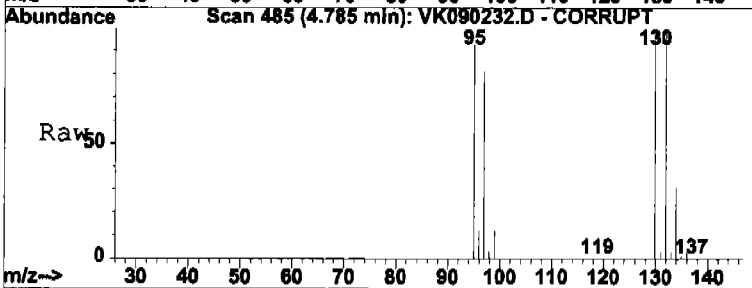


#37  
Benzene  
Concen: 0.32 ug/l  
RT: 4.28 min Scan# 408  
Delta R.T. 0.02 min  
Lab File: VK090232.D  
Acq: 2 Sep 2004 9:17 pm  
Tgt Ion: 78 Resp: 64243



#39  
Trichloroethene  
Concen: 171.99 ug/l  
RT: 4.79 min Scan# 485  
Delta R.T. -0.03 min  
Lab File: VK090232.D  
Acq: 2 Sep 2004 9:17 pm

Tgt Ion: 130 Resp: 8163868  
Ion Ratio Lower Upper  
130 100  
95 93.5 88.2 132.2



LSC Area Percent Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090232.D  
 Acq On : 2 Sep 2004 9:17 pm  
 Sample : S4436-15  
 Misc : 25mL  
 MS Integration Params: RTEINT.P

Vial: 14  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.02  
 Stop Thrs : 0  
 Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

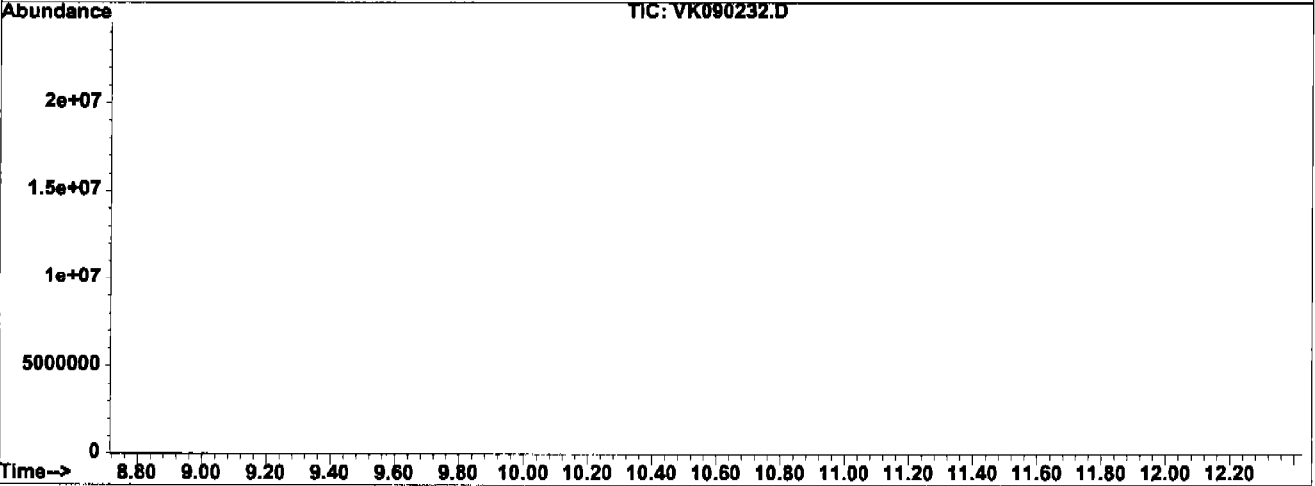
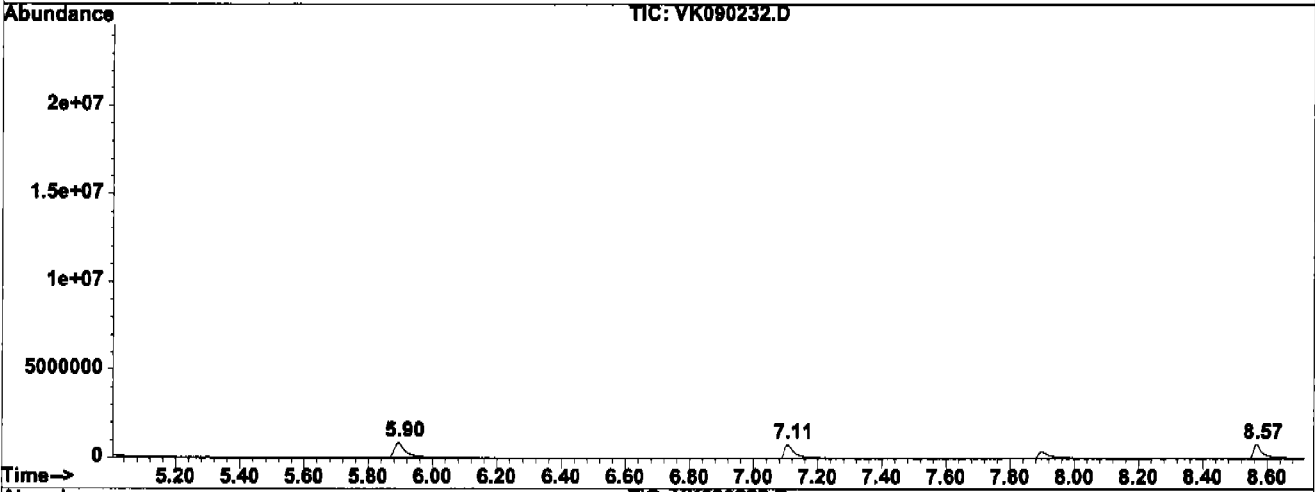
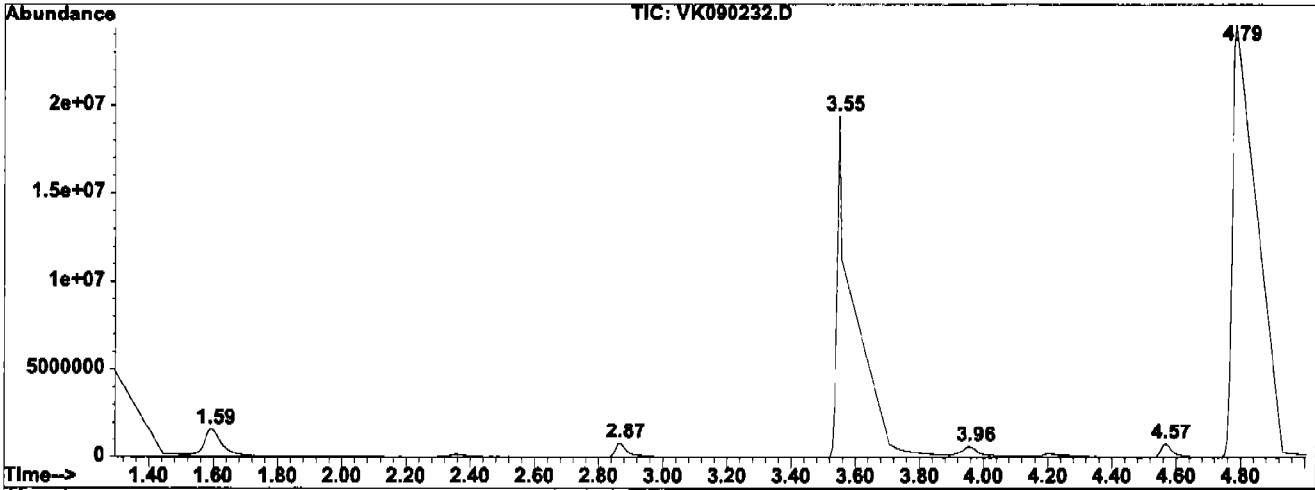
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.591	12	24	59	rVB	1580626	6446282	15.89%	6.814%
2	2.868	209	217	250	rBV	801783	2272941	5.60%	2.402%
3	3.549	313	320	350	rBV	19413502	34172265	84.26%	36.119%
4	3.958	350	360	388	rVV3	592132	2908288	7.17%	3.074%
5	4.567	446	452	470	rVB	752647	1881727	4.64%	1.989%
6	4.785	475	485	520	rBV	24543393	40556378	100.00%	42.867%
7	5.897	623	632	663	rBV	874041	2334605	5.76%	2.468%
8	7.107	809	815	842	rBV	824369	2016426	4.97%	2.131%
9	8.569	1031	1036	1074	rBV	813351	2020176	4.98%	2.135%

Sum of corrected areas: 94609088

VK090232.D SAK0902W.M Fri Sep 03 14:20:23 2004 LABMANAGER

LSC Report - Integrated Chromatogram

File : K:\1\DATA\MSVOAK\VK090204\VK090232.D  
Operator : KP  
Acquired : 2 Sep 2004 9:17 pm using AcqMethod VP  
Instrument : MSVOA J/K  
Sample Name: S4436-15  
Misc Info : 25mL  
Vial Number: 14  
Quant File :SAK0902W.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: KP      Date Acquired: 2 Sep 2004 9:17 pm  
Data File: K:\1\DATA\MSVOAK\VK090204\VK090232.D  
Name: S4436-15  
Misc: 25mL  
Method: K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title: SW846 8260  
Library Searched: C:\DATABASE\NBS75K.L

TIC	Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
-----									
VK090232.D	SAK0902W.M								

Fri Sep 03 14:20:24 2004

LABMANAGER

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2250DL</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-1SDL</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090340.D</b>	<b>10</b>		<b>9/3/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
74-87-3	Chloromethane	1.6	UD	10	1.6	ug/L
75-01-4	Vinyl chloride	94	D	10	1.1	ug/L
74-83-9	Bromomethane	1.2	UD	10	1.2	ug/L
75-00-3	Chloroethane	1.8	UD	10	1.8	ug/L
75-35-4	1,1-Dichloroethene	4.7	JD	10	2.0	ug/L
67-64-1	Acetone	12	UD	50	12	ug/L
75-15-0	Carbon disulfide	2.1	UD	10	2.1	ug/L
75-09-2	Methylene Chloride	3.6	UD	10	3.6	ug/L
156-60-5	trans-1,2-Dichloroethene	19	D	10	2.5	ug/L
75-34-3	1,1-Dichloroethane	2.1	UD	10	2.1	ug/L
78-93-3	2-Butanone	9.2	UD	50	9.2	ug/L
56-23-5	Carbon Tetrachloride	1.7	UD	10	1.7	ug/L
156-59-2	cis-1,2-Dichloroethene	2100	ED	10	2.7	ug/L
67-66-3	Chloroform	2.3	UD	10	2.3	ug/L
71-55-6	1,1,1-Trichloroethane	2.2	UD	10	2.2	ug/L
71-43-2	Benzene	2.0	UD	10	2.0	ug/L
107-06-2	1,2-Dichloroethane	2.1	UD	10	2.1	ug/L
79-01-6	Trichloroethene	840	ED	10	1.9	ug/L
78-87-5	1,2-Dichloropropane	1.8	UD	10	1.8	ug/L
75-27-4	Bromodichloromethane	1.7	UD	10	1.7	ug/L
108-10-1	4-Methyl-2-Pentanone	7.7	UD	50	7.7	ug/L
108-88-3	Toluene	1.9	UD	10	1.9	ug/L
10061-02-6	t-1,3-Dichloropropene	1.5	UD	10	1.5	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.9	UD	10	1.9	ug/L
79-00-5	1,1,2-Trichloroethane	2.0	UD	10	2.0	ug/L
591-78-6	2-Hexanone	5.8	UD	50	5.8	ug/L
124-48-1	Dibromochloromethane	2.1	UD	10	2.1	ug/L
127-18-4	Tetrachloroethene	2.0	UD	10	2.0	ug/L
108-90-7	Chlorobenzene	1.6	UD	10	1.6	ug/L
100-41-4	Ethyl Benzene	1.8	UD	10	1.8	ug/L
136777-61-2	m&p-Xylenes	3.6	UD	10	3.6	ug/L
95-47-6	o-Xylene	1.7	UD	10	1.7	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/29/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/31/2004
Client Sample ID:	ARD2250DL	SDG No.:	S4436
Lab Sample ID:	S4436-15DL	Matrix:	WATER
Analytical Method:	8260	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VK090340.D	10		9/3/2004	VK090204

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
100-42-5	Styrene	1.7	UD	10	1.7	ug/L
75-25-2	Bromoform	3.7	UD	10	3.7	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.3	UD	10	1.3	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	11.62	116 %	72 - 119		SPK: 10
1868-53-7	Dibromofluoromethane	10.62	106 %	85 - 115		SPK: 10
2037-26-5	Toluene-d8	9.33	93 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	10.44	104 %	76 - 119		SPK: 10
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	335690	3.96			
540-36-3	1,4-Difluorobenzene	768745	4.57			
3114-55-4	Chlorobenzene-d5	624232	7.11			
3855-82-1	1,4-Dichlorobenzene-d4	301952	8.57			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound



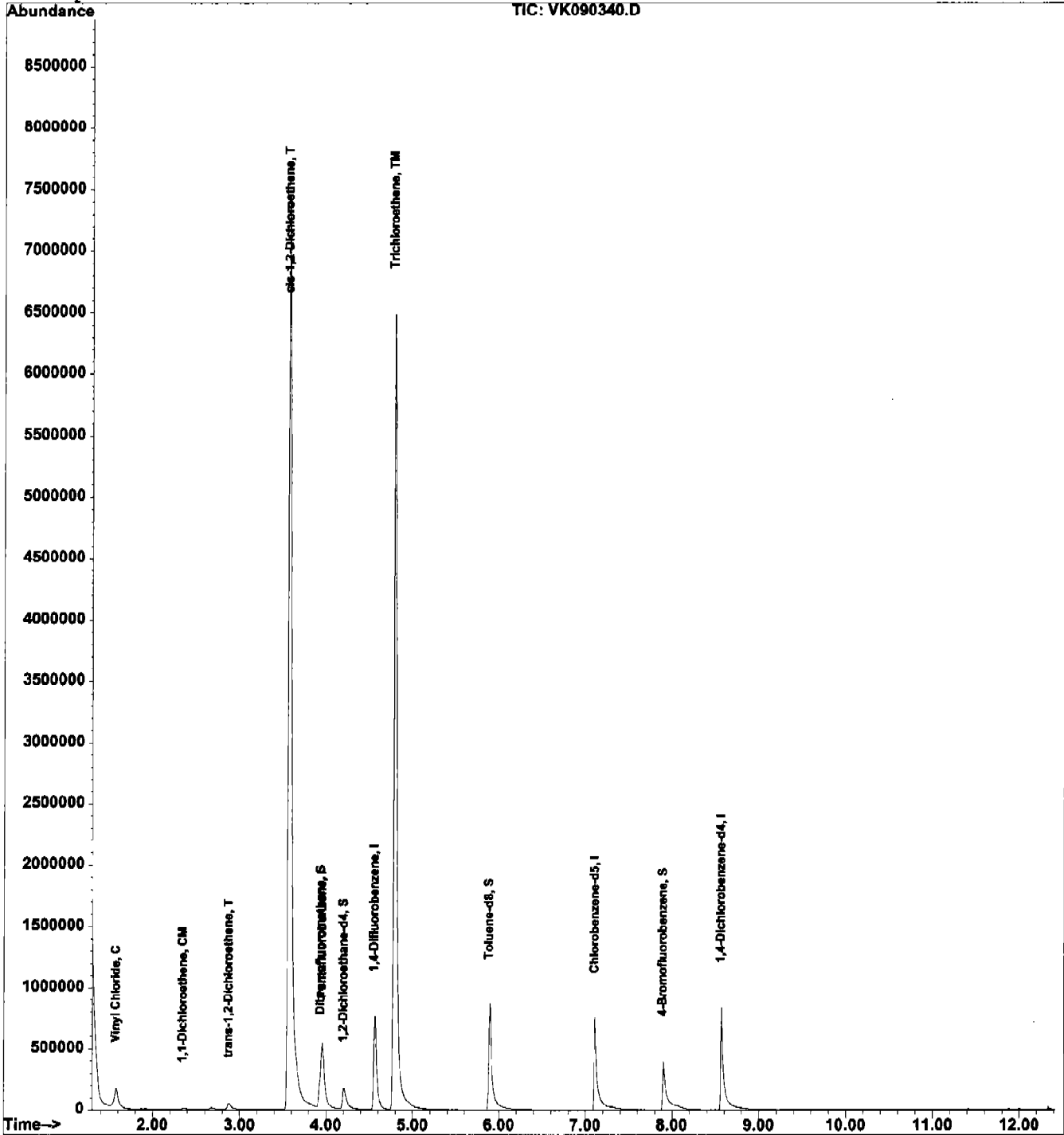
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090340.D  
Acq On : 3 Sep 2004 8:15 pm  
Sample : S4436-15 10X  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 7 11:58 2004

Vial: 8  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090304\VK090340.D Vial: 8  
 Acq On : 3 Sep 2004 8:15 pm Operator: KP  
 Sample : S4436-15 10X Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 7 11:58 2004 Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

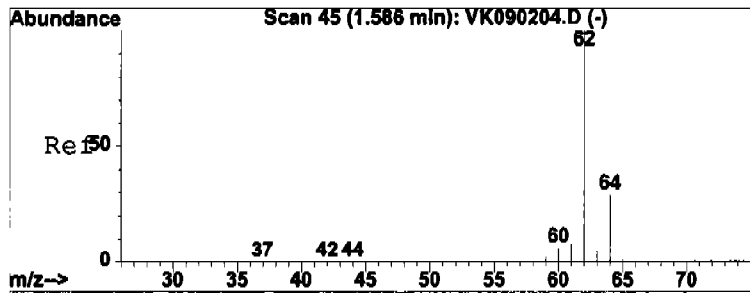
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.96	168	335690	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.57	114	768745	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.11	117	624232	10.00	ug/l	0.01
66) 1,4-Dichlorobenzene-	8.57	152	301952	10.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) 1,2-Dichloroethane-d	4.21	65	196063	11.62	ug/l	0.00
Spiked Amount				10.000		
				Recovery	=	116.20%
34) Dibromofluoromethane	3.94	113	221626	10.62	ug/l	0.00
Spiked Amount				10.000		
				Recovery	=	106.20%
45) Toluene-d8	5.90	98	851077	9.33	ug/l	-0.02
Spiked Amount				10.000		
				Recovery	=	93.30%
56) 4-Bromofluorobenzene	7.90	95	388383m	10.44	ug/l	-0.04
Spiked Amount				10.000		
				Recovery	=	104.40%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
4) Vinyl Chloride	1.58	62	325649	9.38	ug/l	92
13) 1,1-Dichloroethene	2.35	96	9821	0.47	ug/l #	77
21) trans-1,2-Dichloroet	2.88	96	42895	1.90	ug/l	92
27) cis-1,2-Dichloroethe	3.57	96	5098792	209.97	ug/l	87
39) Trichloroethene	4.79	130	2685059	84.50	ug/l	96

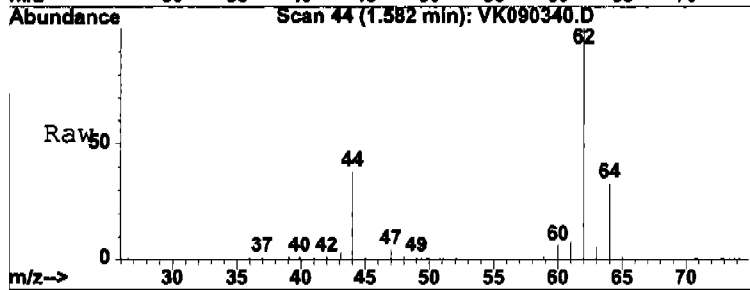
-----  
 Analyst Signature: Tgp Analyst Name: \_\_\_\_\_ Date: 09/07/04  
 -----

-----REASONS FOR MANUAL INTEGRATIONS-----  
 Poor resolution of peaks exhibited on chromatogram.Compound #: 56  
 Peak integrated by software incorrectly.Compound #:  
 OTHER: \_\_\_\_\_ Compound #:

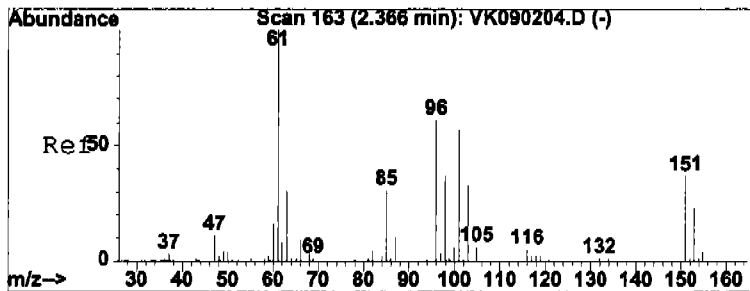
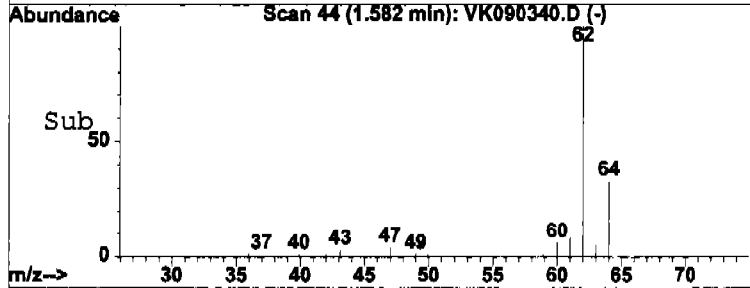
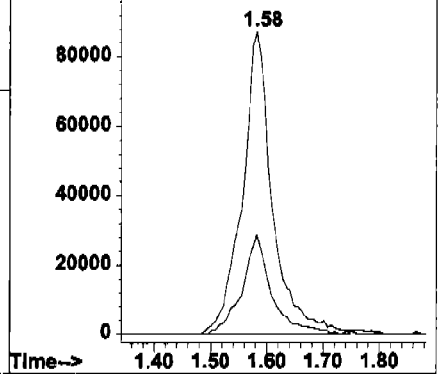


#4  
 Vinyl Chloride  
 Concen: 9.38 ug/l  
 RT: 1.58 min Scan# 44  
 Delta R.T. 0.04 min  
 Lab File: VK090340.D  
 Acq: 3 Sep 2004 8:15 pm

Tgt Ion: 62 Resp: 325649  
 Ion Ratio Lower Upper  
 62 100  
 64 33.0 22.9 34.3

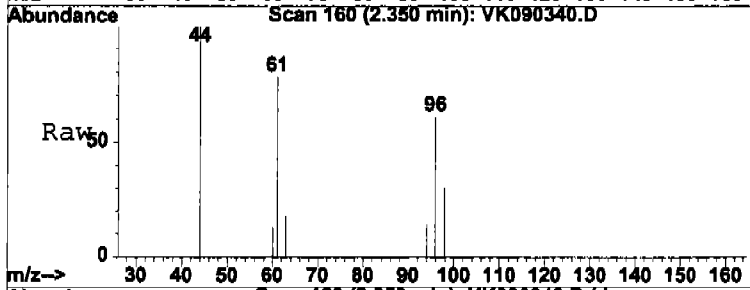


Abundance Ion 62.00 (61.70 to 62.70): VK09  
 100000 Ion 64.00 (63.70 to 64.70): VK09

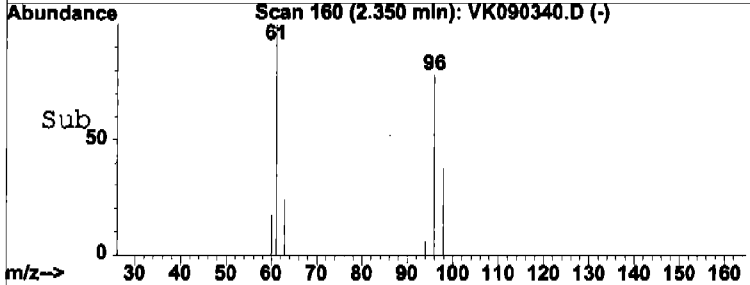
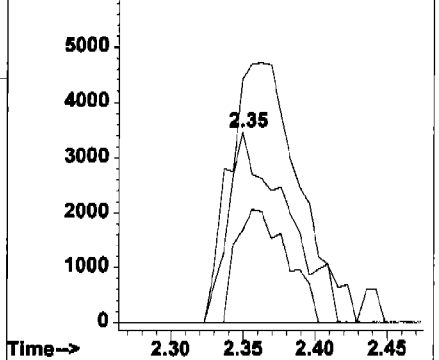


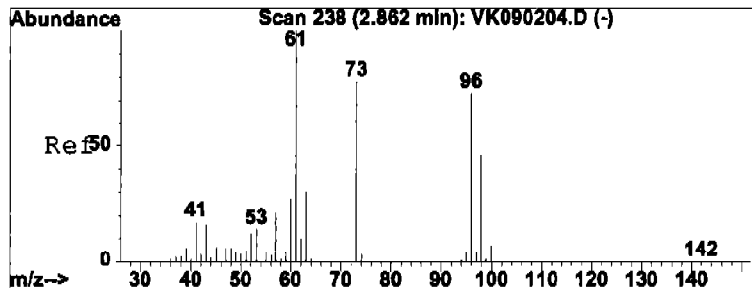
#13  
 1,1-Dichloroethene  
 Concen: 0.47 ug/l  
 RT: 2.35 min Scan# 160  
 Delta R.T. 0.01 min  
 Lab File: VK090340.D  
 Acq: 3 Sep 2004 8:15 pm

Tgt Ion: 96 Resp: 9821  
 Ion Ratio Lower Upper  
 96 100  
 61 128.4 130.9 196.3#  
 98 48.5 48.1 72.1



Abundance Ion 96.00 (95.70 to 96.70): VK09  
 6000 Ion 61.00 (60.70 to 61.70): VK09  
 Ion 98.00 (97.70 to 98.70): VK09

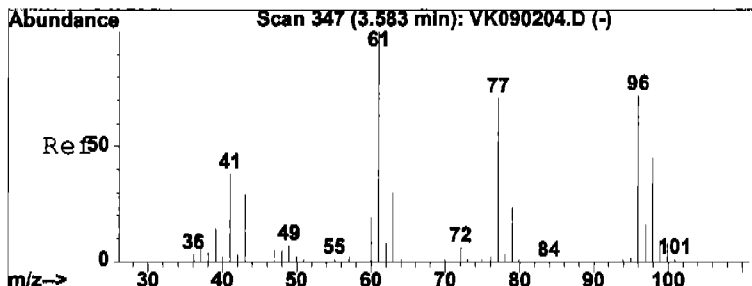
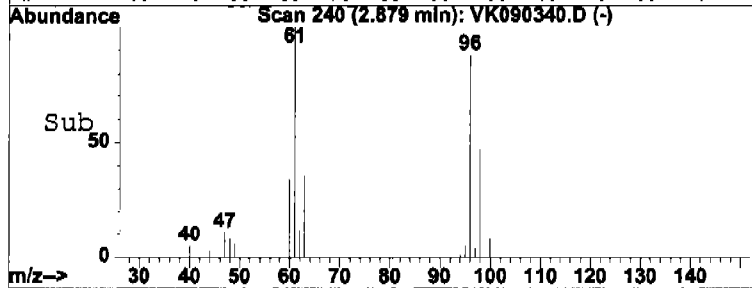
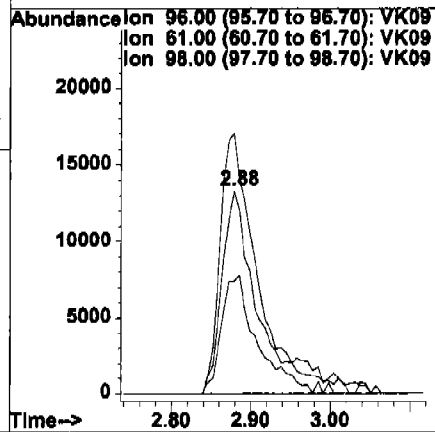
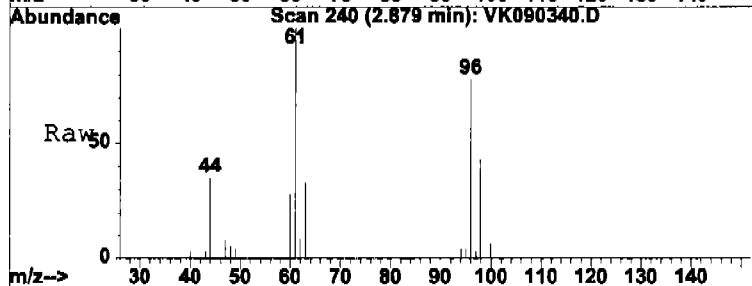




#21  
 trans-1,2-Dichloroethene  
 Concen: 1.90 ug/l  
 RT: 2.88 min Scan# 240  
 Delta R.T. 0.01 min  
 Lab File: VK090340.D  
 Acq: 3 Sep 2004 8:15 pm

Tgt Ion: 96 Resp: 42895

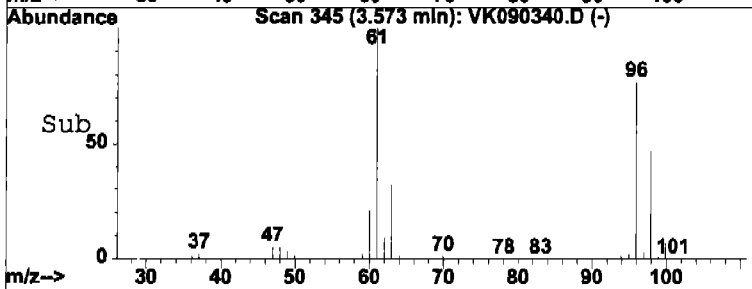
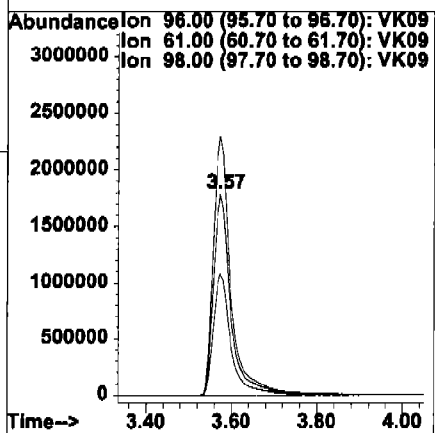
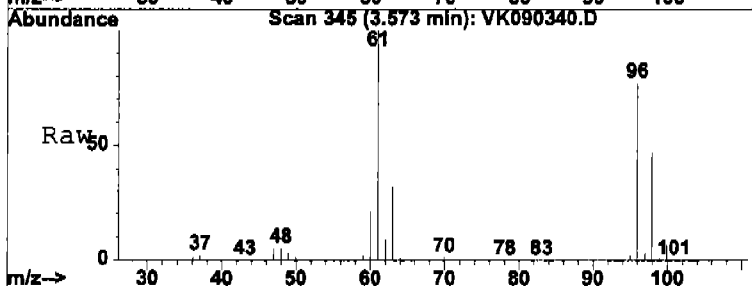
Ion	Ratio	Lower	Upper
96	100		
61	128.1	109.2	163.8
98	55.5	50.0	75.0

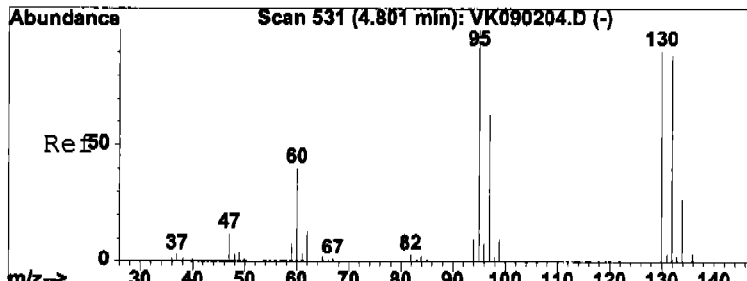


#27  
 cis-1,2-Dichloroethene  
 Concen: 209.97 ug/l  
 RT: 3.57 min Scan# 345  
 Delta R.T. -0.02 min  
 Lab File: VK090340.D  
 Acq: 3 Sep 2004 8:15 pm

Tgt Ion: 96 Resp: 5098792

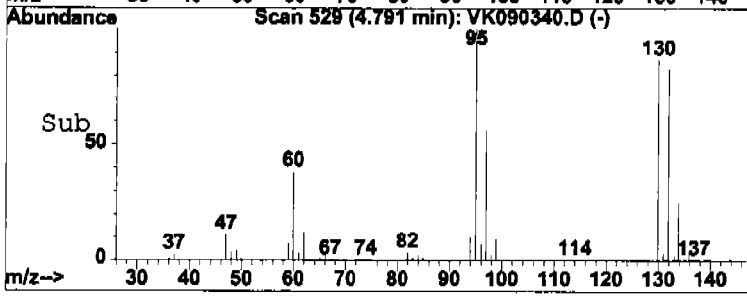
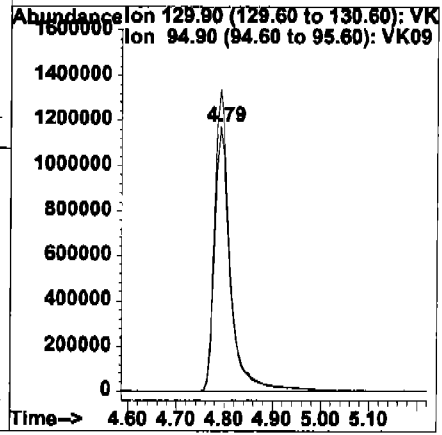
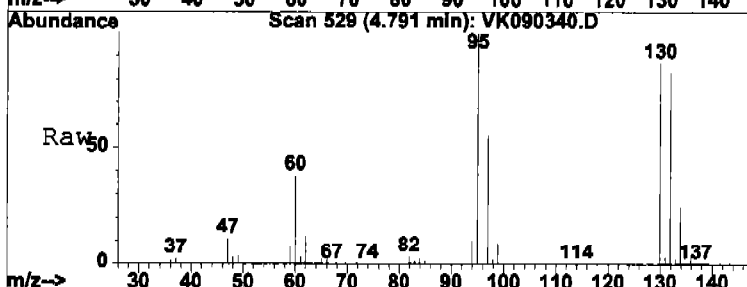
Ion	Ratio	Lower	Upper
96	100		
61	129.9	121.7	182.5
98	61.4	51.3	76.9





#39  
 Trichloroethene  
 Concen: 84.50 ug/l  
 RT: 4.79 min Scan# 529  
 Delta R.T. -0.02 min  
 Lab File: VK090340.D  
 Acq: 3 Sep 2004 8:15 pm

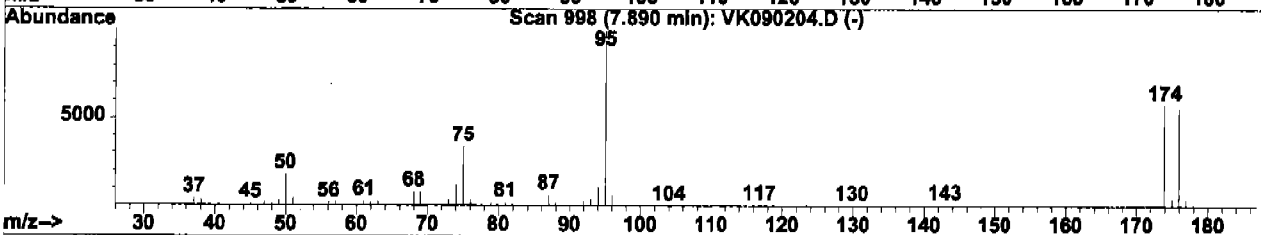
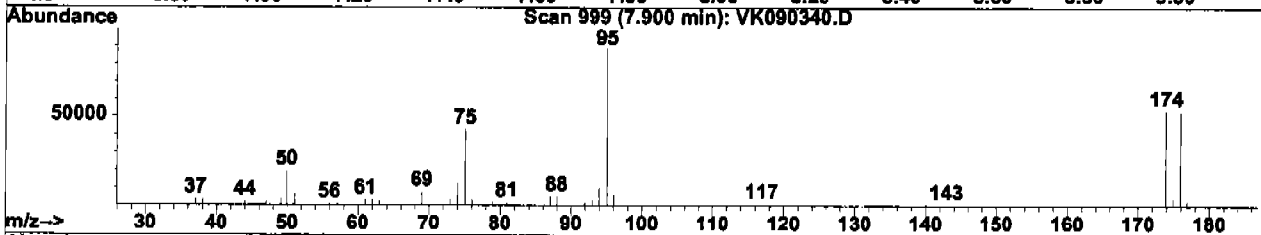
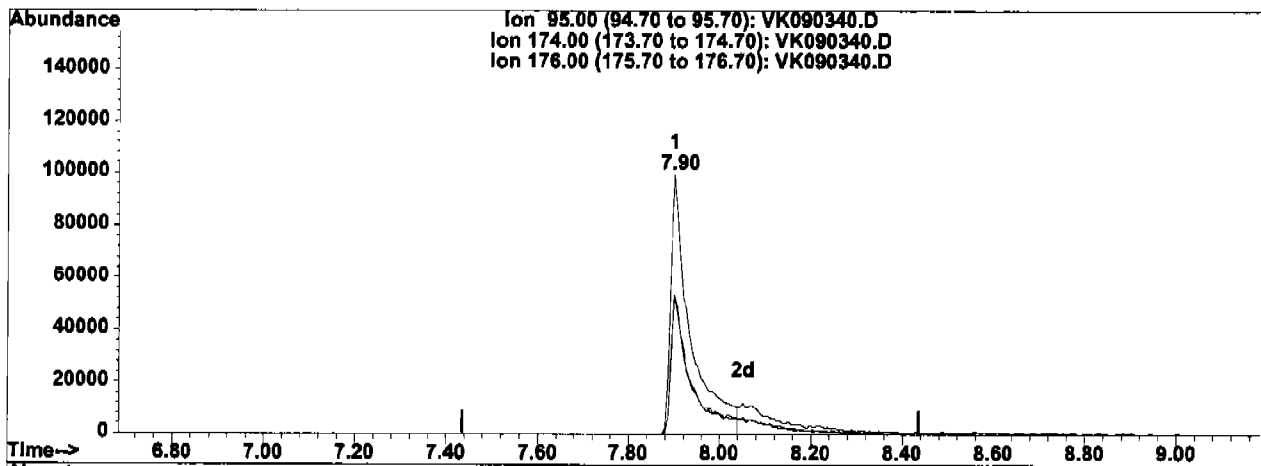
Tgt Ion:130 Resp: 2685059  
 Ion Ratio Lower Upper  
 130 100  
 95 114.5 88.2 132.2



Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090340.D Vial: 8  
 Acq On : 3 Sep 2004 8:15 pm Operator: KP  
 Sample : S4436-15 10X Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 Quant Time: Sep 7 11:57 2004 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



TIC: VK090340.D

(56) 4-Bromofluorobenzene (S)

7.90min 8.22ug/l

response 305785

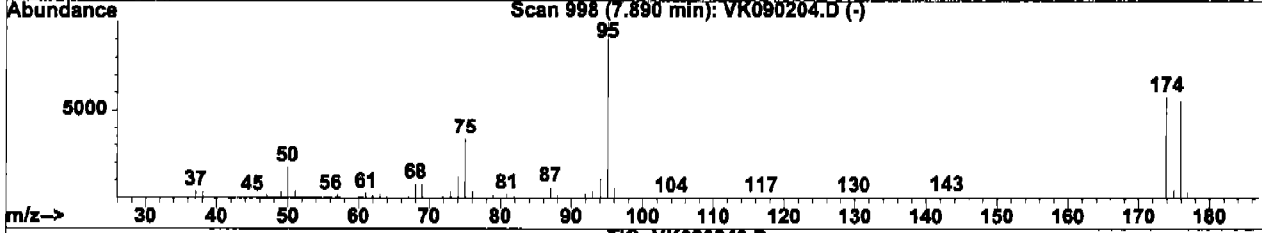
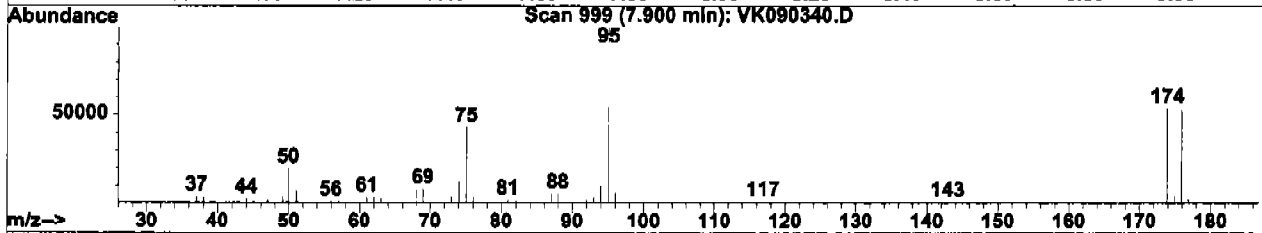
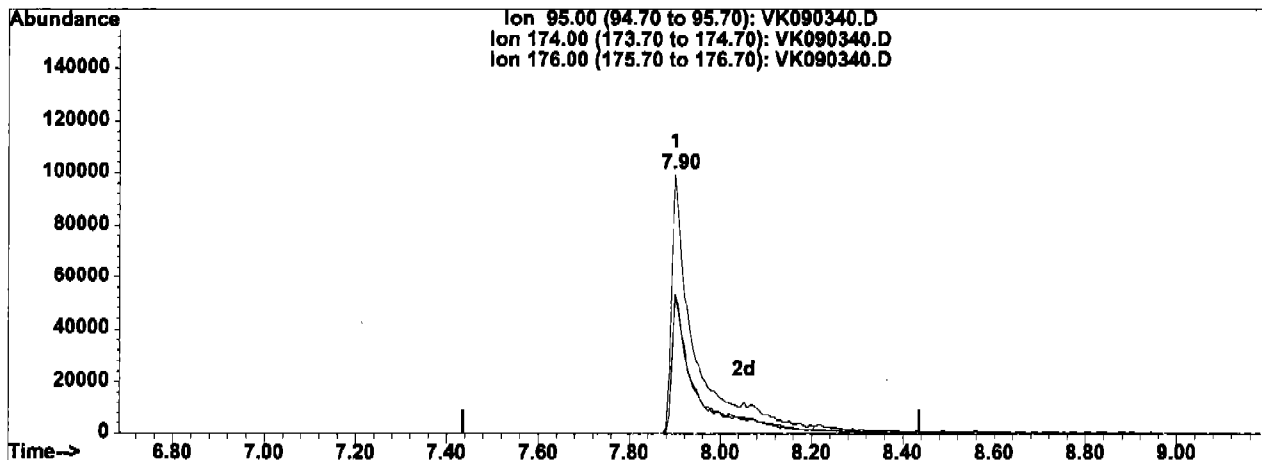
Ion	Exp%	Act%
95.00	100	100
174.00	56.30	51.49
176.00	54.20	55.17
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090340.D  
 Acq On : 3 Sep 2004 8:15 pm  
 Sample : S4436-15 10X  
 Misc : 25mL  
 Quant Time: Sep 7 11:57 2004

Vial: 8  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



TIC: VK090340.D

(56) 4-Bromofluorobenzene (S)

7.90min 10.44ug/l m  
 response 388383

Ion	Exp%	Act%
95.00	100	100
174.00	56.30	40.54#
176.00	54.20	43.44
0.00	0.00	0.00

LSC Area Percent Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090340.D Vial: 8  
 Acq On : 3 Sep 2004 8:15 pm Operator: KP  
 Sample : S4436-15 10X Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.582	33	44	70	rVB	173971	664061	3.13%	1.370%
2	3.573	335	345	392	rBV	7397923	21223583	100.00%	43.799%
3	3.957	392	403	431	rVV4	539865	1970435	9.28%	4.066%
4	4.566	486	495	522	rBV	758746	1856219	8.75%	3.831%
5	4.791	522	529	582	rVV	6481224	14835349	69.90%	30.616%
6	5.895	690	696	747	rBV	864779	2435080	11.47%	5.025%
7	7.112	870	880	907	rBV	752589	2019365	9.51%	4.167%
8	7.900	993	999	1043	rBV	391706	1400288	6.60%	2.890%
9	8.568	1093	1100	1143	rBV	833835	2052514	9.67%	4.236%

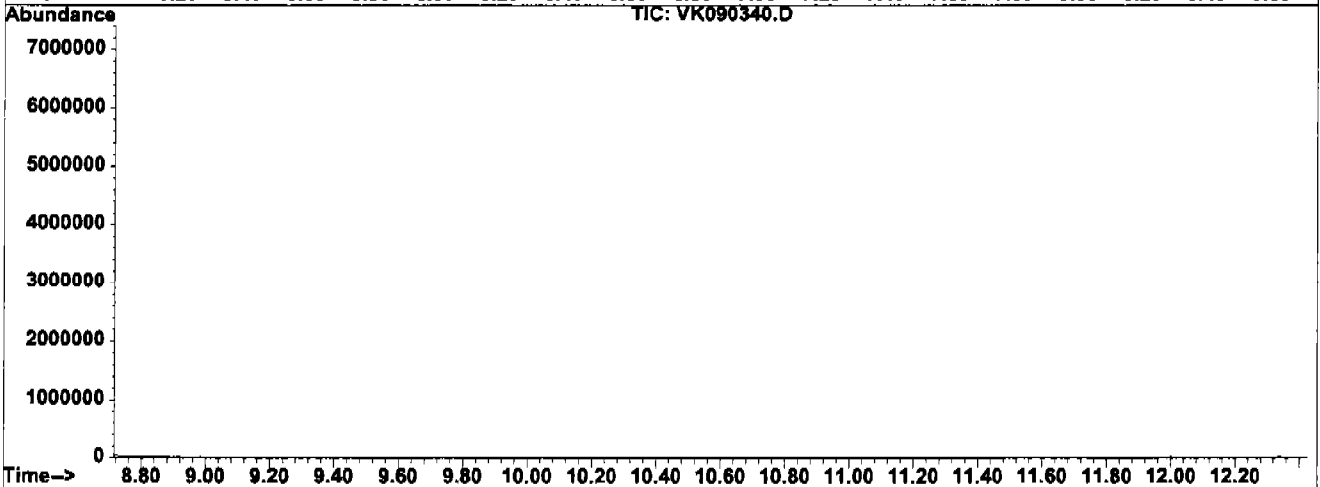
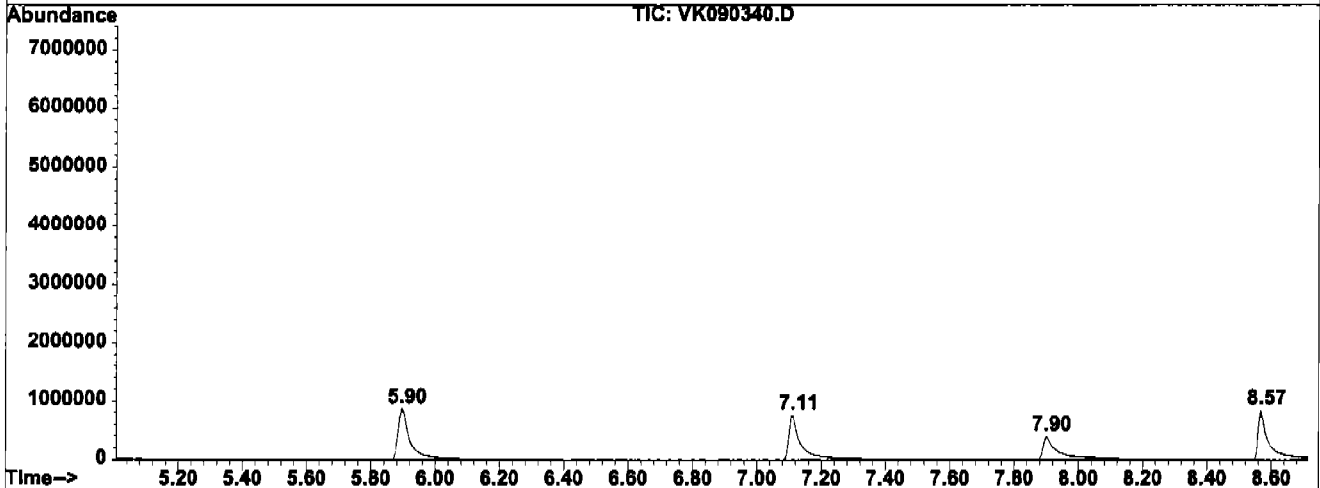
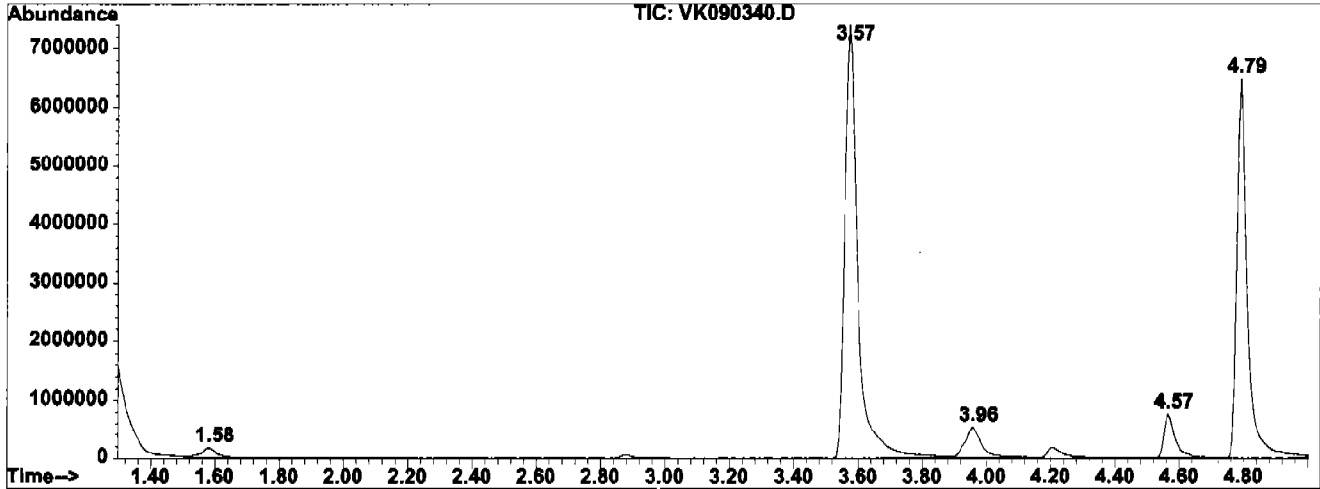
Sum of corrected areas: 48456894

VK090340.D SAK0902W.M Tue Sep 07 12:04:52 2004 LABMANAGER



LSC Report - Integrated Chromatogram

File : K:\1\DATA\MSVOAK\VK090304\VK090340.D  
Operator : KP  
Acquired : 3 Sep 2004 8:15 pm using AcqMethod VP  
Instrument : MSVOA J/K  
Sample Name: S4436-15 10X  
Misc Info : 25mL  
Vial Number: 8  
Quant File : SAK0902W.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: KP      Date Acquired: 3 Sep 2004 8:15 pm  
Data File: K:\1\DATA\MSVOAK\VK090304\VK090340.D  
Name: S4436-15 10X  
Misc: 25mL  
Method: K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title: SW846 8260  
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
-----								
VK090340.D SAK0902W.M			Tue Sep 07	12:04:53	2004		LABMANAGER	

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2250DL2</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-15DL2</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090341.D</b>	<b>100</b>		<b>9/3/2004</b>	<b>VK090204</b>

<b>CAS Number</b>	<b>Parameter</b>	<b>Conc.</b>	<b>Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
<b>TARGETS</b>						
74-87-3	Chloromethane	16	UD	100	16	ug/L
75-01-4	Vinyl chloride	100	D	100	11	ug/L
74-83-9	Bromomethane	12	UD	100	12	ug/L
75-00-3	Chloroethane	18	UD	100	18	ug/L
75-35-4	1,1-Dichloroethene	20	UD	100	20	ug/L
67-64-1	Acetone	120	UD	500	120	ug/L
75-15-0	Carbon disulfide	21	UD	100	21	ug/L
75-09-2	Methylene Chloride	36	UD	100	36	ug/L
156-60-5	trans-1,2-Dichloroethene	25	UD	100	25	ug/L
75-34-3	1,1-Dichloroethane	21	UD	100	21	ug/L
78-93-3	2-Butanone	92	UD	500	92	ug/L
56-23-5	Carbon Tetrachloride	17	UD	100	17	ug/L
156-59-2	cis-1,2-Dichloroethene	2600	D	100	27	ug/L
67-66-3	Chloroform	23	UD	100	23	ug/L
71-55-6	1,1,1-Trichloroethane	22	UD	100	22	ug/L
71-43-2	Benzene	20	UD	100	20	ug/L
107-06-2	1,2-Dichloroethane	21	UD	100	21	ug/L
79-01-6	Trichloroethene	960	D	100	19	ug/L
78-87-5	1,2-Dichloropropane	18	UD	100	18	ug/L
75-27-4	Bromodichloromethane	17	UD	100	17	ug/L
108-10-1	4-Methyl-2-Pentanone	77	UD	500	77	ug/L
108-88-3	Toluene	19	UD	100	19	ug/L
10061-02-6	t-1,3-Dichloropropene	15	UD	100	15	ug/L
10061-01-5	cis-1,3-Dichloropropene	19	UD	100	19	ug/L
79-00-5	1,1,2-Trichloroethane	20	UD	100	20	ug/L
591-78-6	2-Hexanone	58	UD	500	58	ug/L
124-48-1	Dibromochloromethane	21	UD	100	21	ug/L
127-18-4	Tetrachloroethene	20	UD	100	20	ug/L
108-90-7	Chlorobenzene	16	UD	100	16	ug/L
100-41-4	Ethyl Benzene	18	UD	100	18	ug/L
136777-61-2	m&p-Xylenes	36	UD	100	36	ug/L
95-47-6	o-Xylene	17	UD	100	17	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2250DL2</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-15DL2</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Allquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090341.D</b>	<b>100</b>		<b>9/3/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
100-42-5	Styrene	17	UD	100	17	ug/L
75-25-2	Bromoform	37	UD	100	37	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	13	UD	100	13	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	10.77	108 %	72 - 119		SPK: 10
1868-53-7	Dibromofluoromethane	9.77	98 %	85 - 115		SPK: 10
2037-26-5	Toluene-d8	9.58	96 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	9.63	96 %	76 - 119		SPK: 10
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	329557	3.97			
540-36-3	1,4-Difluorobenzene	776283	4.57			
3114-55-4	Chlorobenzene-d5	614013	7.11			
3855-82-1	1,4-Dichlorobenzene-d4	308660	8.57			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

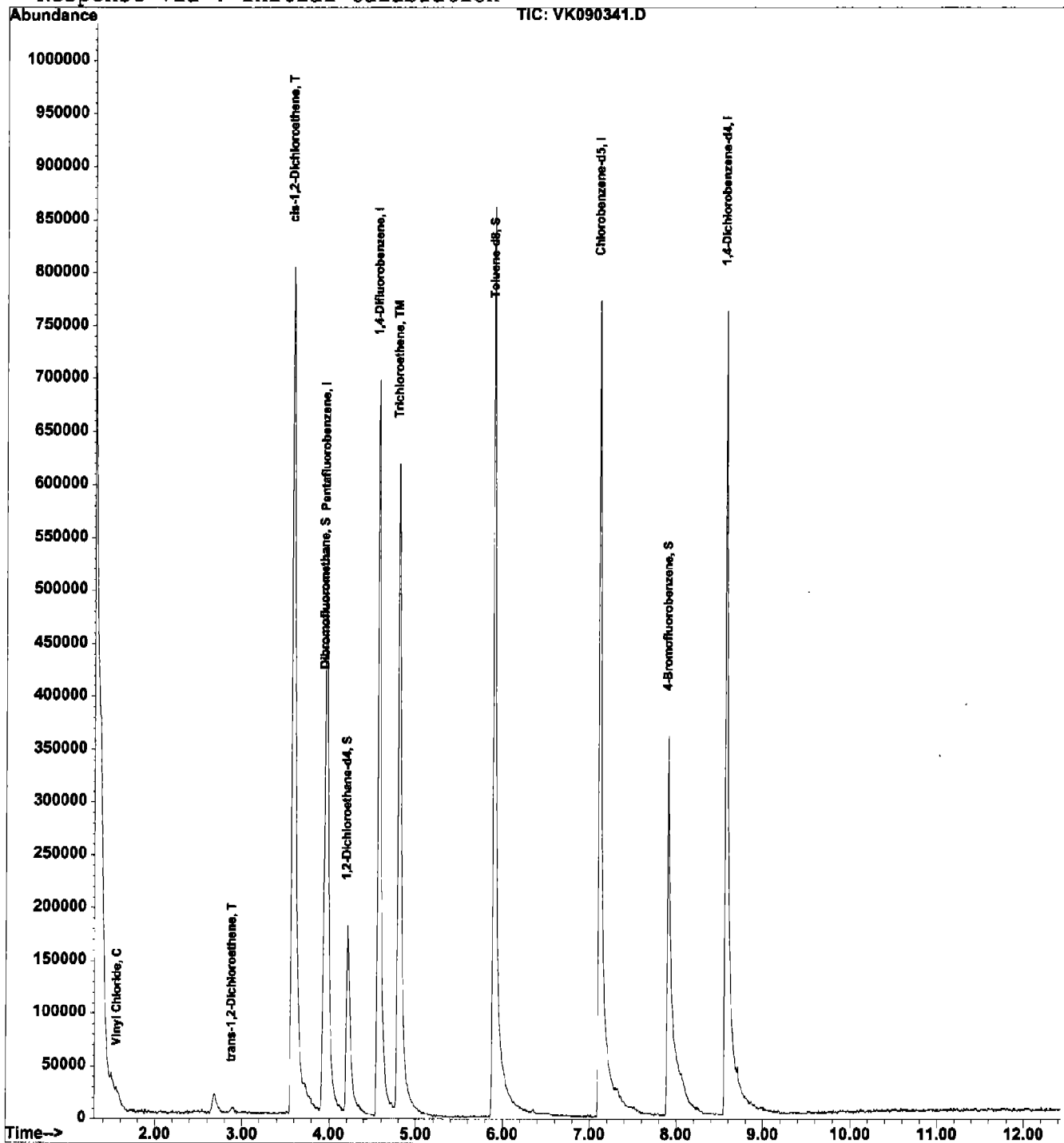
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090341.D  
Acq On : 3 Sep 2004 8:54 pm  
Sample : S4436-15 100X  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 7 12:09 2004

Vial: 9  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090304\VK090341.D Vial: 9  
 Acq On : 3 Sep 2004 8:54 pm Operator: KP  
 Sample : S4436-15 100X Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 7 12:09 2004 Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.97	168	329557	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.57	114	776283	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.11	117	614013	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.57	152	308660	10.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) 1,2-Dichloroethane-d	4.21	65	178454	10.77	ug/l	0.00
Spiked Amount 10.000			Recovery =	107.70%		
34) Dibromofluoromethane	3.94	113	205967	9.77	ug/l	0.00
Spiked Amount 10.000			Recovery =	97.70%		
45) Toluene-d8	5.90	98	881876	9.58	ug/l	-0.01
Spiked Amount 10.000			Recovery =	95.80%		
56) 4-Bromofluorobenzene	7.90	95	361753	9.63	ug/l	-0.03
Spiked Amount 10.000			Recovery =	96.30%		

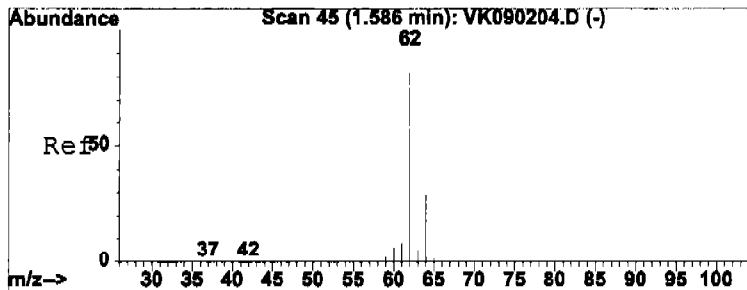
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
4) Vinyl Chloride	1.57	62	35297	1.04	ug/l	96
21) trans-1,2-Dichloroet	2.89	96	2819	0.13	ug/l #	79
27) cis-1,2-Dichloroethe	3.58	96	610554	25.61	ug/l #	82
39) Trichloroethene	4.80	130	307102	9.57	ug/l	99

Analyst Signature: 1gp Analyst Name: \_\_\_\_\_ Date: 09/07/04

-----REASONS FOR MANUAL INTEGRATIONS-----

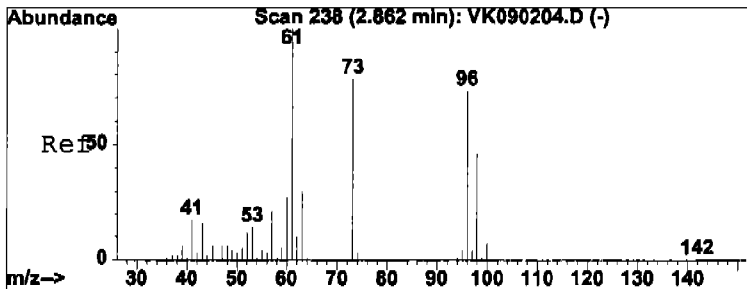
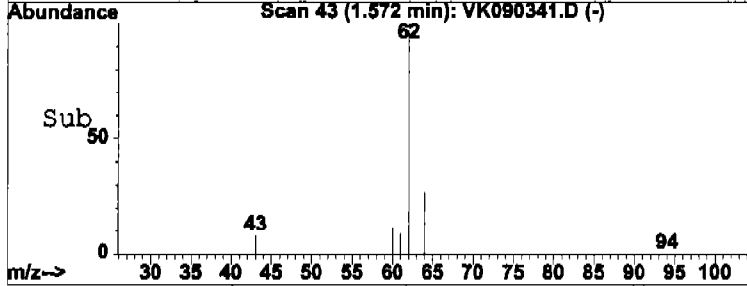
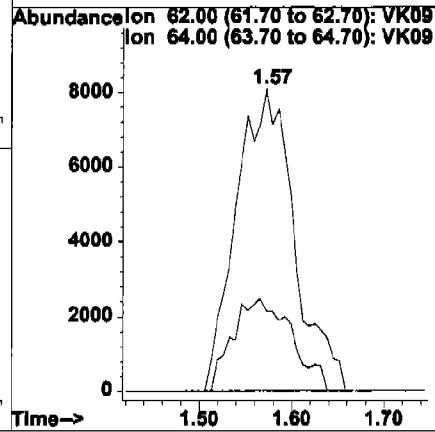
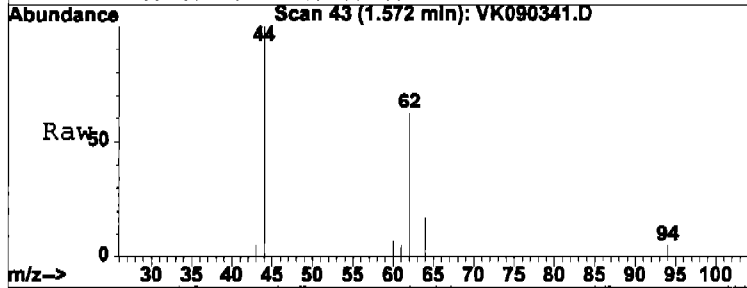
\_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly.Compound #: \_\_\_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration



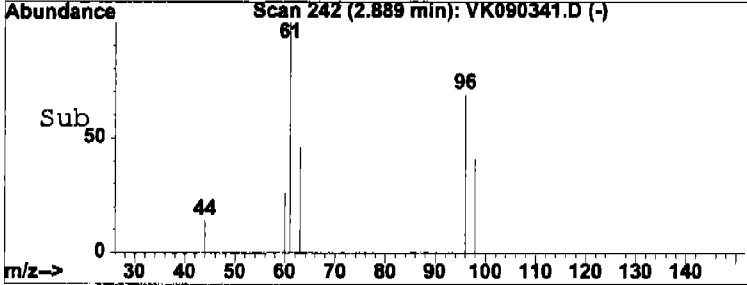
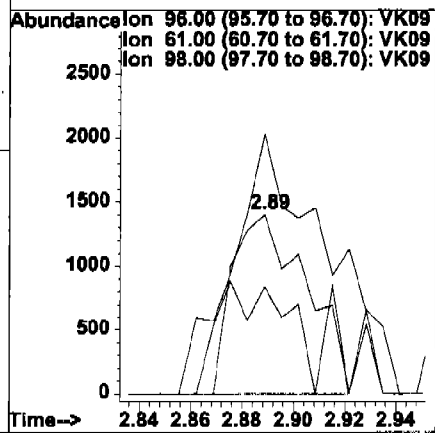
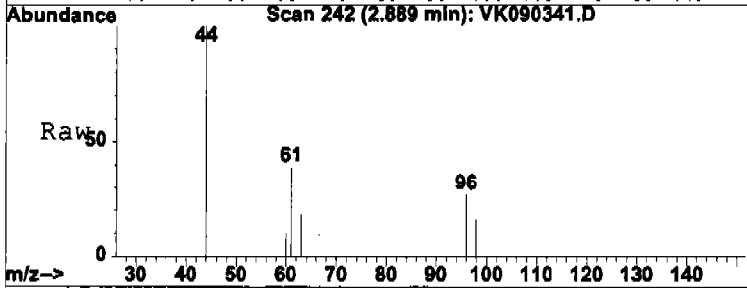
#4  
 Vinyl Chloride  
 Concen: 1.04 ug/l  
 RT: 1.57 min Scan# 43  
 Delta R.T. 0.03 min  
 Lab File: VK090341.D  
 Acq: 3 Sep 2004 8:54 pm

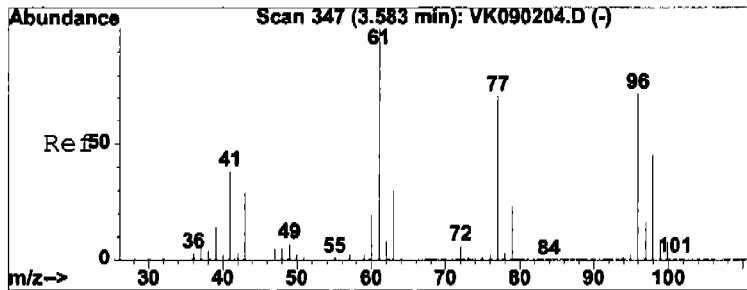
Tgt Ion: 62 Resp: 35297  
 Ion Ratio Lower Upper  
 62 100  
 64 26.7 22.9 34.3



#21  
 trans-1,2-Dichloroethene  
 Concen: 0.13 ug/l  
 RT: 2.89 min Scan# 242  
 Delta R.T. 0.02 min  
 Lab File: VK090341.D  
 Acq: 3 Sep 2004 8:54 pm

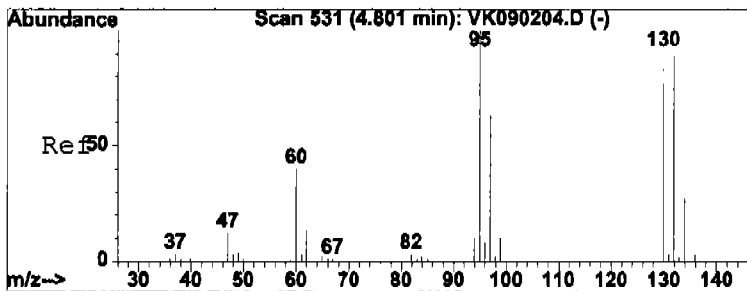
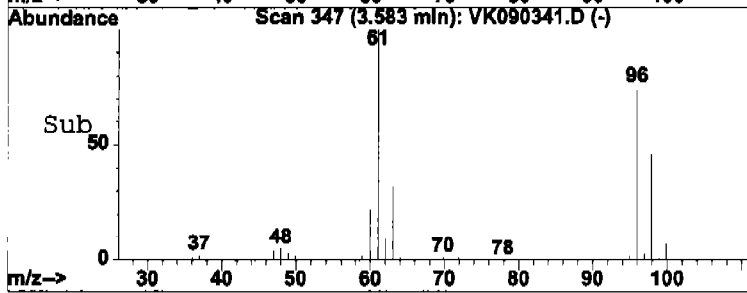
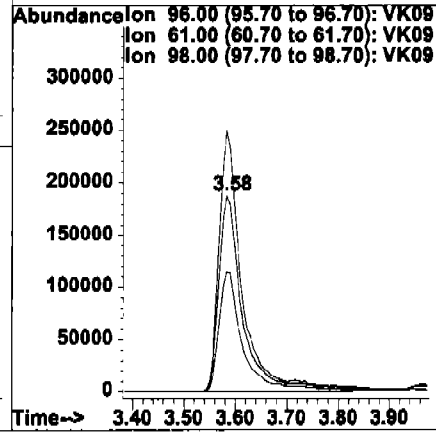
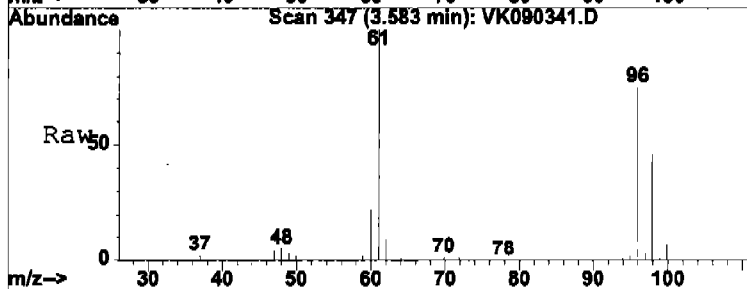
Tgt Ion: 96 Resp: 2819  
 Ion Ratio Lower Upper  
 96 100  
 61 102.4 109.2 163.8#  
 98 60.0 50.0 75.0





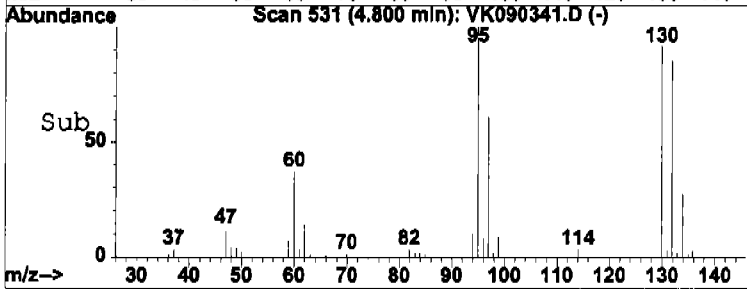
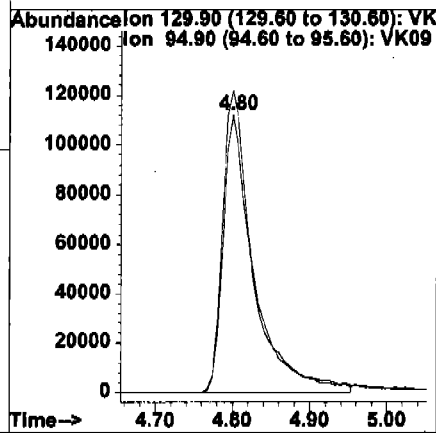
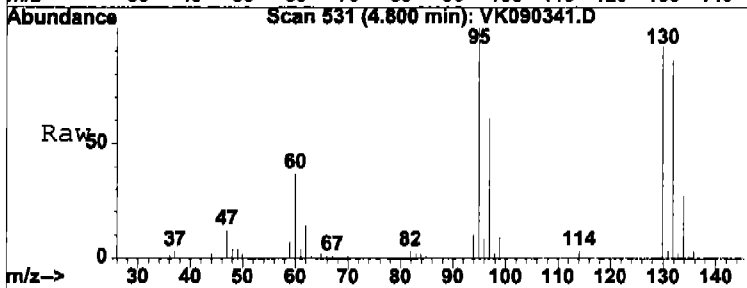
#27  
 cis-1,2-Dichloroethene  
 Concen: 25.61 ug/l  
 RT: 3.58 min Scan# 347  
 Delta R.T. -0.01 min  
 Lab File: VK090341.D  
 Acq: 3 Sep 2004 8:54 pm

Tgt Ion:	96	Resp:	610554
Ion Ratio	Lower	Upper	
96	100		
61	121.4	121.7	182.5#
98	60.9	51.3	76.9



#39  
 Trichloroethene  
 Concen: 9.57 ug/l  
 RT: 4.80 min Scan# 531  
 Delta R.T. -0.01 min  
 Lab File: VK090341.D  
 Acq: 3 Sep 2004 8:54 pm

Tgt Ion:	130	Resp:	307102
Ion Ratio	Lower	Upper	
130	100		
95	109.0	88.2	132.2





LSC Area Percent Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090341.D  
 Acq On : 3 Sep 2004 8:54 pm  
 Sample : S4436-15 100X  
 Misc : 25mL  
 MS Integration Params: RTEINT.P

Vial: 9  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

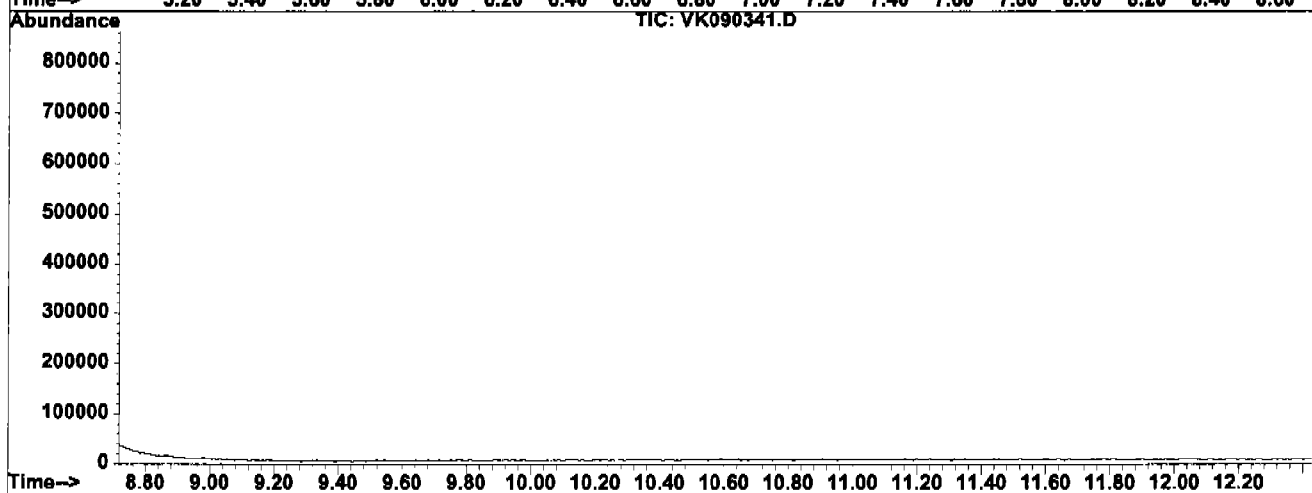
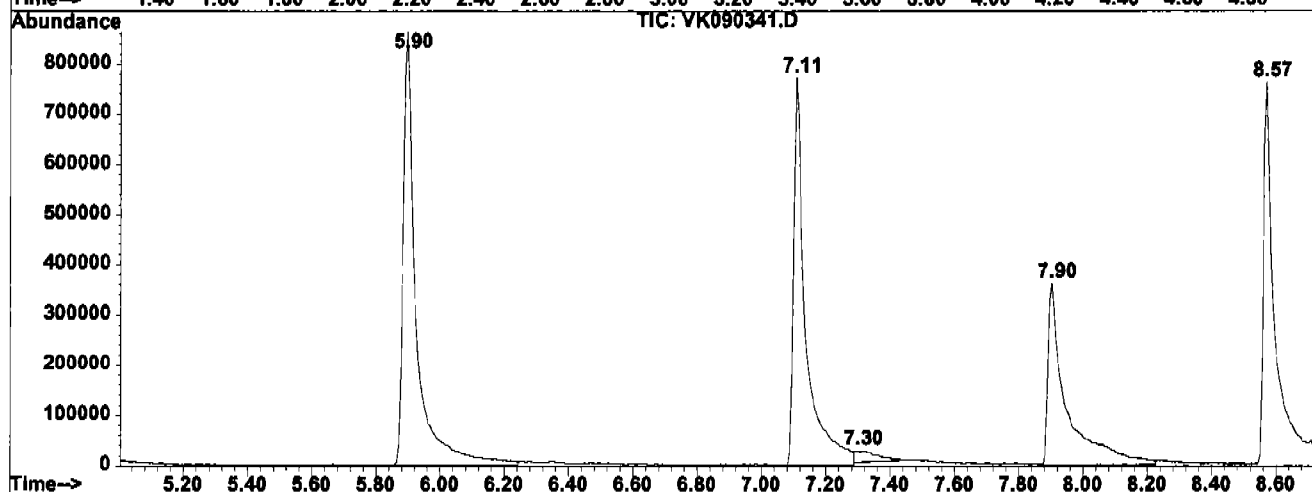
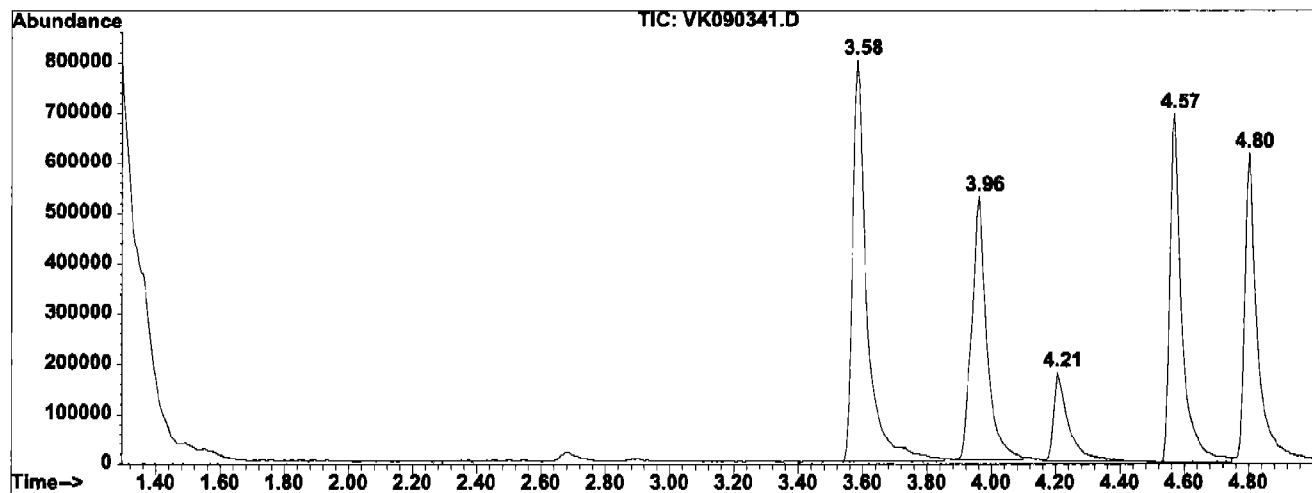
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	3.583	340	347	388	rBV	799584	2535964	100.00%	15.534%
2	3.960	392	404	425	rBV3	523971	1703956	67.19%	10.438%
3	4.205	434	441	477	rVB	177995	587017	23.15%	3.596%
4	4.569	488	496	523	rBV	694900	1807092	71.26%	11.070%
5	4.800	523	531	567	rVB	613506	1716271	67.68%	10.513%
6	5.899	688	697	749	rBV	860514	2436843	96.09%	14.927%
7	7.109	870	880	907	rBV	771578	1998331	78.80%	12.241%
8	7.301	907	909	932	rVB7	20221	106403	4.20%	0.652%
9	7.903	994	1000	1049	rBV	359815	1422296	56.09%	8.712%
10	8.571	1095	1101	1143	rBV	759664	2010746	79.29%	12.317%

Sum of corrected areas: 16324919

VK090341.D SAK0902W.M Tue Sep 07 12:10:40 2004 LABMANAGER

LSC Report - Integrated Chromatogram

File : K:\1\DATA\MSVOAK\VK090304\VK090341.D  
Operator : KP  
Acquired : 3 Sep 2004 8:54 pm using AcqMethod VP  
Instrument : MSVOA J/K  
Sample Name: S4436-15 100X  
Misc Info : 25mL  
Vial Number: 9  
Quant File : SAK0902W.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: KP      Date Acquired: 3 Sep 2004 8:54 pm  
Data File: K:\1\DATA\MSVOAK\VK090304\VK090341.D  
Name: S4436-15 100X  
Misc: 25mL  
Method: K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title: SW846 8260  
Library Searched: C:\DATABASE\NBS75K.L

TIC	Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
-----									
VK090341.D	SAK0902W.M								

Tue Sep 07 12:10:42 2004

LABMANAGER

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2246</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-16</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090342.D</b>	<b>1</b>		<b>9/3/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
74-87-3	Chloromethane	0.16	U	1.0	0.16	ug/L
75-01-4	Vinyl chloride	68	E	1.0	0.11	ug/L
74-83-9	Bromomethane	0.12	U	1.0	0.12	ug/L
75-00-3	Chloroethane	0.18	U	1.0	0.18	ug/L
75-35-4	1,1-Dichloroethene	0.41	J	1.0	0.20	ug/L
67-64-1	Acetone	1.2	U	5.0	1.2	ug/L
75-15-0	Carbon disulfide	0.21	U	1.0	0.21	ug/L
75-09-2	Methylene Chloride	0.36	U	1.0	0.36	ug/L
156-60-5	trans-1,2-Dichloroethene	2.3		1.0	0.25	ug/L
75-34-3	1,1-Dichloroethane	5.9		1.0	0.21	ug/L
78-93-3	2-Butanone	0.92	U	5.0	0.92	ug/L
56-23-5	Carbon Tetrachloride	0.17	U	1.0	0.17	ug/L
156-59-2	cis-1,2-Dichloroethene	280	E	1.0	0.27	ug/L
67-66-3	Chloroform	0.23	U	1.0	0.23	ug/L
71-55-6	1,1,1-Trichloroethane	1.8		1.0	0.22	ug/L
71-43-2	Benzene	0.20	U	1.0	0.20	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	11		1.0	0.19	ug/L
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17	ug/L
108-10-1	4-Methyl-2-Pentanone	0.77	U	5.0	0.77	ug/L
108-88-3	Toluene	0.19	U	1.0	0.19	ug/L
10061-02-6	t-1,3-Dichloropropene	0.15	U	1.0	0.15	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L
591-78-6	2-Hexanone	0.58	U	5.0	0.58	ug/L
124-48-1	Dibromochloromethane	0.21	U	1.0	0.21	ug/L
127-18-4	Tetrachloroethene	0.20	U	1.0	0.20	ug/L
108-90-7	Chlorobenzene	0.16	U	1.0	0.16	ug/L
100-41-4	Ethyl Benzene	0.18	U	1.0	0.18	ug/L
136777-61-2	m&p-Xylenes	0.36	U	1.0	0.36	ug/L
95-47-6	o-Xylene	0.17	U	1.0	0.17	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2246</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-16</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Allquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090342.D</b>	<b>1</b>		<b>9/3/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
100-42-5	Styrene	0.17	U	1.0	0.17	ug/L
75-25-2	Bromoform	0.37	U	1.0	0.37	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	11.83	118 %	72 - 119		SPK: 10
1868-53-7	Dibromofluoromethane	10.96	110 %	85 - 115		SPK: 10
2037-26-5	Toluene-d8	9.38	94 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	10.06	101 %	76 - 119		SPK: 10
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	324664	3.96			
540-36-3	1,4-Difluorobenzene	756035	4.56			
3114-55-4	Chlorobenzene-d5	632028	7.11			
3855-82-1	1,4-Dichlorobenzene-d4	297270	8.57			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

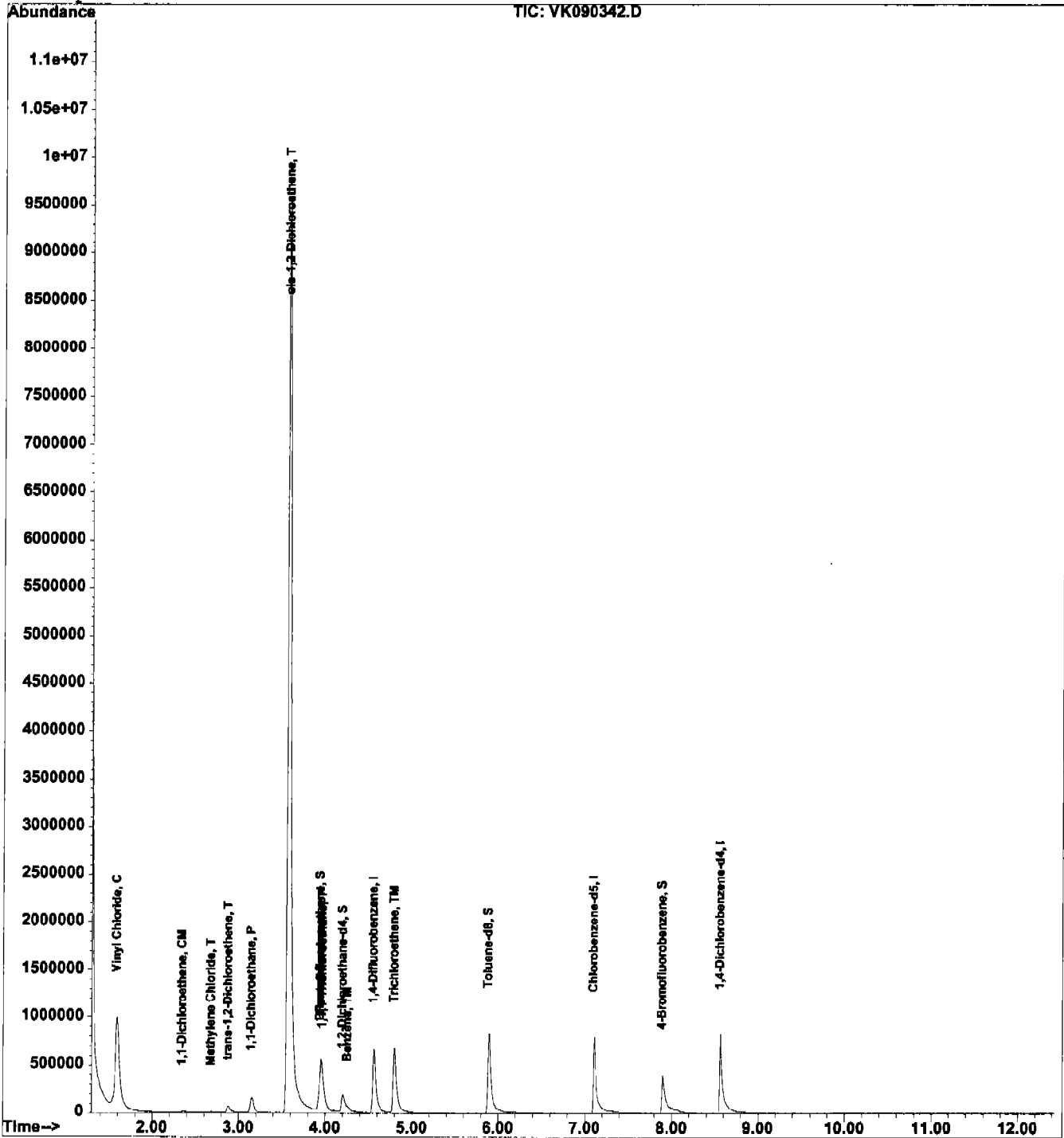
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090342.D  
Acq On : 3 Sep 2004 9:33 pm  
Sample : S4436-16  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 7 12:14 2004

Vial: 10  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



Data File : K:\1\DATA\MSVOAK\VK090304\VK090342.D Vial: 10  
 Acq On : 3 Sep 2004 9:33 pm Operator: KP  
 Sample : S4436-16 Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 7 12:14 2004 Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

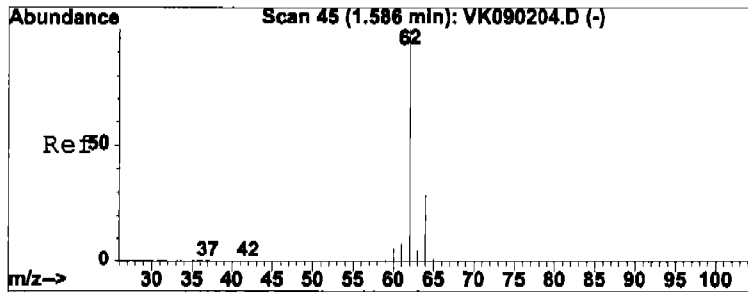
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.96	168	324664	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.56	114	756035	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.11	117	632028	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.57	152	297270	10.00	ug/l	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d	4.21	65	193021	11.83	ug/l	0.00
Spiked Amount	10.000					
						Recovery = 118.30%
34) Dibromofluoromethane	3.94	113	225036	10.96	ug/l	0.00
Spiked Amount	10.000					
						Recovery = 109.60%
45) Toluene-d8	5.90	98	840713	9.38	ug/l	-0.01
Spiked Amount	10.000					
						Recovery = 93.80%
56) 4-Bromofluorobenzene	7.90	95	368050m	10.06	ug/l	-0.04
Spiked Amount	10.000					
						Recovery = 100.60%
Target Compounds						
4) Vinyl Chloride	1.59	62	2287947	68.16	ug/l	95
13) 1,1-Dichloroethene	2.35	96	8360	0.41	ug/l	96
20) Methylene Chloride	2.68	84	5874m	0.23	ug/l	
21) trans-1,2-Dichloroet	2.88	96	50643	2.32	ug/l	98
23) 1,1-Dichloroethane	3.15	63	236727	5.94	ug/l	99
27) cis-1,2-Dichloroethe	3.58	96	6680507	284.45	ug/l	87
30) 1,1,1-Trichloroethan	3.98	97	64327	1.80	ug/l #	1
37) Benzene	4.27	78	24203	0.18	ug/l	100
39) Trichloroethene	4.80	130	336921	10.78	ug/l	99

Analyst Signature: JP Analyst Name: \_\_\_\_\_ Date: 09/07/04

REASONS FOR MANUAL INTEGRATIONS

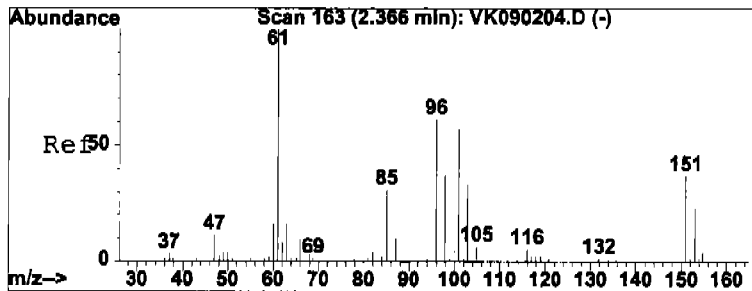
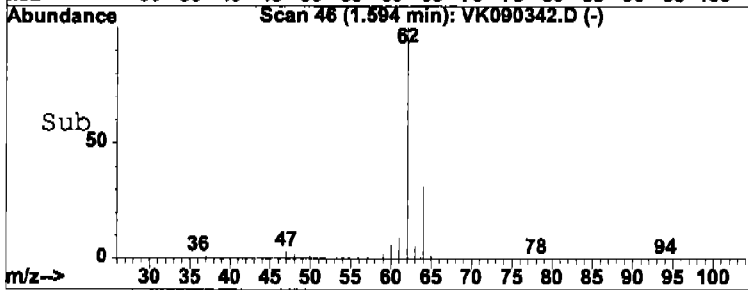
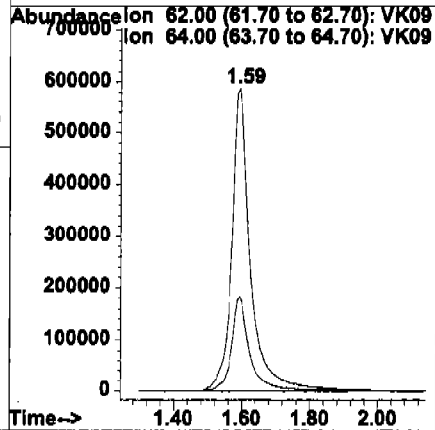
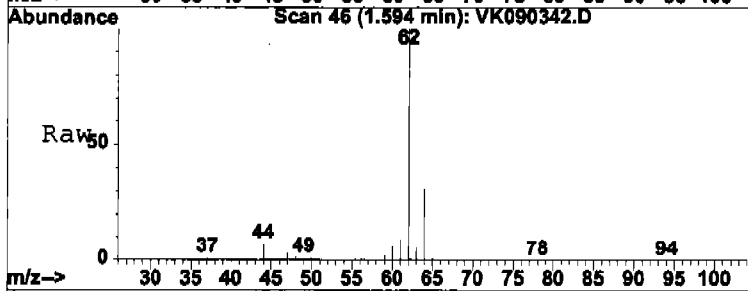
Poor resolution of peaks exhibited on chromatogram. Compound #: 56  
 Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration



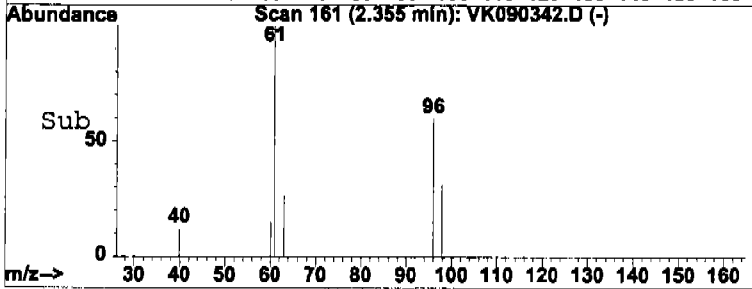
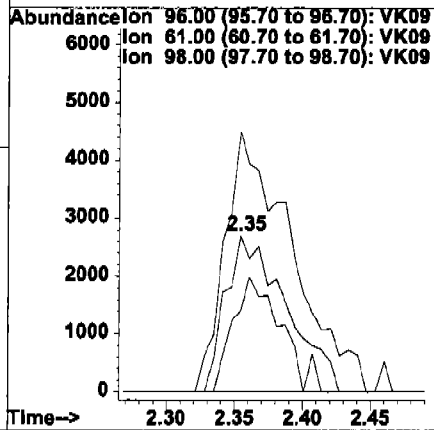
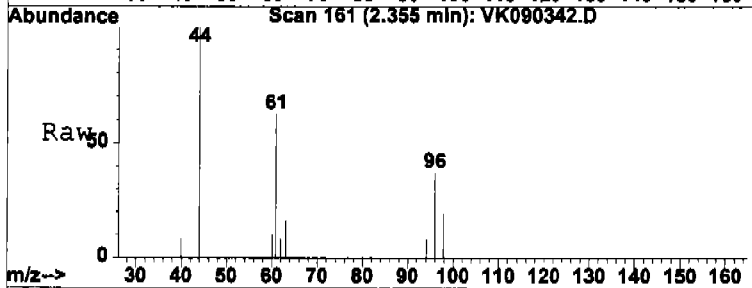
#4  
 Vinyl Chloride  
 Concen: 68.16 ug/l  
 RT: 1.59 min Scan# 46  
 Delta R.T. 0.05 min  
 Lab File: VK090342.D  
 Acq: 3 Sep 2004 9:33 pm

Tgt Ion: 62 Resp: 2287947  
 Ion Ratio Lower Upper  
 62 100  
 64 31.2 22.9 34.3

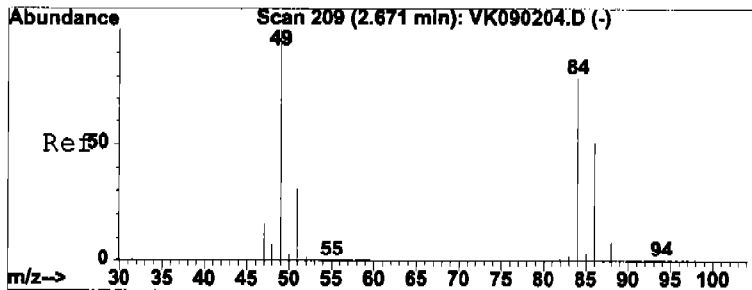


#13  
 1,1-Dichloroethene  
 Concen: 0.41 ug/l  
 RT: 2.35 min Scan# 161  
 Delta R.T. 0.02 min  
 Lab File: VK090342.D  
 Acq: 3 Sep 2004 9:33 pm

Tgt Ion: 96 Resp: 8360  
 Ion Ratio Lower Upper  
 96 100  
 61 166.6 130.9 196.3  
 98 52.2 48.1 72.1



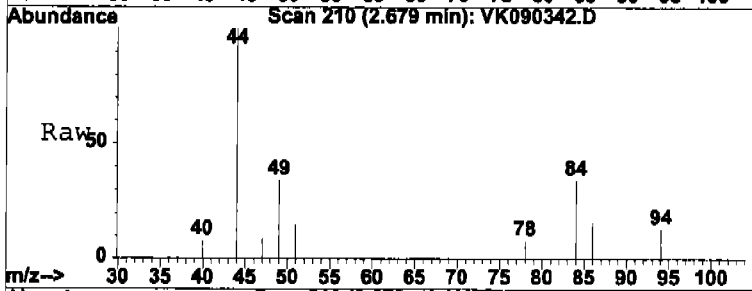




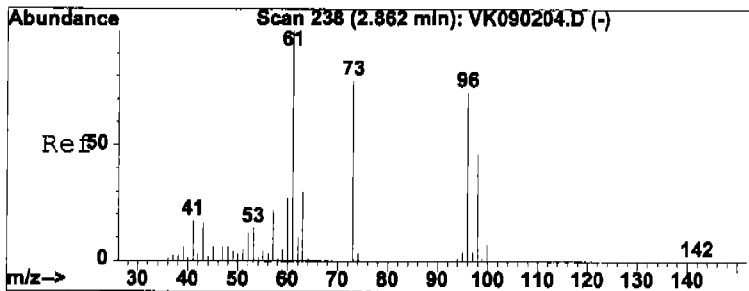
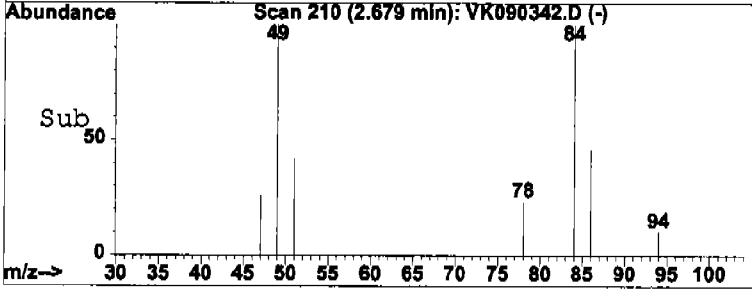
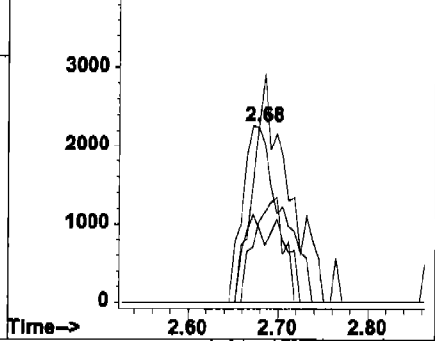
#20  
 Methylene Chloride  
 Concen: 0.23 ug/l m  
 RT: 2.68 min Scan# 210  
 Delta R.T. 0.01 min  
 Lab File: VK090342.D  
 Acq: 3 Sep 2004 9:33 pm

Tgt Ion: 84 Resp: 5874

Ion	Ratio	Lower	Upper
84	100		
49	99.8	103.4	155.0#
51	42.3	31.7	47.5
86	45.9	51.8	77.6#



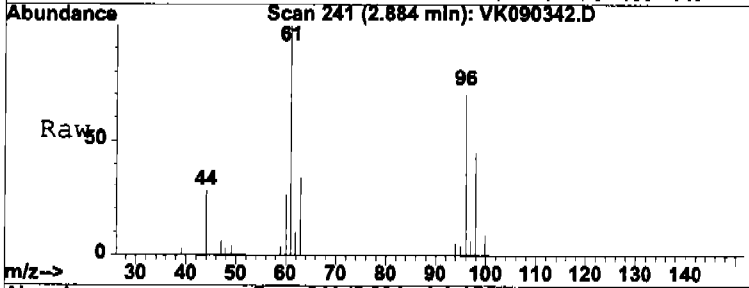
Abundance  
 Ion 84.00 (83.70 to 84.70): VK09  
 Ion 49.00 (48.70 to 49.70): VK09  
 Ion 51.00 (50.70 to 51.70): VK09  
 Ion 86.00 (85.70 to 86.70): VK09



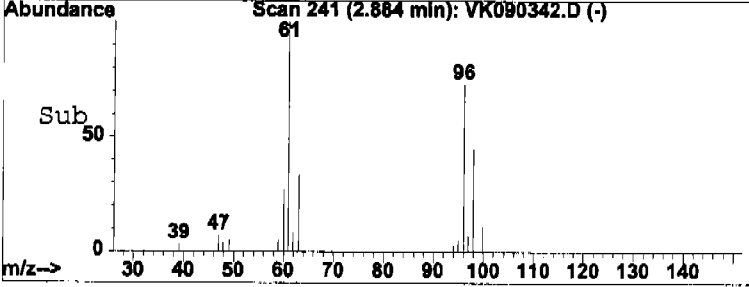
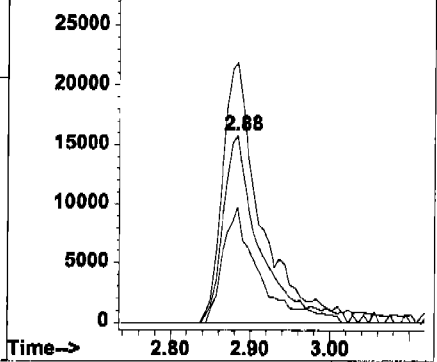
#21  
 trans-1,2-Dichloroethene  
 Concen: 2.32 ug/l  
 RT: 2.88 min Scan# 241  
 Delta R.T. 0.02 min  
 Lab File: VK090342.D  
 Acq: 3 Sep 2004 9:33 pm

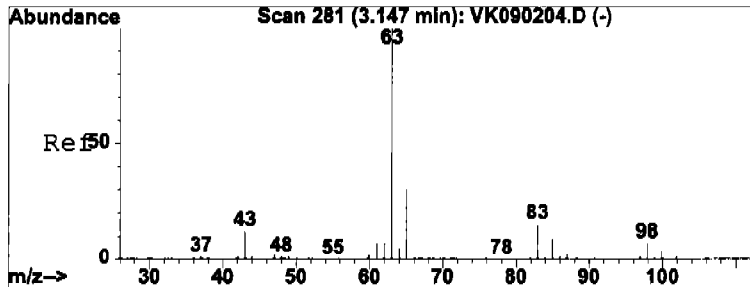
Tgt Ion: 96 Resp: 50643

Ion	Ratio	Lower	Upper
96	100		
61	139.0	109.2	163.8
98	61.9	50.0	75.0



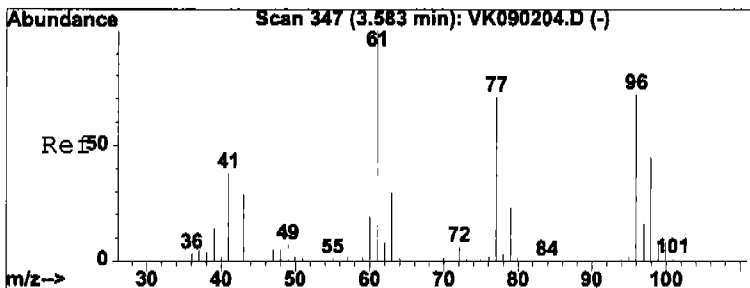
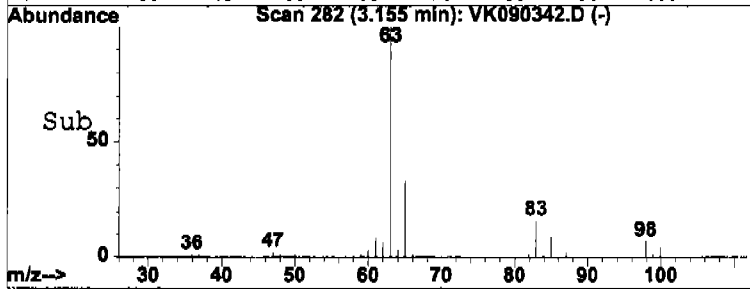
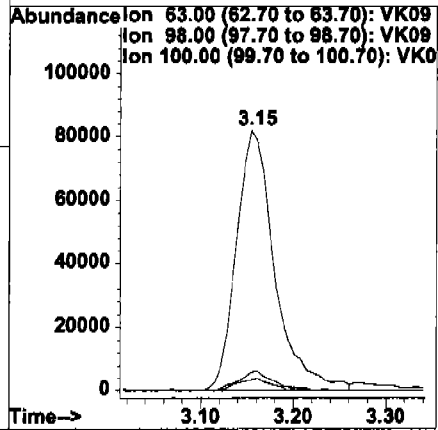
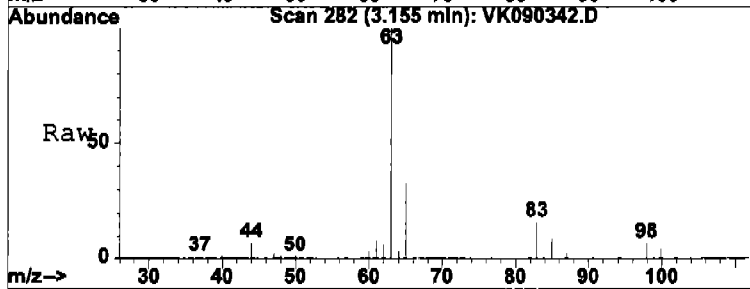
Abundance  
 Ion 96.00 (95.70 to 96.70): VK09  
 Ion 61.00 (60.70 to 61.70): VK09  
 Ion 98.00 (97.70 to 98.70): VK09





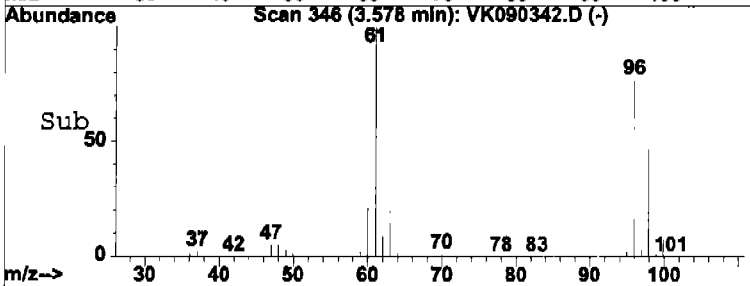
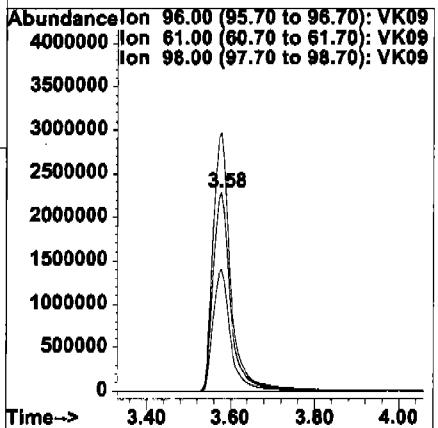
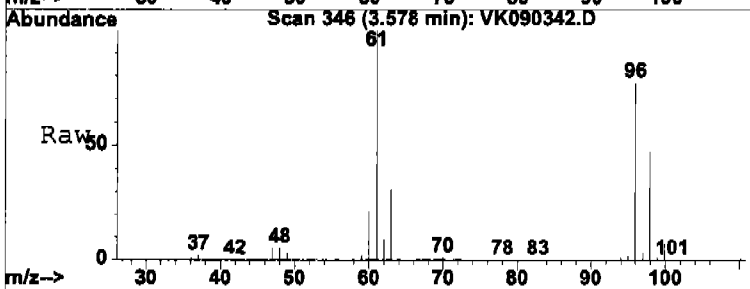
#23  
 1,1-Dichloroethane  
 Concen: 5.94 ug/l  
 RT: 3.15 min Scan# 282  
 Delta R.T. 0.00 min  
 Lab File: VK090342.D  
 Acq: 3 Sep 2004 9:33 pm

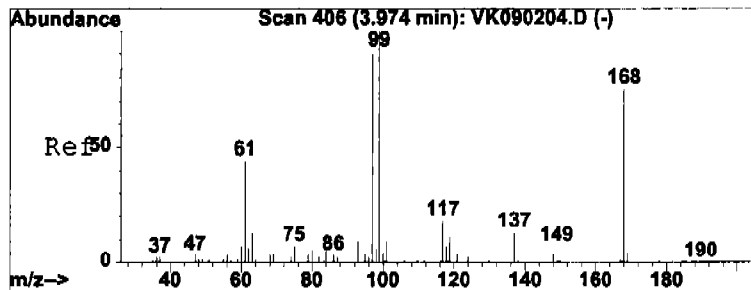
Tgt Ion	Resp	Lower	Upper
63	100		
98	7.2	4.0	11.9
100	4.1	2.1	6.2



#27  
 cis-1,2-Dichloroethene  
 Concen: 284.45 ug/l  
 RT: 3.58 min Scan# 346  
 Delta R.T. -0.01 min  
 Lab File: VK090342.D  
 Acq: 3 Sep 2004 9:33 pm

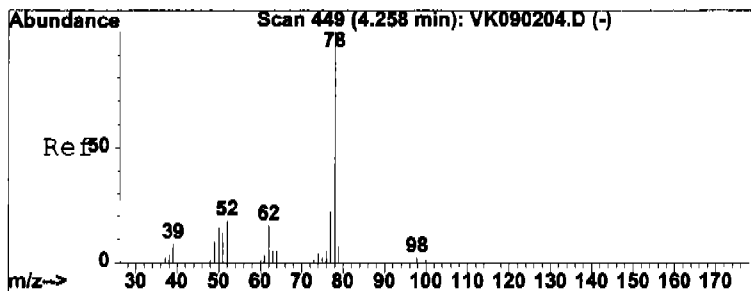
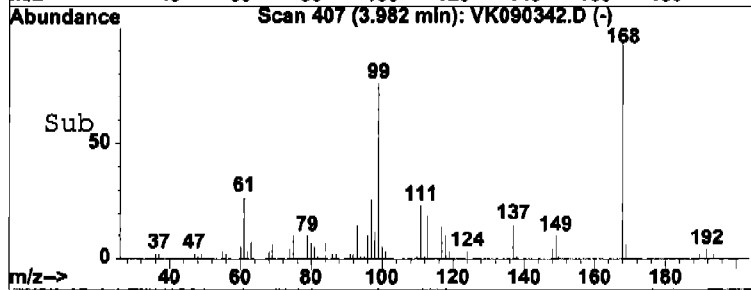
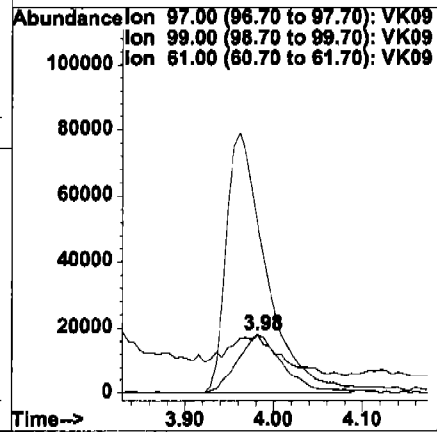
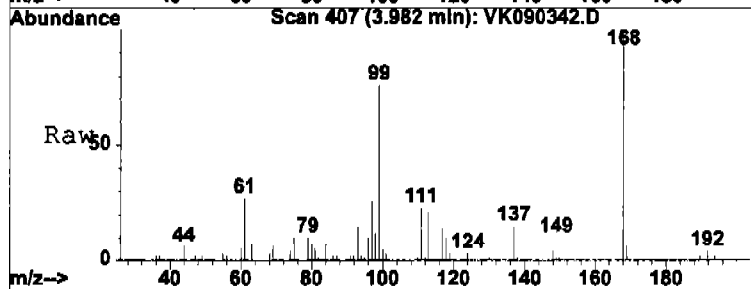
Tgt Ion	Resp	Lower	Upper
96	100		
61	130.9	121.7	182.5
98	61.6	51.3	76.9





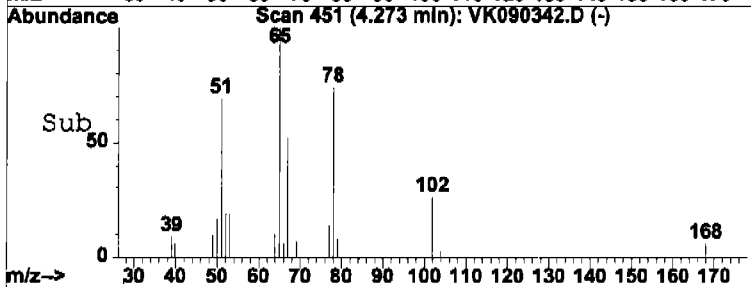
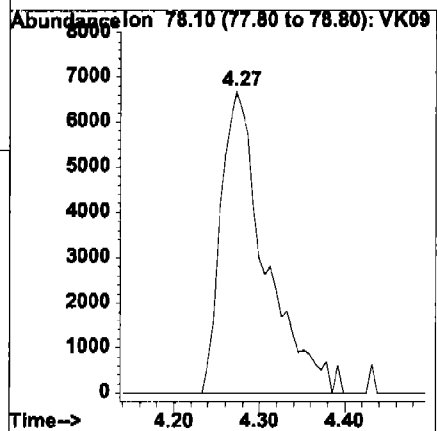
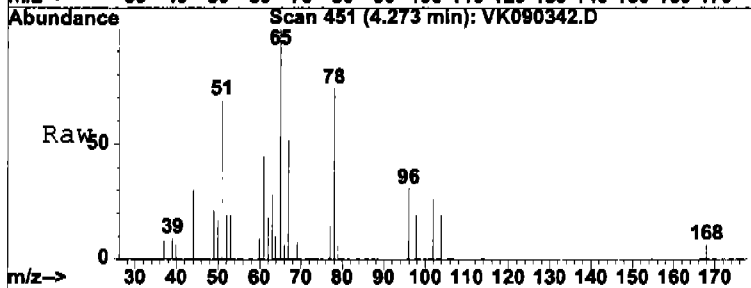
#30  
 1,1,1-Trichloroethane  
 Concen: 1.80 ug/l  
 RT: 3.98 min Scan# 407  
 Delta R.T. 0.00 min  
 Lab File: VK090342.D  
 Acq: 3 Sep 2004 9:33 pm

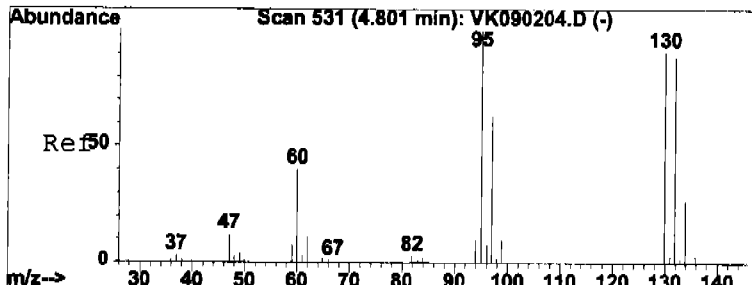
Tgt Ion	Resp	Lower	Upper
97	64327	100	
99	394.6	97.6	146.4#
61	0.0	38.1	57.1#



#37  
 Benzene  
 Concen: 0.18 ug/l  
 RT: 4.27 min Scan# 451  
 Delta R.T. 0.02 min  
 Lab File: VK090342.D  
 Acq: 3 Sep 2004 9:33 pm

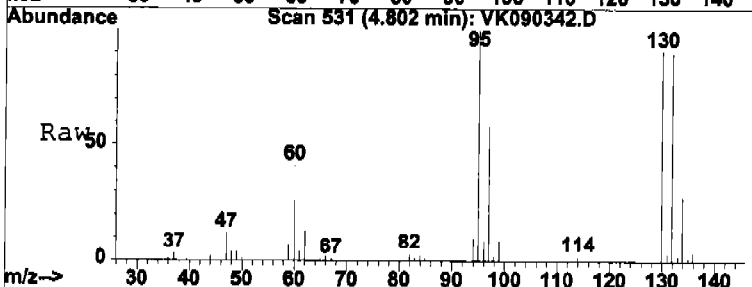
Tgt Ion: 78 Resp: 24203



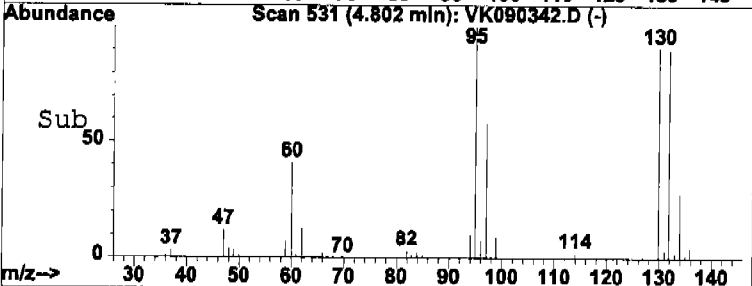
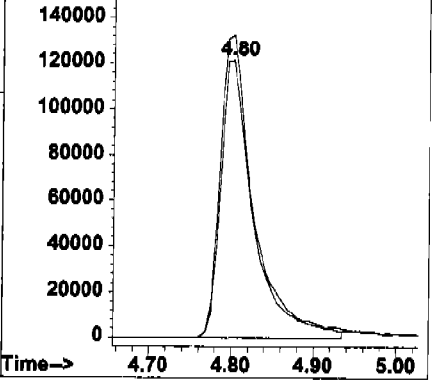


#39  
 Trichloroethene  
 Concen: 10.78 ug/l  
 RT: 4.80 min Scan# 531  
 Delta R.T. -0.01 min  
 Lab File: VK090342.D  
 Acq: 3 Sep 2004 9:33 pm

Tgt Ion: 130 Resp: 336921  
 Ion Ratio Lower Upper  
 130 100  
 95 109.4 88.2 132.2



Abundance Ion 129.90 (129.60 to 130.60): VK  
 Ion 94.90 (94.60 to 95.60): VK09

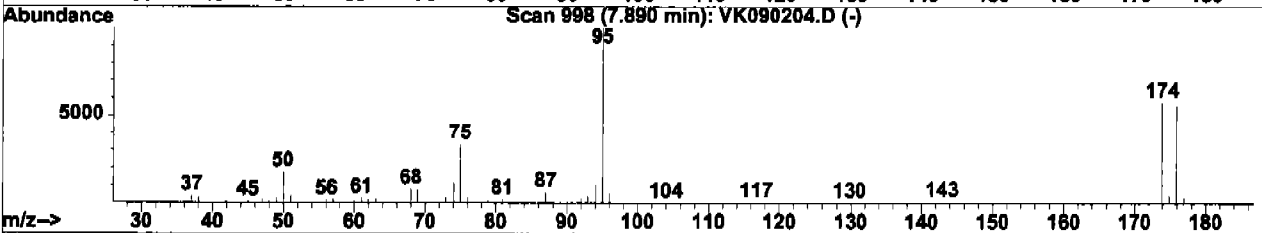
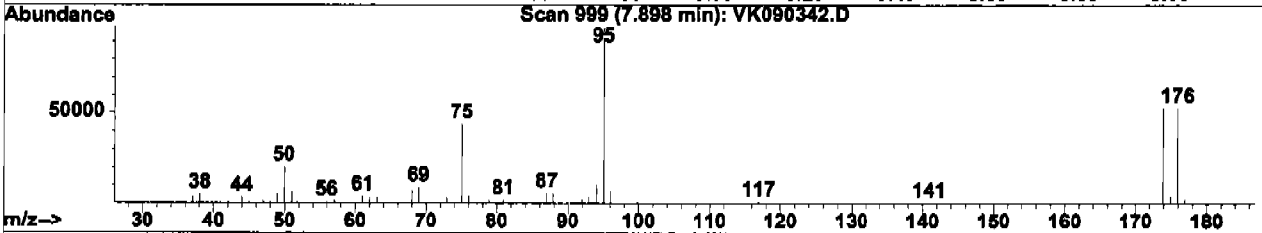
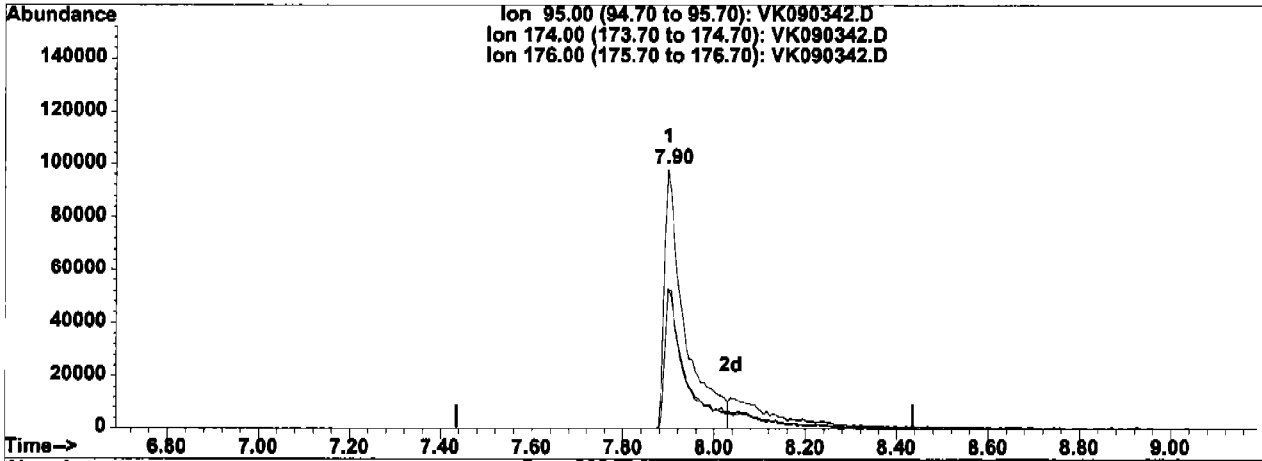


Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090342.D  
 Acq On : 3 Sep 2004 9:33 pm  
 Sample : S4436-16  
 Misc : 25mL  
 Quant Time: Sep 7 12:13 2004

Vial: 10  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(56) 4-Bromofluorobenzene (S)

7.90min 8.35ug/l

response 305699

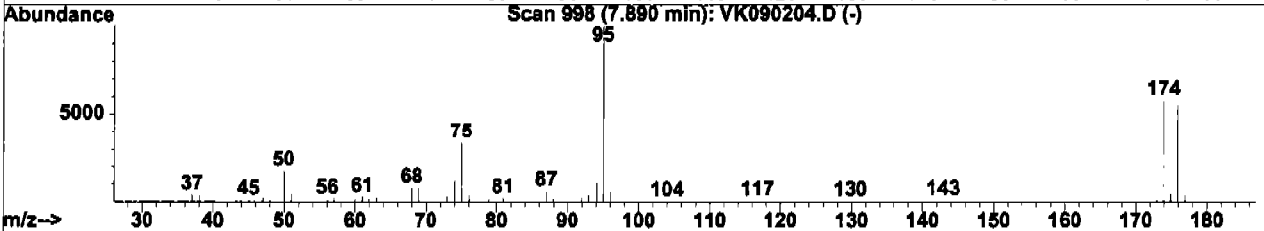
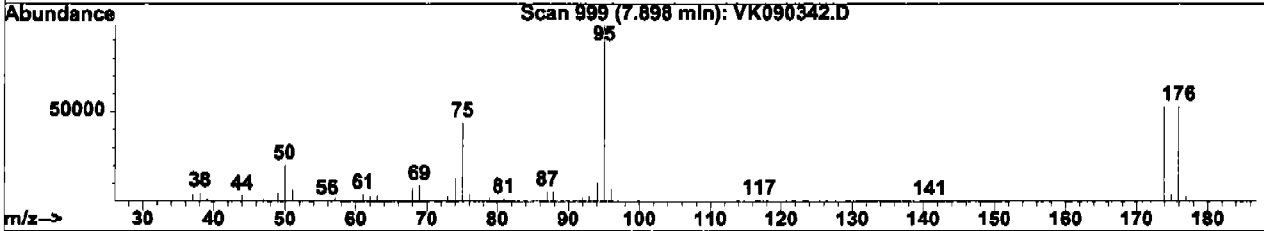
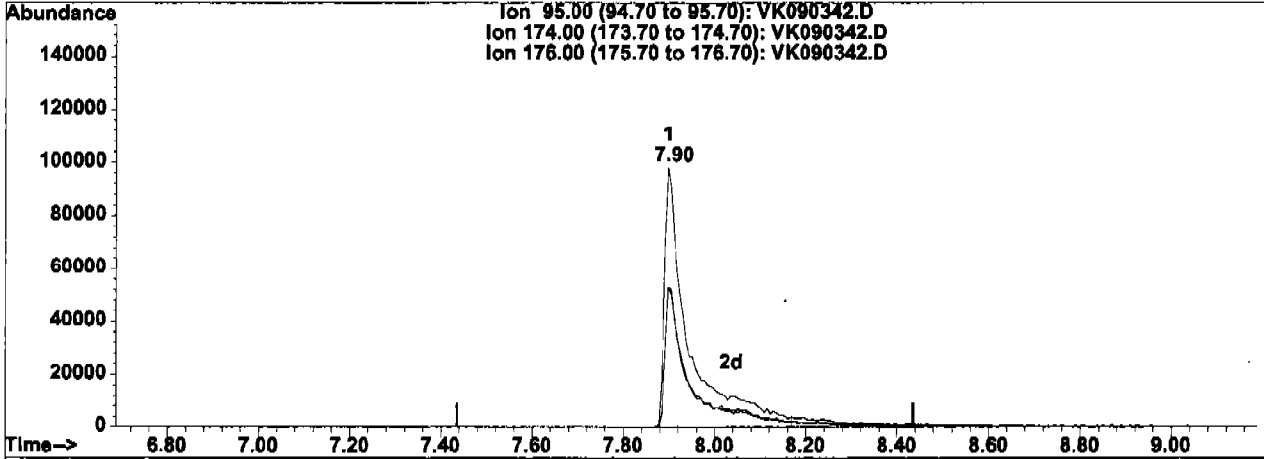
Ion	Exp%	Act%
95.00	100	100
174.00	56.30	50.84
176.00	54.20	52.48
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090342.D  
 Acq On : 3 Sep 2004 9:33 pm  
 Sample : S4436-16  
 Misc : 25mL  
 Quant Time: Sep 7 12:14 2004

Vial: 10  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



TIC: VK090342.D

(56) 4-Bromofluorobenzene (S)

7.90min 10.06ug/l m

response 368050

Ion	Exp%	Act%
95.00	100	100
174.00	56.30	42.23#
176.00	54.20	43.59
0.00	0.00	0.00

LSC Area Percent Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090342.D Vial: 10  
 Acq On : 3 Sep 2004 9:33 pm Operator: KP  
 Sample : S4436-16 Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

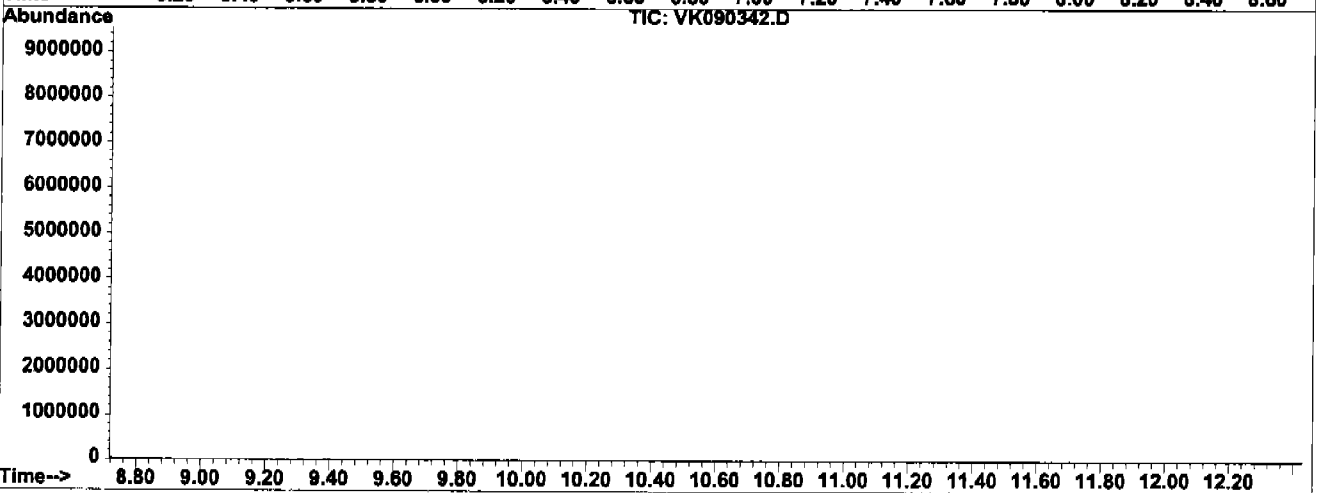
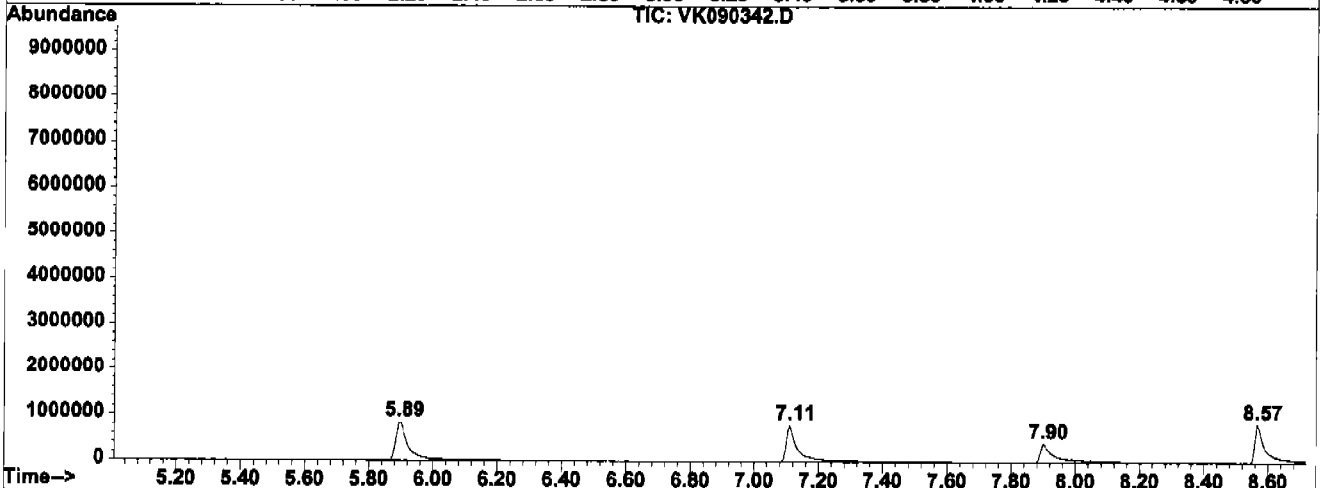
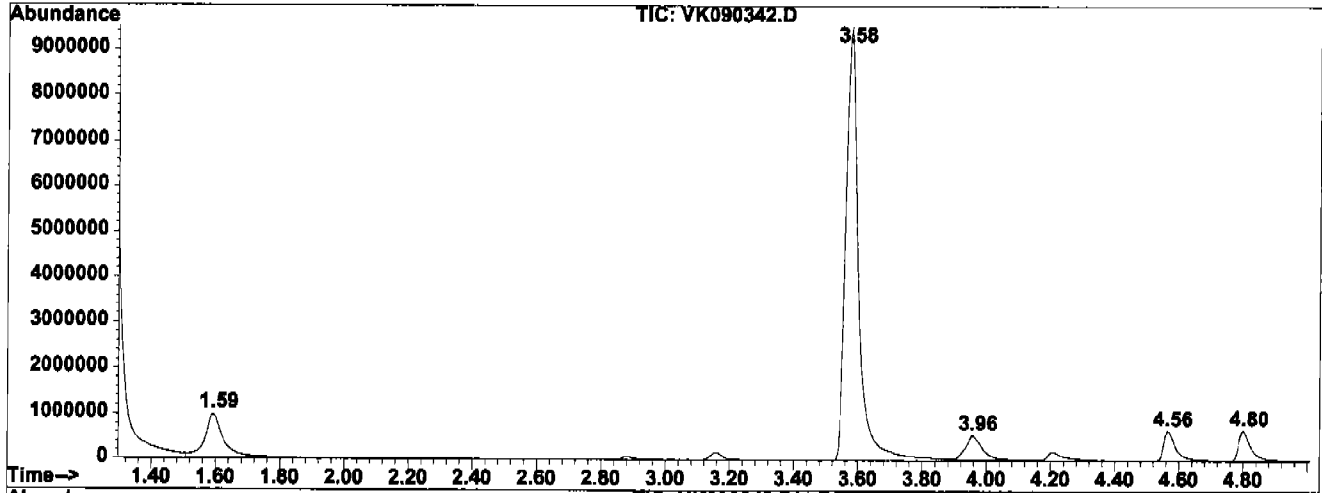
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.594	33	46	94	rVB	982774	4073417	14.56%	8.977%
2	3.578	334	346	394	rBV	9516807	27985754	100.00%	61.672%
3	3.955	394	403	425	rVB4	539368	1926600	6.88%	4.246%
4	4.564	488	495	524	rBV	665110	1755611	6.27%	3.869%
5	4.802	524	531	559	rVV	671381	1860468	6.65%	4.100%
6	5.894	689	696	733	rBV	834957	2355664	8.42%	5.191%
7	7.111	874	880	908	rBV	793029	2019419	7.22%	4.450%
8	7.898	994	999	1043	rBV	399373	1430587	5.11%	3.153%
9	8.566	1095	1100	1129	rBV	824313	1971117	7.04%	4.344%

Sum of corrected areas: 45378637

VK090342.D SAK0902W.M Tue Sep 07 12:14:58 2004 LABMANAGER

LSC Report - Integrated Chromatogram

File : K:\1\DATA\MSVOAK\VK090304\VK090342.D  
Operator : KP  
Acquired : 3 Sep 2004 9:33 pm using AcqMethod VP  
Instrument : MSVOA J/K  
Sample Name: S4436-16  
Misc Info : 25mL  
Vial Number: 10  
Quant File : SAK0902W.RES (RTE Integrator)





Tentatively Identified Compound (LSC) summary

Operator ID: KP      Date Acquired: 3 Sep 2004 9:33 pm  
Data File: K:\1\DATA\MSVOAK\VK090304\VK090342.D  
Name: S4436-16  
Misc: 25mL  
Method: K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title: SW846 8260  
Library Searched: C:\DATABASE\NBS75K.L

TIC	Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
-----									
VK090342.D	SAK0902W.M								
		Tue Sep 07 12:14:59 2004					LABMANAGER		

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2246DL</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-16DL</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090343.D</b>	<b>20</b>		<b>9/3/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
74-87-3	Chloromethane	3.1	UD	20	3.1	ug/L
75-01-4	Vinyl chloride	58	D	20	2.3	ug/L
74-83-9	Bromomethane	2.3	UD	20	2.3	ug/L
75-00-3	Chloroethane	3.5	UD	20	3.5	ug/L
75-35-4	1,1-Dichloroethene	4.0	UD	20	4.0	ug/L
67-64-1	Acetone	24	UD	100	24	ug/L
75-15-0	Carbon disulfide	4.3	UD	20	4.3	ug/L
75-09-2	Methylene Chloride	7.3	UD	20	7.3	ug/L
156-60-5	trans-1,2-Dichloroethene	5.0	UD	20	5.0	ug/L
75-34-3	1,1-Dichloroethane	4.3	UD	20	4.3	ug/L
78-93-3	2-Butanone	18	UD	100	18	ug/L
56-23-5	Carbon Tetrachloride	3.4	UD	20	3.4	ug/L
156-59-2	cis-1,2-Dichloroethene	260	D	20	5.4	ug/L
67-66-3	Chloroform	4.5	UD	20	4.5	ug/L
71-55-6	1,1,1-Trichloroethane	4.5	UD	20	4.5	ug/L
71-43-2	Benzene	4.0	UD	20	4.0	ug/L
107-06-2	1,2-Dichloroethane	4.2	UD	20	4.2	ug/L
79-01-6	Trichloroethene	9.8	JD	20	3.8	ug/L
78-87-5	1,2-Dichloropropane	3.5	UD	20	3.5	ug/L
75-27-4	Bromodichloromethane	3.4	UD	20	3.4	ug/L
108-10-1	4-Methyl-2-Pentanone	15	UD	100	15	ug/L
108-88-3	Toluene	3.8	UD	20	3.8	ug/L
10061-02-6	t-1,3-Dichloropropene	2.9	UD	20	2.9	ug/L
10061-01-5	cis-1,3-Dichloropropene	3.9	UD	20	3.9	ug/L
79-00-5	1,1,2-Trichloroethane	4.0	UD	20	4.0	ug/L
591-78-6	2-Hexanone	12	UD	100	12	ug/L
124-48-1	Dibromochloromethane	4.2	UD	20	4.2	ug/L
127-18-4	Tetrachloroethene	4.1	UD	20	4.1	ug/L
108-90-7	Chlorobenzene	3.2	UD	20	3.2	ug/L
100-41-4	Ethyl Benzene	3.6	UD	20	3.6	ug/L
136777-61-2	m&p-Xylenes	7.2	UD	20	7.2	ug/L
95-47-6	o-Xylene	3.5	UD	20	3.5	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2246DL</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-16DL</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090343.D</b>	<b>20</b>		<b>9/3/2004</b>	<b>VK090204</b>

<b>CAS Number</b>	<b>Parameter</b>	<b>Conc.</b>	<b>Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
100-42-5	Styrene	3.4	UD	20	3.4	ug/L
75-25-2	Bromoform	7.3	UD	20	7.3	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	2.5	UD	20	2.5	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	10.04	100 %	72 - 119		SPK: 10
1868-53-7	Dibromofluoromethane	10.62	106 %	85 - 115		SPK: 10
2037-26-5	Toluene-d8	9.41	94 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	10.04	100 %	76 - 119		SPK: 10
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	335197	3.96			
540-36-3	1,4-Difluorobenzene	741506	4.57			
3114-55-4	Chlorobenzene-d5	621059	7.11			
3855-82-1	1,4-Dichlorobenzene-d4	297511	8.57			

U = Not Detected  
RL = Reporting Limit  
MDL = Method Detection Limit  
E = Value Exceeds Calibration Range

J = Estimated Value  
B = Analyte Found in Associated Method Blank  
N = Presumptive Evidence of a Compound

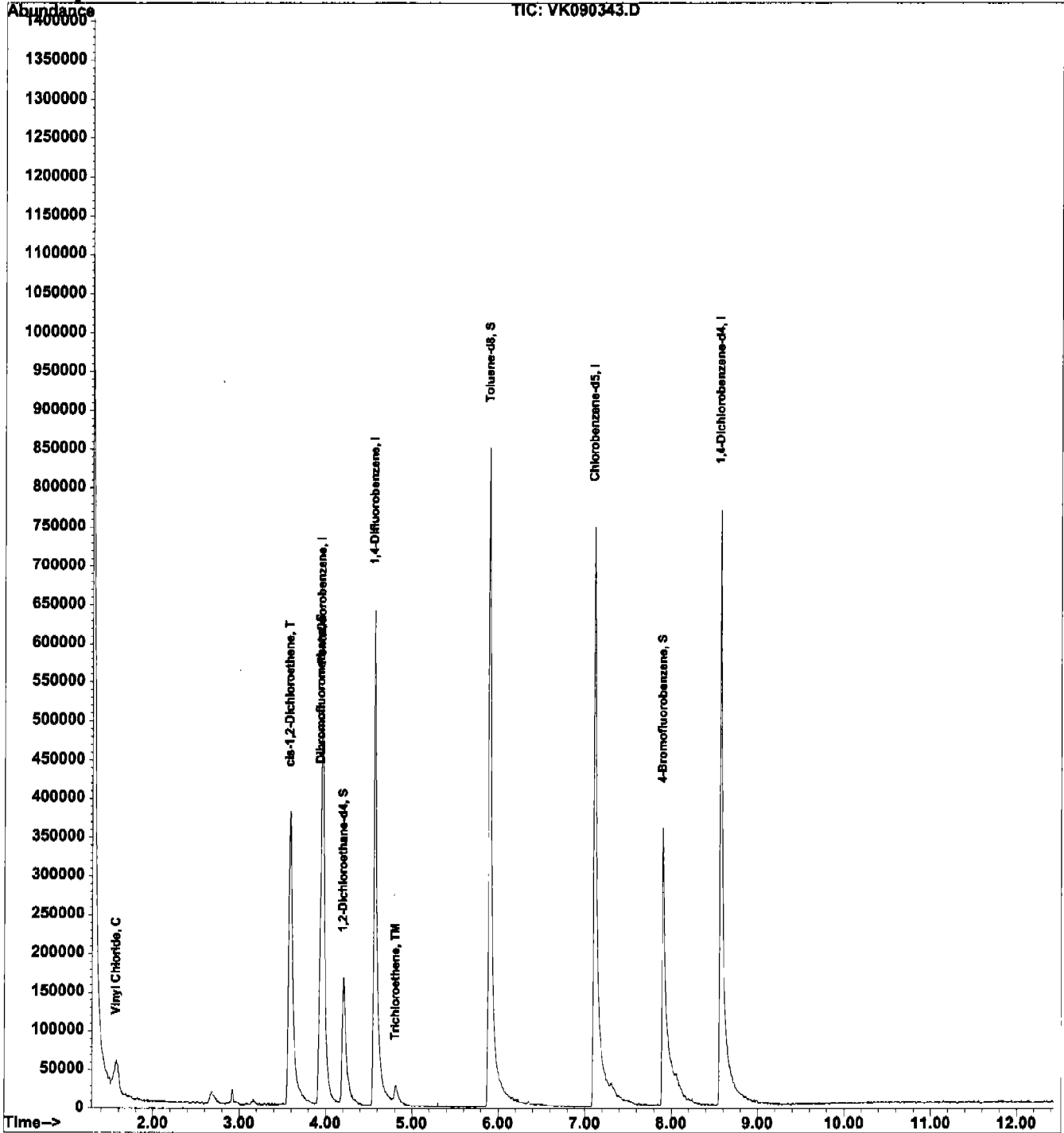
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090343.D  
Acq On : 3 Sep 2004 10:12 pm  
Sample : S4436-16 20X  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 7 12:17 2004

Vial: 11  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090304\VK090343.D Vial: 11  
 Acq On : 3 Sep 2004 10:12 pm Operator: KP  
 Sample : S4436-16 20X Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 7 12:17 2004 Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.96	168	335197	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.57	114	741506	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.11	117	621059	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.57	152	297511	10.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) 1,2-Dichloroethane-d	4.21	65	169131	10.04	ug/l	0.00
Spiked Amount				10.000		
				Recovery	=	100.40%
34) Dibromofluoromethane	3.94	113	213830	10.62	ug/l	0.00
Spiked Amount				10.000		
				Recovery	=	106.20%
45) Toluene-d8	5.90	98	827217	9.41	ug/l	-0.01
Spiked Amount				10.000		
				Recovery	=	94.10%
56) 4-Bromofluorobenzene	7.90	95	360356m	10.04	ug/l	-0.03
Spiked Amount				10.000		
				Recovery	=	100.40%

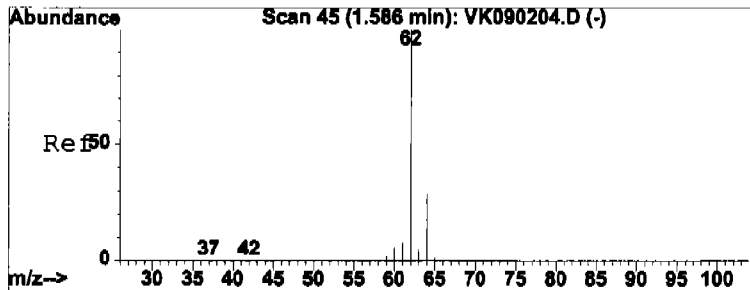
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
4) Vinyl Chloride	1.58	62	101292	2.92	ug/l	97
27) cis-1,2-Dichloroethe	3.59	96	321015m	13.24	ug/l	
39) Trichloroethene	4.81	130	14879	0.49	ug/l	99

Analyst Signature: Top Analyst Name: \_\_\_\_\_ Date: 09/07/04

-----REASONS FOR MANUAL INTEGRATIONS-----

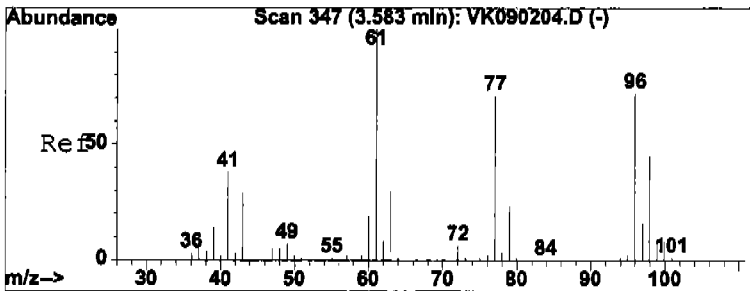
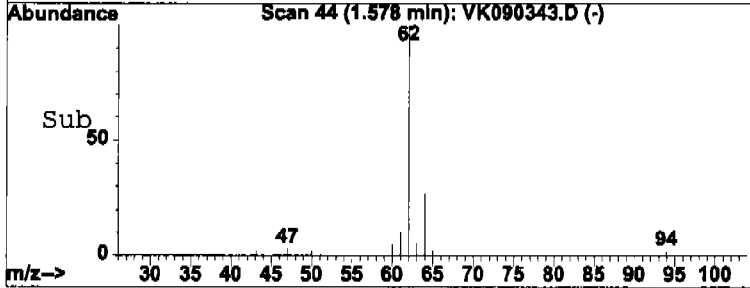
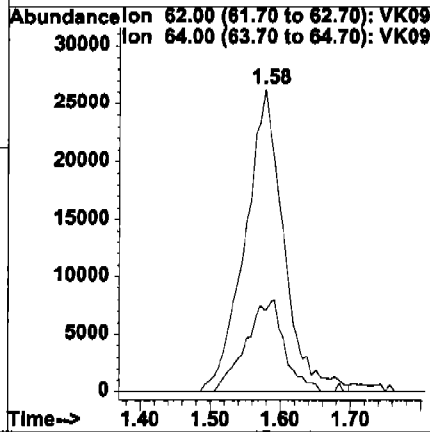
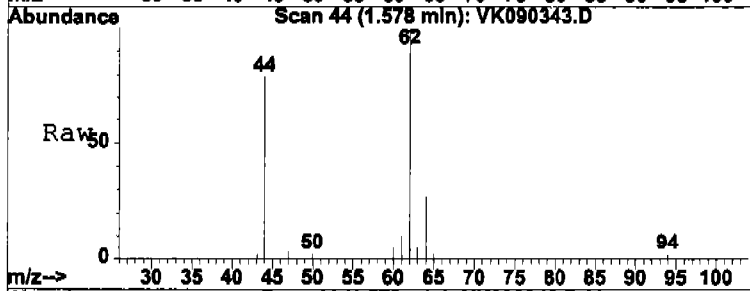
Poor resolution of peaks exhibited on chromatogram. Compound #: 56  
 Peak integrated by software incorrectly. Compound #:  
 OTHER: \_\_\_\_\_ Compound #:

(#) = qualifier out of range (m) = manual integration



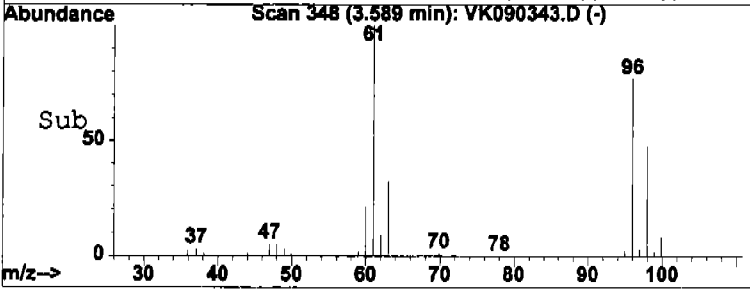
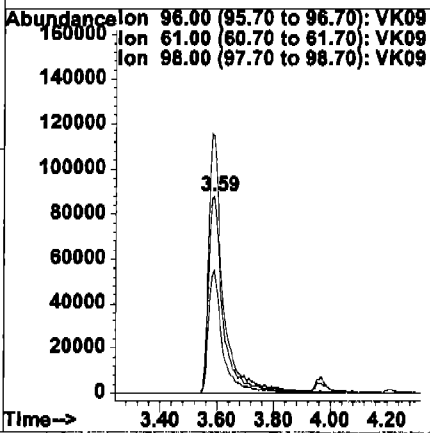
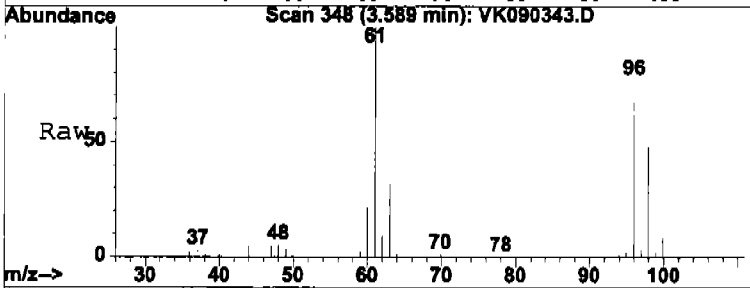
#4  
 Vinyl Chloride  
 Concen: 2.92 ug/l  
 RT: 1.58 min Scan# 44  
 Delta R.T. 0.03 min  
 Lab File: VK090343.D  
 Acq: 3 Sep 2004 10:12 pm

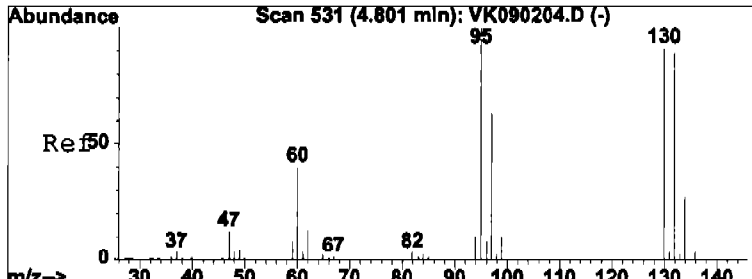
Tgt Ion: 62 Resp: 101292  
 Ion Ratio Lower Upper  
 62 100  
 64 26.9 22.9 34.3



#27  
 cis-1,2-Dichloroethene  
 Concen: 13.24 ug/l m  
 RT: 3.59 min Scan# 348  
 Delta R.T. -0.00 min  
 Lab File: VK090343.D  
 Acq: 3 Sep 2004 10:12 pm

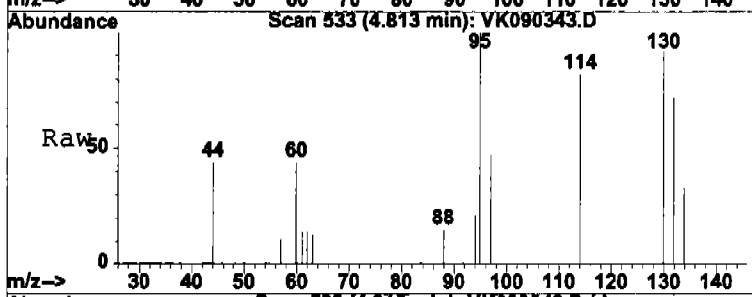
Tgt Ion: 96 Resp: 321015  
 Ion Ratio Lower Upper  
 96 100  
 61 124.8 121.7 182.5  
 98 58.1 51.3 76.9



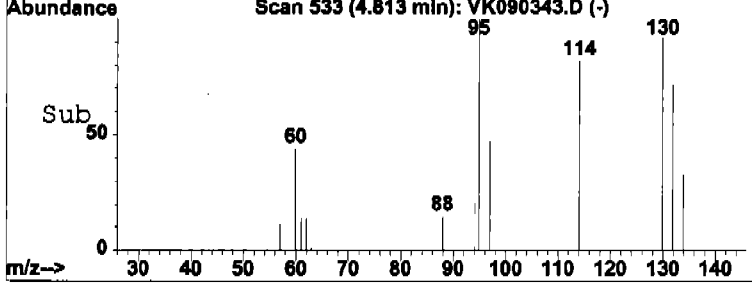
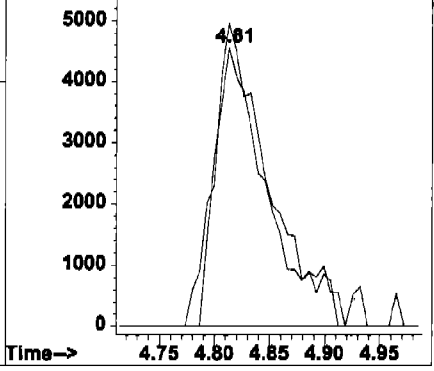


#39  
 Trichloroethene  
 Concen: 0.49 ug/l  
 RT: 4.81 min Scan# 533  
 Delta R.T. -0.00 min  
 Lab File: VK090343.D  
 Acq: 3 Sep 2004 10:12 pm

Tgt Ion: 130 Resp: 14879  
 Ion Ratio Lower Upper  
 130 100  
 95 109.0 88.2 132.2



Abundance Ion 129.90 (128.60 to 130.60): VK  
 Ion 94.90 (94.60 to 95.60): VK09

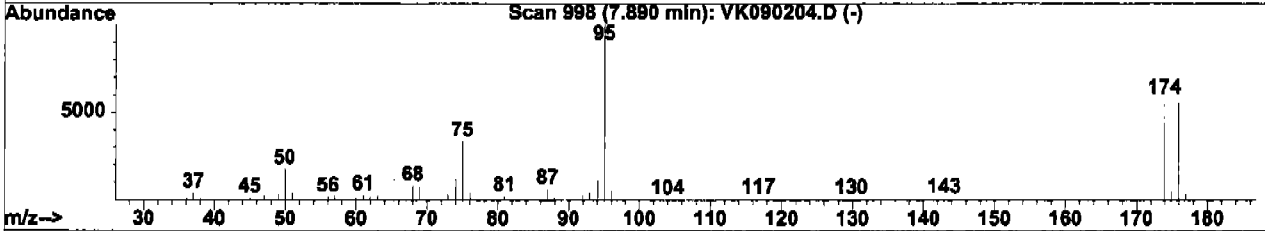
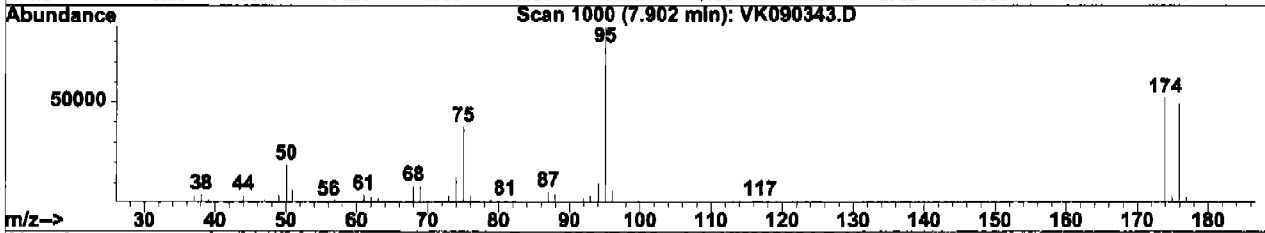
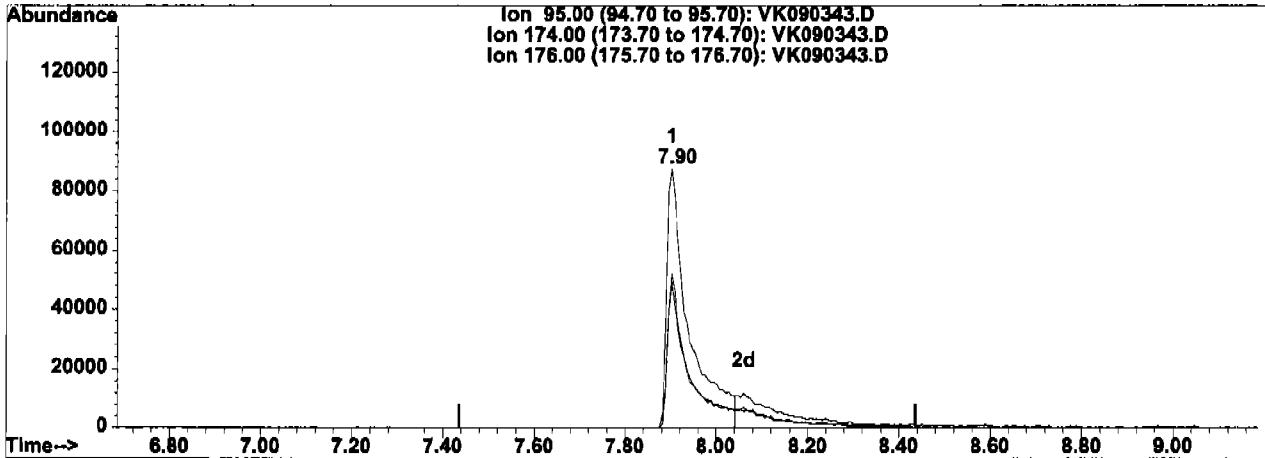


Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090343.D  
 Acq On : 3 Sep 2004 10:12 pm  
 Sample : S4436-16 20X  
 Misc : 25mL  
 Quant Time: Sep 7 12:17 2004

Vial: 11  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



TIC: VK090343.D

(56) 4-Bromofluorobenzene (S)

7.90min 8.27ug/l

response 296855

Ion	Exp%	Act%
95.00	100	100
174.00	56.30	56.26
176.00	54.20	61.86
0.00	0.00	0.00

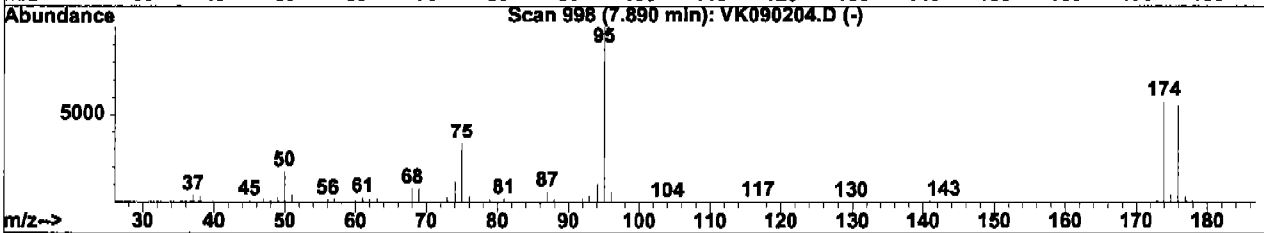
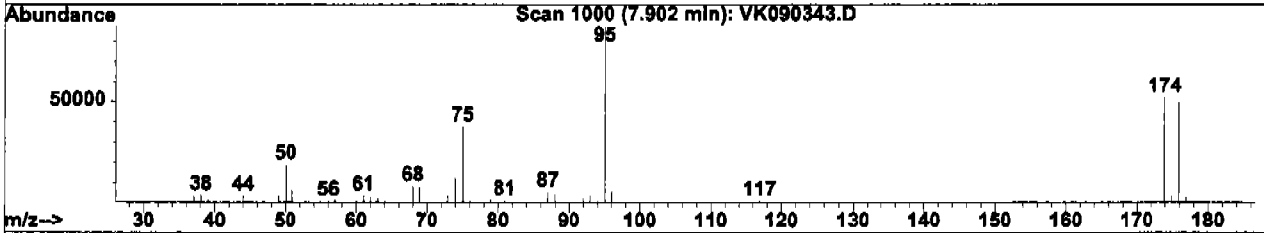
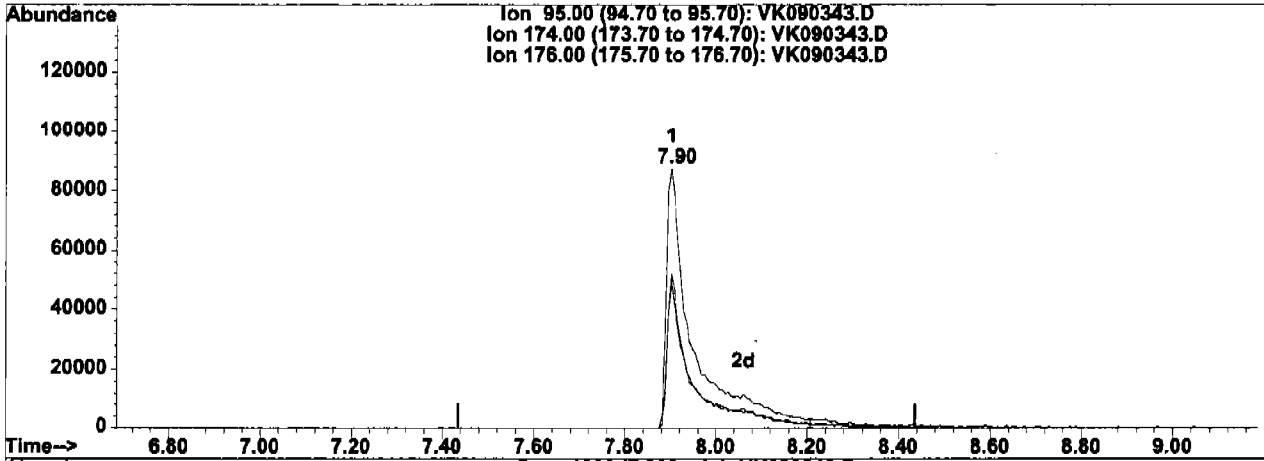


Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090343.D  
 Acq On : 3 Sep 2004 10:12 pm  
 Sample : S4436-16 20X  
 Misc : 25mL  
 Quant Time: Sep 7 12:17 2004

Vial: 11  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(56) 4-Bromofluorobenzene (S)

7.90min 10.04ug/l m

response 360356

Ion	Exp%	Act%
95.00	100	100
174.00	56.30	46.35
176.00	54.20	50.96
0.00	0.00	0.00

LSC Area Percent Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090343.D Vial: 11  
 Acq On : 3 Sep 2004 10:12 pm Operator: KP  
 Sample : S4436-16 20X Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

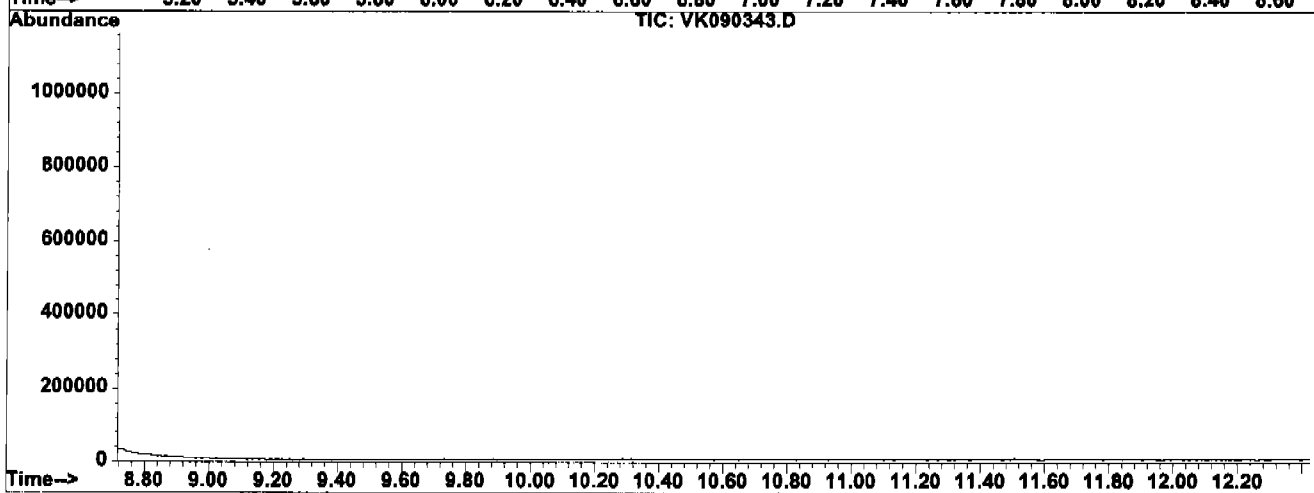
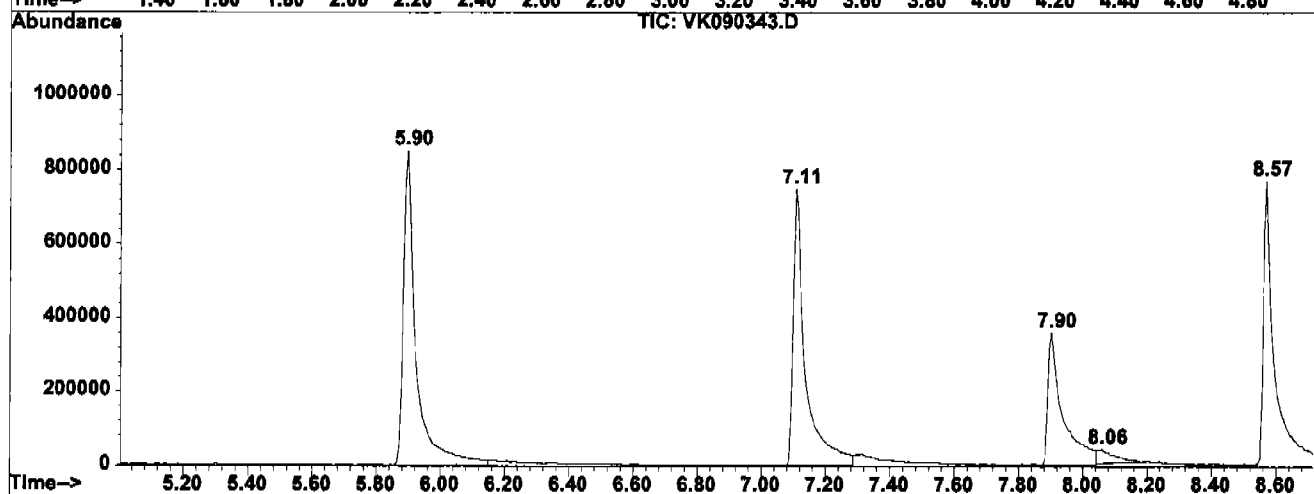
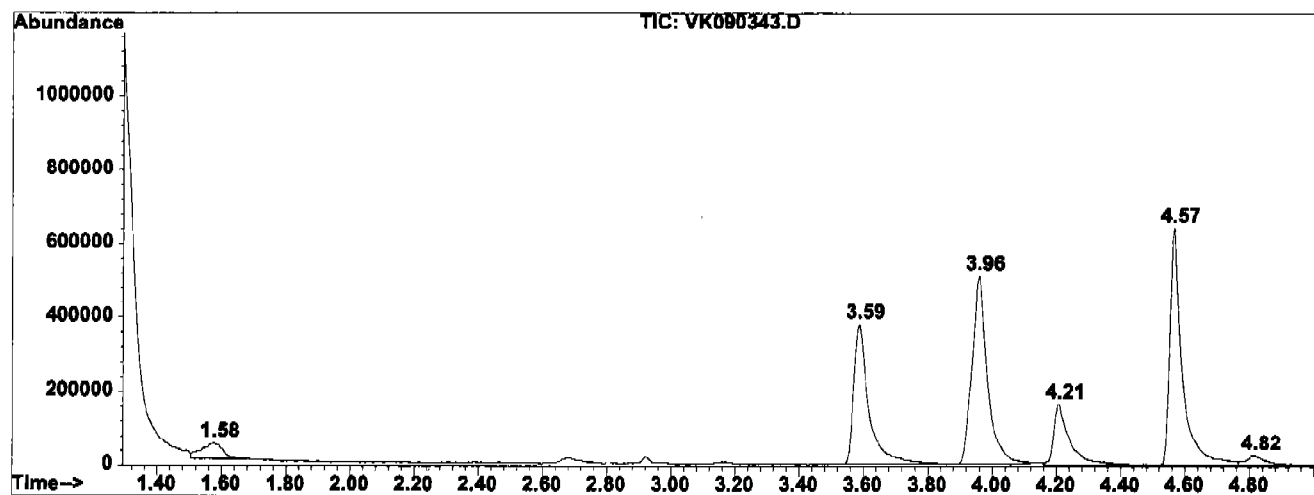
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	1.578	33	44	58	rVB3	45033	201505	8.68%	1.534%
2	3.589	339	348	391	rBV	377445	1274030	54.88%	9.701%
3	3.960	391	404	428	rBV3	509466	1713732	73.82%	13.050%
4	4.211	434	442	477	rVB	165016	576119	24.82%	4.387%
5	4.568	485	496	526	rBV	639499	1711018	73.71%	13.029%
6	4.820	526	534	549	rVB6	25946	106192	4.57%	0.809%
7	5.898	690	697	735	rBV	850042	2321433	100.00%	17.677%
8	7.108	873	880	907	rBV	747724	1953601	84.15%	14.876%
9	7.902	995	1000	1021	rBV	358017	1160313	49.98%	8.835%
10	8.061	1021	1024	1043	rVB4	34660	138787	5.98%	1.057%
11	8.570	1094	1101	1142	rBV	768942	1975696	85.11%	15.044%

Sum of corrected areas: 13132426

VK090343.D SAK0902W.M Tue Sep 07 12:18:18 2004 LABMANAGER

LSC Report - Integrated Chromatogram

File : K:\1\DATA\MSVOAK\VK090304\VK090343.D  
Operator : KP  
Acquired : 3 Sep 2004 10:12 pm using AcqMethod VP  
Instrument : MSVOA J/K  
Sample Name: S4436-16 20X  
Misc Info : 25mL  
Vial Number: 11  
Quant File : SAK0902W.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: KP Date Acquired: 3 Sep 2004 10:12 pm  
Data File: K:\1\DATA\MSVOAK\VK090304\VK090343.D  
Name: S4436-16 20X  
Misc: 25mL  
Method: K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title: SW846 8260  
Library Searched: C:\DATABASE\NBS75K.L

TIC	Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
-----									
VK090343.D	SAK0902W.M			Tue Sep 07	12:18:19	2004		LABMANAGER	

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD0046</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-18</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090212.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
74-87-3	Chloromethane	0.16	U	1.0	0.16	ug/L
75-01-4	Vinyl chloride	0.11	U	1.0	0.11	ug/L
74-83-9	Bromomethane	0.12	U	1.0	0.12	ug/L
75-00-3	Chloroethane	0.18	U	1.0	0.18	ug/L
75-35-4	1,1-Dichloroethene	0.20	U	1.0	0.20	ug/L
67-64-1	Acetone	1.2	U	5.0	1.2	ug/L
75-15-0	Carbon disulfide	0.21	U	1.0	0.21	ug/L
75-09-2	Methylene Chloride	0.36	U	1.0	0.36	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	1.0	0.25	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.92	U	5.0	0.92	ug/L
56-23-5	Carbon Tetrachloride	0.17	U	1.0	0.17	ug/L
156-59-2	cis-1,2-Dichloroethene	0.27	U	1.0	0.27	ug/L
67-66-3	Chloroform	0.23	U	1.0	0.23	ug/L
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22	ug/L
71-43-2	Benzene	0.20	U	1.0	0.20	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	0.19	U	1.0	0.19	ug/L
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17	ug/L
108-10-1	4-Methyl-2-Pentanone	0.77	U	5.0	0.77	ug/L
108-88-3	Toluene	0.19	U	1.0	0.19	ug/L
10061-02-6	t-1,3-Dichloropropene	0.15	U	1.0	0.15	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L
591-78-6	2-Hexanone	0.58	U	5.0	0.58	ug/L
124-48-1	Dibromochloromethane	0.21	U	1.0	0.21	ug/L
127-18-4	Tetrachloroethene	0.20	U	1.0	0.20	ug/L
108-90-7	Chlorobenzene	0.16	U	1.0	0.16	ug/L
100-41-4	Ethyl Benzene	0.18	U	1.0	0.18	ug/L
136777-61-2	m&p-Xylenes	0.36	U	1.0	0.36	ug/L
95-47-6	o-Xylene	0.17	U	1.0	0.17	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD0046</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-18</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090212.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

<b>CAS Number</b>	<b>Parameter</b>	<b>Conc.</b>	<b>Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>
100-42-5	Styrene	0.17	U	1.0	0.17	ug/L
75-25-2	Bromoform	0.37	U	1.0	0.37	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	11.03	110 %	72 - 119		SPK: 10
1868-53-7	Dibromofluoromethane	10.79	108 %	85 - 115		SPK: 10
2037-26-5	Toluene-d8	9.75	98 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	8.89	89 %	76 - 119		SPK: 10
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	347913	3.96			
540-36-3	1,4-Difluorobenzene	753738	4.56			
3114-55-4	Chlorobenzene-d5	623540	7.10			
3855-82-1	1,4-Dichlorobenzene-d4	292270	8.56			

U = Not Detected  
RL = Reporting Limit  
MDL = Method Detection Limit  
E = Value Exceeds Calibration Range

J = Estimated Value  
B = Analyte Found in Associated Method Blank  
N = Presumptive Evidence of a Compound

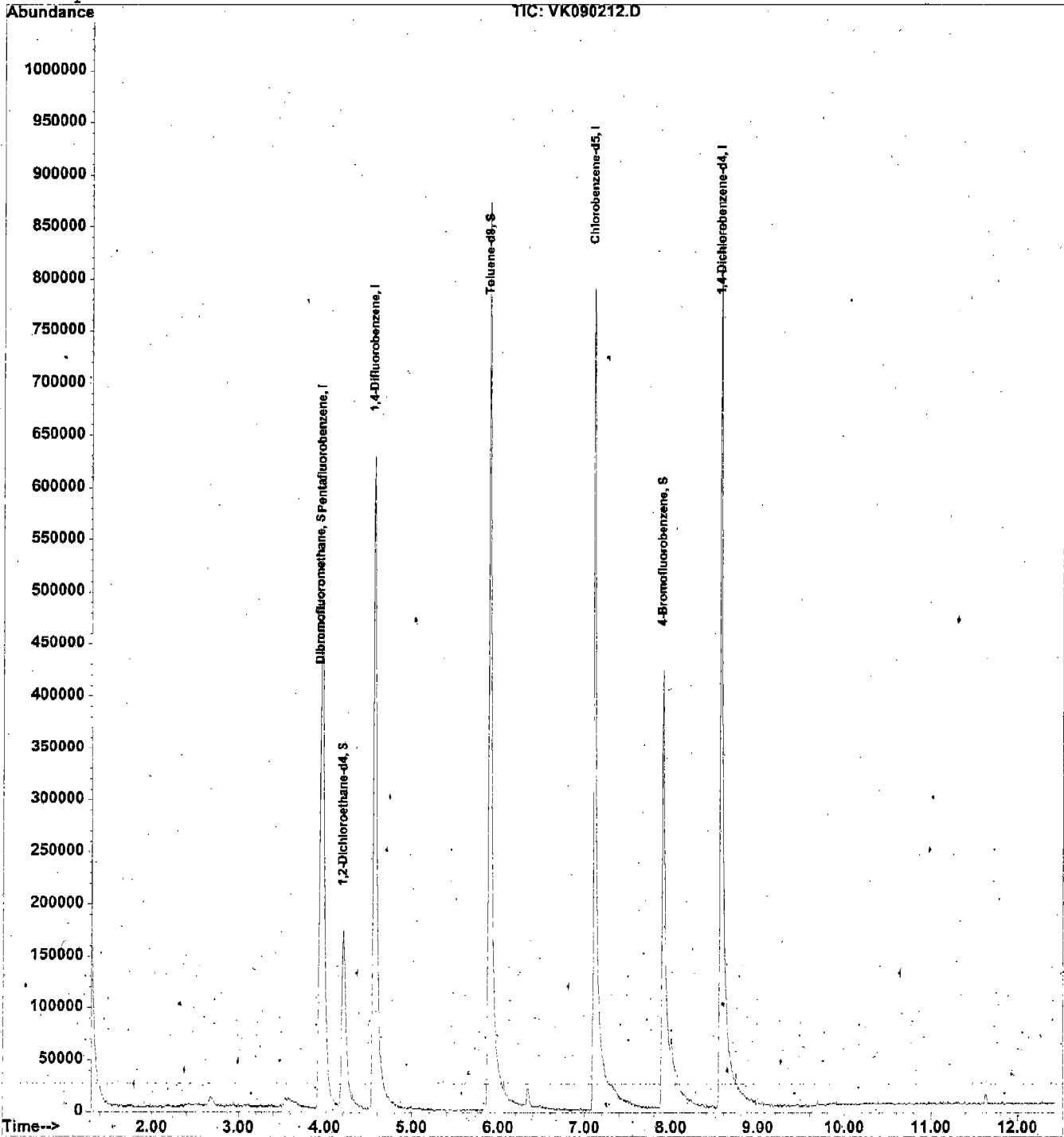
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090212.D  
Acq On : 2 Sep 2004 8:09 am  
Sample : S4436-18  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 2 17:51 2004

Vial: 22  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090212.D  
 Acq On : 2 Sep 2004 8:09 am  
 Sample : S4436-18  
 Misc : 25µL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 17:51 2004

Vial: 22  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.96	168	347913	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.56	114	753738	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.10	117	623540	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.56	152	292270	10.00	ug/l	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d	4.21	65	192860	11.03	ug/l	0.00
Spiked Amount	10.000		Recovery	=	110.30%	
34) Dibromofluoromethane	3.93	113	220826	10.79	ug/l	0.00
Spiked Amount	10.000		Recovery	=	107.90%	
45) Toluene-d8	5.89	98	872032	9.75	ug/l	-0.02
Spiked Amount	10.000		Recovery	=	97.50%	
56) 4-Bromofluorobenzene	7.90	95	324355	8.89	ug/l	-0.04
Spiked Amount	10.000		Recovery	=	88.90%	

Target Compounds

Qvalue

Analyst Signature: 1gp Analyst Name: \_\_\_\_\_ Date: 09.02.04

REASONS FOR MANUAL INTEGRATIONS

Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration



LSC Area Percent Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090212.D  
 Acq On : 2 Sep 2004 8:09 am  
 Sample : S4436-18  
 Misc : 25mL  
 MS Integration Params: RTEINT.P

Vial: 22  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.02  
 Stop Thrs : 0  
 Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

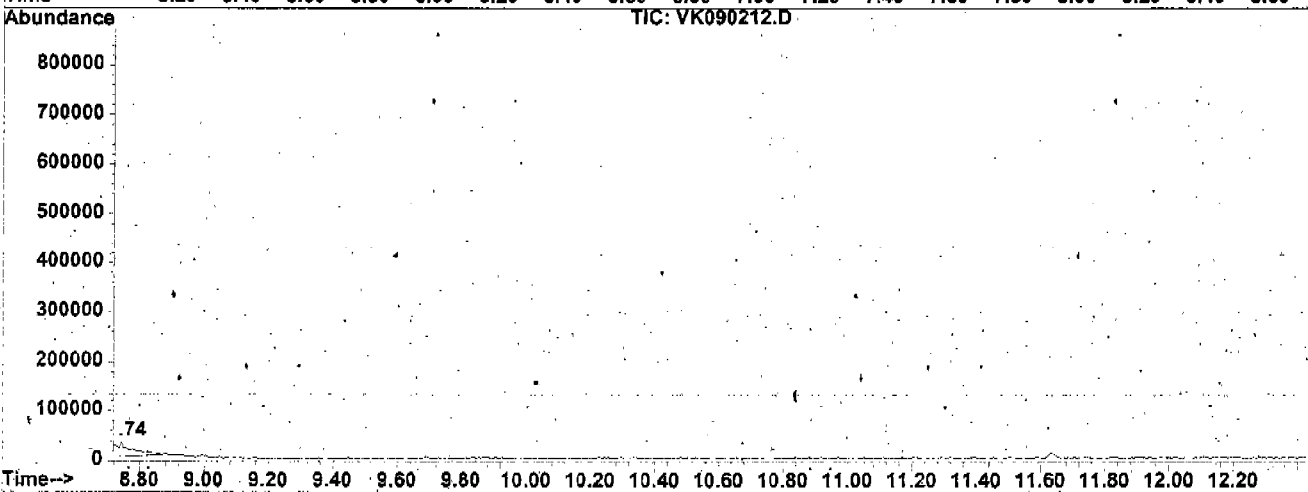
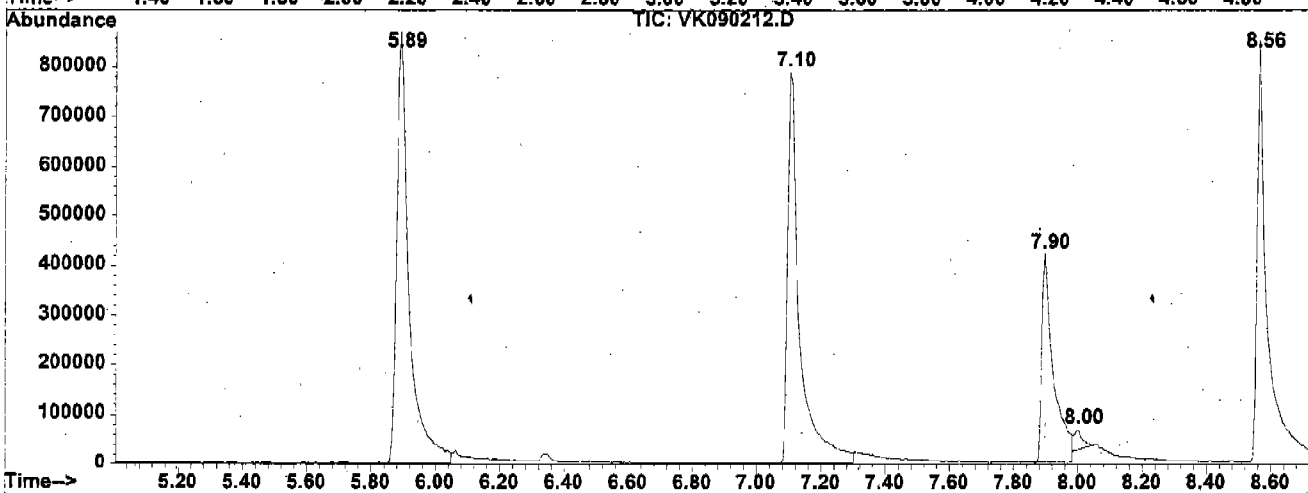
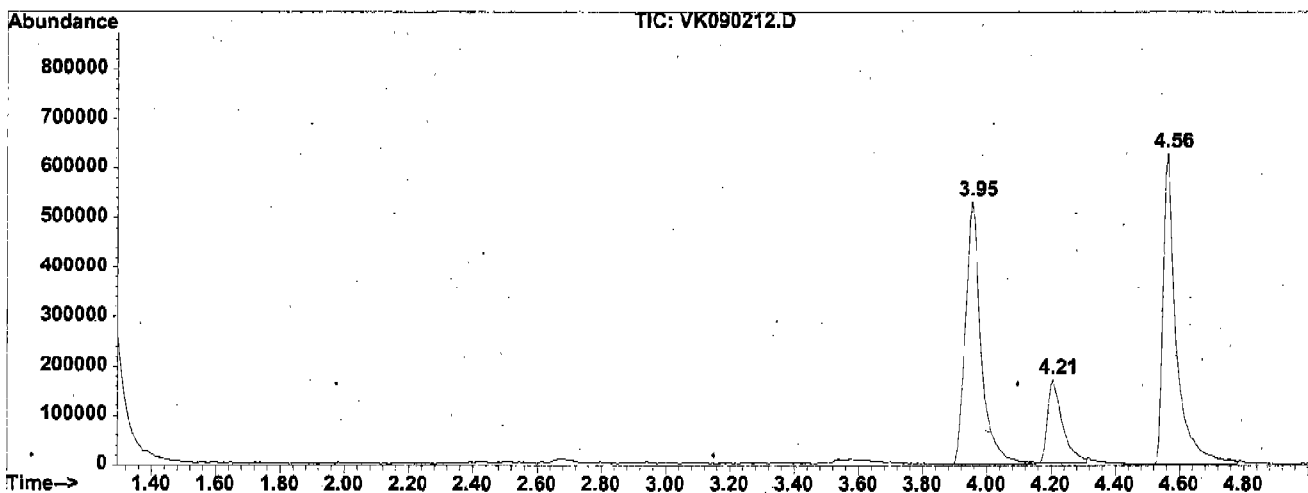
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	3.954	392	403	433	rBV3	529726	1799499	77.91%	15.433%
2	4.206	433	441	457	rBV2	169097	550636	23.84%	4.722%
3	4.563	488	495	528	rBV	626262	1781030	77.11%	15.274%
4	5.892	688	696	720	rBV	870826	2309774	100.00%	19.809%
5	7.103	873	879	909	rBV	788685	2040133	88.33%	17.496%
6	7.897	993	999	1012	rBV	420077	1079439	46.73%	9.257%
7	8.003	1012	1015	1021	rVB	34781	72960	3.16%	0.626%
8	8.565	1092	1100	1126	rBV	853577	1953788	84.59%	16.756%
9	8.744	1126	1127	1146	rVB4	25857	73102	3.16%	0.627%

Sum of corrected areas: 11660361

VK090212.D SAK0902W.M Thu Sep 02 17:52:22 2004 LABMANAGER

LSC Report - Integrated Chromatogram

File : K:\1\DATA\MSVOAK\VK090204\VK090212.D  
Operator : KP  
Acquired : 2 Sep 2004 8:09 am using AcqMethod VP  
Instrument : MSVOA J/K  
Sample Name: S4436-18  
Misc Info : 25mL  
Vial Number: 22  
Quant File : SAK0902W.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: KP Date Acquired: 2 Sep 2004 8:09 am

Data File: K:\1\DATA\MSVOAK\VK090204\VK090212.D

Name: S4436-18

Misc: 25mL

Method: K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)

Title: SW846 8260

Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
VK090212.D SAK0902W.M			Thu Sep 02 17:52:23 2004				LABMANAGER	



## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/30/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/31/2004
Client Sample ID:	ARD2251	SDG No.:	S4436
Lab Sample ID:	S4436-19	Matrix:	WATER
Analytical Method:	8260	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VK090234.D	1		9/2/2004	VK090204

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
74-87-3	Chloromethane	0.16	U	1.0	0.16	ug/L
75-01-4	Vinyl chloride	0.11	U	1.0	0.11	ug/L
74-83-9	Bromomethane	0.12	U	1.0	0.12	ug/L
75-00-3	Chloroethane	0.18	U	1.0	0.18	ug/L
75-35-4	1,1-Dichloroethene	0.20	U	1.0	0.20	ug/L
67-64-1	Acetone	1.2	U	5.0	1.2	ug/L
75-15-0	Carbon disulfide	0.21	U	1.0	0.21	ug/L
75-09-2	Methylene Chloride	0.36	U	1.0	0.36	ug/L
156-60-5	trans-1,2-Dichloroethene	4.4		1.0	0.25	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.92	U	5.0	0.92	ug/L
56-23-5	Carbon Tetrachloride	0.17	U	1.0	0.17	ug/L
156-59-2	cis-1,2-Dichloroethene	150	E	1.0	0.27	ug/L
67-66-3	Chloroform	0.23	U	1.0	0.23	ug/L
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22	ug/L
71-43-2	Benzene	0.20	U	1.0	0.20	ug/L
107-06-2	1,2-Dichloroethane	8.0		1.0	0.21	ug/L
79-01-6	Trichloroethene	81	E	1.0	0.19	ug/L
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17	ug/L
108-10-1	4-Methyl-2-Pentanone	0.77	U	5.0	0.77	ug/L
108-88-3	Toluene	0.19	U	1.0	0.19	ug/L
10061-02-6	t-1,3-Dichloropropene	0.15	U	1.0	0.15	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L
591-78-6	2-Hexanone	0.58	U	5.0	0.58	ug/L
124-48-1	Dibromochloromethane	0.21	U	1.0	0.21	ug/L
127-18-4	Tetrachloroethene	0.20	U	1.0	0.20	ug/L
108-90-7	Chlorobenzene	0.16	U	1.0	0.16	ug/L
100-41-4	Ethyl Benzene	0.18	U	1.0	0.18	ug/L
136777-61-2	m&p-Xylenes	0.36	U	1.0	0.36	ug/L
95-47-6	o-Xylene	0.17	U	1.0	0.17	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



## Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/30/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monits</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2251</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-19</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090234.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
100-42-5	Styrene	0.17	U	1.0	0.17	ug/L
75-25-2	Bromoform	0.37	U	1.0	0.37	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	11.74	117 %	72 - 119		SPK: 10
1868-53-7	Dibromofluoromethane	10.6	106 %	85 - 115		SPK: 10
2037-26-5	Toluene-d8	9.47	95 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	10.23	102 %	76 - 119		SPK: 10
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	314069	3.96			
540-36-3	1,4-Difluorobenzene	728131	4.56			
3114-55-4	Chlorobenzene-d5	602099	7.11			
3855-82-1	1,4-Dichlorobenzene-d4	282270	8.56			

U = Not Detected  
RL = Reporting Limit  
MDL = Method Detection Limit  
E = Value Exceeds Calibration Range

J = Estimated Value  
B = Analyte Found in Associated Method Blank  
N = Presumptive Evidence of a Compound

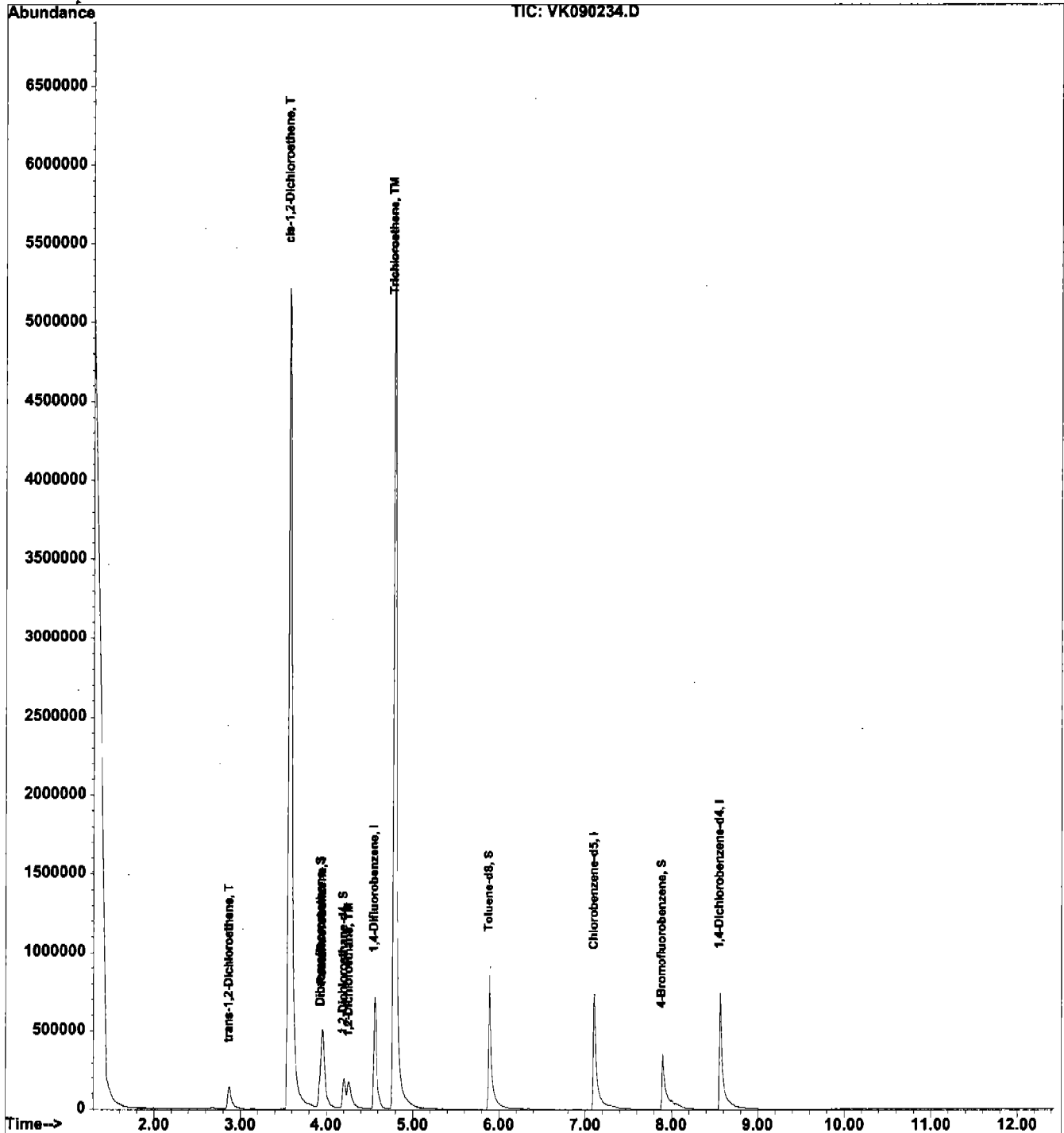
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090234.D  
Acq On : 2 Sep 2004 10:34 pm  
Sample : S4436-19  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 13 18:40 2004

Vial: 16  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090234.D Vial: 16  
 Acq On : 2 Sep 2004 10:34 pm Operator: KP  
 Sample : S4436-19 Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 13 18:40 2004 Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.96	168	314069	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.56	114	728131	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.11	117	602099	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.56	152	282270	10.00	ug/l	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d	4.20	65	185361	11.74	ug/l	0.00
Spiked Amount 10.000			Recovery =	117.40%		
34) Dibromofluoromethane	3.93	113	209472	10.60	ug/l	0.00
Spiked Amount 10.000			Recovery =	106.00%		
45) Toluene-d8	5.89	98	817524	9.47	ug/l	-0.02
Spiked Amount 10.000			Recovery =	94.70%		
56) 4-Bromofluorobenzene	7.90	95	360648m	10.23	ug/l	-0.04
Spiked Amount 10.000			Recovery =	102.30%		
Target Compounds						
21) trans-1,2-Dichloroet	2.87	96	93176	4.41	ug/l	91
27) cis-1,2-Dichloroethe	3.57	96	3456860	152.15	ug/l	88
38) 1,2-Dichloroethane	4.26	62	185671m	8.03	ug/l	
39) Trichloroethene	4.79	130	2452345	81.48	ug/l	97

Analyst Signature: bm Analyst Name: \_\_\_\_\_ Date: 09-13-04

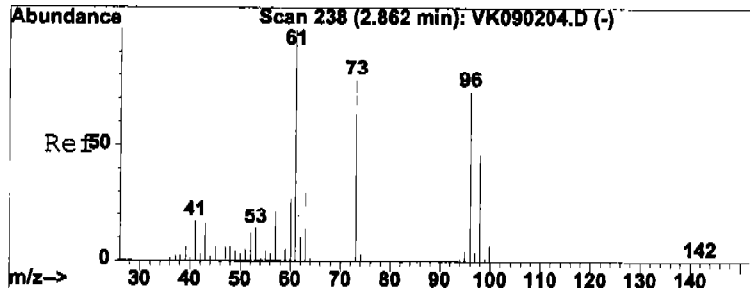
-----REASONS FOR MANUAL INTEGRATIONS-----

Poor resolution of peaks exhibited on chromatogram. Compound #: 56, 34

Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

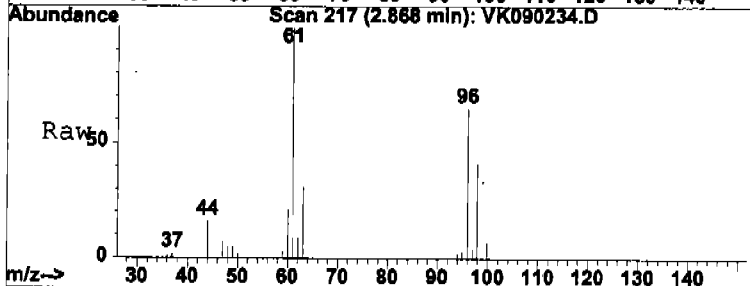
(#) = qualifier out of range (m) = manual integration



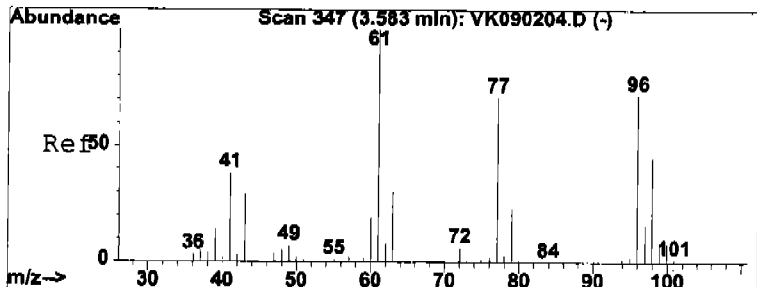
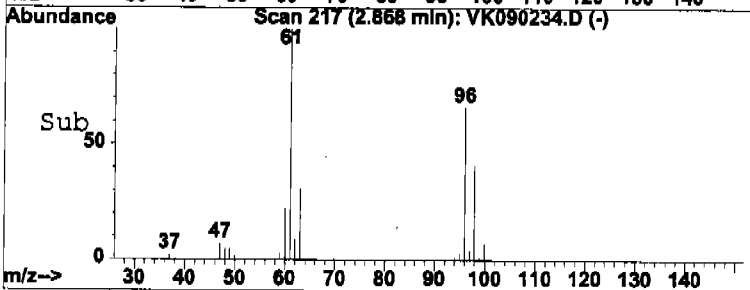
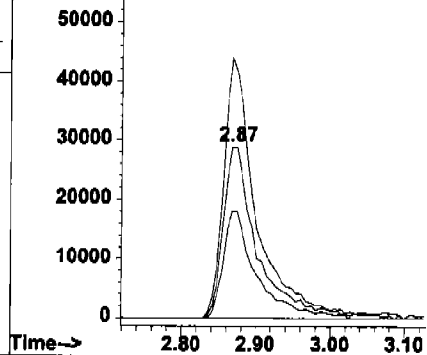
#21  
 trans-1,2-Dichloroethene  
 Concen: 4.41 ug/l  
 RT: 2.87 min Scan# 217  
 Delta R.T. -0.00 min  
 Lab File: VK090234.D  
 Acq: 2 Sep 2004 10:34 pm

Tgt Ion: 96 Resp: 93176

Ion	Ratio	Lower	Upper
96	100		
61	152.7	109.2	163.8
98	62.9	50.0	75.0



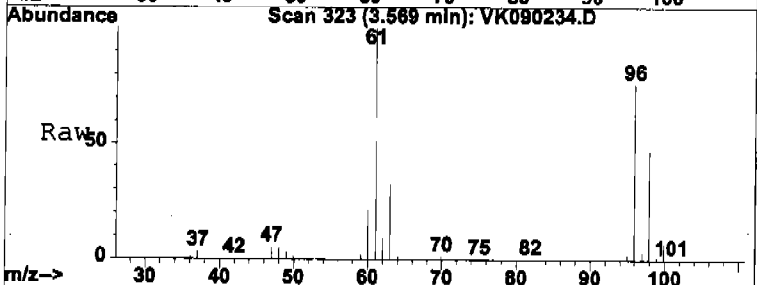
Abundance Ion 96.00 (95.70 to 96.70): VK09  
 60000 Ion 61.00 (60.70 to 61.70): VK09  
 Ion 98.00 (97.70 to 98.70): VK09



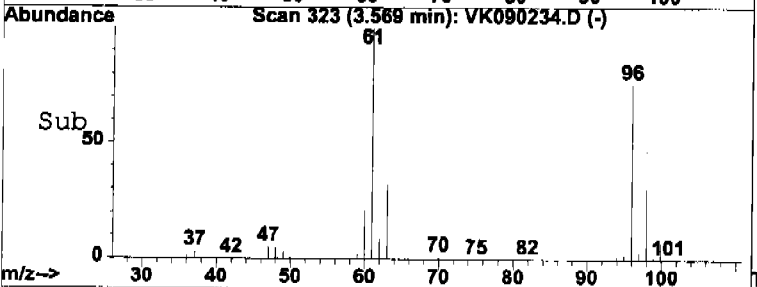
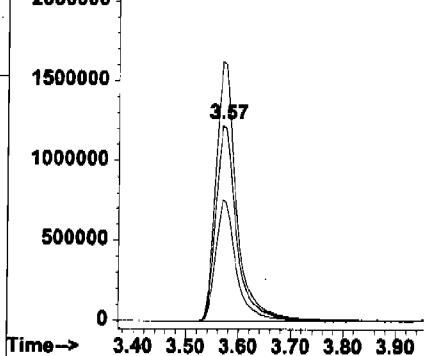
#27  
 cis-1,2-Dichloroethene  
 Concen: 152.15 ug/l  
 RT: 3.57 min Scan# 323  
 Delta R.T. -0.02 min  
 Lab File: VK090234.D  
 Acq: 2 Sep 2004 10:34 pm

Tgt Ion: 96 Resp: 3456860

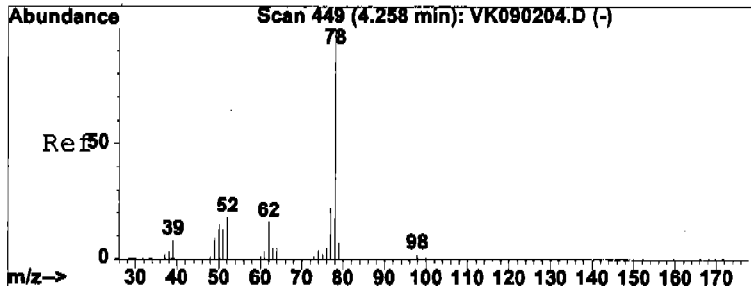
Ion	Ratio	Lower	Upper
96	100		
61	132.7	121.7	182.5
98	61.0	51.3	76.9



Abundance Ion 96.00 (95.70 to 96.70): VK09  
 2000000 Ion 61.00 (60.70 to 61.70): VK09  
 Ion 98.00 (97.70 to 98.70): VK09

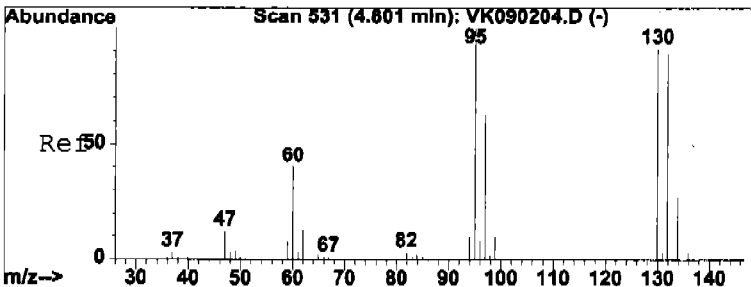
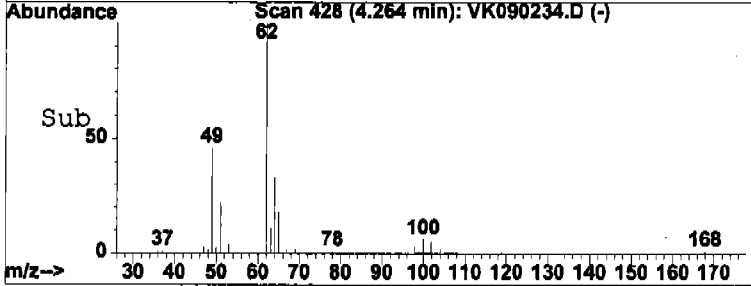
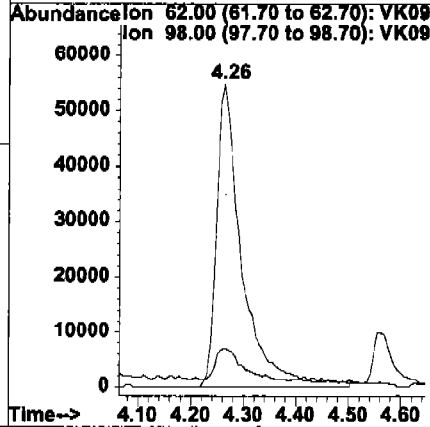
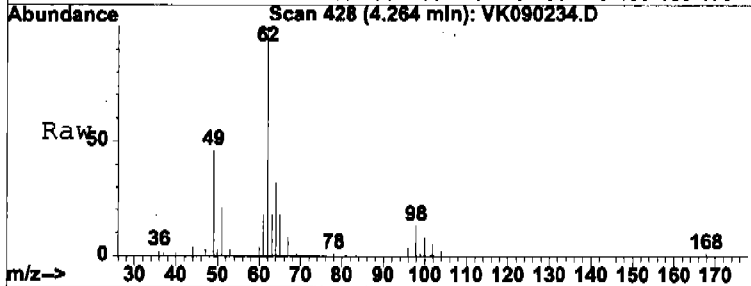






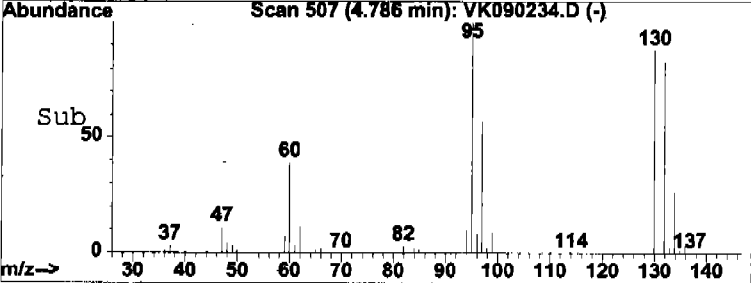
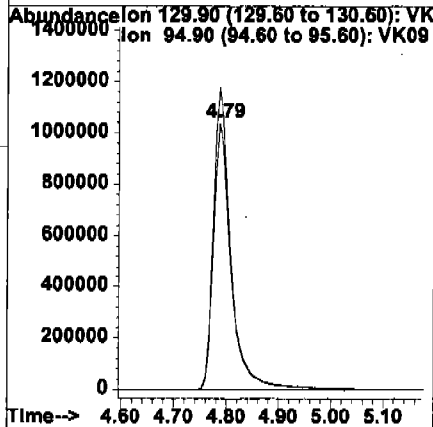
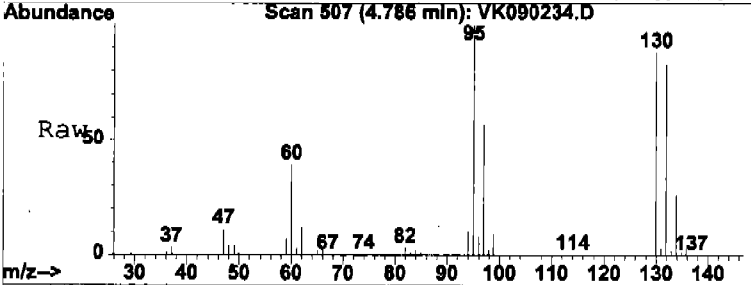
#38  
 1,2-Dichloroethane  
 Concen: 8.03 ug/l m  
 RT: 4.26 min Scan# 428  
 Delta R.T. -0.01 min  
 Lab File: VK090234.D  
 Acq: 2 Sep 2004 10:34 pm

Tgt Ion	Resp	Lower	Upper
62	185671	100	
98	11.0	0.0	23.4



#39  
 Trichloroethene  
 Concen: 81.48 ug/l  
 RT: 4.79 min Scan# 507  
 Delta R.T. -0.03 min  
 Lab File: VK090234.D  
 Acq: 2 Sep 2004 10:34 pm

Tgt Ion	Resp	Lower	Upper
130	2452345	100	
95	113.4	88.2	132.2

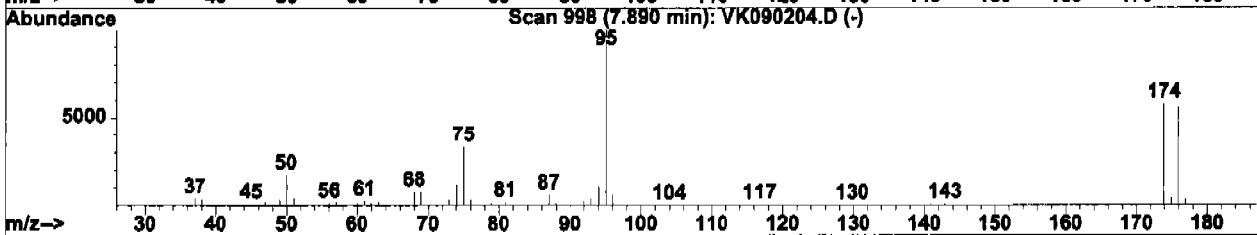
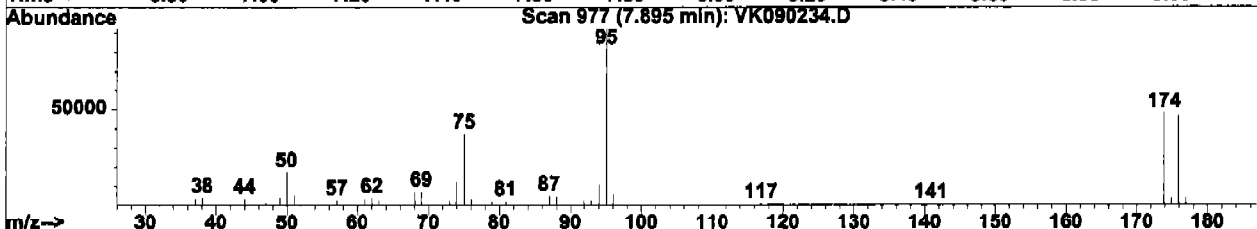
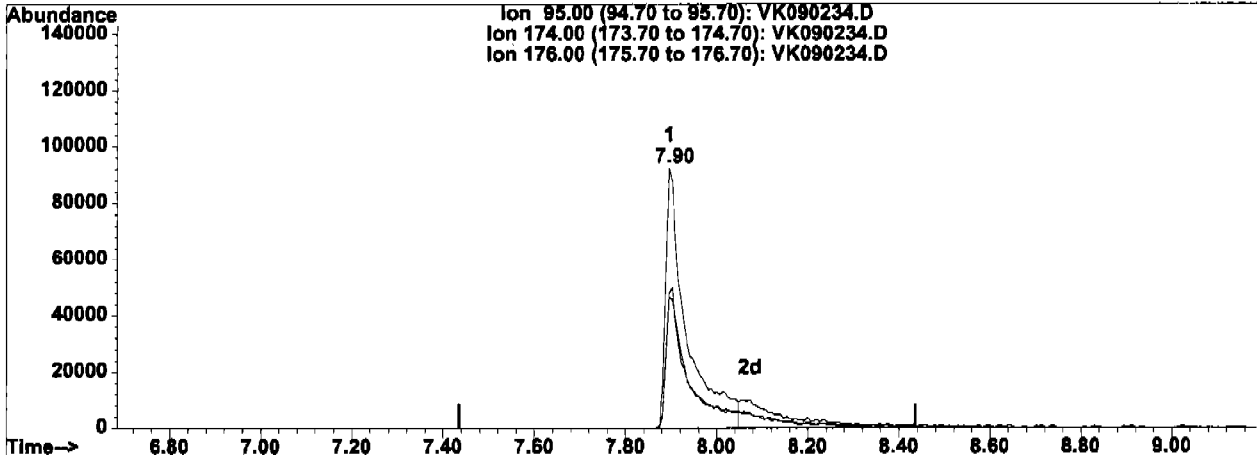


Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090234.D  
 Acq On : 2 Sep 2004 10:34 pm  
 Sample : S4436-19  
 Misc : 25mL  
 Quant Time: Sep 3 14:31 2004

Vial: 16  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



TIC: VK090234.D

(56) 4-Bromofluorobenzene (S)

7.90min 8.35ug/l

response 294161

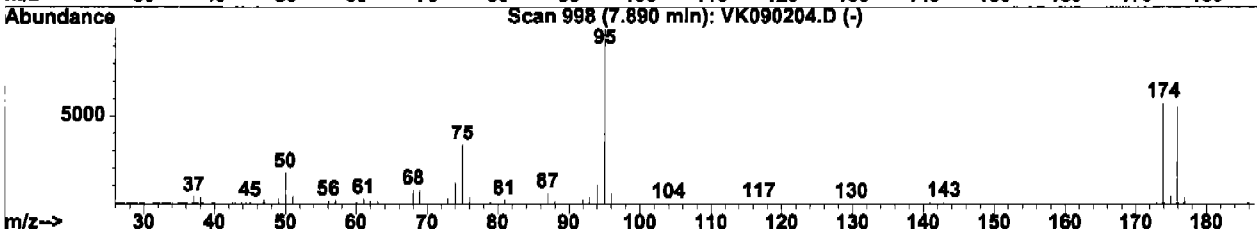
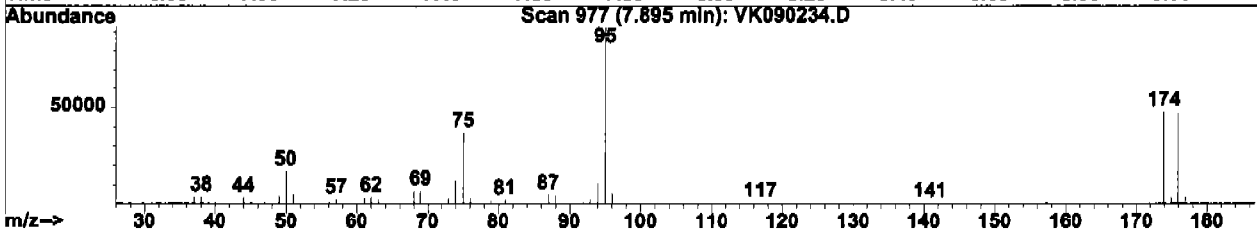
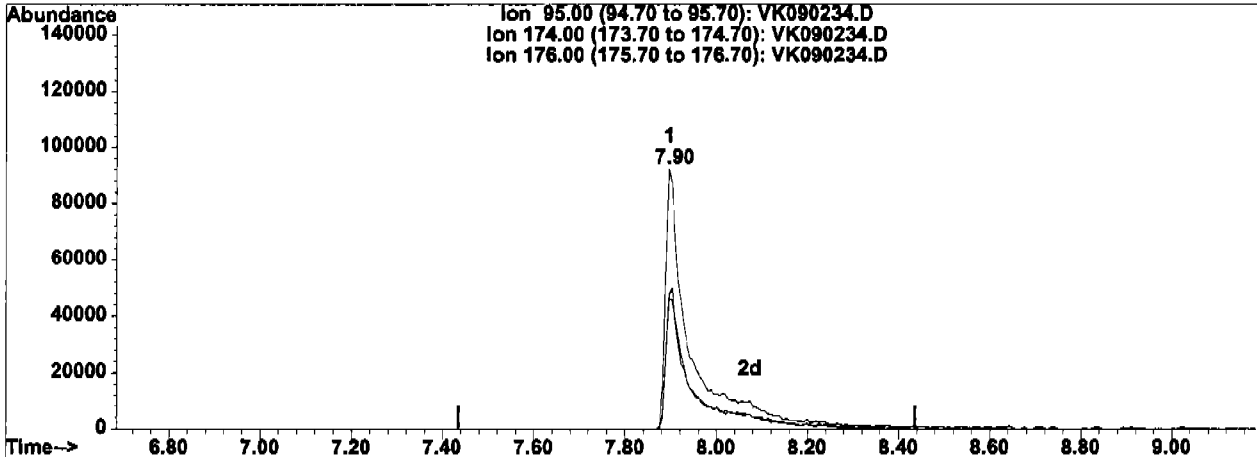
Ion	Exp%	Act%
95.00	100	100
174.00	56.30	51.49
176.00	54.20	49.84
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090234.D  
 Acq On : 2 Sep 2004 10:34 pm  
 Sample : S4436-19  
 Misc : 25mL  
 Quant Time: Sep 3 14:31 2004

Vial: 16  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



TIC: VK090234.D

(56) 4-Bromofluorobenzene (S)

7.90min 10.23ug/l m

response 360648

Ion	Exp%	Act%
95.00	100	100
174.00	56.30	42.00#
176.00	54.20	40.65#
0.00	0.00	0.00

LSC Area Percent Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090234.D  
 Acq On : 2 Sep 2004 10:34 pm  
 Sample : S4436-19  
 Misc : 25mL  
 MS Integration Params: RTEINT.P

Vial: 16  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.02  
 Stop Thrs : 0  
 Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

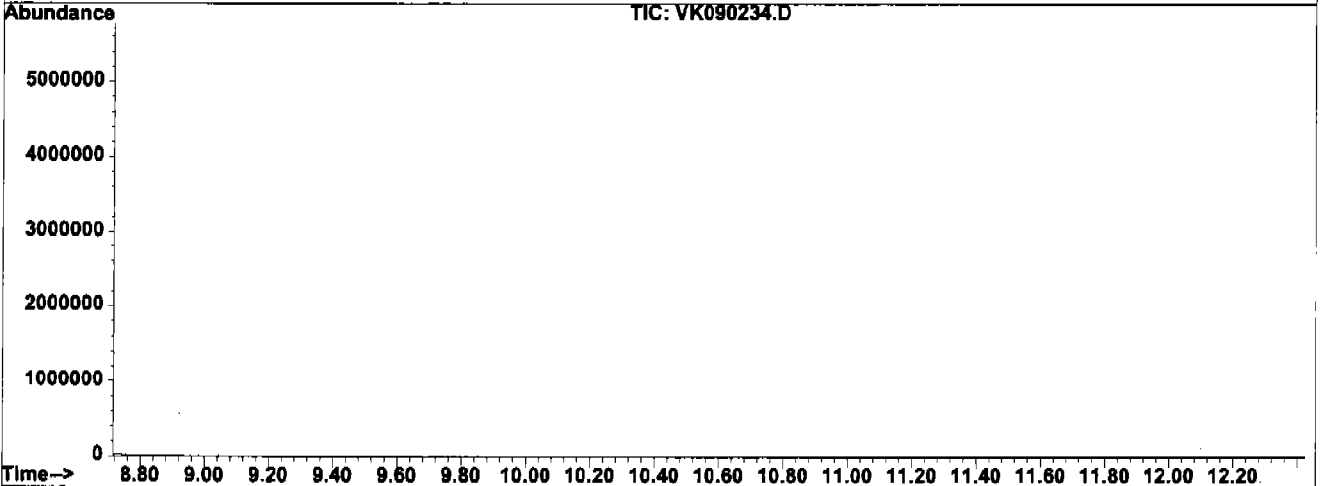
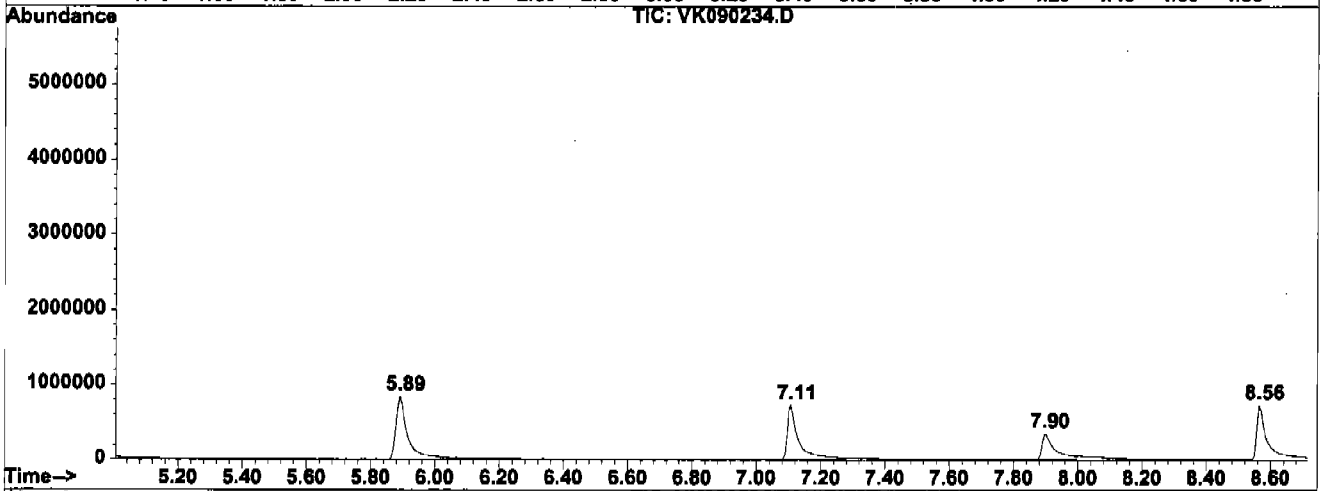
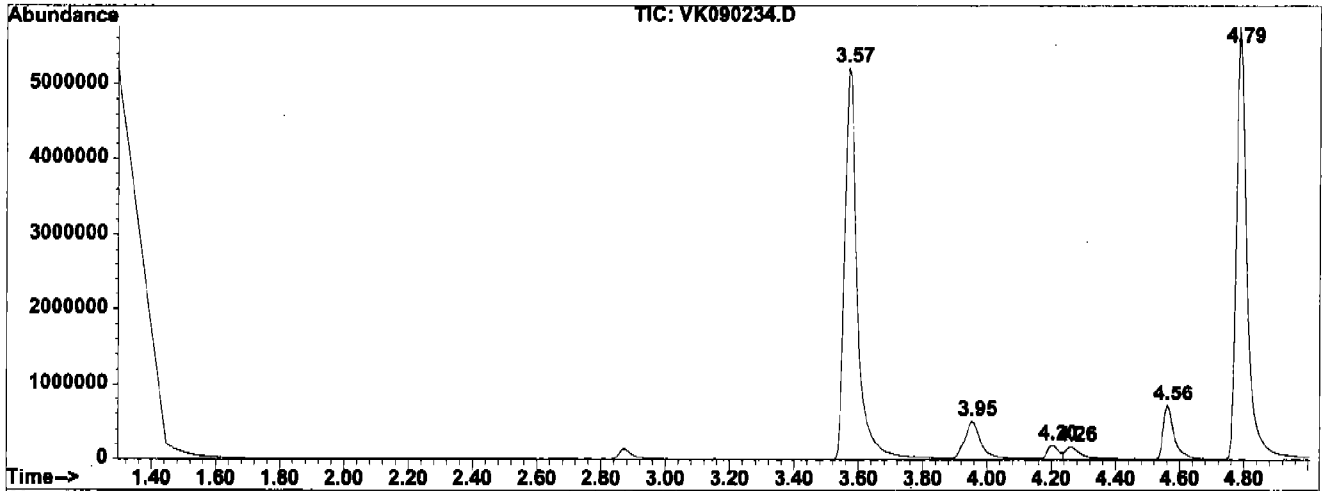
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	3.569	310	323	371	rBV	5213159	14699534	100.00%	36.817%
2	3.953	371	381	411	rVV3	502057	1829457	12.45%	4.582%
3	4.204	411	419	424	rVV	184041	483003	3.29%	1.210%
4	4.264	424	428	455	rVB2	166317	571792	3.89%	1.432%
5	4.561	466	473	499	rVB	710357	1724855	11.73%	4.320%
6	4.786	499	507	553	rBV	5752035	13603805	92.55%	34.073%
7	5.891	667	674	710	rBV	847792	2246898	15.29%	5.628%
8	7.108	848	858	883	rBV	734916	1892008	12.87%	4.739%
9	7.895	971	977	992	rBV	355098	1015434	6.91%	2.543%
10	8.563	1073	1078	1115	rBV	737497	1858796	12.65%	4.656%

Sum of corrected areas: 39925582

VK090234.D SAK0902W.M Mon Sep 13 18:41:27 2004 LABMANAGER

LSC Report - Integrated Chromatogram

File : K:\1\DATA\MSVOAK\VK090204\VK090234.D  
Operator : KP  
Acquired : 2 Sep 2004 10:34 pm using AcqMethod VP  
Instrument : MSVOA J/K  
Sample Name: S4436-19  
Misc Info : 25mL  
Vial Number: 16  
Quant File :SAK0902W.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: KP      Date Acquired: 2 Sep 2004 10:34 pm  
Data File: K:\1\DATA\MSVOAK\VK090204\VK090234.D  
Name: S4436-19  
Misc: 25mL  
Method: K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title: SW846 8260  
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
-----								
VK090234.D SAK0902W.M			Mon Sep 13 18:41:28 2004				LABMANAGER	

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/30/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2251DL</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-19DL</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090344.D</b>	<b>10</b>		<b>9/3/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
74-87-3	Chloromethane	1.6	UD	10	1.6	ug/L
75-01-4	Vinyl chloride	1.1	UD	10	1.1	ug/L
74-83-9	Bromomethane	1.2	UD	10	1.2	ug/L
75-00-3	Chloroethane	1.8	UD	10	1.8	ug/L
75-35-4	1,1-Dichloroethene	2.0	UD	10	2.0	ug/L
67-64-1	Acetone	12	UD	50	12	ug/L
75-15-0	Carbon disulfide	2.1	UD	10	2.1	ug/L
75-09-2	Methylene Chloride	3.6	UD	10	3.6	ug/L
156-60-5	trans-1,2-Dichloroethene	3.0	JD	10	2.5	ug/L
75-34-3	1,1-Dichloroethane	2.1	UD	10	2.1	ug/L
78-93-3	2-Butanone	9.2	UD	50	9.2	ug/L
56-23-5	Carbon Tetrachloride	1.7	UD	10	1.7	ug/L
156-59-2	cis-1,2-Dichloroethene	160	D	10	2.7	ug/L
67-66-3	Chloroform	2.3	UD	10	2.3	ug/L
71-55-6	1,1,1-Trichloroethane	2.2	UD	10	2.2	ug/L
71-43-2	Benzene	2.0	UD	10	2.0	ug/L
107-06-2	1,2-Dichloroethane	7.0	D	10	2.1	ug/L
79-01-6	Trichloroethene	77	D	10	1.9	ug/L
78-87-5	1,2-Dichloropropane	1.8	UD	10	1.8	ug/L
75-27-4	Bromodichloromethane	1.7	UD	10	1.7	ug/L
108-10-1	4-Methyl-2-Pentanone	7.7	UD	50	7.7	ug/L
108-88-3	Toluene	1.9	UD	10	1.9	ug/L
10061-02-6	t-1,3-Dichloropropene	1.5	UD	10	1.5	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.9	UD	10	1.9	ug/L
79-00-5	1,1,2-Trichloroethane	2.0	UD	10	2.0	ug/L
591-78-6	2-Hexanone	5.8	UD	50	5.8	ug/L
124-48-1	Dibromochloromethane	2.1	UD	10	2.1	ug/L
127-18-4	Tetrachloroethene	2.0	UD	10	2.0	ug/L
108-90-7	Chlorobenzene	1.6	UD	10	1.6	ug/L
100-41-4	Ethyl Benzene	1.8	UD	10	1.8	ug/L
136777-61-2	m&p-Xylenes	3.6	UD	10	3.6	ug/L
95-47-6	o-Xylene	1.7	UD	10	1.7	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/30/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2251DL</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-19DL</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090344.D</b>	<b>10</b>		<b>9/3/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
100-42-5	Styrene	1.7	UD	10	1.7	ug/L
75-25-2	Bromoform	3.7	UD	10	3.7	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.3	UD	10	1.3	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	11.01	110 %	72 - 119		SPK: 10
1868-53-7	Dibromofluoromethane	10.74	107 %	85 - 115		SPK: 10
2037-26-5	Toluene-d8	9.47	95 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	10.1	101 %	76 - 119		SPK: 10
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	327878	3.97			
540-36-3	1,4-Difluorobenzene	745887	4.57			
3114-55-4	Chlorobenzene-d5	620815	7.11			
3855-82-1	1,4-Dichlorobenzene-d4	285690	8.57			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound



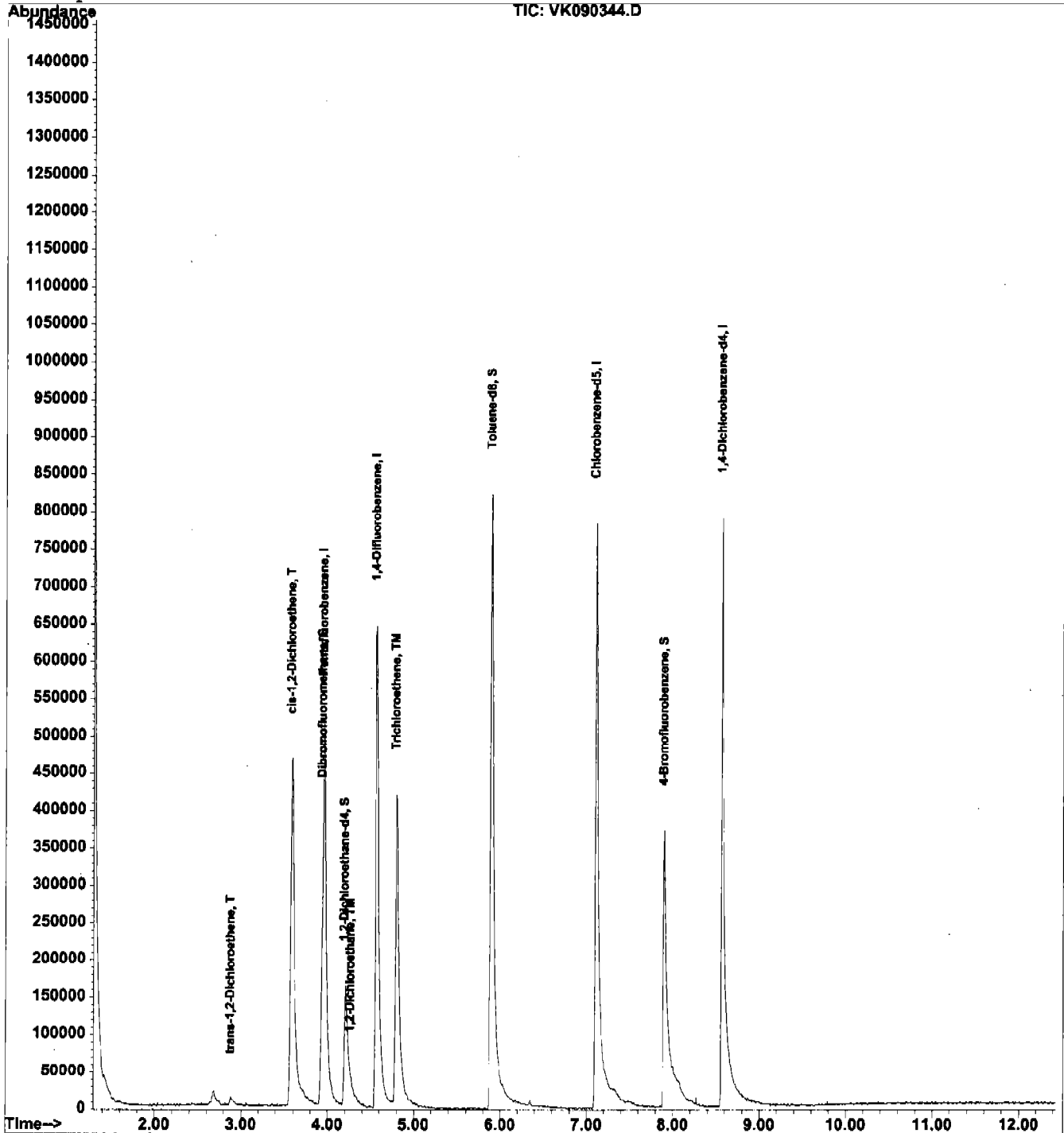
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090344.D  
Acq On : 3 Sep 2004 10:51 pm  
Sample : S4436-19 10X  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 13 18:46 2004

Vial: 12  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090304\VK090344.D Vial: 12  
 Acq On : 3 Sep 2004 10:51 pm Operator: KP  
 Sample : S4436-19 10X Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 13 18:46 2004 Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.97	168	327878	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.57	114	745887	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.11	117	620815	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.57	152	285690	10.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) 1,2-Dichloroethane-d	4.21	65	181534	11.01	ug/l	0.00
Spiked Amount 10.000			Recovery =	110.10%		
34) Dibromofluoromethane	3.94	113	217420	10.74	ug/l	0.00
Spiked Amount 10.000			Recovery =	107.40%		
45) Toluene-d8	5.90	98	837688	9.47	ug/l	-0.01
Spiked Amount 10.000			Recovery =	94.70%		
56) 4-Bromofluorobenzene	7.90	95	364530m	10.10	ug/l	-0.03
Spiked Amount 10.000			Recovery =	101.00%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
21) trans-1,2-Dichloroet	2.89	96	6587	0.30	ug/l	83
27) cis-1,2-Dichloroethe	3.59	96	372531m	15.71	ug/l	
38) 1,2-Dichloroethane	4.28	62	16633m	0.70	ug/l	
39) Trichloroethene	4.80	130	236729m	7.68	ug/l	

Analyst Signature: h7 Analyst Name: \_\_\_\_\_ Date: 9-13-04

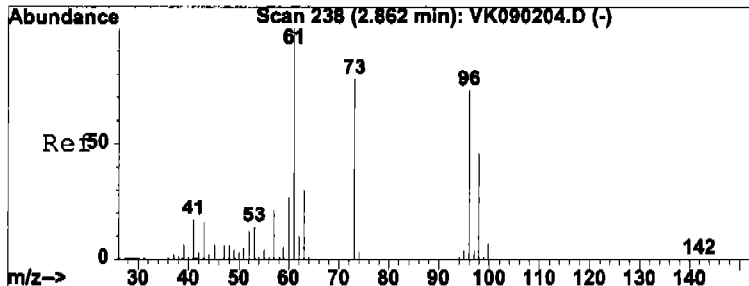
REASONS FOR MANUAL INTEGRATIONS

Poor resolution of peaks exhibited on chromatogram. Compound #: 56, 27, 38, 39

Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

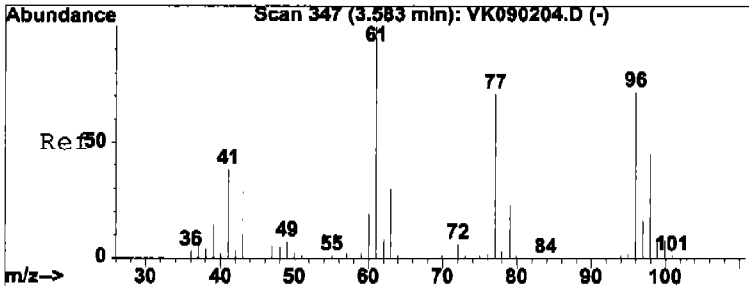
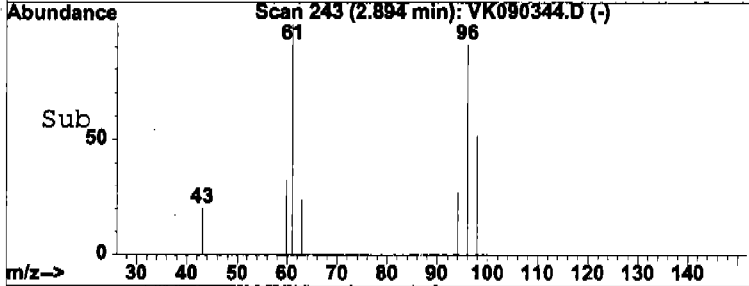
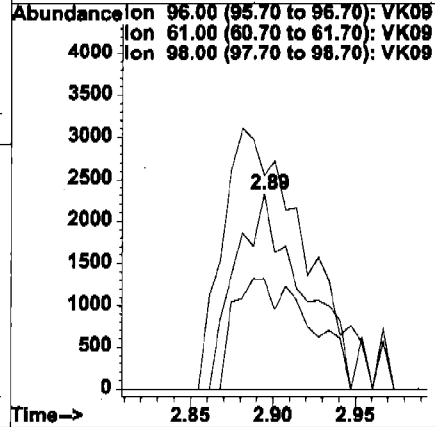
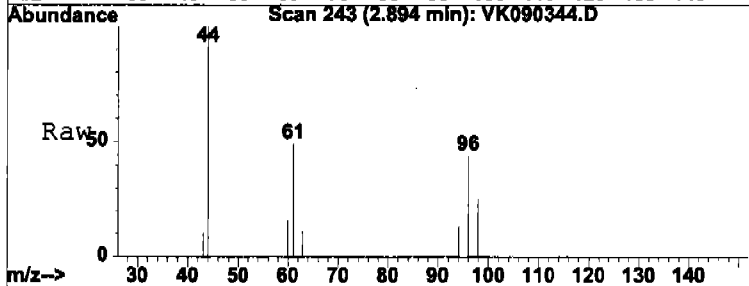
OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration



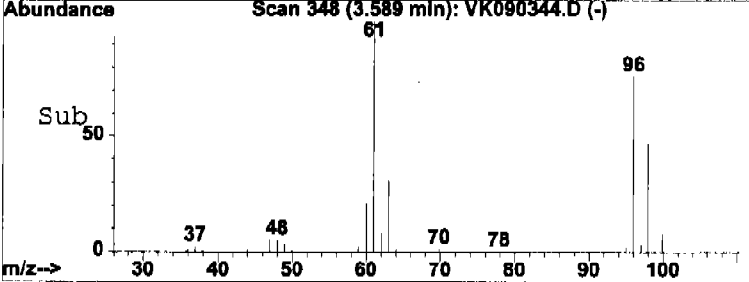
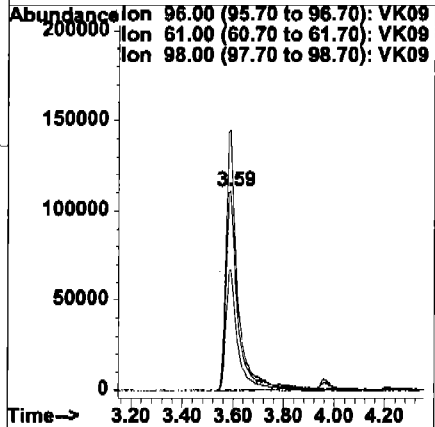
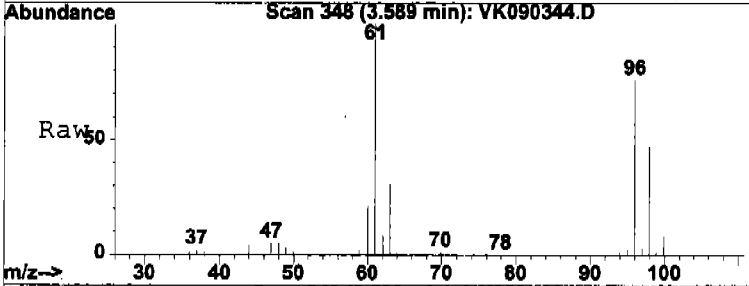
#21  
 trans-1,2-Dichloroethene  
 Concen: 0.30 ug/l  
 RT: 2.89 min Scan# 243  
 Delta R.T. 0.03 min  
 Lab File: VK090344.D  
 Acq: 3 Sep 2004 10:51 pm

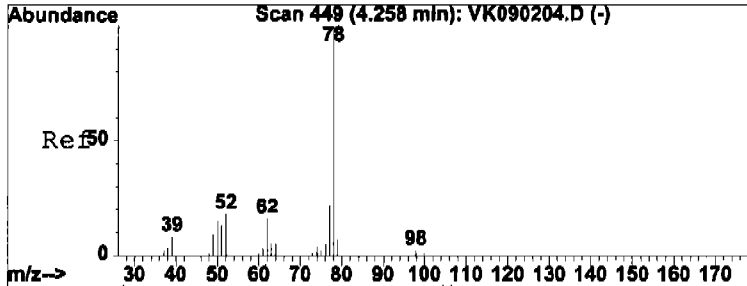
Tgt Ion	Resp	Lower	Upper
96	100		
61	110.0	109.2	163.8
98	56.9	50.0	75.0



#27  
 cis-1,2-Dichloroethene  
 Concen: 15.71 ug/l m  
 RT: 3.59 min Scan# 348  
 Delta R.T. -0.00 min  
 Lab File: VK090344.D  
 Acq: 3 Sep 2004 10:51 pm

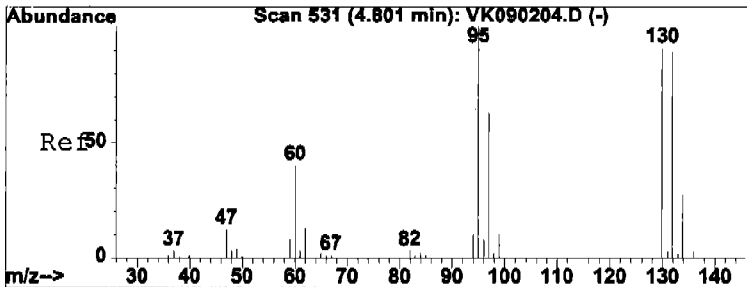
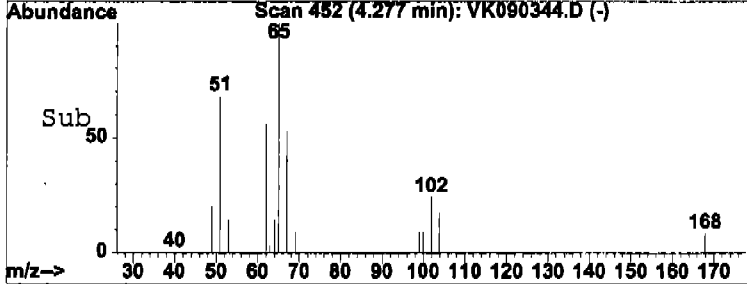
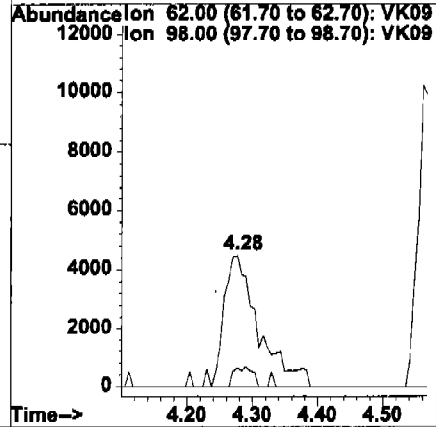
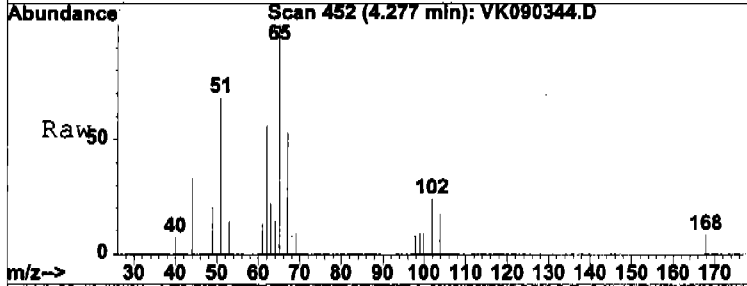
Tgt Ion	Resp	Lower	Upper
96	100		
61	122.0	121.7	182.5
98	57.7	51.3	76.9





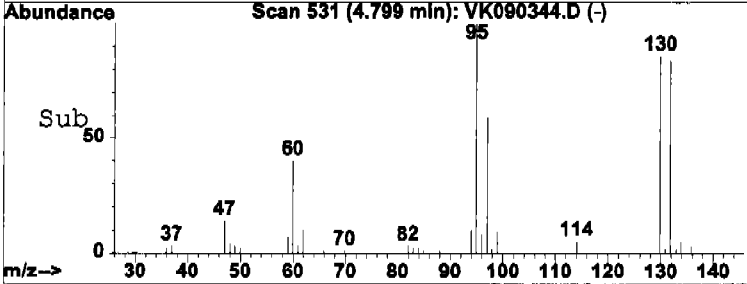
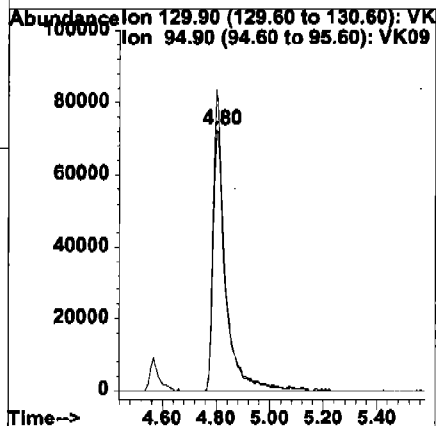
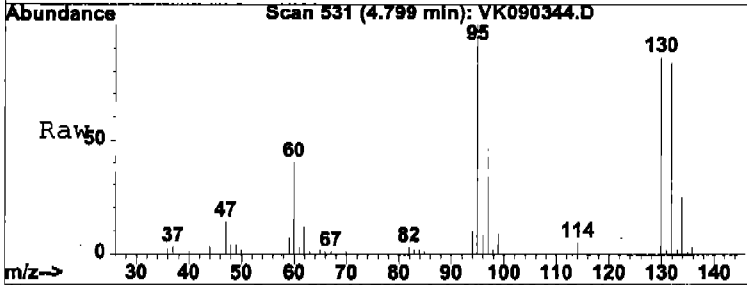
#38  
 1,2-Dichloroethane  
 Concen: 0.70 ug/l m  
 RT: 4.28 min Scan# 452  
 Delta R.T. 0.01 min  
 Lab File: VK090344.D  
 Acq: 3 Sep 2004 10:51 pm

Tgt Ion: 62 Resp: 16633  
 Ion Ratio Lower Upper  
 62 100  
 98 8.3 0.0 23.4



#39  
 Trichloroethene  
 Concen: 7.68 ug/l m  
 RT: 4.80 min Scan# 531  
 Delta R.T. -0.01 min  
 Lab File: VK090344.D  
 Acq: 3 Sep 2004 10:51 pm

Tgt Ion: 130 Resp: 236729  
 Ion Ratio Lower Upper  
 130 100  
 95 115.6 88.2 132.2

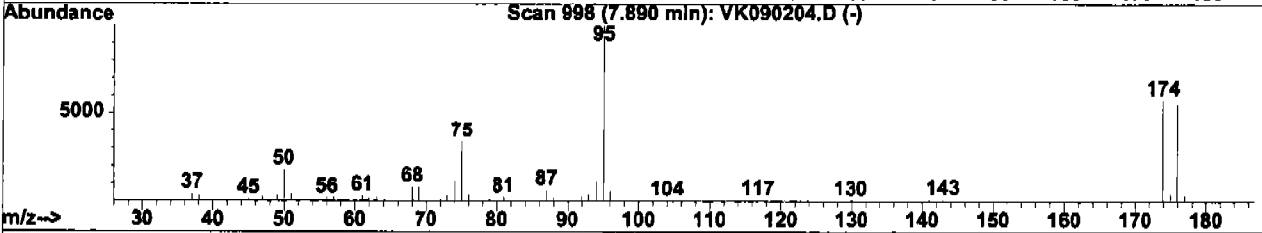
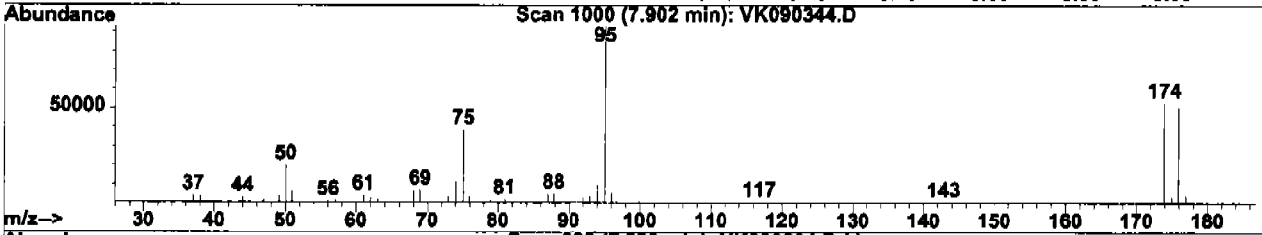
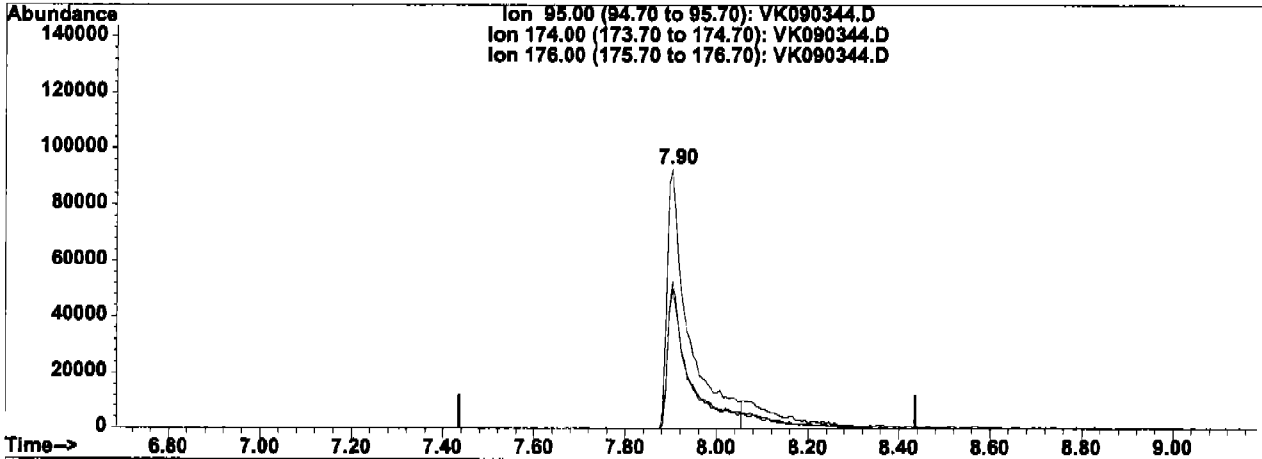


Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090344.D  
 Acq On : 3 Sep 2004 10:51 pm  
 Sample : S4436-19 10X  
 Misc : 25mL  
 Quant Time: Sep 7 12:22 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



TIC: VK090344.D

(56) 4-Bromofluorobenzene (S)

7.90min 8.52ug/l

response 307475

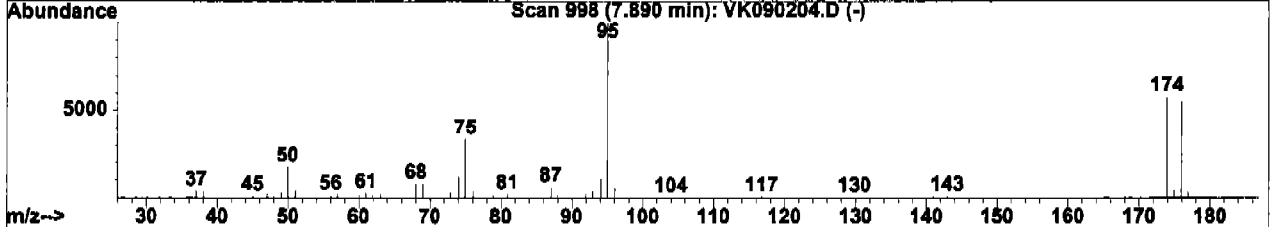
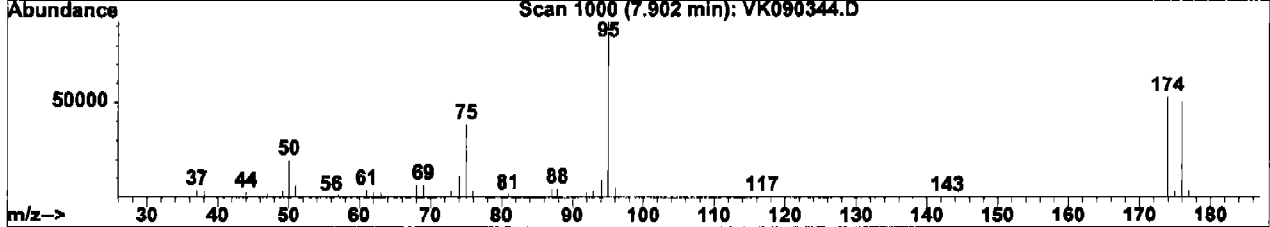
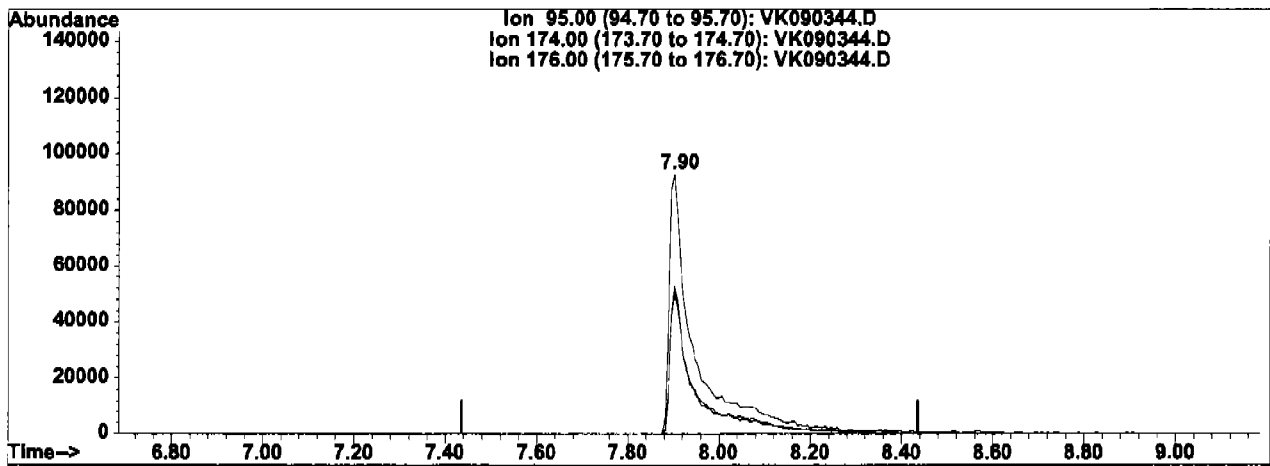
Ion	Exp%	Act%
95.00	100	100
174.00	56.30	50.52
176.00	54.20	52.89
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090344.D  
 Acq On : 3 Sep 2004 10:51 pm  
 Sample : S4436-19 10X  
 Misc : 25mL  
 Quant Time: Sep 7 12:22 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



TIC: VK090344.D

(56) 4-Bromofluorobenzene (S)

7.90min 10.10ug/l m

response 364530

Ion	Exp%	Act%
95.00	100	100
174.00	56.30	42.61#
176.00	54.20	44.62
0.00	0.00	0.00

LSC Area Percent Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090344.D Vial: 12  
 Acq On : 3 Sep 2004 10:51 pm Operator: KP  
 Sample : S4436-19 10X Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

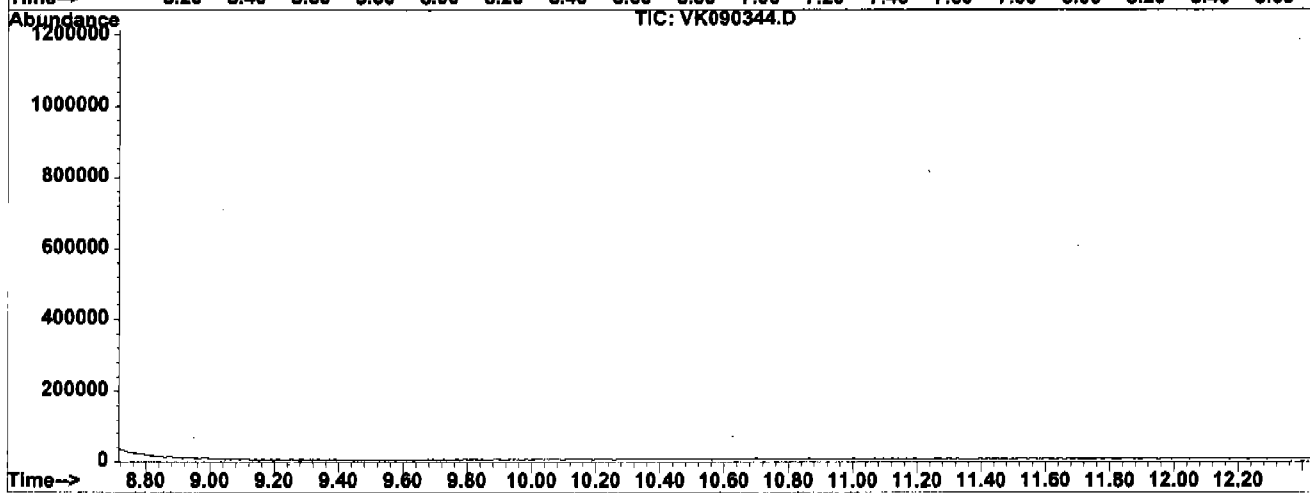
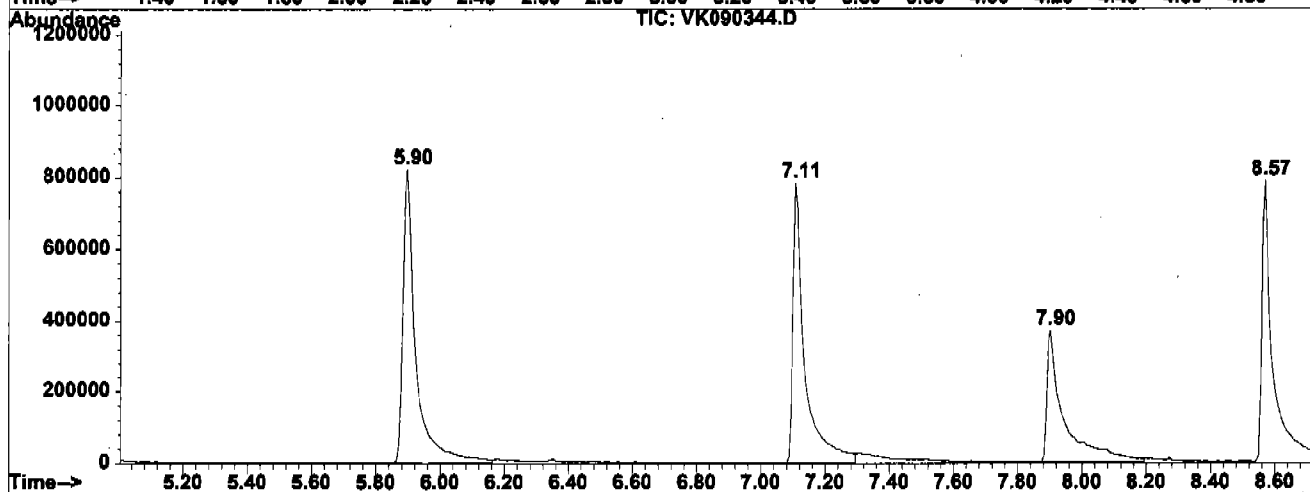
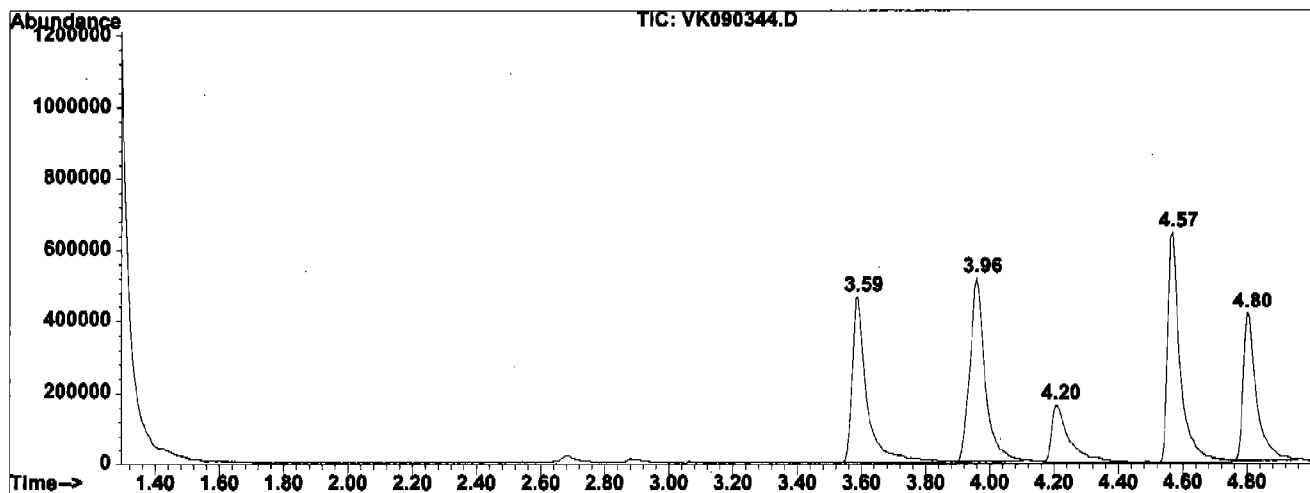
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	3.589	337	348	389	rBV	465000	1514399	65.32%	10.496%
2	3.959	394	404	426	rBV3	513523	1686348	72.73%	11.687%
3	4.204	435	441	480	rVB2	161626	634130	27.35%	4.395%
4	4.568	489	496	524	rBV	643933	1734465	74.81%	12.021%
5	4.799	524	531	555	rVV	411799	1196457	51.60%	8.292%
6	5.898	688	697	737	rBV	821600	2318529	100.00%	16.069%
7	7.108	874	880	908	rBV	783132	1991051	85.88%	13.799%
8	7.902	995	1000	1044	rBV	369606	1368191	59.01%	9.482%
9	8.570	1095	1101	1145	rBV	786641	1985141	85.62%	13.758%

Sum of corrected areas: 14428711

VK090344.D SAK0902W.M Tue Sep 07 12:24:04 2004 LABMANAGER

LSC Report - Integrated Chromatogram

File : K:\1\DATA\MSVOAK\VK090304\VK090344.D  
Operator : KP  
Acquired : 3 Sep 2004 10:51 pm using AcqMethod VP  
Instrument : MSVOA J/K  
Sample Name: S4436-19 10X  
Misc Info : 25mL  
Vial Number: 12  
Quant File :SAK0902W.RES (RTE Integrator)









## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/30/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/31/2004
Client Sample ID:	ARD0049	SDG No.:	S4436
Lab Sample ID:	S4436-21	Matrix:	WATER
Analytical Method:	8260	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VK090235.D	1		9/2/2004	VK090204

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
74-87-3	Chloromethane	0.16	U	1.0	0.16	ug/L
75-01-4	Vinyl chloride	0.11	U	1.0	0.11	ug/L
74-83-9	Bromomethane	0.12	U	1.0	0.12	ug/L
75-00-3	Chloroethane	0.18	U	1.0	0.18	ug/L
75-35-4	1,1-Dichloroethene	0.20	U	1.0	0.20	ug/L
67-64-1	Acetone	1.2	U	5.0	1.2	ug/L
75-15-0	Carbon disulfide	0.21	U	1.0	0.21	ug/L
75-09-2	Methylene Chloride	0.36	U	1.0	0.36	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	1.0	0.25	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.92	U	5.0	0.92	ug/L
56-23-5	Carbon Tetrachloride	0.17	U	1.0	0.17	ug/L
156-59-2	cis-1,2-Dichloroethene	0.27	U	1.0	0.27	ug/L
67-66-3	Chloroform	0.23	U	1.0	0.23	ug/L
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22	ug/L
71-43-2	Benzene	0.20	U	1.0	0.20	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	0.19	U	1.0	0.19	ug/L
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17	ug/L
108-10-1	4-Methyl-2-Pentanone	0.77	U	5.0	0.77	ug/L
108-88-3	Toluene	0.19	U	1.0	0.19	ug/L
10061-02-6	t-1,3-Dichloropropene	0.15	U	1.0	0.15	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L
591-78-6	2-Hexanone	0.58	U	5.0	0.58	ug/L
124-48-1	Dibromochloromethane	0.21	U	1.0	0.21	ug/L
127-18-4	Tetrachloroethene	0.20	U	1.0	0.20	ug/L
108-90-7	Chlorobenzene	0.16	U	1.0	0.16	ug/L
100-41-4	Ethyl Benzene	0.18	U	1.0	0.18	ug/L
136777-61-2	m&p-Xylenes	0.36	U	1.0	0.36	ug/L
95-47-6	o-Xylene	0.17	U	1.0	0.17	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



## Report of Analysis

Client:	Parsons Engineering	Date Collected:	8/30/2004
Project:	Seneca Ash Landfill Quarterly Monito	Date Received:	8/31/2004
Client Sample ID:	ARD0049	SDG No.:	S4436
Lab Sample ID:	S4436-21	Matrix:	WATER
Analytical Method:	8260	% Moisture:	100
Sample Wt/Wol:	25.0 Units: mL	Soil Extract Vol:	uL
Soil Aliquot Vol:	mL		

File ID:	Dilution:	Date Prep	Date Analyzed	Analytical Batch ID
VK090235.D	1		9/2/2004	VK090204

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
100-42-5	Styrene	0.17	U	1.0	0.17	ug/L
75-25-2	Bromoform	0.37	U	1.0	0.37	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13	ug/L

## SURROGATES

17060-07-0	1,2-Dichloroethane-d4	11.29	113 %	72 - 119	SPK: 10
1868-53-7	Dibromofluoromethane	10.31	103 %	85 - 115	SPK: 10
2037-26-5	Toluene-d8	9.5	95 %	81 - 120	SPK: 10
460-00-4	4-Bromofluorobenzene	10.2	102 %	76 - 119	SPK: 10

## INTERNAL STANDARDS

363-72-4	Pentafluorobenzene	309232	3.95
540-36-3	1,4-Difluorobenzene	719013	4.55
3114-55-4	Chlorobenzene-d5	579730	7.11
3855-82-1	1,4-Dichlorobenzene-d4	276195	8.56

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

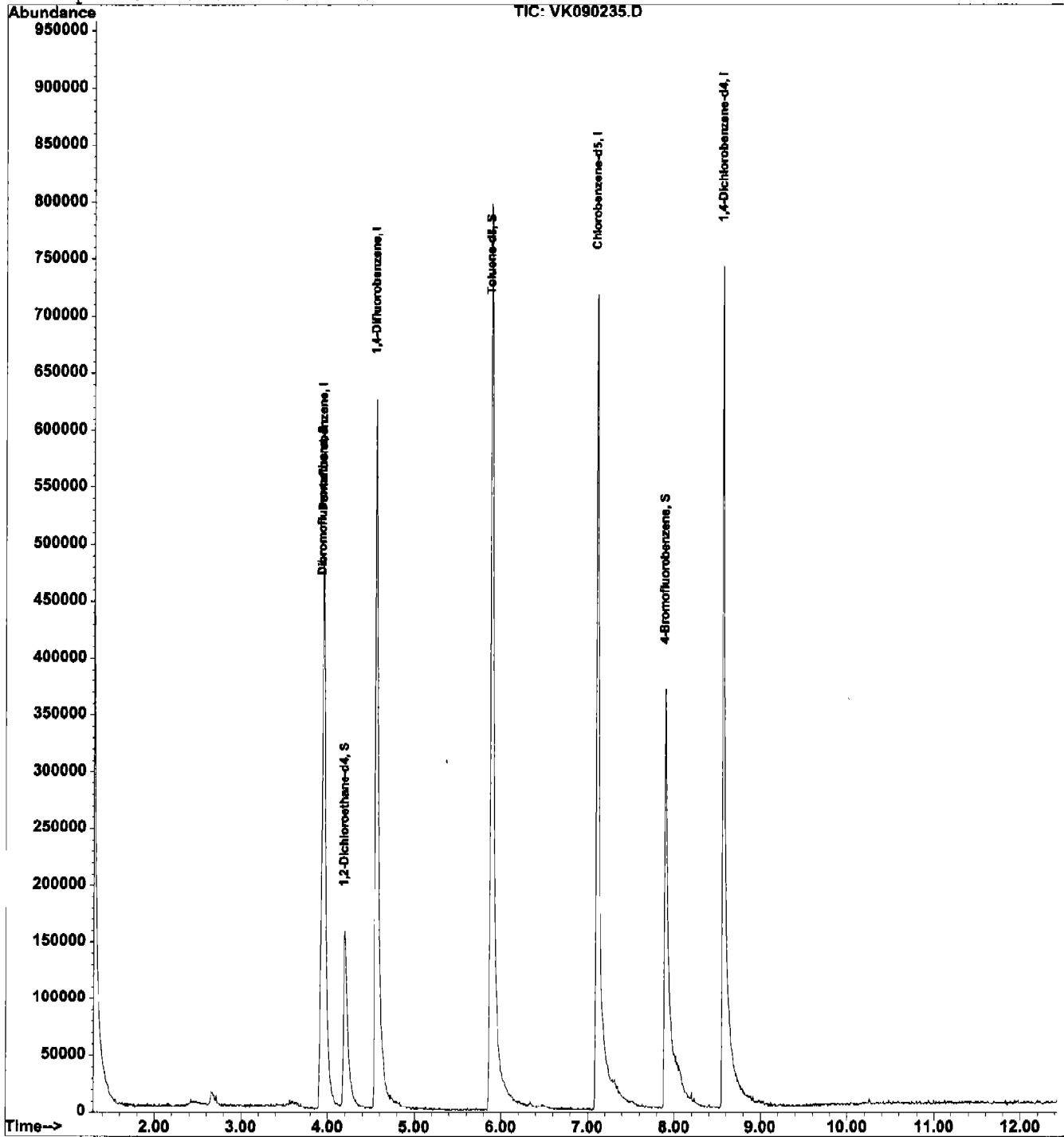
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090235.D  
Acq On : 2 Sep 2004 11:13 pm  
Sample : S4436-21  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 3 14:38 2004

Vial: 17  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090235.D Vial: 17  
 Acq On : 2 Sep 2004 11:13 pm Operator: KP  
 Sample : S4436-21 Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 3 14:38 2004 Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.95	168	309232	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.55	114	719013	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.11	117	579730	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.56	152	276195	10.00	ug/l	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d	4.20	65	175441	11.29	ug/l	0.00
Spiked Amount	10.000		Recovery	=	112.90%	
34) Dibromofluoromethane	3.93	113	201293	10.31	ug/l	0.00
Spiked Amount	10.000		Recovery	=	103.10%	
45) Toluene-d8	5.88	98	810320	9.50	ug/l	-0.03
Spiked Amount	10.000		Recovery	=	95.00%	
56) 4-Bromofluorobenzene	7.90	95	355095m	10.20	ug/l	-0.04
Spiked Amount	10.000		Recovery	=	102.00%	

Target Compounds Qvalue

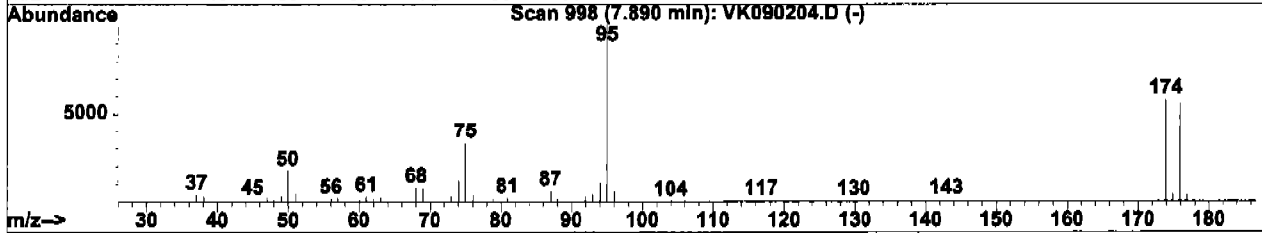
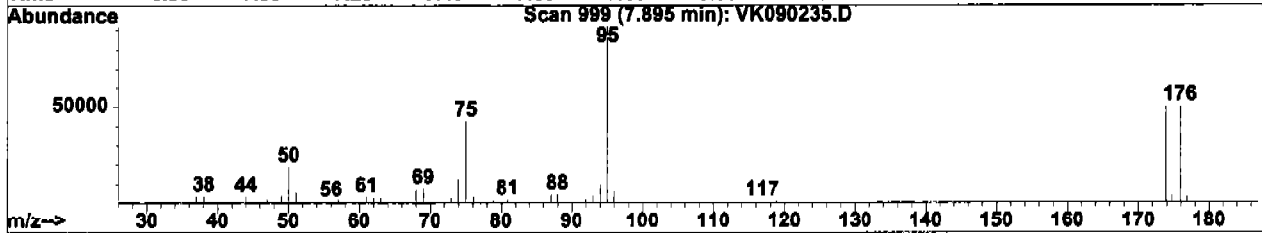
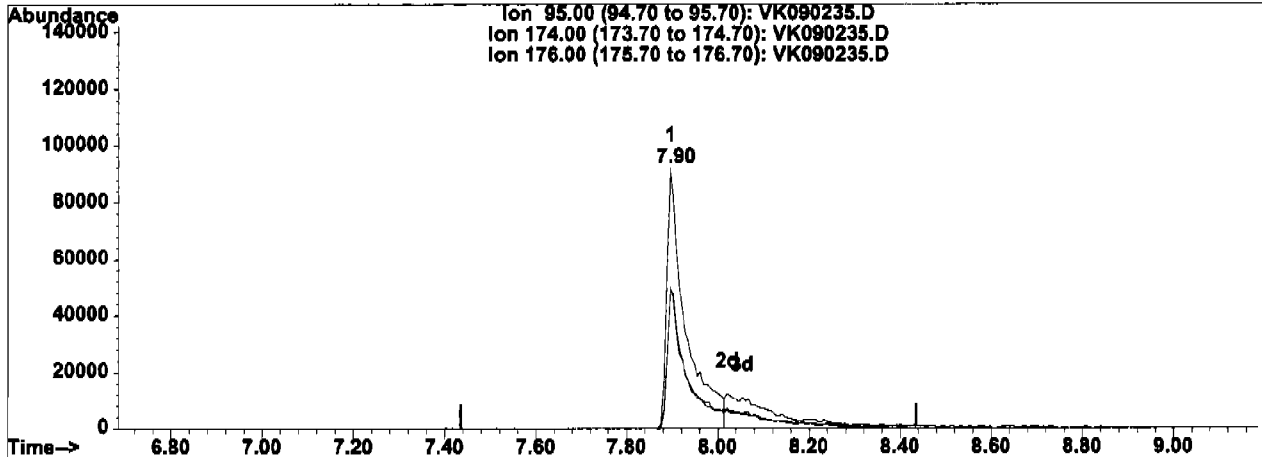
-----  
 Analyst Signature: 19 Analyst Name: \_\_\_\_\_ Date: 09/03/04  
 -----REASONS FOR MANUAL INTEGRATIONS-----  
 Poor resolution of peaks exhibited on chromatogram. Compound #: 576  
 Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090235.D  
 Acq On : 2 Sep 2004 11:13 pm  
 Sample : S4436-21  
 Misc : 25mL  
 Quant Time: Sep 3 14:37 2004

Vial: 17  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(56) 4-Bromofluorobenzene (S)

7.90min 7.65ug/l

response 266197

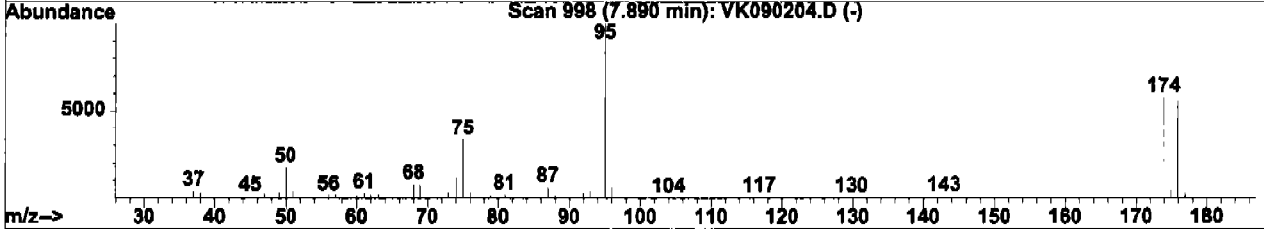
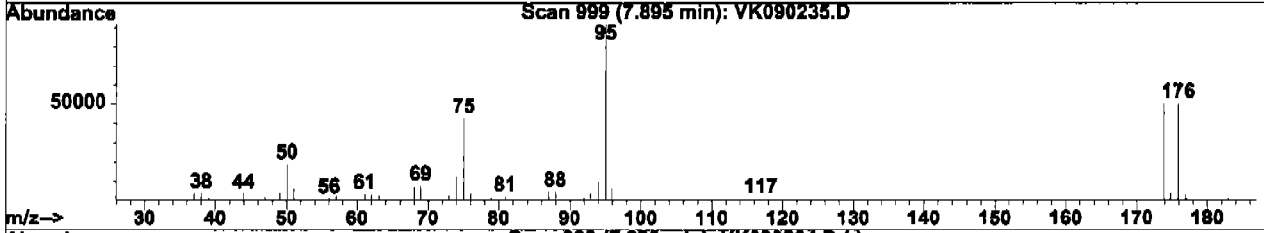
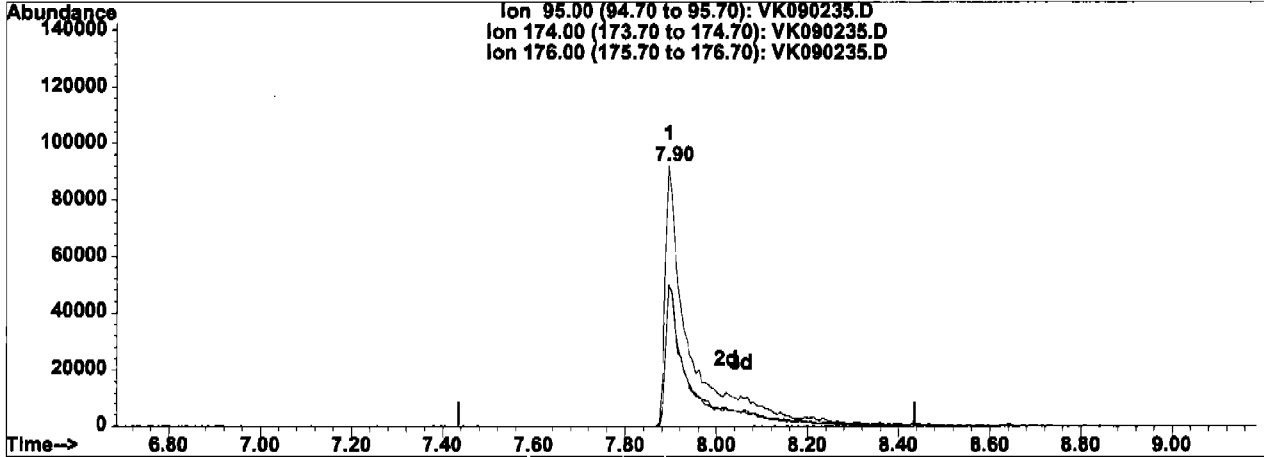
Ion	Exp%	Act%
95.00	100	100
174.00	56.30	54.51
176.00	54.20	52.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090235.D  
 Acq On : 2 Sep 2004 11:13 pm  
 Sample : S4436-21  
 Misc : 25mL  
 Quant Time: Sep 3 14:38 2004

Vial: 17  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



TIC: VK090235.D

(56) 4-Bromofluorobenzene (S)

7.90min 10.20ug/l m

response 355095

Ion	Exp%	Act%
95.00	100	100
174.00	56.30	40.87#
176.00	54.20	38.98#
0.00	0.00	0.00

LSC Area Percent Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090235.D Vial: 17  
 Acq On : 2 Sep 2004 11:13 pm Operator: KP  
 Sample : S4436-21 Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	3.946	388	402	425	rBV2	487364	1618883	71.03%	14.290%
2	4.197	433	440	470	rVB	154152	517510	22.71%	4.568%
3	4.555	486	494	519	rBV	623184	1677002	73.58%	14.803%
4	5.884	688	695	742	rBV	797092	2279066	100.00%	20.118%
5	7.108	872	880	909	rBV	716567	1916233	84.08%	16.915%
6	7.313	909	911	938	rVB4	21233	102969	4.52%	0.909%
7	7.895	992	999	1043	rBV	370142	1303776	57.21%	11.509%
8	8.563	1093	1100	1152	rBV	739243	1913247	83.95%	16.889%

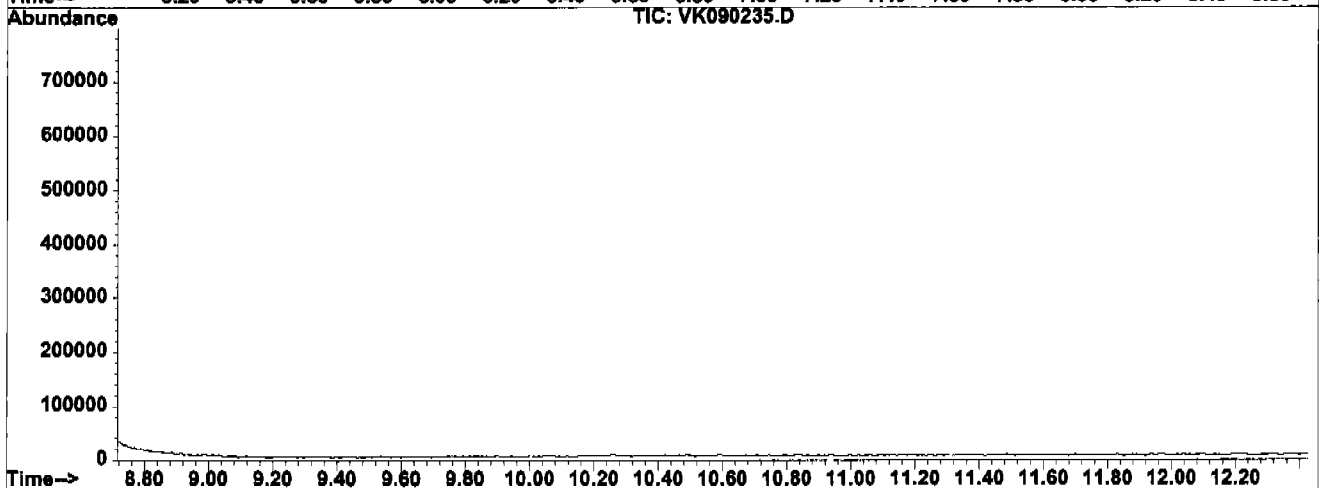
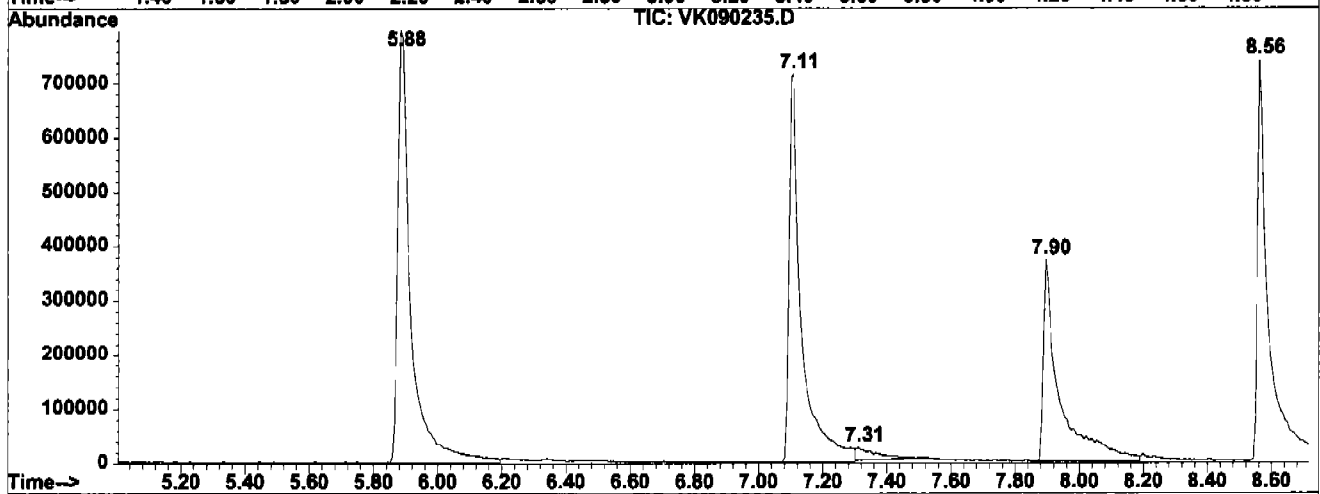
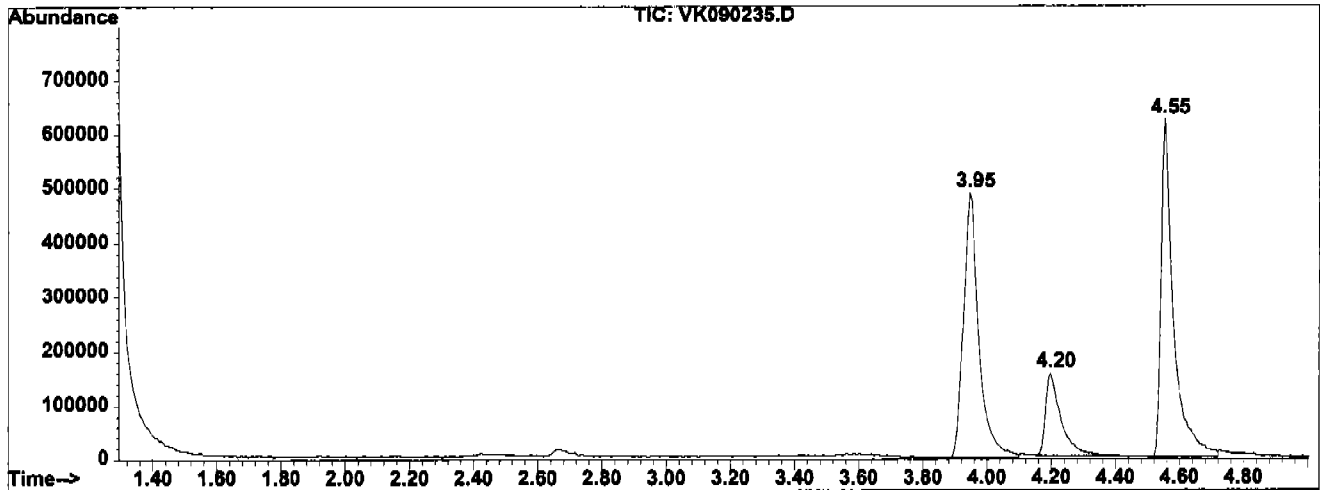
Sum of corrected areas: 11328686

VK090235.D SAK0902W.M Fri Sep 03 14:39:12 2004 LABMANAGER



LSC Report - Integrated Chromatogram

File : K:\1\DATA\MSVOAK\VK090204\VK090235.D  
Operator : KP  
Acquired : 2 Sep 2004 11:13 pm using AcqMethod VP  
Instrument : MSVOA J/K  
Sample Name: S4436-21  
Misc Info : 25mL  
Vial Number: 17  
Quant File : SAK0902W.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: KP      Date Acquired: 2 Sep 2004 11:13 pm  
Data File: K:\1\DATA\MSVOAK\VK090204\VK090235.D  
Name: S4436-21  
Misc: 25mL  
Method: K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title: SW846 8260  
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
-----								
VK090235.D SAK0902W.M		Fri Sep 03	14:39:13	2004		LABMANAGER		

CHEMTECH

VOLATILES  
CALIBRATION  
DATA

## VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4436 SAS No.: S4436 SDG No.: S4436  
 Instrument ID: MSVOAK Calibration Date(s): 9/2/2004 9/2/2004  
 Heated Purge: (Y/N) N Calibration Time(s): 01:40 04:55  
 GC Column: DB624 ID: 0.18 (mm)

LAB FILE ID:		RRF001 = VK090202.D	RRF004 = VK090203.D			RRF010 = VK090204.D	RRF020 = VK090205.D	RRF040 = VK090207.D	
COMPOUND		RRF001	RRF004	RRF010	RRF020	RRF040	RRF	% RSD	
Chloromethane	*	1.286	1.196	1.399	1.389	1.369	1.328	6.5	*
Vinyl Chloride	*	0.985	0.987	1.072	1.078	1.048	1.034	4.4	*
Bromomethane		0.825	0.737	0.796	0.774	0.785	0.783	4.1	
Chloroethane		0.550	0.548	0.559	0.591	0.585	0.567	3.5	
1,1-Dichloroethane	*	0.629	0.630	0.642	0.627	0.615	0.629	1.5	*
Acetone		0.085	0.045	0.040	0.040	0.039	0.050	39.6	
Carbon Disulfide		2.908	2.766	2.787	2.735	2.666	2.772	3.2	
Methylene Chloride		1.022	0.778	0.749	0.729	0.724	0.800	15.7	
trans-1,2-Dichloroethen		0.654	0.657	0.689	0.692	0.670	0.672	2.6	
1,1-Dichloroethane	*	1.360	1.180	1.215	1.212	1.172	1.228	6.2	*
2-Butanone		0.292	0.217	0.199	0.245	0.235	0.238	14.8	
Carbon Tetrachloride	*	0.479	0.423	0.427	0.440	0.420	0.438	5.5	*
cis-1,2-Dichloroethene		0.676	0.713	0.712	0.746	0.771	0.724	5.0	
Chloroform	*	1.420	1.416	1.433	1.490	1.514	1.455	3.1	*
1,1,1-Trichloroethane	*	1.056	1.075	1.097	1.127	1.145	1.100	3.3	*
Benzene	*	1.770	1.738	1.761	1.797	1.725	1.758	1.6	*
1,2-Dichloroethane	*	0.331	0.304	0.302	0.325	0.327	0.318	4.3	*
Trichloroethene	*	0.396	0.398	0.411	0.434	0.427	0.413	4.1	*
1,2-Dichloropropane	*	0.408	0.385	0.387	0.400	0.383	0.393	2.8	*
Bromodichloromethane	*	0.496	0.495	0.510	0.533	0.535	0.514	3.8	*
4-Methyl-2-Pentanone		0.319	0.252	0.220	0.231	0.250	0.254	15.2	
Toluene	*	1.187	1.107	1.120	1.165	1.130	1.142	2.9	*
t-1,3-Dichloropropane	*	0.378	0.336	0.363	0.400	0.429	0.381	9.3	*
cis-1,3-Dichloropropane	*	0.473	0.487	0.543	0.569	0.564	0.527	8.4	*
1,1,2-Trichloroethane	*	0.233	0.213	0.222	0.225	0.222	0.223	3.2	*
2-Hexanone		0.200	0.160	0.116	0.144	0.159	0.156	19.5	
Dibromochloromethane	*	0.255	0.251	0.262	0.279	0.276	0.265	4.7	*
Tetrachloroethene	*	0.414	0.494	0.472	0.482	0.469	0.466	6.6	*
Chlorobenzene	*	0.886	1.056	1.021	1.045	1.014	1.004	6.8	*
Ethyl Benzene	*	0.407	0.529	0.522	0.524	0.501	0.497	10.3	*
m,p-Xylenes		0.618	0.697	0.668	0.656	0.606	0.649	5.7	
o-Xylene	*	0.635	0.680	0.660	0.652	0.615	0.648	3.8	*
Styrene	*	0.849	1.110	1.124	1.136	1.096	1.063	11.3	*
Bromoform	*	0.089	0.126	0.133	0.138	0.151	0.127	18.4	*
1,1,2,2-Tetrachloroetha	*	0.670	0.700	0.711	0.722	0.758	0.712	4.5	*
1,2-Dichloroethane-d4		0.525	0.458	0.483	0.506	0.542	0.503	6.6	
Dibromofluoromethane		0.279	0.258	0.268	0.280	0.272	0.271	3.3	

\* Compounds with required minimum RRF and maximum %RSD values.  
 All other compounds must meet a minimum RRF of 0.010.

6A  
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4436 SAS No.: S4436 SDG No.: S4436  
 Instrument ID: MSVOAK Calibration Date(s): 9/2/2004 9/2/2004  
 Heated Purge: (Y/N) N Calibration Time(s): 01:40 04:55  
 GC Column: DB624 ID: 0.18 (mm)

LAB FILE ID:		RRF001 = VK090202.D	RRF004 = VK090203.D				
RRF010 = VK090204.D	RRF020 = VK090205.D	RRF040 = VK090207.D					
COMPOUND	RRF001	RRF004	RRF010	RRF020	RRF040	RRF	% RSD
Toluene-d8	1.199	1.123	1.178	1.235	1.196	1.186	3.5
4-Bromofluorobenzene *	0.547	0.410	0.479	0.491	0.493	0.484	10.1 *

\* Compounds with required minimum RRF and maximum %RSD values.  
 All other compounds must meet a minimum RRF of 0.010.

Response Factor Report. MSVOA J/K

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:55:41 2004  
 Response via : Initial Calibration

Calibration Files

1 =VK090202.D 4 =VK090203.D 10 =VK090204.D  
 20 =VK090205.D 40 =VK090207.D

Compound	1	4	10	20	40	Avg	%RSD
1) I Pentafluorobenzene	-----ISTD-----						
2) T Dichlorodifluorometha	0.937	0.803	0.825	0.862	0.855	0.856	5.95
3) P Chloromethane	1.286	1.196	1.399	1.389	1.369	1.328	6.49
4) C Vinyl Chloride	0.985	0.987	1.072	1.078	1.048	1.034	4.37#
5) T Bromomethane	0.825	0.737	0.796	0.774	0.785	0.783	4.10
6) T Chloroethane	0.550	0.547	0.559	0.591	0.585	0.567	3.55
7) Ethanol						0.000#	-1.00
8) T Trichlorofluoromethan	0.931	0.936	0.960	0.974	0.999	0.960	2.91
9) 1,1,2-Trichlorotriflu	0.667	0.667	0.640	0.622	0.602	0.639	4.44
10) T Tert butyl alcohol	0.005	0.020	0.015	0.020	0.013	0.015	41.45
11) Diethyl Ether	0.311	0.275	0.285	0.282	0.278	0.286	4.97
12) Isopropyl Alcohol	3.056	2.903	2.944	2.811	2.575	2.858	6.34
13) CM 1,1-Dichloroethene	0.629	0.630	0.642	0.627	0.615	0.628	1.50#
14) T Acrolein	0.019	0.028	0.024	0.028	0.032	0.026	17.88
15) T Acrylonitrile	0.260	0.226	0.232	0.229	0.225	0.234	6.26
16) T Acetone	0.085	0.045	0.040	0.040	0.039	0.050	39.76
17) T Carbon Disulfide	2.908	2.766	2.787	2.735	2.666	2.772	3.20
18) T Methyl tert-butyl Eth	1.319	1.256	1.247	1.222	1.229	1.255	3.06
19) Methyl Acetate	0.397	0.259	0.308	0.303	0.309	0.315	15.89
20) T Methylene Chloride	1.022	0.778	0.749	0.729	0.724	0.800	15.69
21) T trans-1,2-Dichloroeth	0.654	0.657	0.689	0.692	0.670	0.672	2.63
22) T Vinyl Acetate	0.830	0.828	0.840	0.737	0.642	0.776	11.03
23) P 1,1-Dichloroethane	1.360	1.180	1.215	1.213	1.172	1.228	6.20
24) T Cyclohexane	3.359	3.693	3.721	3.783	3.737	3.659	4.66
25) T 2-Butanone	0.292	0.217	0.199	0.245	0.235	0.238	14.70
26) T 2,2-Dichloropropane	1.034	0.983	0.962	0.959	0.923	0.972	4.20
27) T cis-1,2-Dichloroethen	0.676	0.713	0.712	0.746	0.771	0.723	5.03
28) T Bromochloromethane	0.229	0.275	0.281	0.293	0.316	0.279	11.37
29) C Chloroform	1.420	1.416	1.433	1.490	1.514	1.454	3.06#
30) T 1,1,1-Trichloroethane	1.056	1.075	1.097	1.127	1.145	1.100	3.33
31) T Methylcyclohexane	0.728	0.757	0.774	0.793	0.788	0.768	3.42
32) S 1,2-Dichloroethane-d4	0.525	0.458	0.483	0.506	0.542	0.503	6.68
33) I 1,4-Difluorobenzene	-----ISTD-----						
34) S Dibromofluoromethane	0.279	0.258	0.268	0.280	0.272	0.271	3.27
35) T 1,1-Dichloropropene	0.585	0.538	0.537	0.553	0.520	0.547	4.52
36) T Carbon Tetrachloride	0.479	0.423	0.427	0.440	0.420	0.438	5.48
37) TM Benzene	1.770	1.738	1.761	1.797	1.725	1.758	1.60
38) TM 1,2-Dichloroethane	0.331	0.304	0.302	0.325	0.327	0.318	4.28
39) TM Trichloroethene	0.396	0.398	0.411	0.434	0.427	0.413	4.08
40) Methyl Methacrylate	0.294	0.295	0.306	0.299	0.348	0.308	7.35
41) C 1,2-Dichloropropane	0.408	0.385	0.387	0.400	0.383	0.393	2.77#
42) T Dibromomethane	0.141	0.150	0.150	0.167	0.172	0.158	8.11

(#) = Out of Range

Response Factor Report MSVOA J/K

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:55:41 2004  
 Response via : Initial Calibration

Calibration Files

1 =VK090202.D 4 =VK090203.D 10 =VK090204.D  
 20 =VK090205.D 40 =VK090207.D

Compound	1	4	10	20	40	Avg	%RSD
43) 1,4-Dioxane						0.000#	-1.00
44) T Bromodichloromethane	0.496	0.495	0.510	0.533	0.535	0.514	3.79
45) S Toluene-d8	1.199	1.123	1.178	1.235	1.196	1.186	3.45
46) T 4-Methyl-2-Pentanone	0.319	0.252	0.220	0.231	0.250	0.254	15.20
47) CM Toluene	1.187	1.107	1.120	1.165	1.130	1.142	2.92#
48) T t-1,3-Dichloropropene	0.378	0.336	0.363	0.400	0.429	0.381	9.31
49) T cis-1,3-Dichloroprope	0.473	0.487	0.543	0.569	0.565	0.527	8.44
50) T 1,1,2-Trichloroethane	0.233	0.213	0.222	0.225	0.223	0.223	3.23
51) T 1,3-Dichloropropane	0.450	0.407	0.427	0.430	0.417	0.426	3.80
52) T 2-Chloroethyl vinyl e	0.136	0.126	0.145	0.158	0.162	0.145	10.44
53) T 2-Hexanone	0.200	0.160	0.116	0.144	0.159	0.156	19.37
54) T Dibromochloromethane	0.255	0.251	0.261	0.279	0.276	0.265	4.76
55) T 1,2-Dibromoethane	0.153	0.158	0.167	0.178	0.195	0.170	9.81
56) S 4-Bromofluorobenzene	0.547	0.410	0.479	0.491	0.493	0.484	10.10
57) I Chlorobenzene-d5	-----ISTD-----						
58) T Tetrachloroethene	0.414	0.494	0.472	0.482	0.469	0.466	6.64
59) PM Chlorobenzene	0.886	1.056	1.021	1.045	1.014	1.004	6.83
60) T 1,1,1,2-Tetrachloroet	0.310	0.404	0.385	0.392	0.390	0.376	9.98
61) C Ethyl Benzene	0.407	0.529	0.522	0.524	0.501	0.497	10.30#
62) T m&p-Xylenes	0.618	0.697	0.668	0.656	0.606	0.649	5.71
63) T o-Xylene	0.635	0.680	0.660	0.652	0.615	0.649	3.83
64) T Styrene	0.729	1.110	1.124	1.136	1.096	1.039	16.73
65) P Bromoform	0.089	0.126	0.133	0.138	0.151	0.127	18.34
66) I 1,4-Dichlorobenzene-d	-----ISTD-----						
67) T Isopropylbenzene	3.814	3.942	3.876	3.952	3.848	3.886	1.54
68) P 1,1,2,2-Tetrachloroet	0.670	0.701	0.711	0.722	0.758	0.712	4.50
69) T 1,2,3-Trichloropropan	0.620	0.815	0.707	0.775	0.846	0.753	12.04
70) T Bromobenzene	0.619	0.730	0.758	0.799	0.814	0.744	10.42
71) T n-propylbenzene	4.761	6.059	6.556	6.777	6.529	6.137	13.23
72) T 2-Chlorotoluene	4.840	3.949	3.776	3.916	3.889	4.074	10.63
73) T 1,3,5-Trimethylbenzen	3.099	3.125	3.073	3.114	2.966	3.075	2.08
74) T 4-Chlorotoluene	4.123	4.398	4.333	4.373	4.343	4.314	2.54
75) T tert-Butylbenzene	3.425	3.487	3.462	3.491	3.281	3.429	2.53
76) T 1,2,4-Trimethylbenzen	2.912	3.025	3.085	3.125	3.047	3.039	2.65
77) T sec-Butylbenzene	4.316	4.455	4.309	4.421	4.209	4.342	2.26
78) T p-Isopropyltoluene	3.851	3.839	3.789	3.822	3.490	3.758	4.03
79) T 1,3-Dichlorobenzene	1.232	1.390	1.404	1.527	1.518	1.414	8.46
80) T 1,4-Dichlorobenzene	1.737	1.769	1.693	1.715	1.648	1.712	2.67
81) T n-Butylbenzene	3.882	4.744	4.797	4.972	4.866	4.652	9.44
82) T 1,2-Dichlorobenzene	1.167	1.408	1.335	1.405	1.413	1.346	7.78
83) T 1,2-Dibromo-3-Chlorop	0.061	0.079	0.095	0.097	0.104	0.087	19.96
84) T 1,2,4-Trichlorobenzen	0.729	0.841	0.876	0.940	0.933	0.864	9.94

(#) = Out of Range

Response Factor Report MSVOA J/K

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:55:41 2004  
 Response via : Initial Calibration

Calibration Files

1 =VK090202.D 4 =VK090203.D 10 =VK090204.D  
 20 =VK090205.D 40 =VK090207.D

Compound		1	4	10	20	40	Avg	%RSD
85)	T Hexachlorobutadiene	0.597	0.575	0.578	0.601	0.597	0.589	2.04
86)	T Naphthalene	1.604	1.574	1.593	1.741	1.814	1.665	6.36
87)	T 1,2,3-Trichlorobenzen	0.663	0.682	0.688	0.735	0.725	0.699	4.34



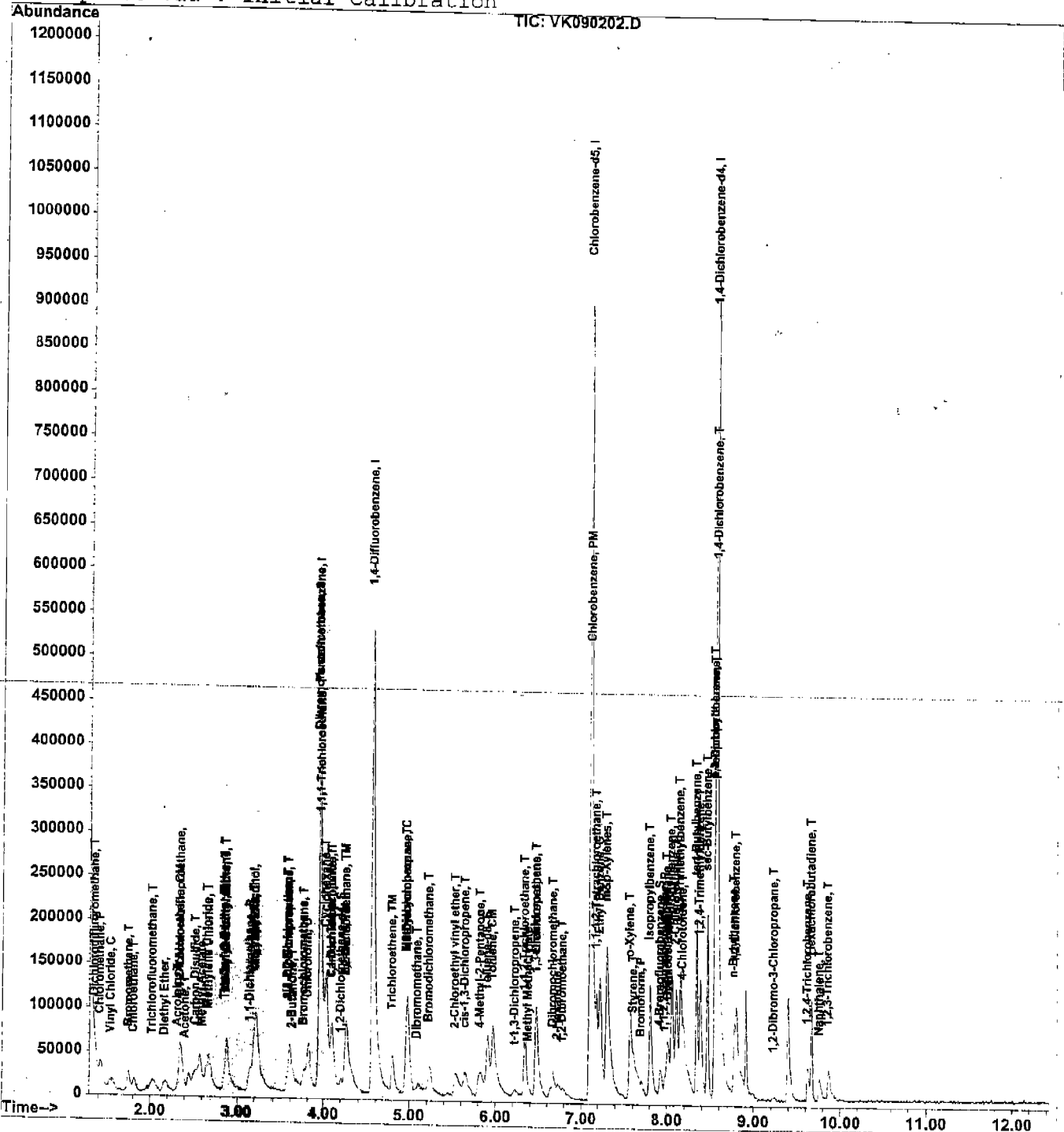
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 10:59 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 10:59 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:41 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.96	168	337503	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.56	114	602882	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.10	117	644274	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.56	152	269209	10.00	ug/l	0.00

System Monitoring Compounds

32) 1,2-Dichloroethane-d	4.20	65	17714	1.09	ug/l	0.00
Spiked Amount	10.000					
			Recovery	=	10.90%	
34) Dibromofluoromethane	3.94	113	16826	1.04	ug/l	0.00
Spiked Amount	10.000					
			Recovery	=	10.40%	
45) Toluene-d8	5.91	98	72276	1.02	ug/l	0.02
Spiked Amount	10.000					
			Recovery	=	10.20%	
56) 4-Bromofluorobenzene	7.94	95	32997	1.14	ug/l	0.05
Spiked Amount	10.000					
			Recovery	=	11.40%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluorometh	1.36	85	31622m	1.14	ug/l	
3) Chloromethane	1.43	50	43399	0.92	ug/l	93
4) Vinyl Chloride	1.55	62	33255	0.92	ug/l	95
5) Bromomethane	1.75	94	27835	1.04	ug/l	86
6) Chloroethane	1.81	64	18563	0.98	ug/l	# 84
8) Trichlorofluorometha	2.03	101	31420	0.97	ug/l	98
9) 1,1,2-Trichlorotrifl	2.36	101	22507	1.04	ug/l	94
10) Tert-butyl alcohol	2.86	59	927	1.80	ug/l	100
11) Diethyl Ether	2.18	74	10486	1.09	ug/l	94
12) Isopropyl Alcohol	3.21	45	103149	1.04	ug/l	100
13) 1,1-Dichloroethene	2.34	96	21215	0.98	ug/l	92
14) Acrolein	2.32	56	3290m	4.09	ug/l	
15) Acrylonitrile	3.22	53	43912	5.61	ug/l	98
16) Acetone	2.41	43	14388m	10.55	ug/l	
17) Carbon Disulfide	2.52	76	98150	1.04	ug/l	96
18) Methyl tert-butyl Et	2.87	73	44512	1.06	ug/l	91
19) Methyl Acetate	2.61	43	13393m	1.29	ug/l	
20) Methylene Chloride	2.67	84	34484	1.36	ug/l	93
21) trans-1,2-Dichloroet	2.87	96	22058	0.95	ug/l	90
22) Vinyl Acetate	3.20	43	140124	4.94	ug/l	97

Analyst Signature: 10p Analyst Name: \_\_\_\_\_ Date: 09.02.04

REASONS FOR MANUAL INTEGRATIONS

✓ Poor resolution of peaks exhibited on chromatogram. Compound #: 2,14,17,19

Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 10:59 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:41 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1-Dichloroethane	3.15	63	45896	1.12	ug/l #	95
24) Cyclohexane	4.04	56	113374	0.90	ug/l	97
25) 2-Butanone	3.64	43	49196m	7.32	ug/l	
26) 2,2-Dichloropropane	3.58	77	34899	1.08	ug/l	90
27) cis-1,2-Dichloroethe	3.59	96	22801	0.95	ug/l	95
28) Bromochloromethane	3.76	128	7743	0.82	ug/l	84
29) Chloroform	3.81	83	47919	0.99	ug/l	94
30) 1,1,1-Trichloroethan	3.98	97	35636	0.96	ug/l #	2
31) Methylcyclohexane	4.99	63	24586	0.94	ug/l	91
35) 1,1-Dichloropropene	4.11	75	35289	1.09	ug/l	95
36) Carbon Tetrachloride	4.11	117	28851	1.12	ug/l #	86
37) Benzene	4.26	78	106740	1.01	ug/l	100
38) 1,2-Dichloroethane	4.27	62	19952	1.10	ug/l	82
39) Trichloroethene	4.81	130	23897	0.96	ug/l	95
40) Methyl Methacrylate	6.39	69	17696m	0.96	ug/l	
41) 1,2-Dichloropropane	4.99	63	24586	1.05	ug/l	91
42) Dibromomethane	5.10	93	8477	0.88	ug/l	89
44) Bromodichloromethane	5.23	83	29901	0.97	ug/l #	93
46) 4-Methyl-2-Pentanone	5.83	43	96276m	7.27	ug/l	
47) Toluene	5.98	92	71583	1.06	ug/l	93
48) t-1,3-Dichloropropen	6.23	75	22762m	1.04	ug/l	
49) cis-1,3-Dichloroprop	5.66	75	28518	0.87	ug/l	100
50) 1,1,2-Trichloroethan	6.35	97	14053	1.05	ug/l #	82
51) 1,3-Dichloropropane	6.49	76	27114m	1.05	ug/l	
52) 2-Chloroethyl vinyl	5.53	63	40886m	4.68	ug/l	
53) 2-Hexanone	6.73	43	60150m	8.57	ug/l	
54) Dibromochloromethane	6.67	129	15387	0.98	ug/l	96
55) 1,2-Dibromoethane	6.78	107	9235m	0.92	ug/l	
58) Tetrachloroethene	6.47	164	26643	0.88	ug/l	94
59) Chlorobenzene	7.13	112	57059	0.87	ug/l	100
60) 1,1,1,2-Tetrachloroe	7.18	131	19981	0.81	ug/l #	63
61) Ethyl Benzene	7.22	106	26231	0.78	ug/l	100
62) m&p-Xylenes	7.30	106	79638	1.85	ug/l	96
63) o-Xylene	7.57	106	40920	0.96	ug/l	92
64) Styrene	7.62	104	54720m	0.76	ug/l	
65) Bromoform	7.71	173	5735	0.67	ug/l #	85

Analyst Signature: 1gp Analyst Name: \_\_\_\_\_ Date: 09.02.04

REASONS FOR MANUAL INTEGRATIONS

✓ Poor resolution of peaks exhibited on chromatogram. Compound #: 25,40,46,48  
 Peak integrated by software incorrectly. Compound #: 51,52,53,55,64

OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 10:59 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:41 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
67) Isopropylbenzene	7.80	105	102673	0.98	ug/l	97
68) 1,1,2,2-Tetrachloroe	7.98	83	18039	0.94	ug/l #	90
69) 1,2,3-Trichloropropa	8.01	75	16692	0.88	ug/l	73
70) Bromobenzene	8.03	156	16664	0.82	ug/l	70
71) n-propylbenzene	8.05	91	128176	0.73	ug/l	94
72) 2-Chlorotoluene	8.11	91	130286	1.28	ug/l	85
73) 1,3,5-Trimethylbenze	8.15	105	83435	1.01	ug/l	97
74) 4-Chlorotoluene	8.19	91	111008	0.97	ug/l	81
75) tert-Butylbenzene	8.34	119	92211	0.99	ug/l	92
76) 1,2,4-Trimethylbenze	8.38	105	78383	0.94	ug/l	92
77) sec-Butylbenzene	8.46	105	116196	1.00	ug/l	99
78) p-Isopropyltoluene	8.54	119	103659	1.02	ug/l	97
79) 1,3-Dichlorobenzene	8.54	146	33165	0.88	ug/l	91
80) 1,4-Dichlorobenzene	8.58	146	46765	1.03	ug/l	94
81) n-Butylbenzene	8.78	91	104495	0.81	ug/l	99
82) 1,2-Dichlorobenzene	8.81	146	31424	0.87	ug/l	85
83) 1,2-Dibromo-3-Chloro	9.25	75	1641	0.64	ug/l #	34
84) 1,2,4-Trichlorobenze	9.63	180	19621	0.83	ug/l	96
85) Hexachlorobutadiene	9.67	225	16060	1.03	ug/l	96
86) Naphthalene	9.77	128	43181m	1.01	ug/l	
87) 1,2,3-Trichlorobenze	9.87	180	17849	0.96	ug/l	95

Analyst Signature: 16p Analyst Name: \_\_\_\_\_ Date: 09.02.04

REASONS FOR MANUAL INTEGRATIONS

✓ Poor resolution of peaks exhibited on chromatogram. Compound #: 86

Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

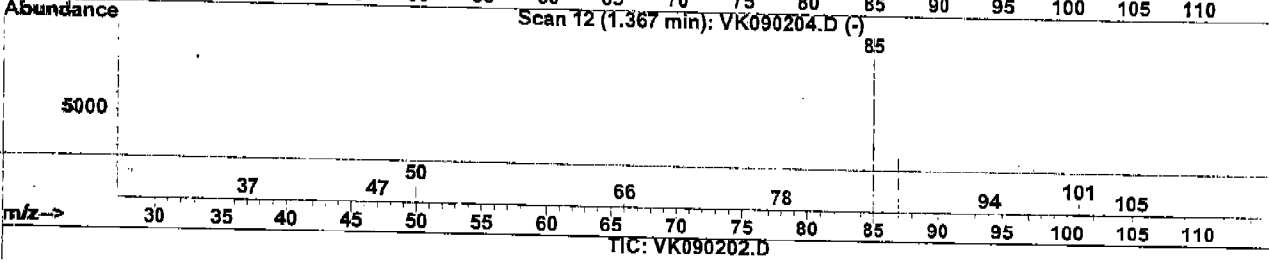
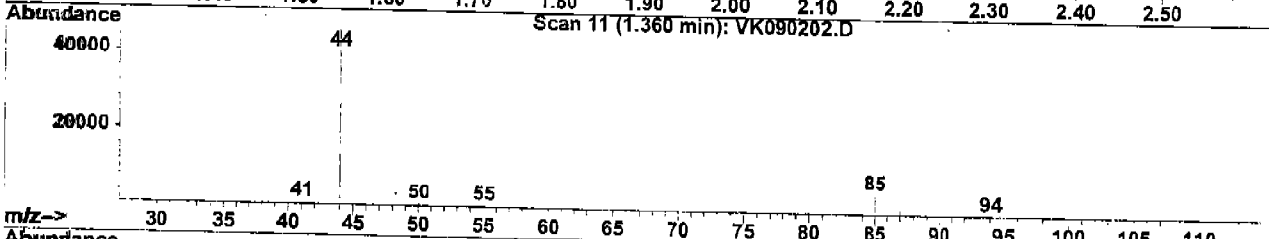
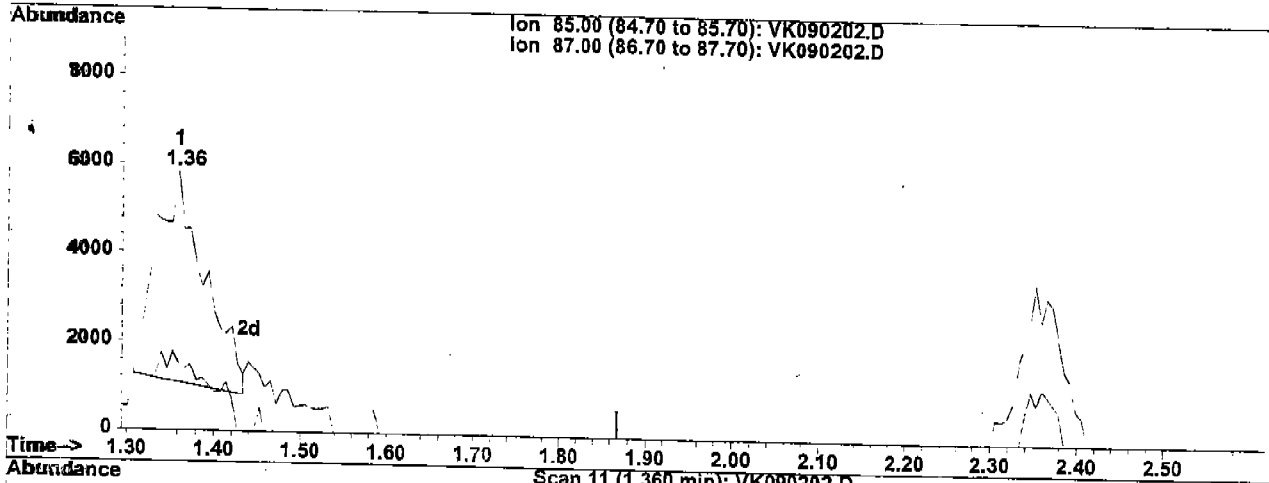
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:39 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(2) Dichlorodifluoromethane (T)

1.36min 0.65ug/l

response 18053

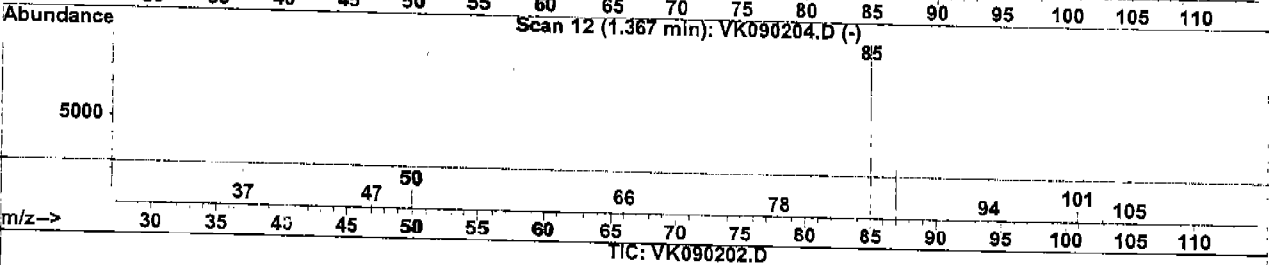
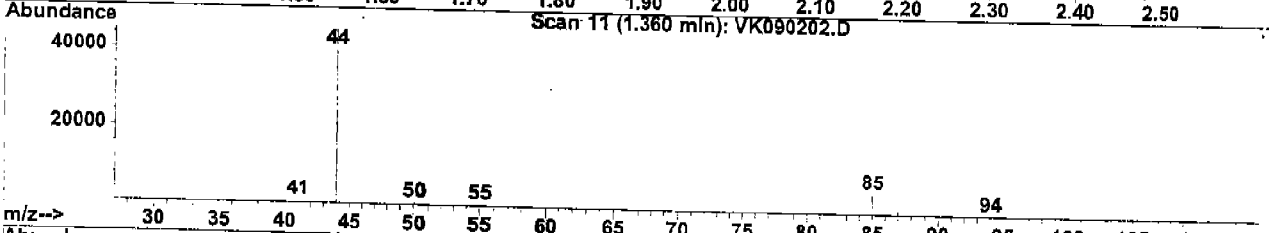
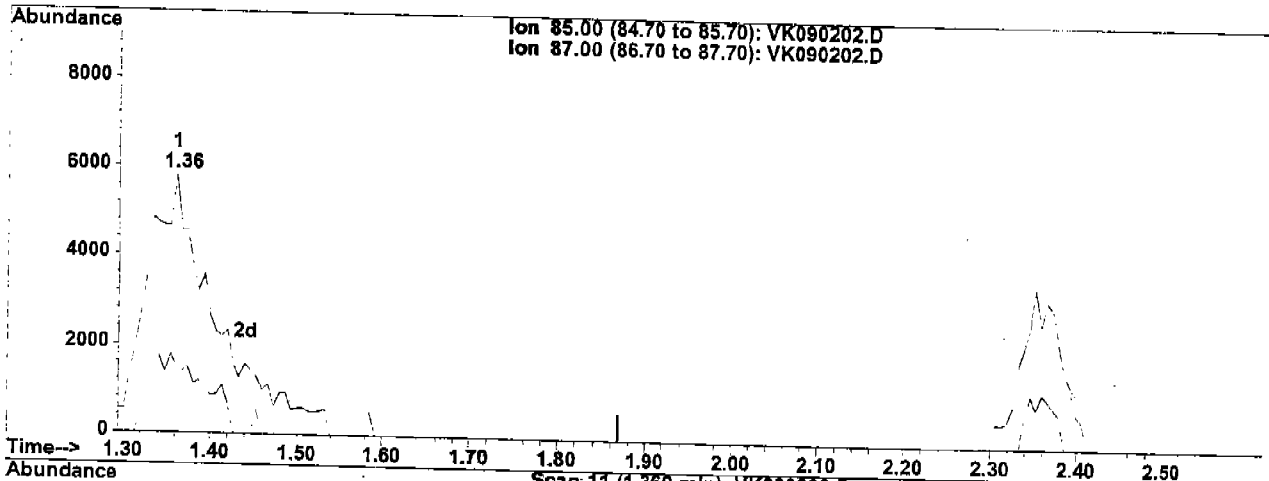
Ion	Exp%	Act%
85.00	100	100
87.00	31.80	33.14
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:39 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(2) Dichlorodifluoromethane (T)

1.36min 1.14ug/l m

response 31622

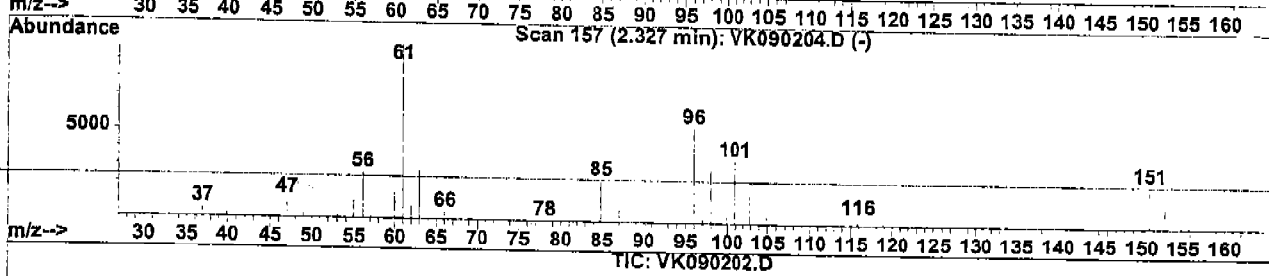
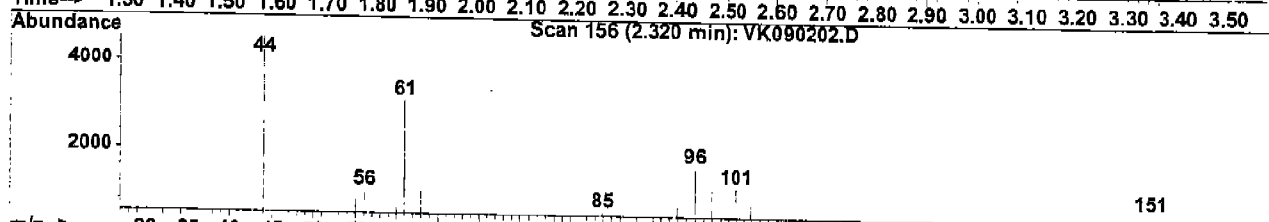
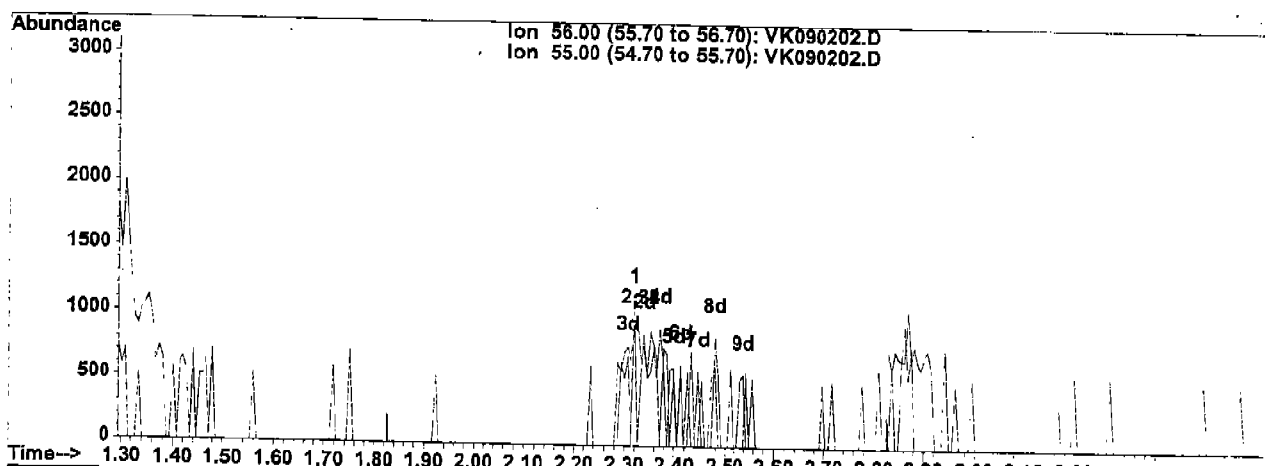
Ion	Exp%	Act%
85.00	100	100
87.00	31.80	26.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:39 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(14) Acrolein (T)

2.32min 0.52ug/l

response 422

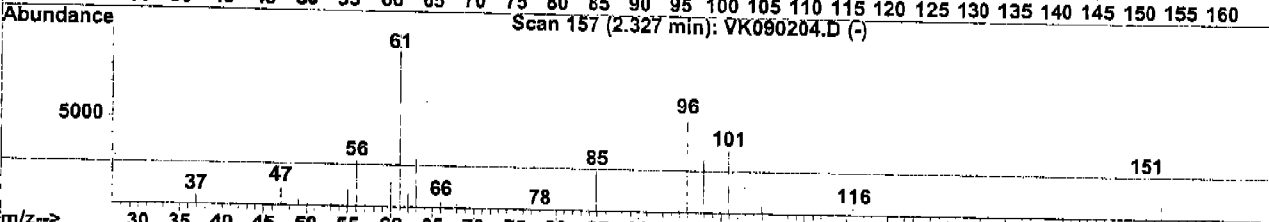
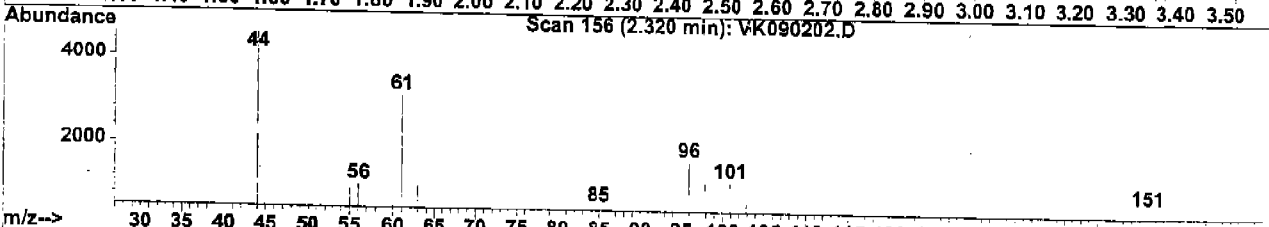
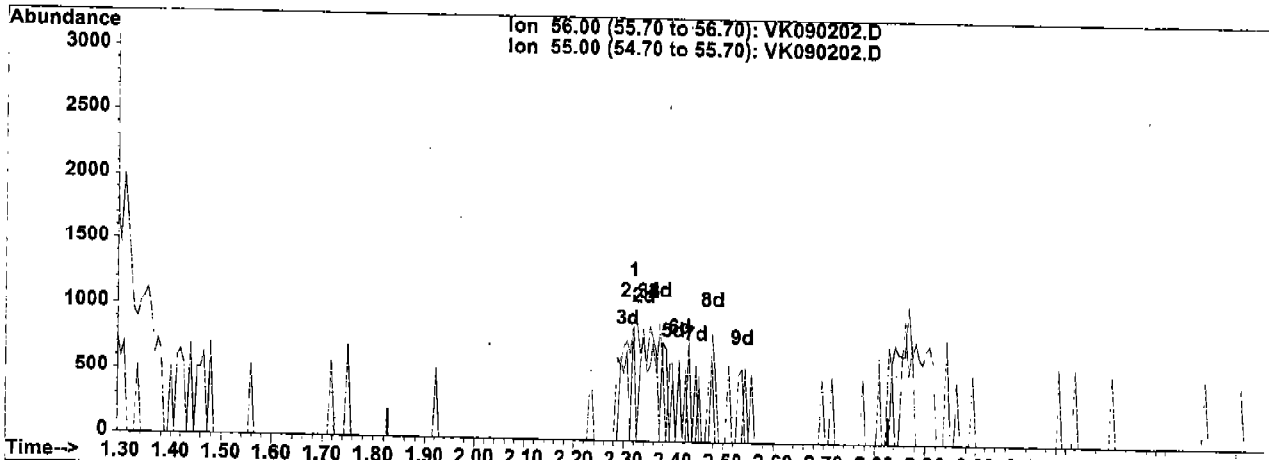
Ion	Exp%	Act%
56.00	100	100
55.00	686.40	688.39
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:40 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



TIC: VK090202.D

(14) Acrolein (T)  
 2.32min 4.09ug/l m  
 response 3290

Ion	Exp%	Act%
56.00	100	100
55.00	686.40	38.30#
0.00	0.00	0.00
0.00	0.00	0.00

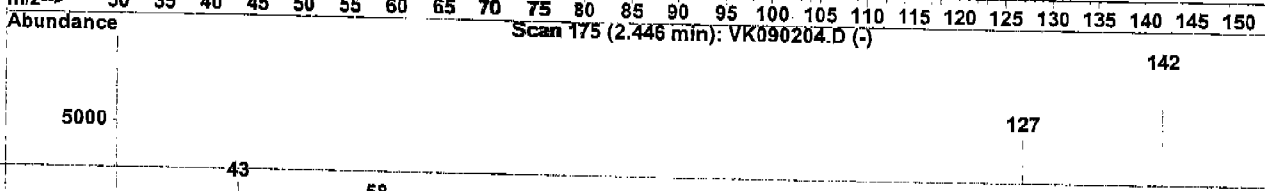
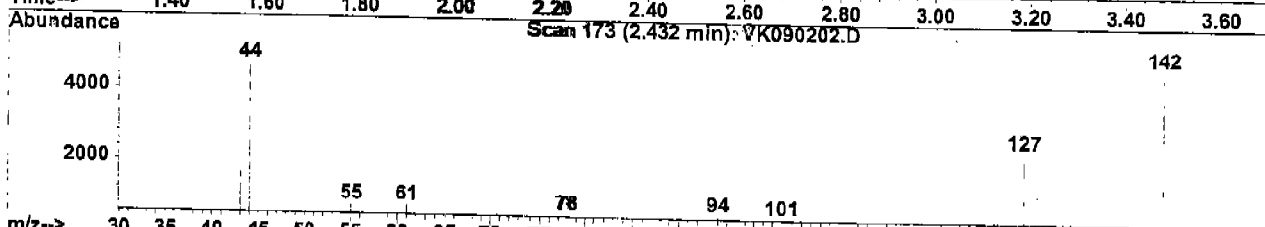
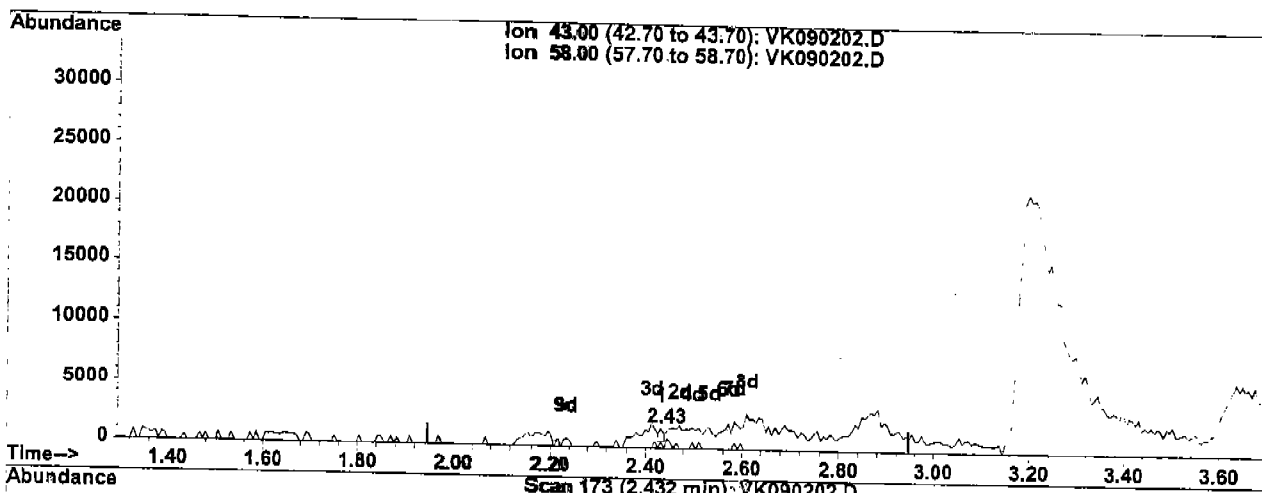


Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:40 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



TIC: VK090202.D

(16) Acetone (T)

2.43min 0.49ug/l

response 670

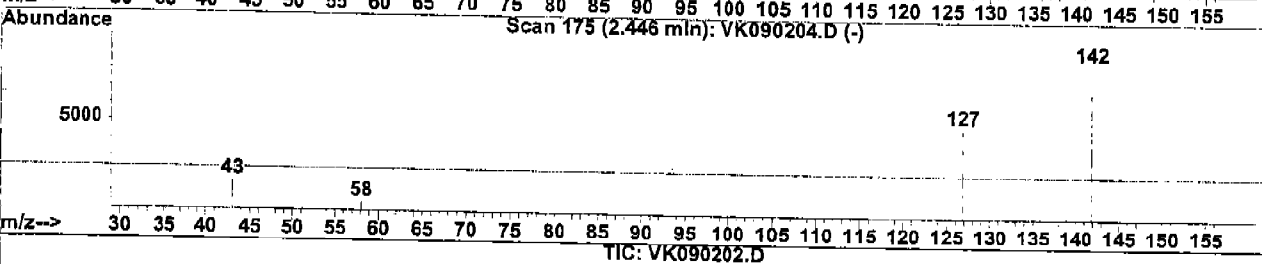
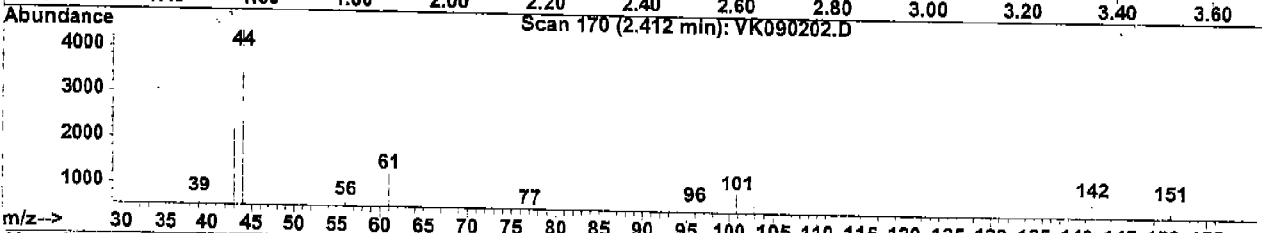
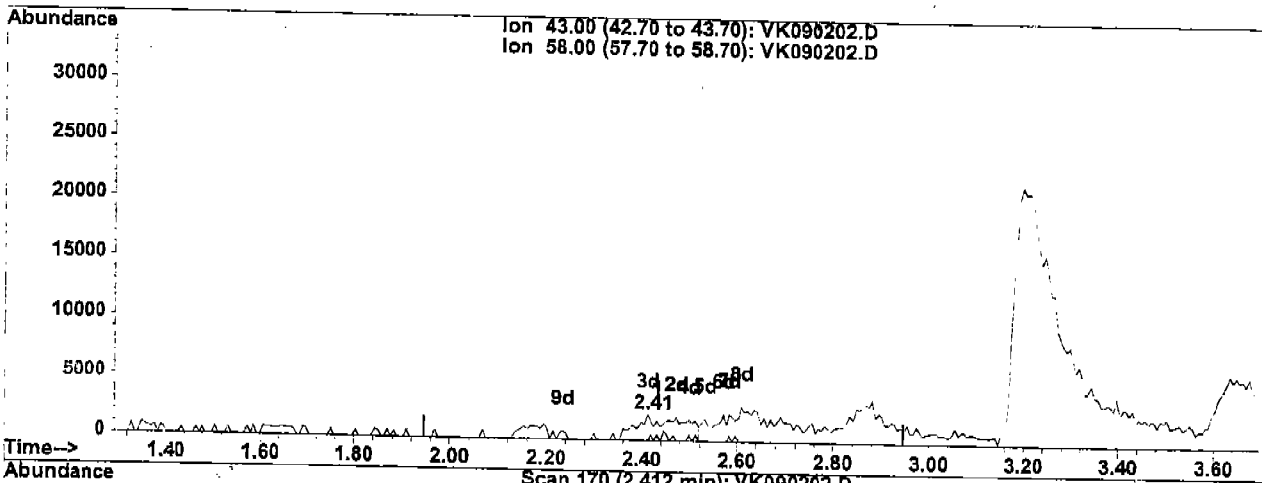
Ion	Exp%	Act%
43.00	100	100
58.00	30.30	118.20#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:40 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(16) Acetone (T)

2.41min 10.55ug/l m

response 14388

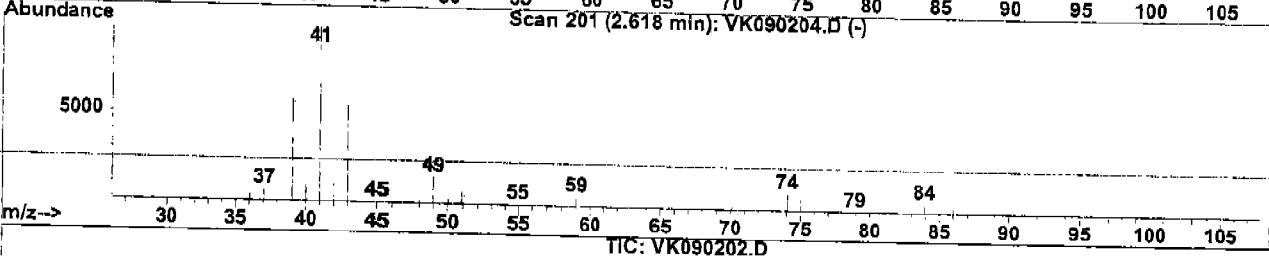
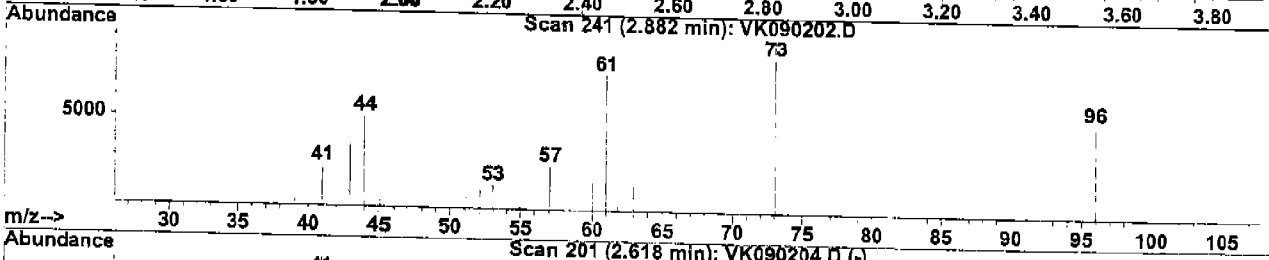
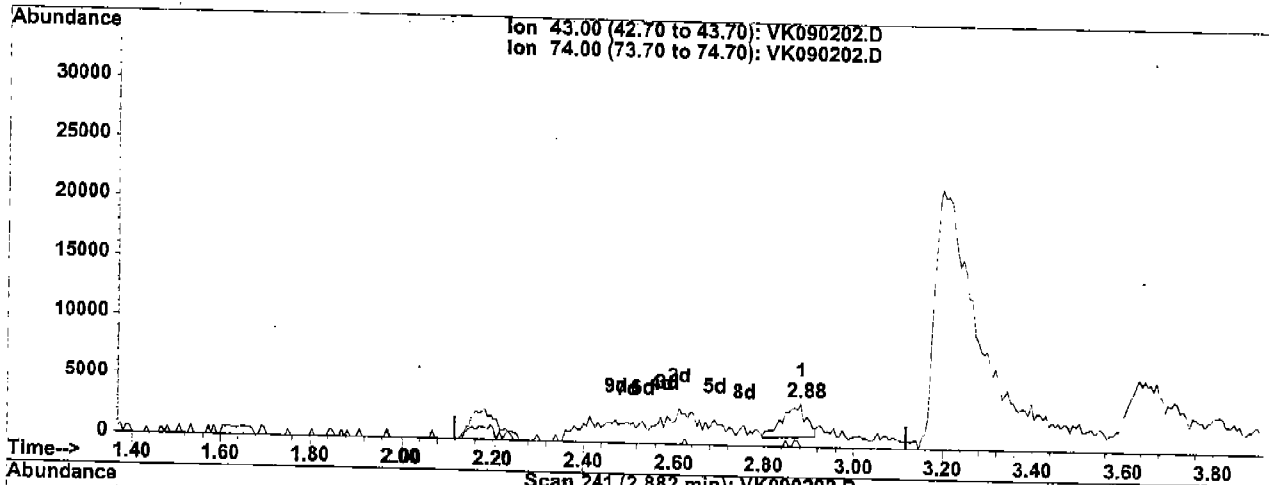
Ion	Exp%	Act%
43.00	100	100
58.00	30.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:40 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(19) Methyl Acetate

2.88min 0.99ug/l

response 10291

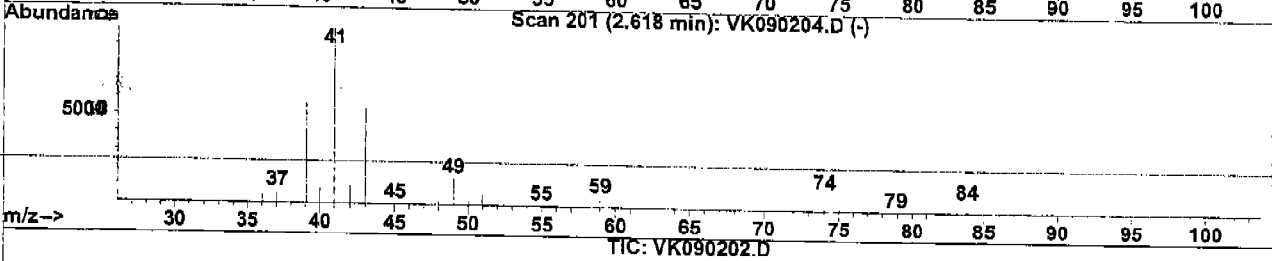
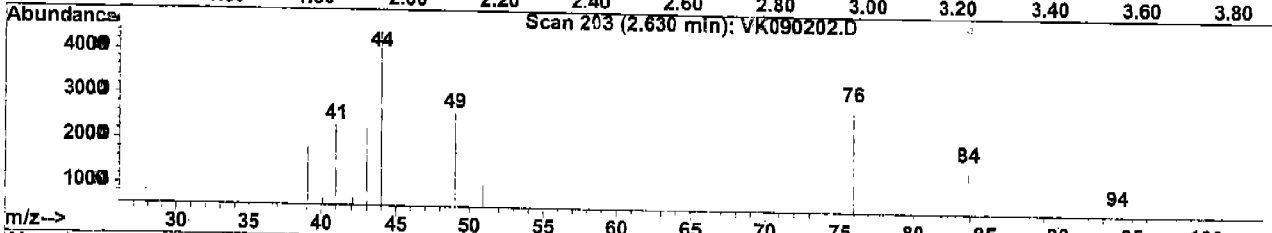
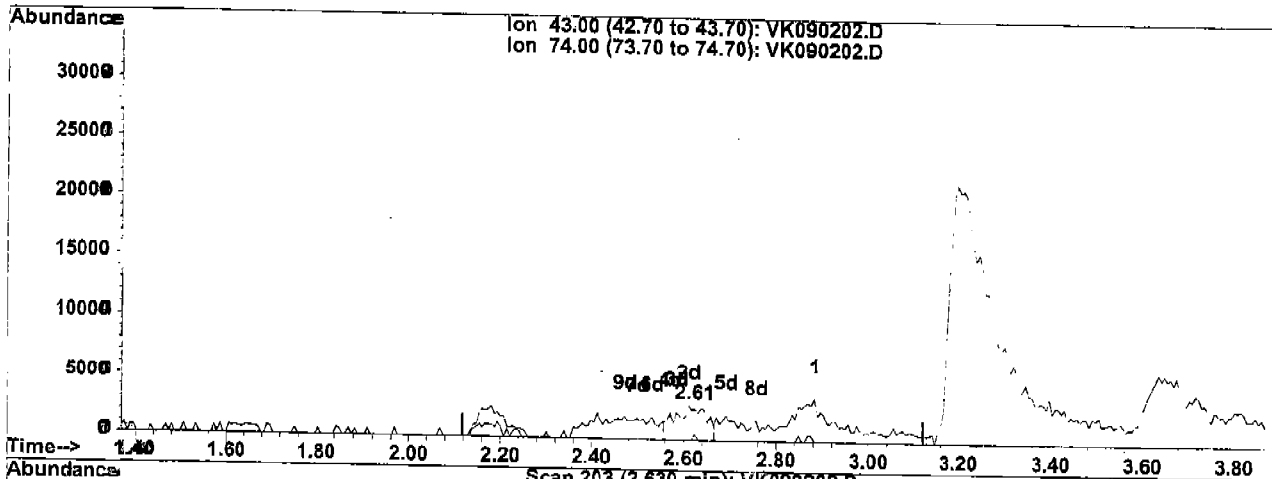
Ion	Exp%	Act%
43.00	100	100
74.00	21.20	4.09
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:41 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(19) Methyl Acetate

2.61min 1.29ug/l m

response 13393

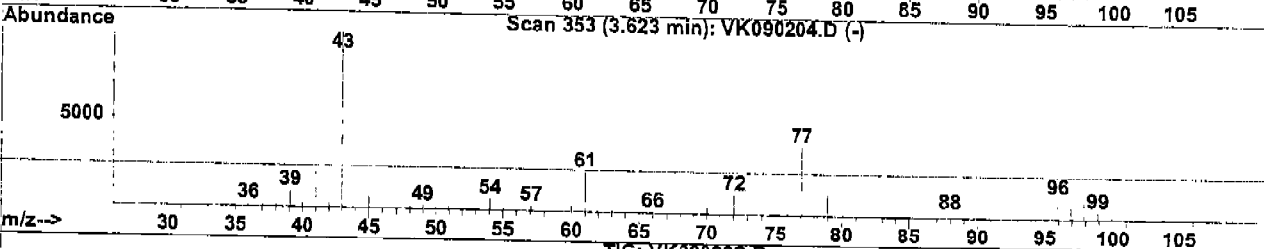
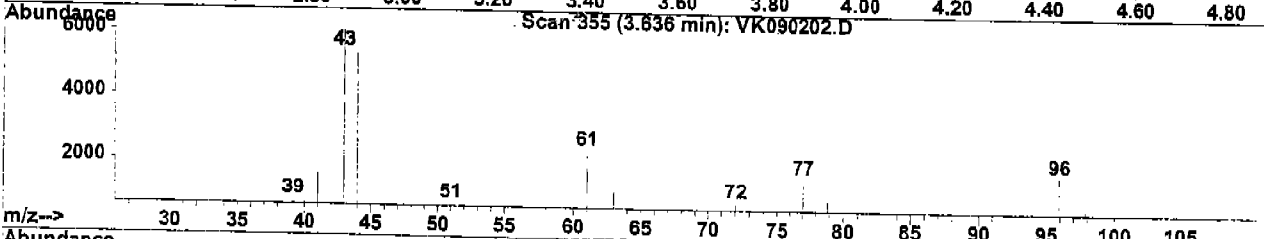
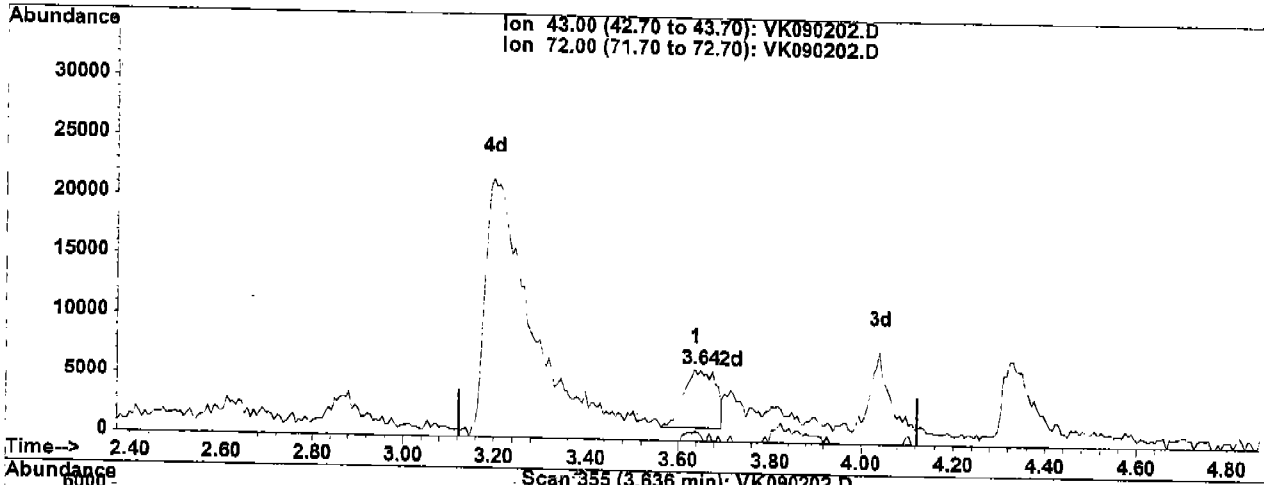
Ion	Exp%	Act%
43.00	100	100
74.00	21.20	3.14
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:41 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(25) 2-Butanone (T)

3.64min 3.56ug/l

response 23923

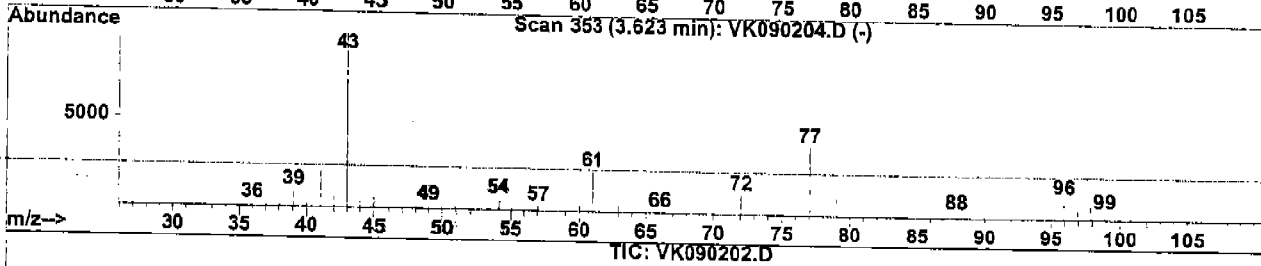
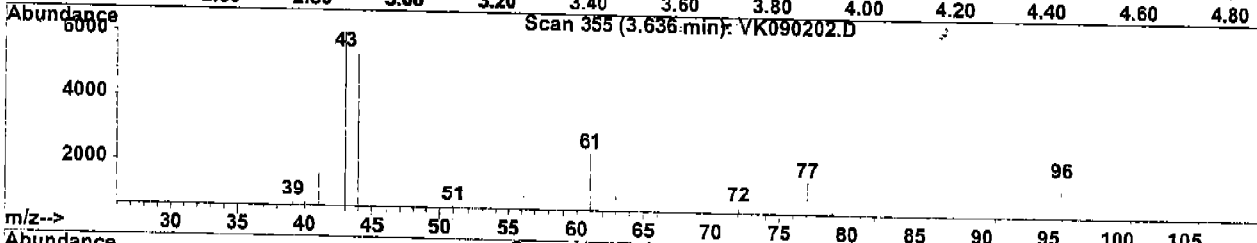
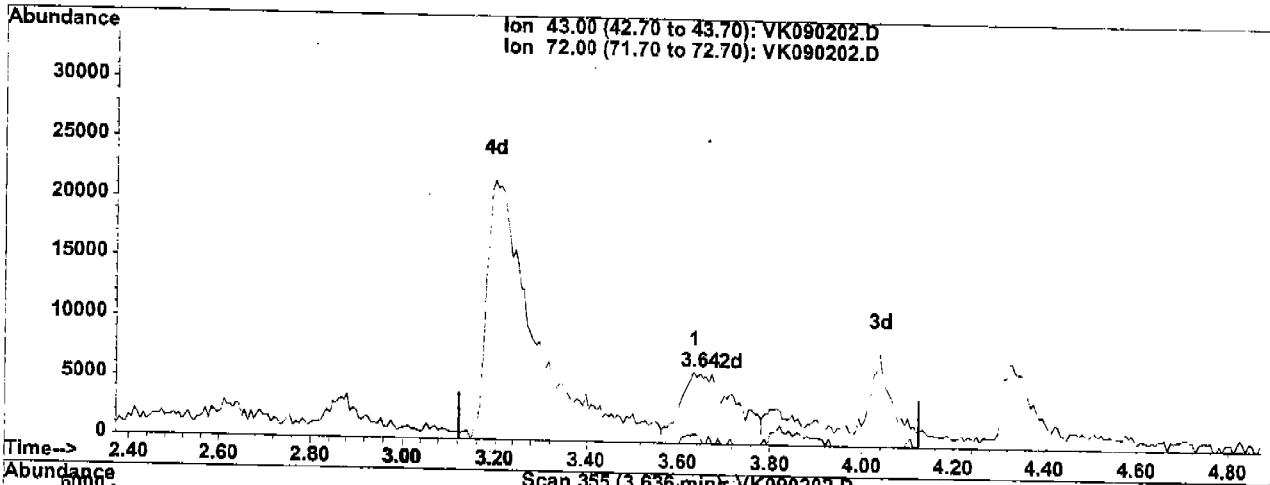
Ion	Exp%	Act%
43.00	100	100
72.00	11.10	17.11#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:41 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(25) 2-Butanone (T)

3.64min 7.32ug/l m

response 49196

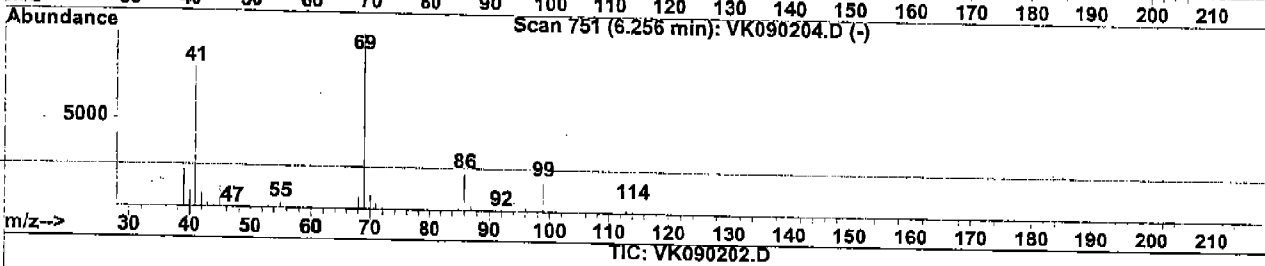
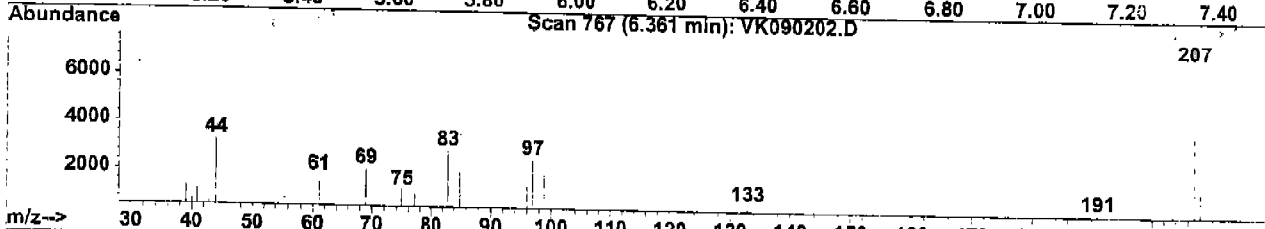
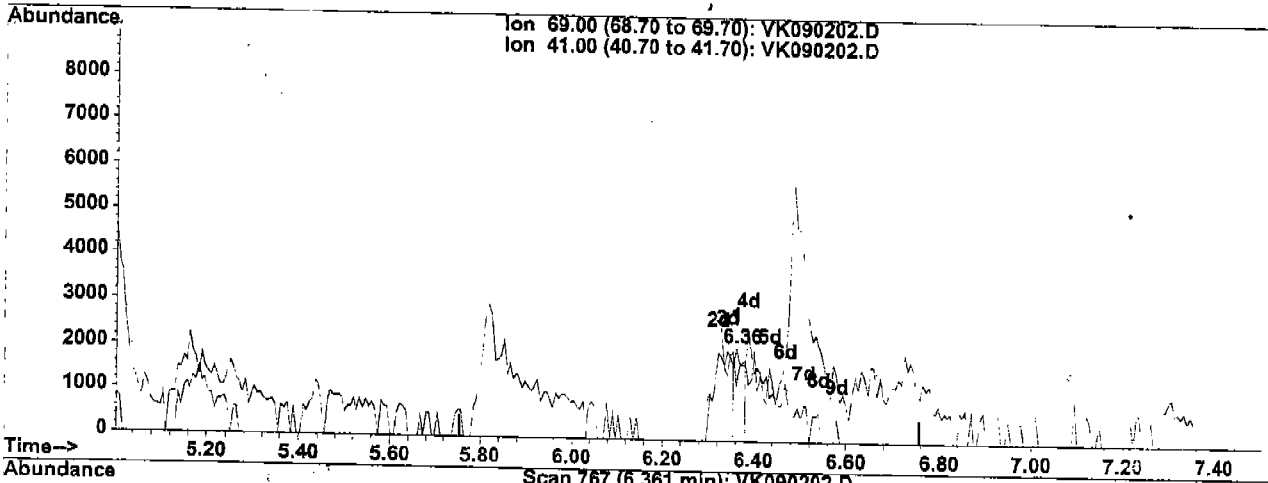
Ion	Exp%	Act%
43.00	100	100
72.00	11.10	13.89#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:41 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(40) Methyl Methacrylate

6.36min 0.16ug/l

response 2881

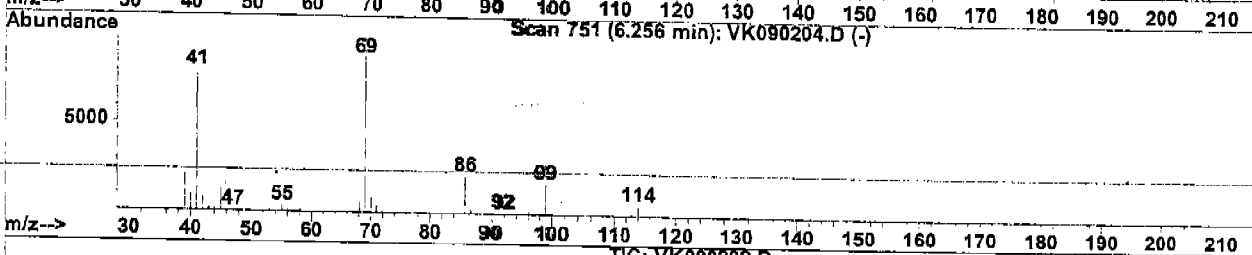
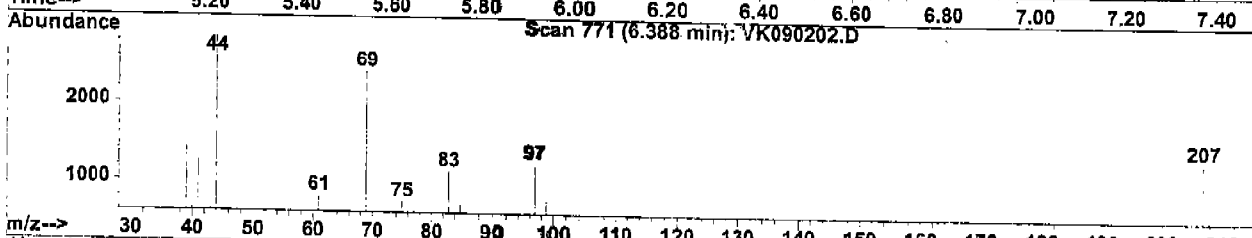
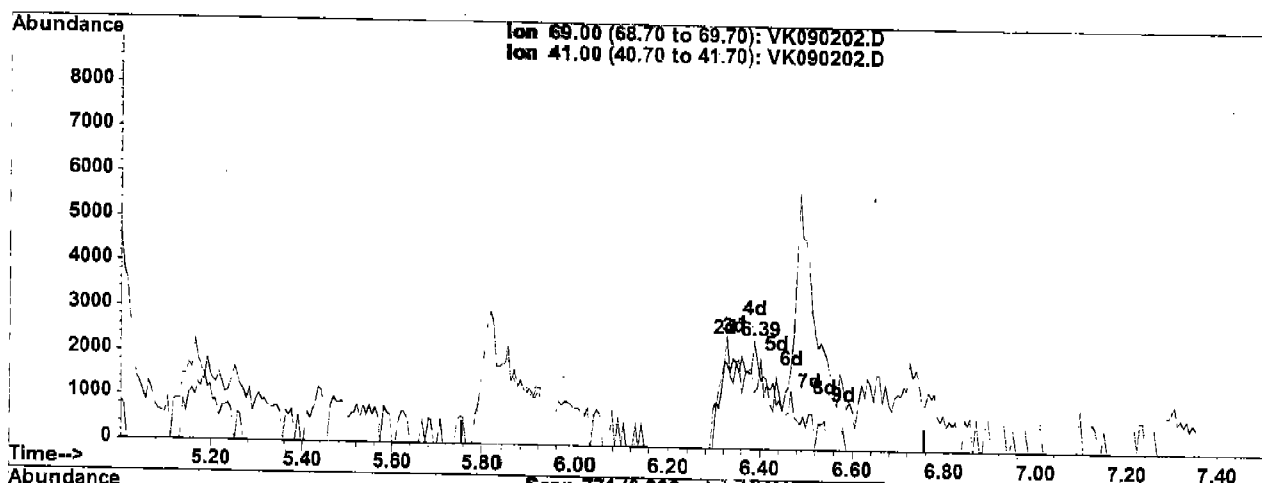
Ion	Exp%	Act%
69.00	100	100
41.00	65.60	61.19
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:42 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(40) Methyl Methacrylate

6.39min 0.96ug/l m

response 17696

Ion	Exp%	Act%
69.00	100	100
41.00	65.60	9.96#
0.00	0.00	0.00
0.00	0.00	0.00

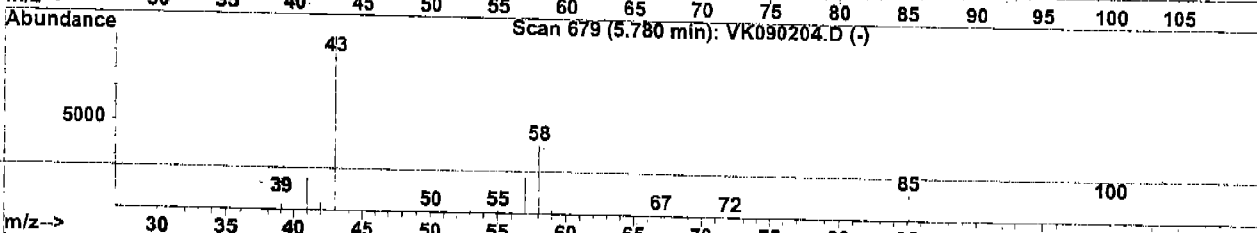
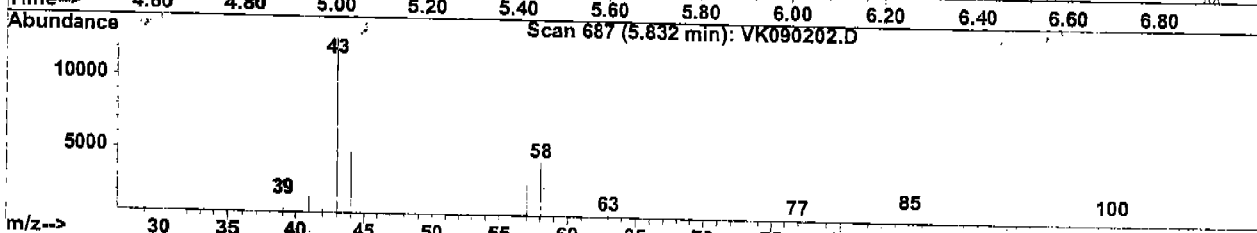
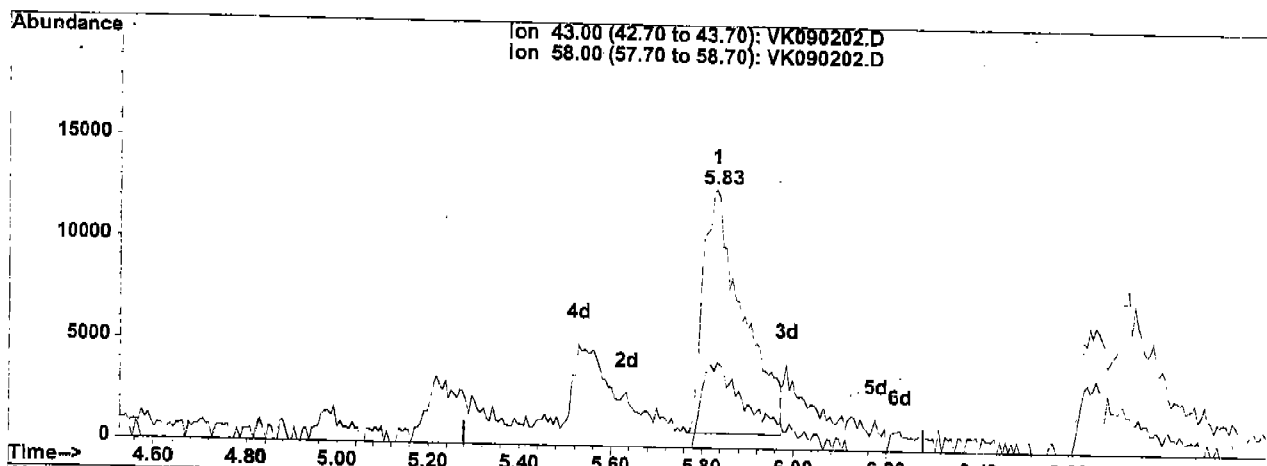


Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:42 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(46) 4-Methyl-2-Pentanone (T)

5.83min 5.46ug/l

response 72276

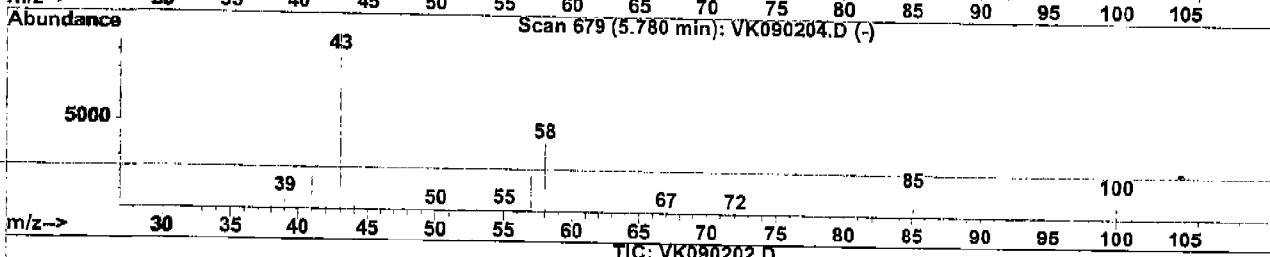
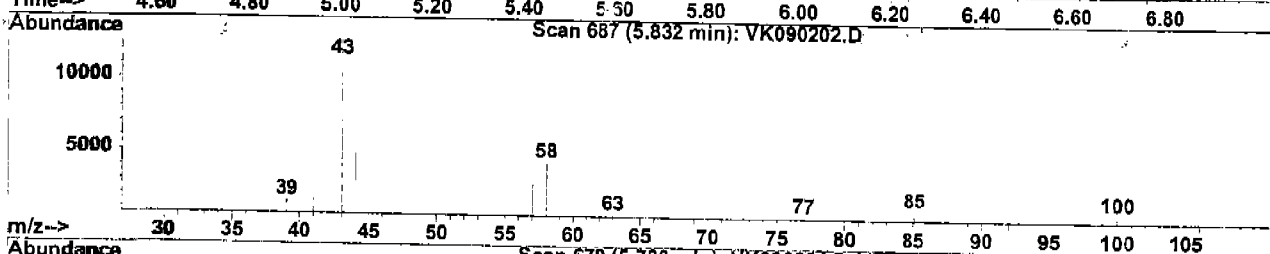
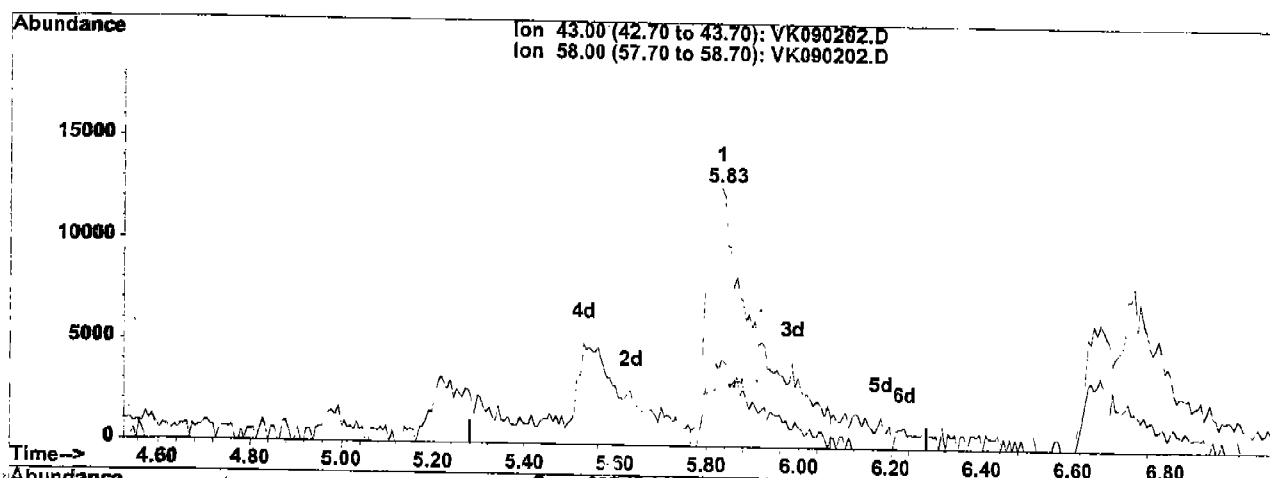
Ion	Exp%	Act%
43.00	100	100
58.00	35.60	23.54
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:42 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(46) 4-Methyl-2-Pentanone (T)

5.83min 7.27ug/l m

response 96276

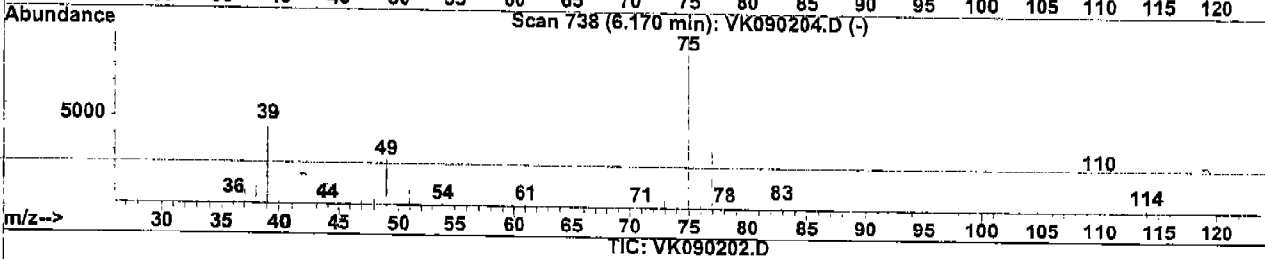
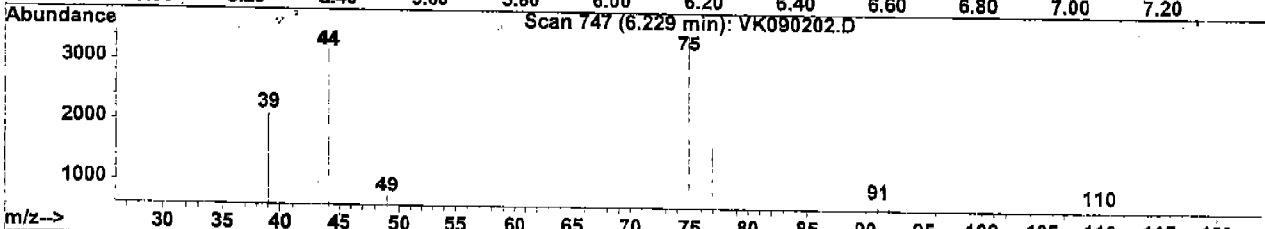
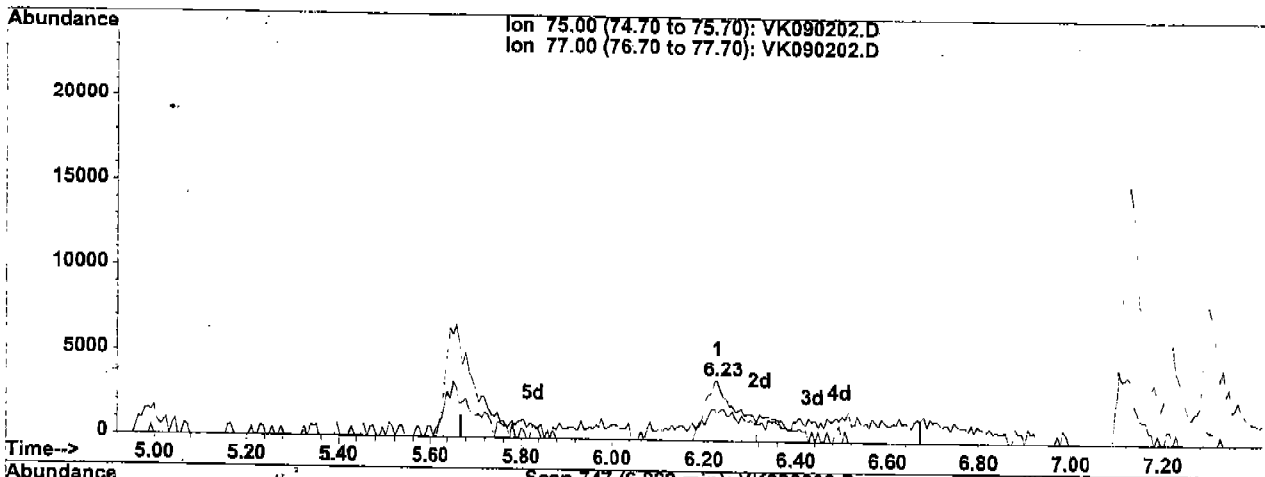
Ion	Exp%	Act%
43.00	100	100
58.00	35.60	17.67#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:42 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(48) t-1,3-Dichloropropene (T)

6.23min 0.76ug/l

response 16615

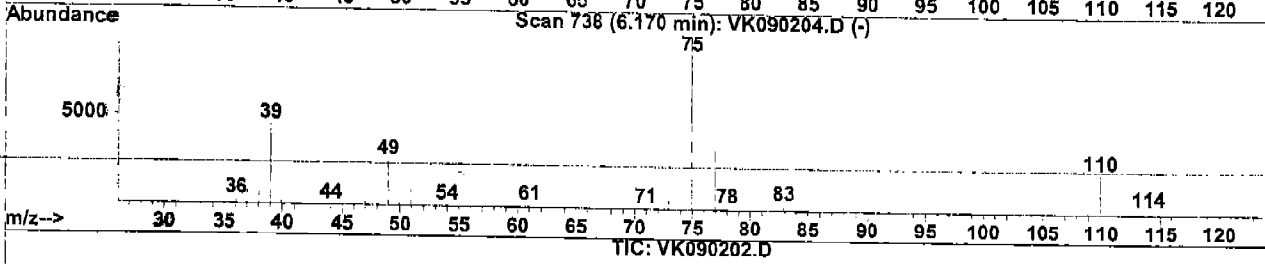
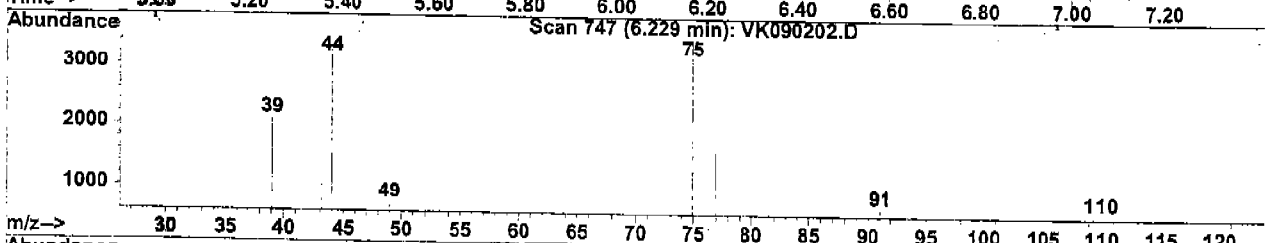
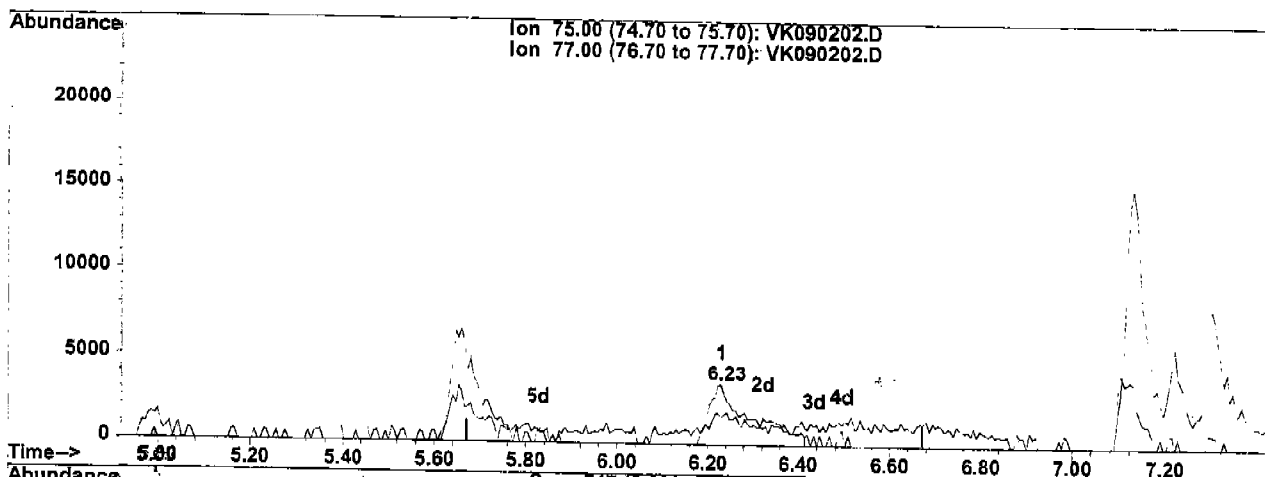
Ion	Exp%	Act%
75.00	100	100
77.00	34.30	23.24#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:42 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(48) t-1,3-Dichloropropene (T)

6.23min 1.04ug/l m

response 22762

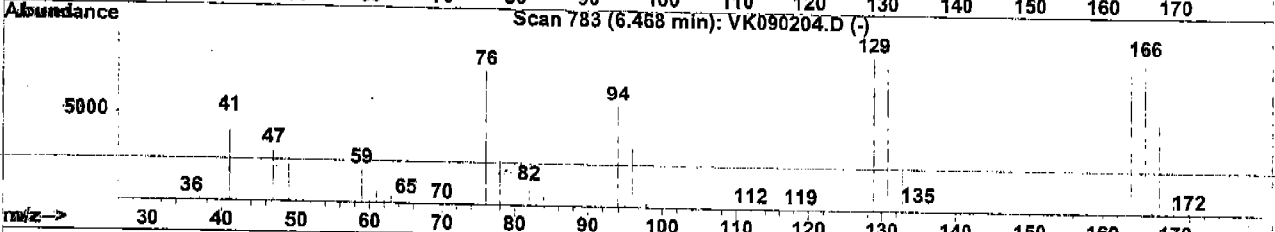
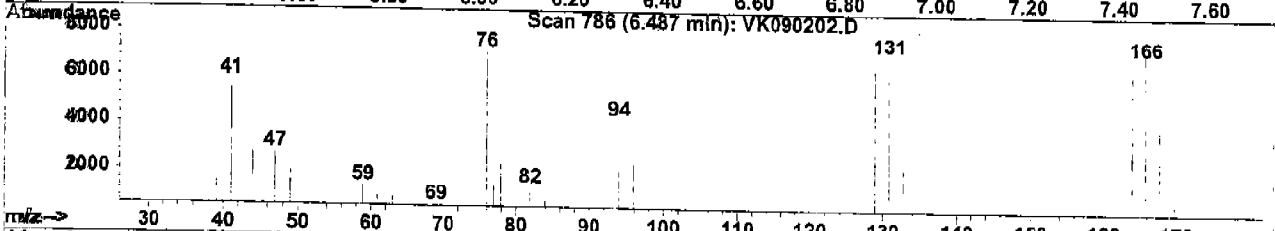
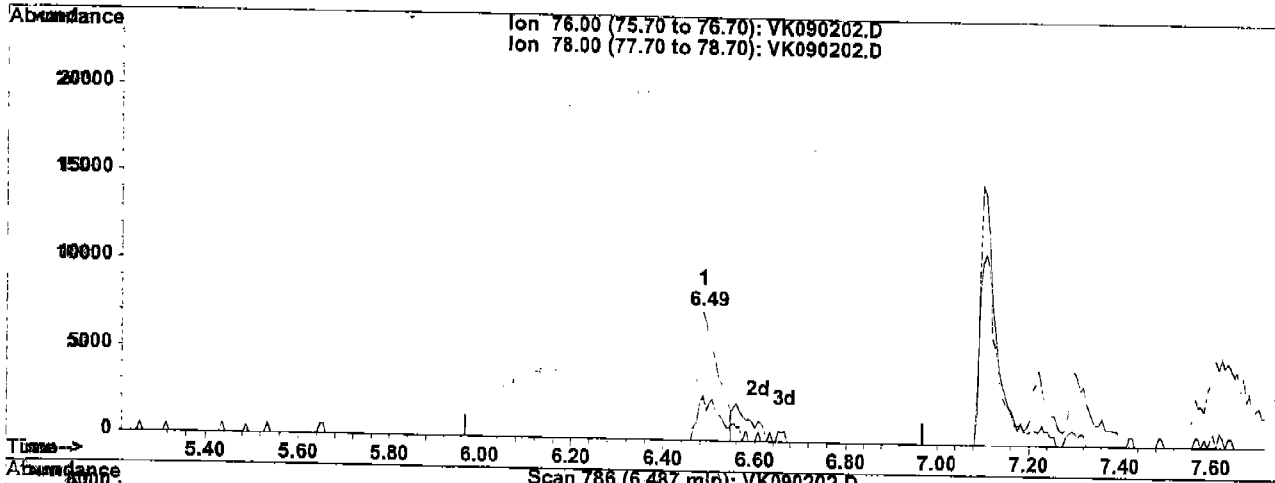
Ion	Exp%	Act%
75.00	100	100
77.00	34.30	46.40#
8.00	0.00	0.00
8.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:42 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(51) 1,3-Dichloropropane (T)

6.49min 0.83ug/l

response 21325

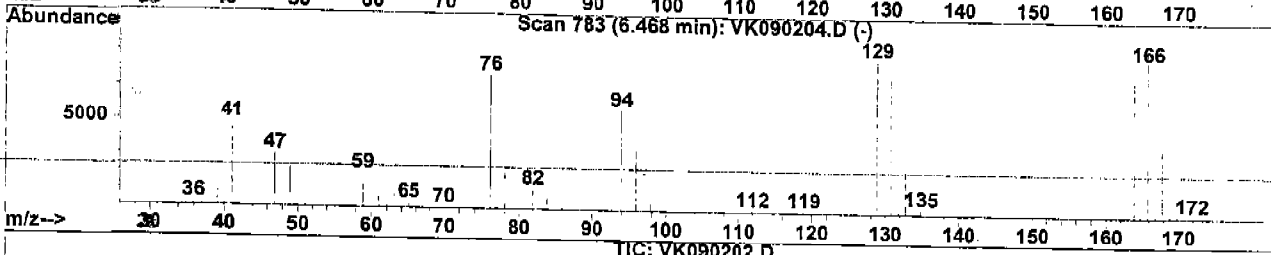
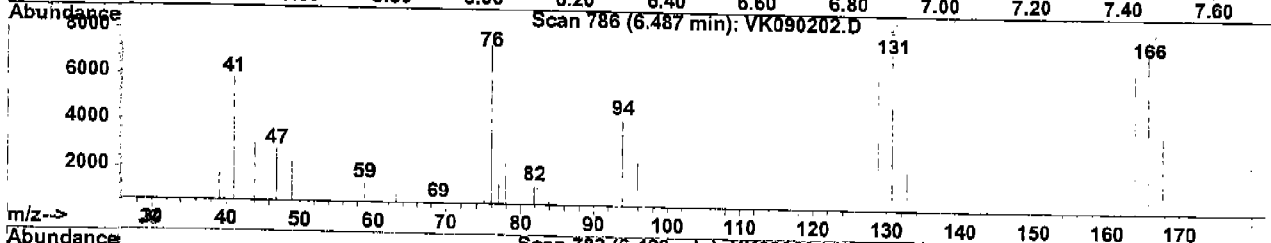
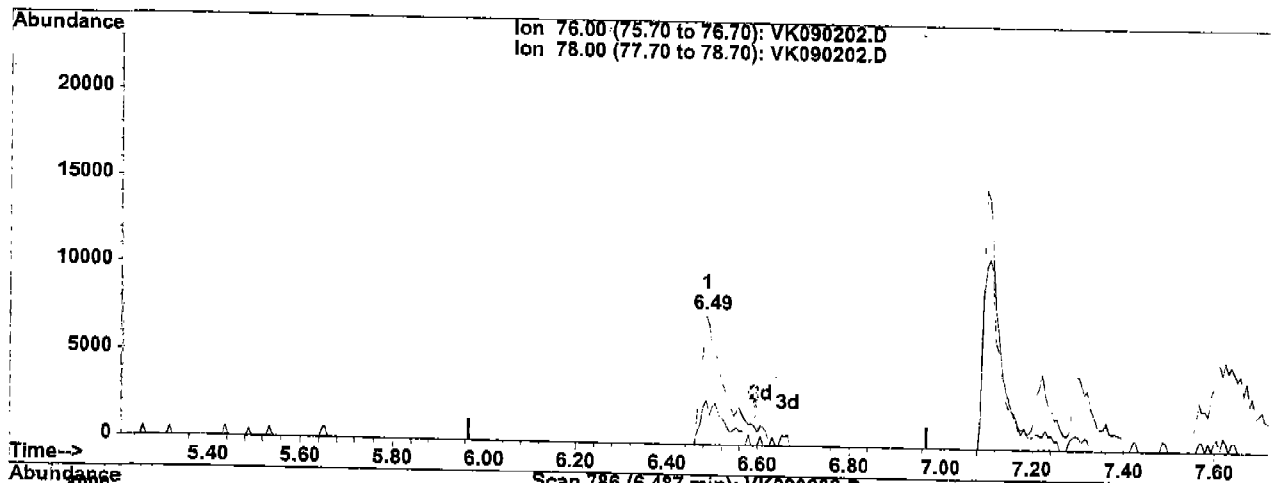
Ion	Exp%	Act%
76.00	100	100
78.00	33.40	15.66#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:43 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(51) 1,3-Dichloropropane (T)

6.49min 1.05ug/l m

response 27114

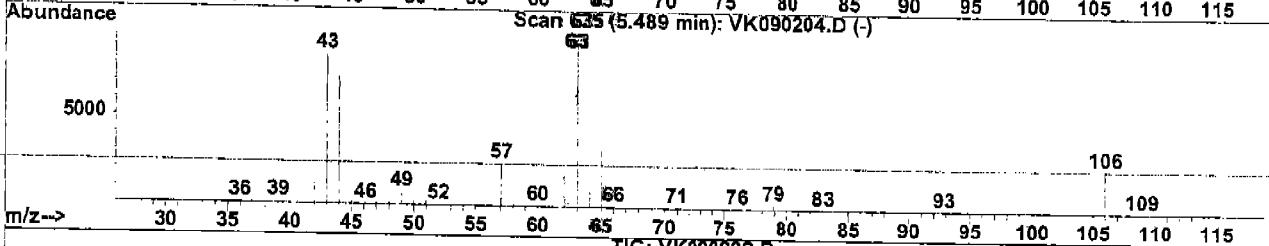
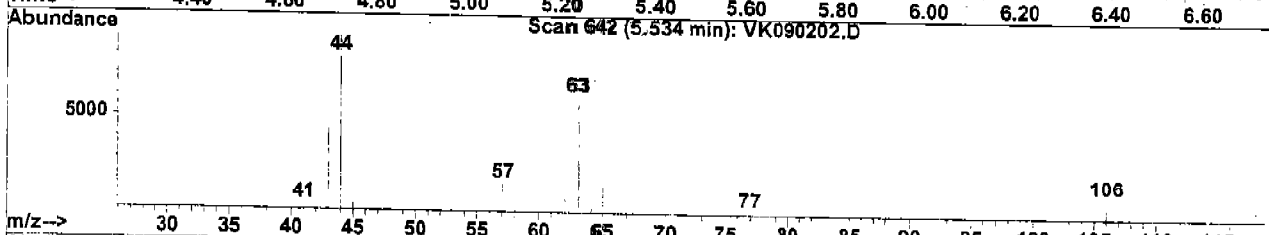
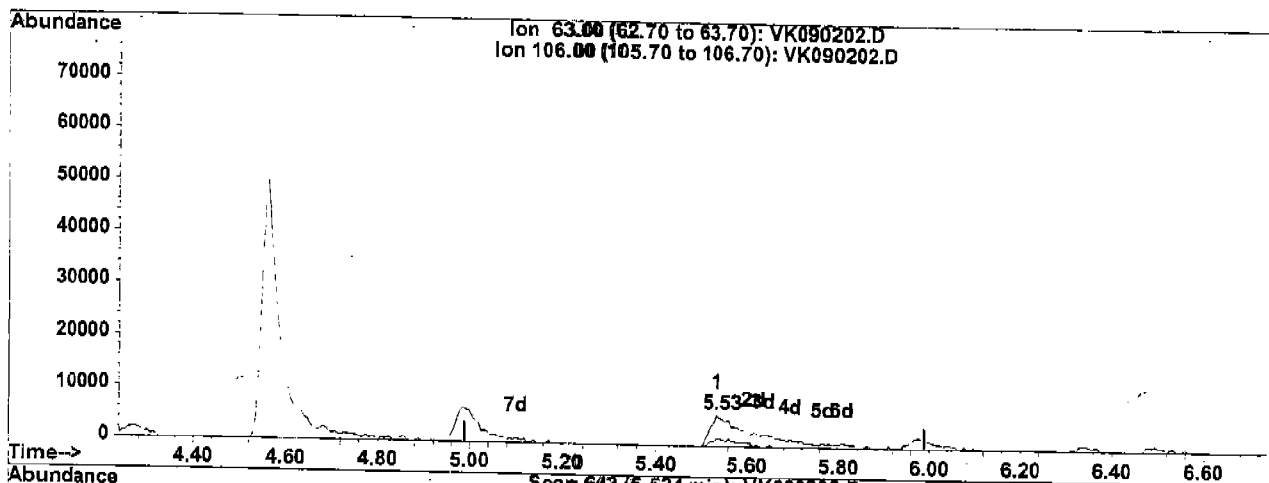
Ion	Exp%	Act%
76.00	100	100
78.00	33.40	12.31#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:43 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(52) 2-Chloroethyl vinyl ether (T)

5.53min 2.76ug/l

response 24084

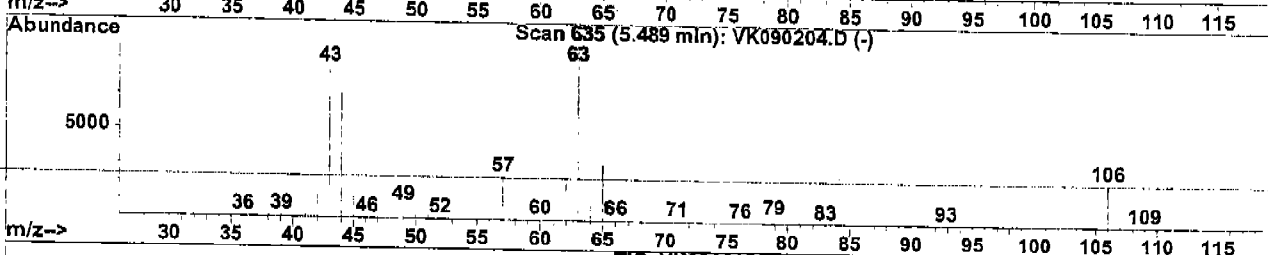
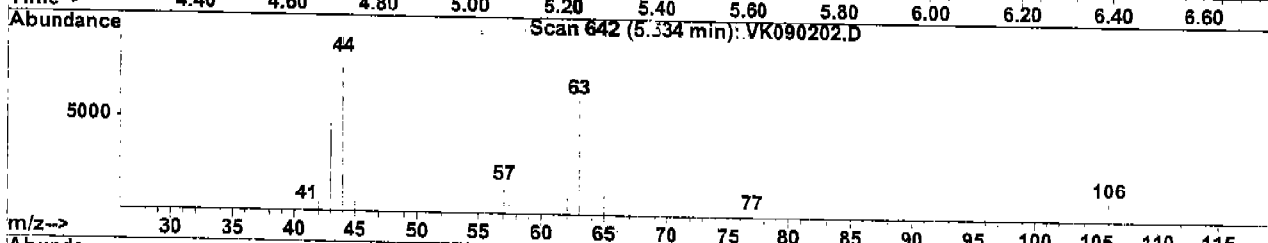
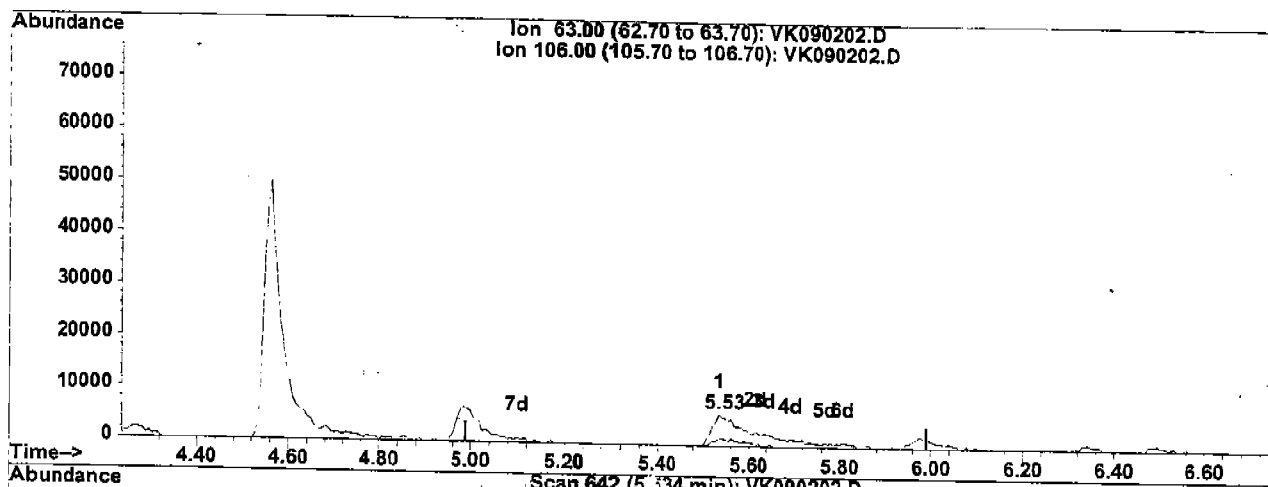
Ion	Exp%	Act%
63.00	100	100
106.00	23.20	12.39#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:43 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(52) 2-Chloroethyl vinyl ether (T)

5.53min 4.68ug/l m

response 40886

Ion	Exp%	Act%
63.00	100	100
106.00	23.20	7.30#
0.00	0.00	0.00
0.00	0.00	0.00

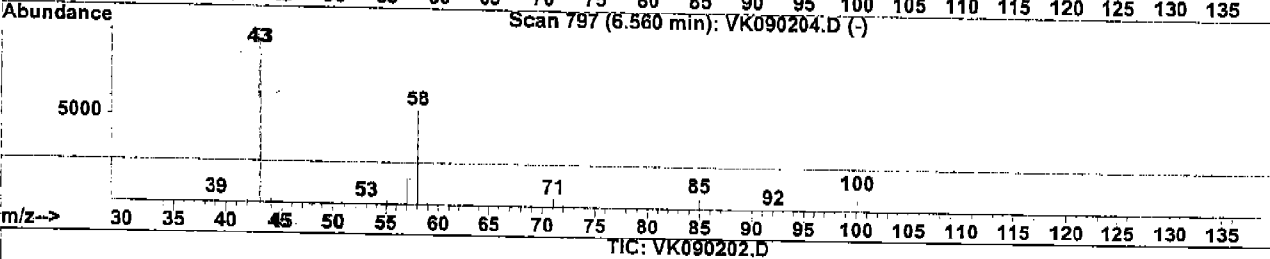
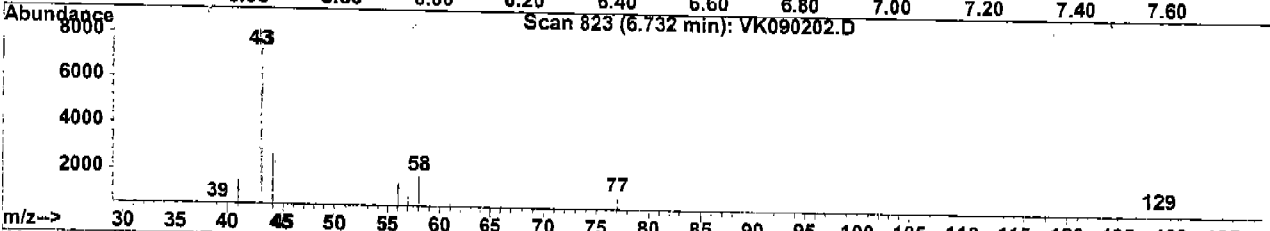
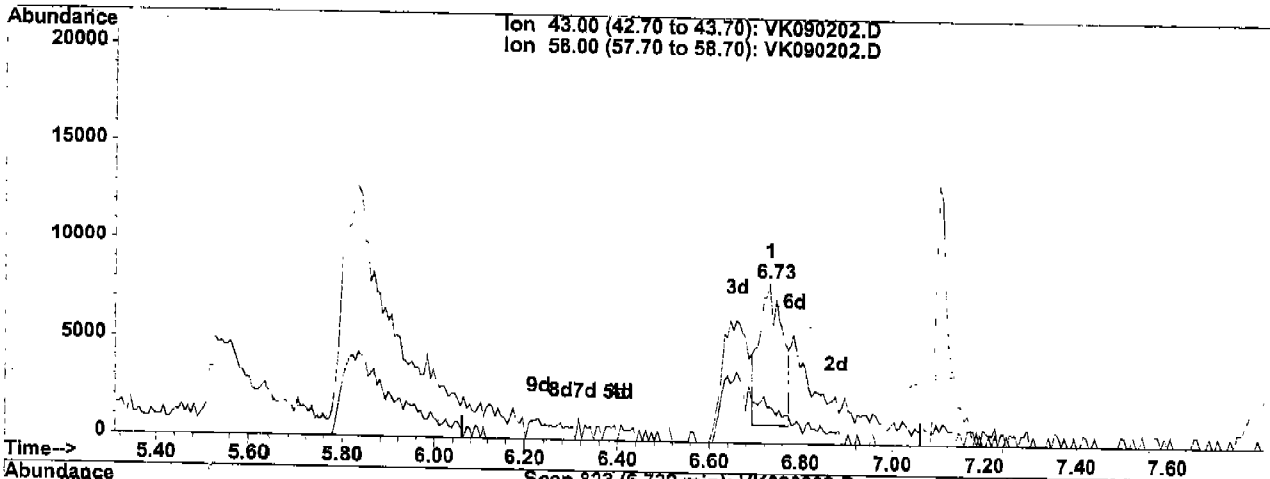


Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:43 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(53) 2-Hexanone (T)

6.73min 3.55ug/l

response 24935

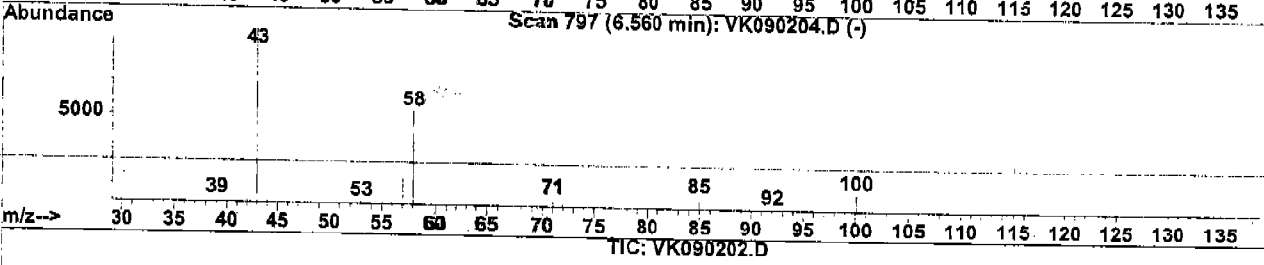
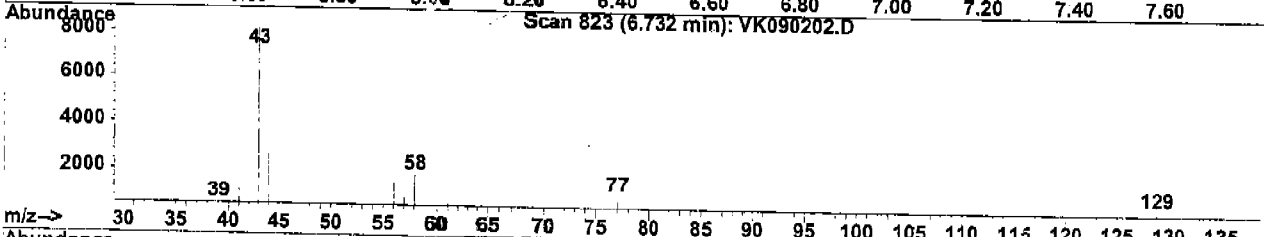
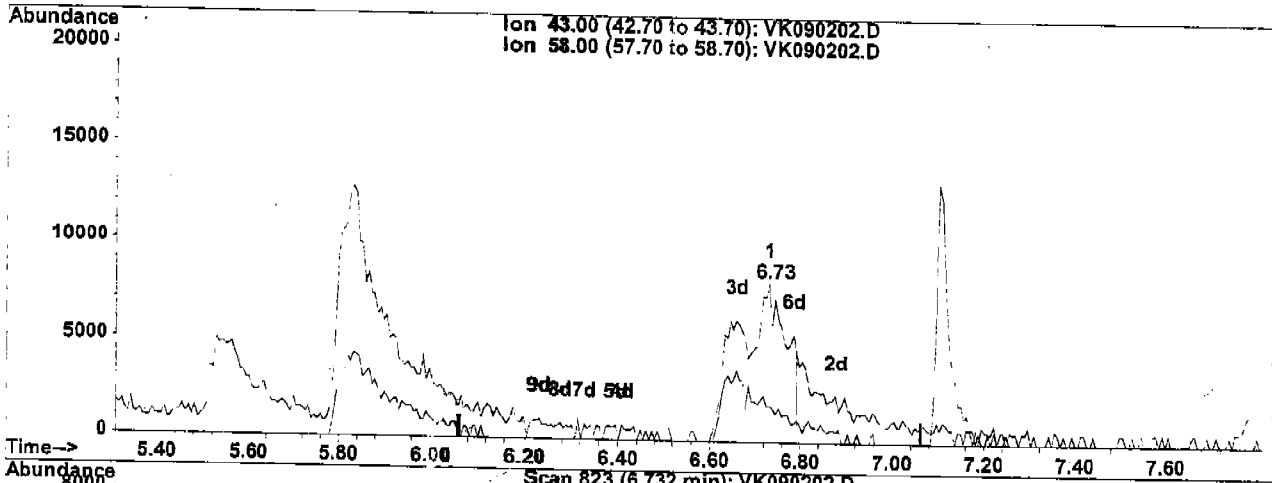
Ion	Exp%	Act%
43.00	100	100
58.00	60.10	34.44
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:43 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



TIC: VK090202.D

(53) 2-Hexanone (T)  
 6.73min 8.57ug/l m  
 response 60150

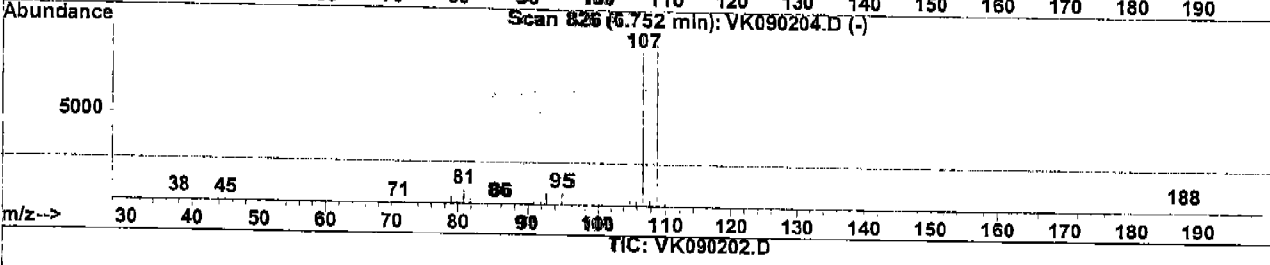
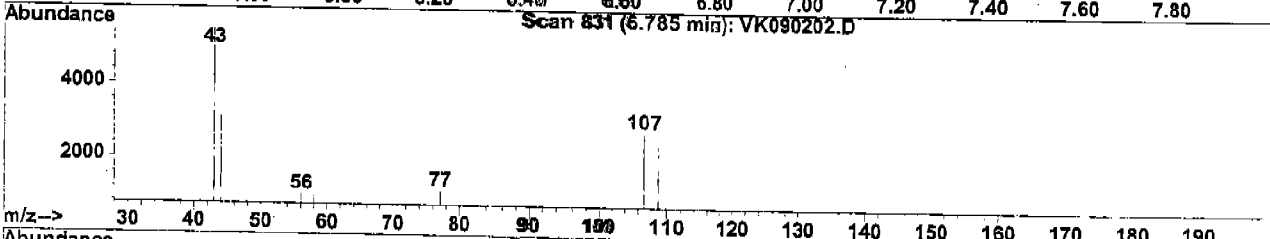
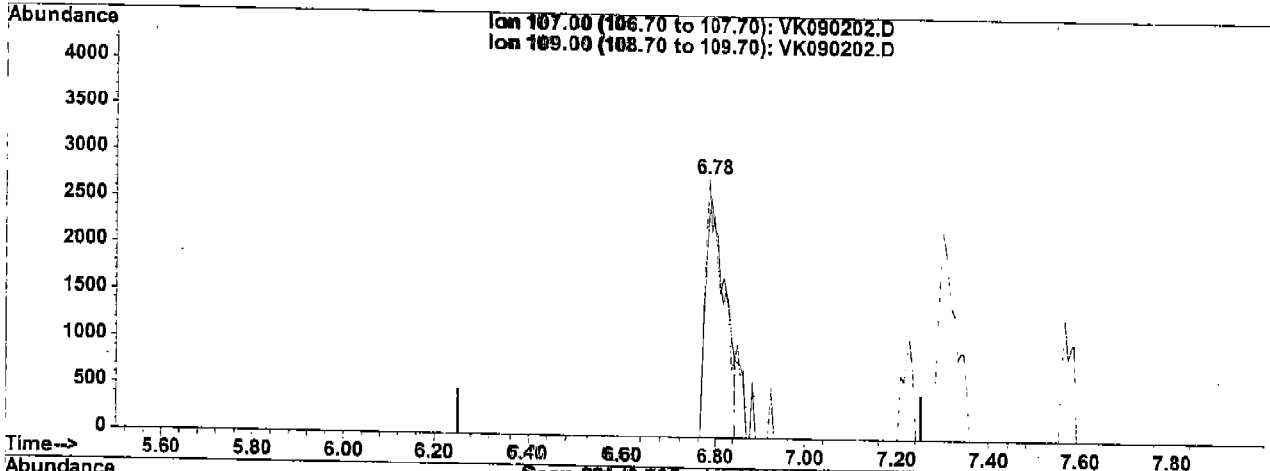
Ion	Exp%	Act%
43.00	100	100
58.00	60.10	14.28#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
Acq On : 2 Sep 2004 1:40 am  
Sample : 1 PPB ICC  
Misc : 25mL  
Quant Time: Sep 2 10:43 2004

Vial: 12  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00  
Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:34:44 2004  
Response via : Single Level Calibration



(55) 1,2-Dibromoethane (T)

6.78min 0.80ug/l

response 8062

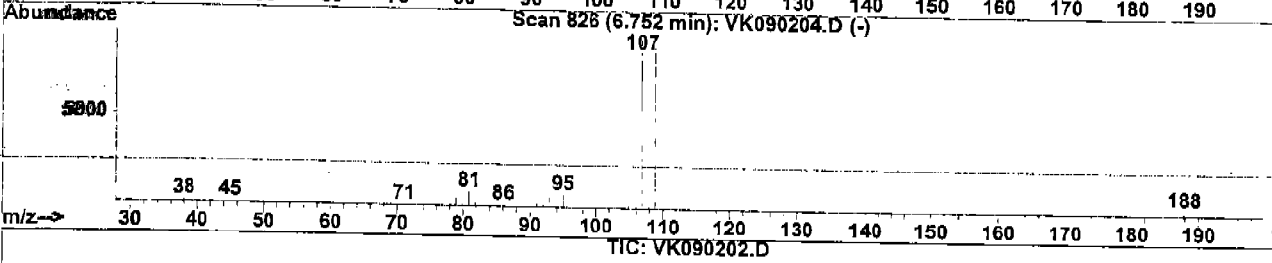
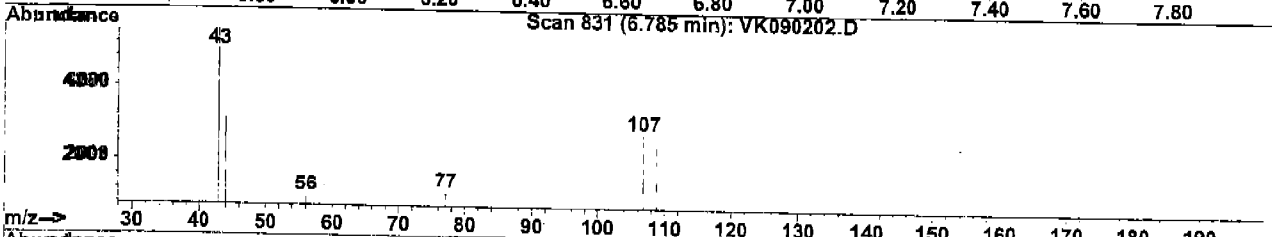
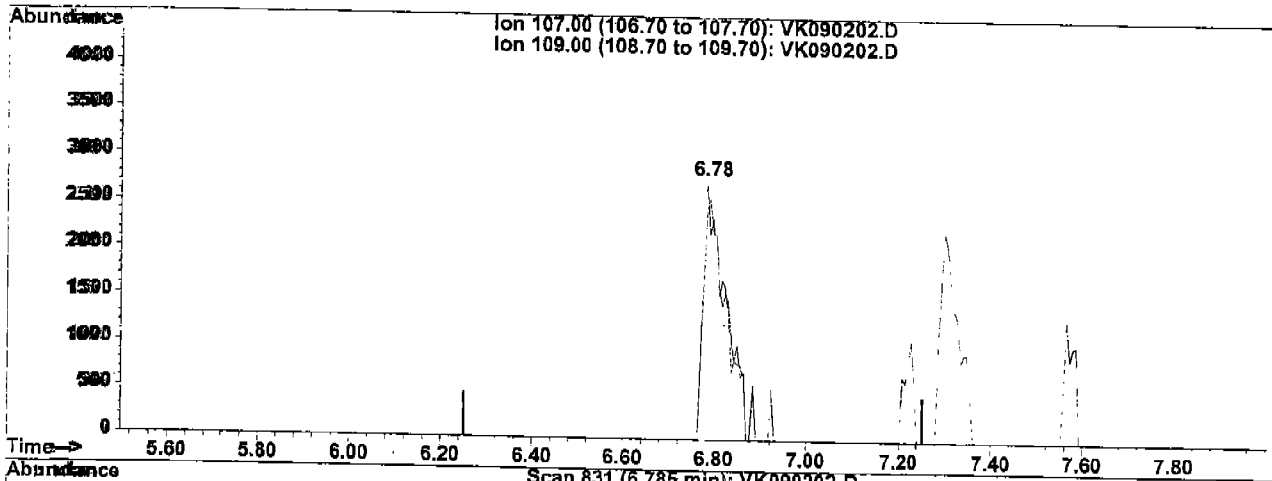
Ion	Exp%	Act%
107.00	100	100
109.00	96.40	110.34
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:43 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(55) 1,2-Dibromoethane (T)

6.78min 0.92ug/l m

response 9235

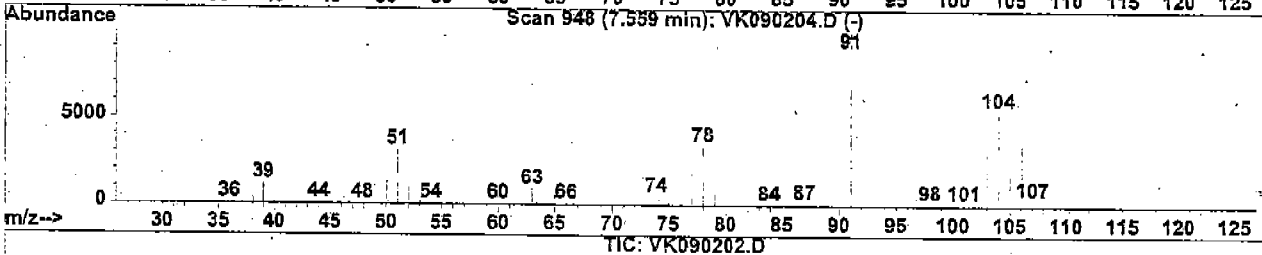
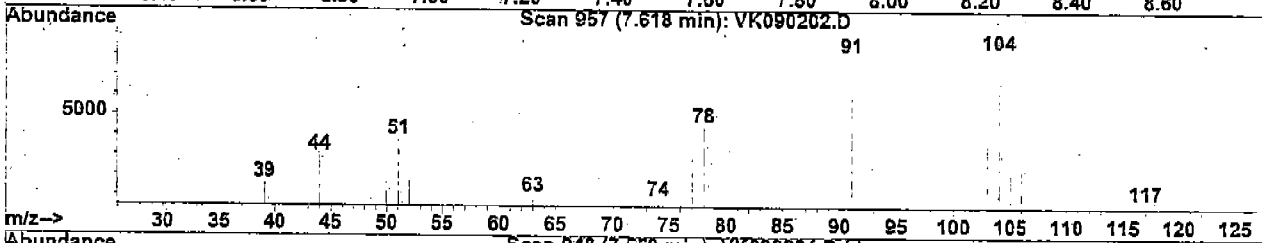
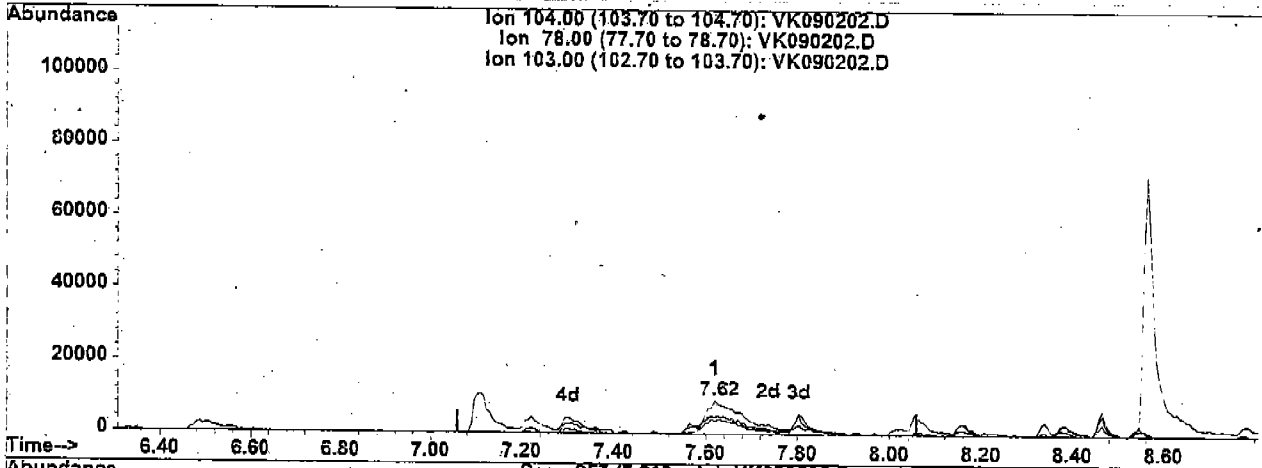
Ion	Exp%	Act%
107.00	100	100
109.00	96.40	96.33
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:44 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:55:41 2004  
 Response via : Single Level Calibration



(64) Styrene (T)

7.62min 0.65ug/l

response 46989

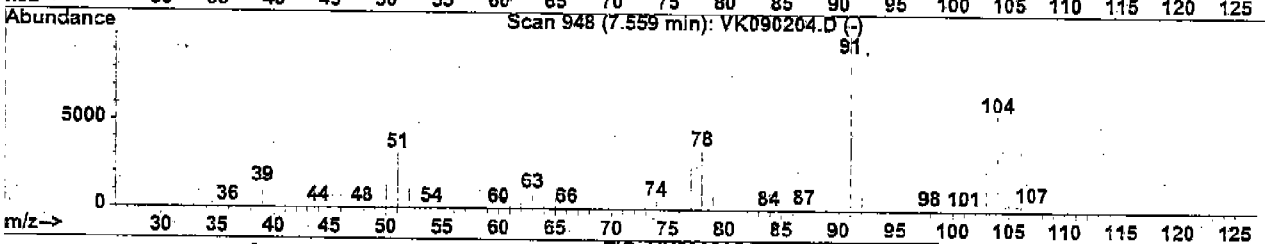
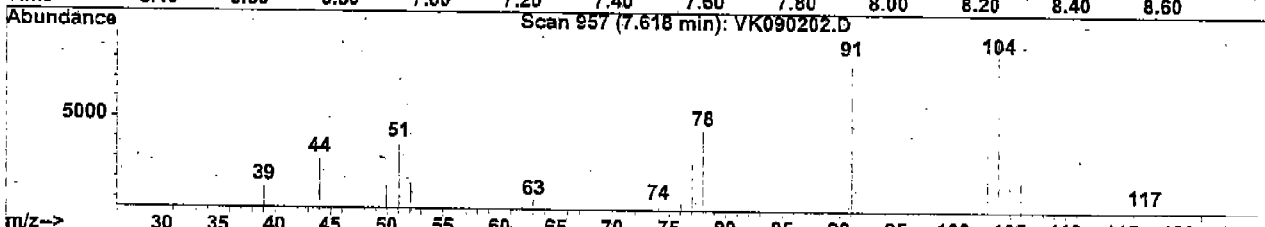
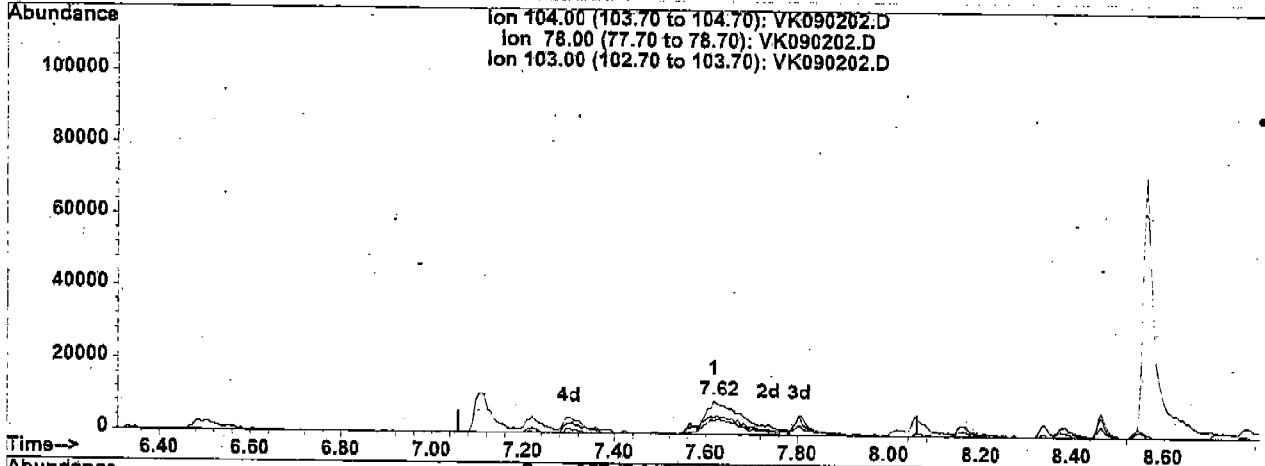
Ion	Exp%	Act%
104.00	100	100
78.00	62.00	66.43
103.00	53.70	41.63#
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:59 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:55:41 2004  
 Response via : Single Level Calibration



(64) Styrene (T)

7.62min 0.76ug/l m

response 54720

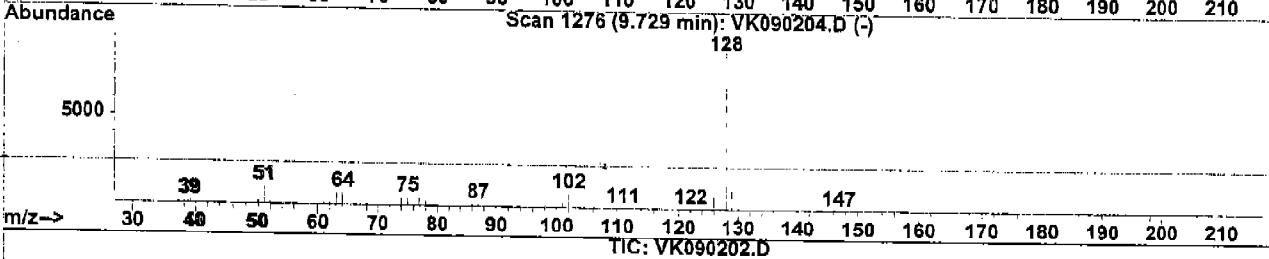
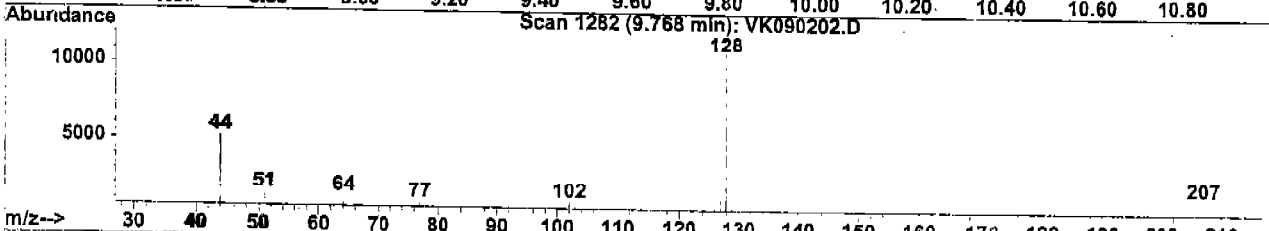
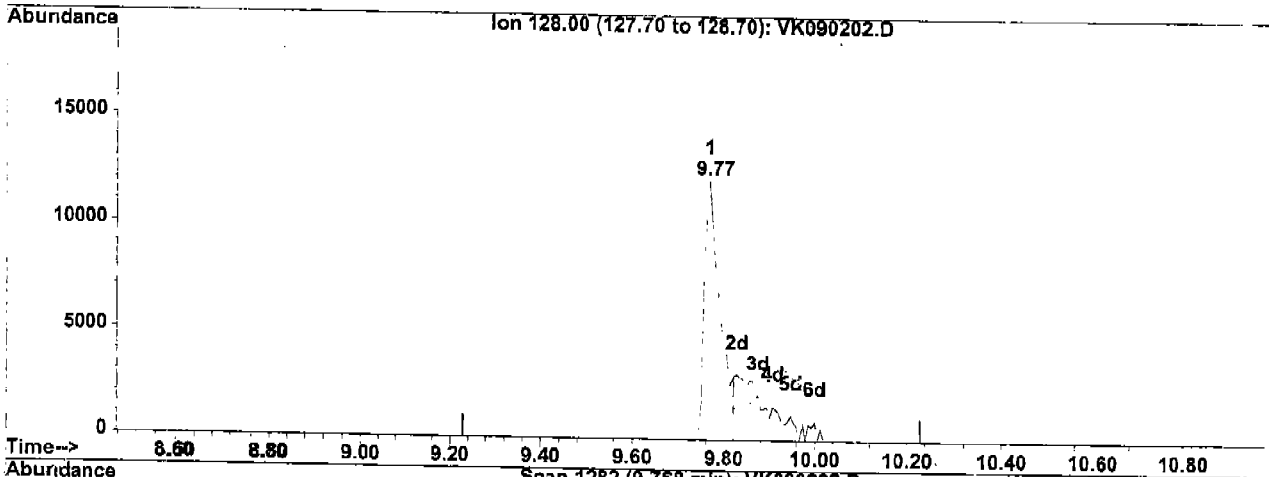
Ion	Exp%	Act%
104.00	100	100
78.00	62.00	57.04
103.00	53.70	35.75#
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:43 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(86) Naphthalene (T)

9.77min 0.70ug/l

response 29860

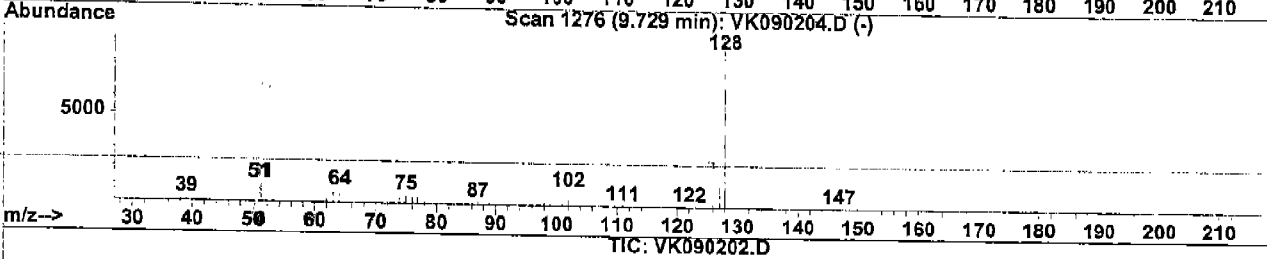
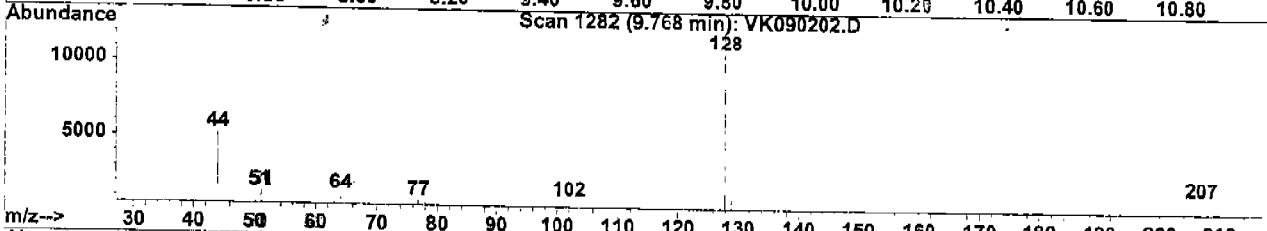
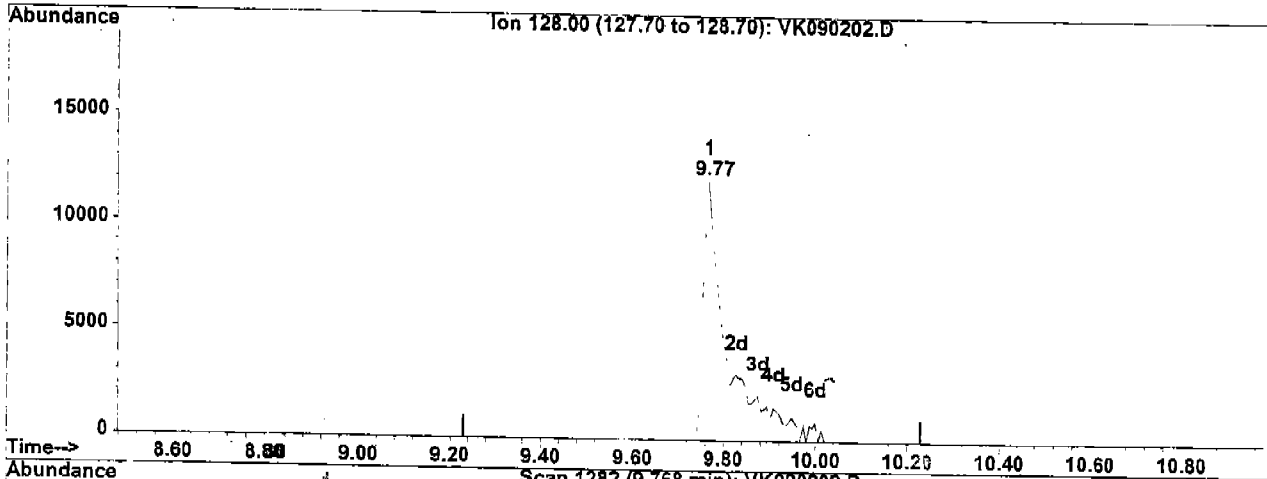
Ion	Exp%	Act%
128.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090202.D  
 Acq On : 2 Sep 2004 1:40 am  
 Sample : 1 PP3 ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:44 2004

Vial: 12  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(86) Naphthalene (F)

9.77min 1.01ug/ml

response 43181

Ion	Exp%	Act%
128.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00



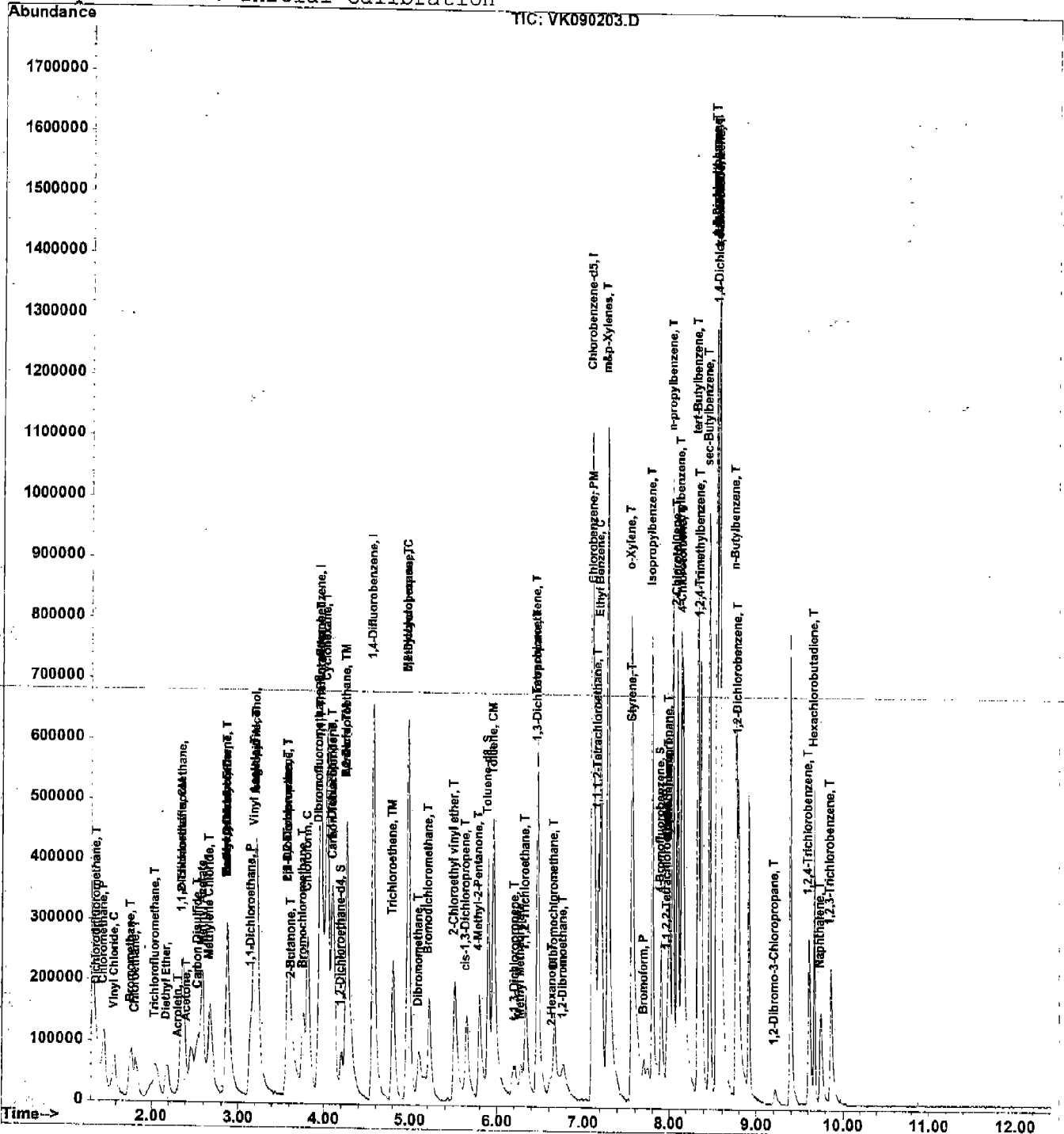
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090203.D  
Acq On : 2 Sep 2004 2:19 am  
Sample : 4 PPB ICC  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 2 10:47 2004

Vial: 13  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090203.D  
 Acq On : 2 Sep 2004 2:19 am  
 Sample : 4 PPB ICC  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 10:47 2004

Vial: 13  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:41 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Pentafluorobenzene	3.96	168	377369	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.57	114	742148	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.11	117	597666	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.56	152	286825	10.00	ug/l	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d	4.20	65	69079	3.79	ug/l	0.00
Spiked Amount	10.000		Recovery	=	37.90%	
34) Dibromofluoromethane	3.94	113	76723	3.86	ug/l	0.00
Spiked Amount	10.000		Recovery	=	38.60%	
45) Toluene-d8	5.90	98	333312	3.81	ug/l	0.00
Spiked Amount	10.000		Recovery	=	38.10%	
56) 4-Bromofluorobenzene	7.90	95	121841	3.42	ug/l	0.00
Spiked Amount	10.000		Recovery	=	34.20%	
Target Compounds						
2) Dichlorodifluorometh	1.37	85	121205	3.89	ug/l	Qvalue 98
3) Chloromethane	1.45	50	180463	3.42	ug/l	98
4) Vinyl Chloride	1.58	62	148943	3.68	ug/l	100
5) Bromomethane	1.77	94	111224	3.70	ug/l	94
6) Chloroethane	1.83	64	82639	3.91	ug/l	100
8) Trichlorofluorometha	2.05	101	141326	3.90	ug/l	98
9) 1,1,2-Trichlorotrifl	2.37	101	100609	4.16	ug/l	97
<del>10) Tert-butyl-alcohol</del>	<del>2.87</del>	<del>59</del>	<del>15075</del>	<del>26.14</del>	<del>ug/l</del>	<del>100</del>
11) Diethyl Ether	2.18	74	41512	3.86	ug/l	97
12) Isopropyl Alcohol	3.21	45	438247	3.94	ug/l	100
13) 1,1-Dichloroethene	2.36	96	95042	3.92	ug/l	93
14) Acrolein	2.31	56	21020m	23.36	ug/l	
15) Acrylonitrile	3.22	53	170304	19.45	ug/l	98
16) Acetone	2.42	43	34195	22.43	ug/l #	88
17) Carbon Disulfide	2.54	76	417574	3.97	ug/l	99
18) Methyl tert-butyl Et	2.87	73	189566	4.03	ug/l	98
19) Methyl Acetate	2.60	43	39113	3.36	ug/l	73
20) Methylene Chloride	2.67	84	117374	4.15	ug/l	96
21) trans-1,2-Dichloroet	2.87	96	99148	3.81	ug/l	98
22) Vinyl Acetate	3.19	43	625259	19.72	ug/l	98

Analyst Signature: JG Analyst Name: \_\_\_\_\_ Date: 09.02.04

REASONS FOR MANUAL INTEGRATIONS

Poor resolution of peaks exhibited on chromatogram. Compound #: 14

Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090203.D  
 Acq On : 2 Sep 2004 2:19 am  
 Sample : 4 PPB ICC  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 10:47 2004

Vial: 13  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:41 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1-Dichloroethane	3.15	63	178192	3.89	ug/l	97
24) Cyclohexane	4.04	56	557396	3.97	ug/l	99
25) 2-Butanone	3.63	43	163589	21.76	ug/l	98
26) 2,2-Dichloropropane	3.59	77	148311	4.09	ug/l	98
27) cis-1,2-Dichloroethe	3.59	96	107599	4.01	ug/l	97
28) Bromochloromethane	3.77	128	41446	3.90	ug/l	98
29) Chloroform	3.81	83	213709	3.95	ug/l	97
30) 1,1,1-Trichloroethan	3.98	97	162248	3.92	ug/l	# 40
31) Methylcyclohexane	4.98	63	114220	3.91	ug/l	94
35) 1,1-Dichloropropene	4.10	75	159729	4.01	ug/l	100
36) Carbon Tetrachloride	4.12	117	125700	3.97	ug/l	95
37) Benzene	4.26	78	515882	3.95	ug/l	100
38) 1,2-Dichloroethane	4.27	62	90203	4.02	ug/l	97
39) Trichloroethene	4.80	130	118277	3.88	ug/l	94
40) Methyl Methacrylate	6.29	69	87537m	3.85	ug/l	
41) 1,2-Dichloropropane	4.98	63	114220	3.97	ug/l	94
42) Dibromomethane	5.10	93	44572	3.74	ug/l	91
44) Bromodichloromethane	5.22	83	146985	3.88	ug/l	94
46) 4-Methyl-2-Pentanone	5.79	43	374025m	22.94	ug/l	
47) Toluene	5.96	92	328621	3.95	ug/l	99
48) t-1,3-Dichloropropen	6.21	75	99762m	3.70	ug/l	
49) cis-1,3-Dichloroprop	5.64	75	144661	3.59	ug/l	100
50) 1,1,2-Trichloroethan	6.33	97	63224m	3.84	ug/l	
51) 1,3-Dichloropropane	6.48	76	120679	3.81	ug/l	100
52) 2-Chloroethyl vinyl	5.50	63	186720m	17.35	ug/l	
53) 2-Hexanone	6.64	43	237127m	27.43	ug/l	
54) Dibromochloromethane	6.66	129	74563	3.84	ug/l	97
55) 1,2-Dibromoethane	6.78	107	47022	3.80	ug/l	83
58) Tetrachloroethene	6.46	164	118101	4.19	ug/l	96
59) Chlorobenzene	7.13	112	252491	4.14	ug/l	99
60) 1,1,1,2-Tetrachloroe	7.18	131	96510	4.19	ug/l	97
61) Ethyl Benzene	7.20	106	126412	4.05	ug/l	100
62) m&p-Xylenes	7.29	106	333086	8.35	ug/l	100
63) o-Xylene	7.56	106	162576	4.12	ug/l	99
64) Styrene	7.58	104	265373	3.95	ug/l	98
65) Bromoform	7.70	173	30102	3.77	ug/l	96

Analyst Signature: JP Analyst Name: \_\_\_\_\_ Date: 09.02.04

REASONS FOR MANUAL INTEGRATIONS

✓ Poor resolution of peaks exhibited on chromatogram. Compound #: 4014618, 50  
 Peak integrated by software incorrectly. Compound #: 52153

OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090203.D  
 Acq On : 2 Sep 2004 2:19 am  
 Sample : 4 PPB ICC  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 10:47 2004

Vial: 13  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:41 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
67) Isopropylbenzene	7.79	105	452237	4.07	ug/l	99
68) 1,1,2,2-Tetrachloroe	7.97	83	80373	3.94	ug/l	98
69) 1,2,3-Trichloropropa	8.01	75	93547m	4.62	ug/l	
70) Bromobenzene	7.99	156	83722	3.85	ug/l	80
71) n-propylbenzene	8.05	91	695197	3.70	ug/l	98
72) 2-Chlorotoluene	8.10	91	453126	4.18	ug/l	97
73) 1,3,5-Trimethylbenze	8.14	105	358494	4.07	ug/l	98
74) 4-Chlorotoluene	8.17	91	504599	4.13	ug/l	100
75) tert-Butylbenzene	8.34	119	400080	4.03	ug/l	100
76) 1,2,4-Trimethylbenze	8.37	105	347100	3.92	ug/l	99
77) sec-Butylbenzene	8.46	105	511166	4.14	ug/l	100
78) p-Isopropyltoluene	8.53	119	440413	4.05	ug/l	99
79) 1,3-Dichlorobenzene	8.53	146	159527	3.96	ug/l	95
80) 1,4-Dichlorobenzene	8.57	146	202976	4.18	ug/l	98
81) n-Butylbenzene	8.76	91	544267	3.96	ug/l	99
82) 1,2-Dichlorobenzene	8.79	146	161492	4.22	ug/l	93
83) 1,2-Dibromo-3-Chloro	9.22	75	9056	3.31	ug/l	93
84) 1,2,4-Trichlorobenze	9.61	180	96488	3.84	ug/l	97
85) Hexachlorobutadiene	9.67	225	65989	3.98	ug/l	98
86) Naphthalene	9.75	128	180642	3.95	ug/l	100
87) 1,2,3-Trichlorobenze	9.86	180	78249	3.97	ug/l	93

Analyst Signature: 1 Cp Analyst Name: \_\_\_\_\_ Date: 09.02.04

-----REASONS FOR MANUAL INTEGRATIONS-----

Poor resolution of peaks exhibited on chromatogram. Compound #: 69

Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

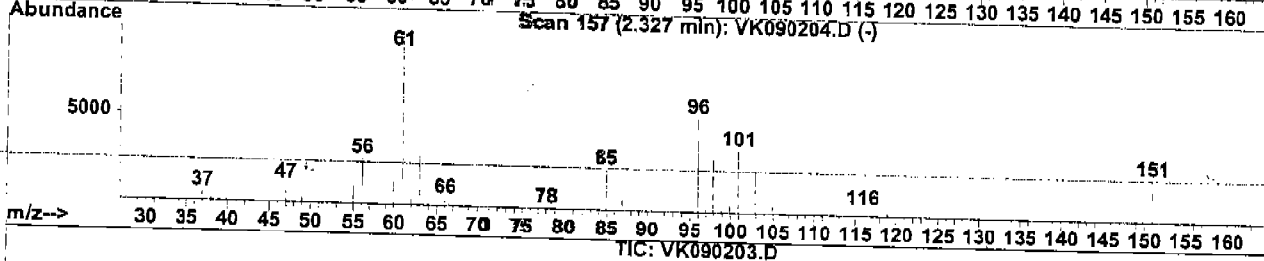
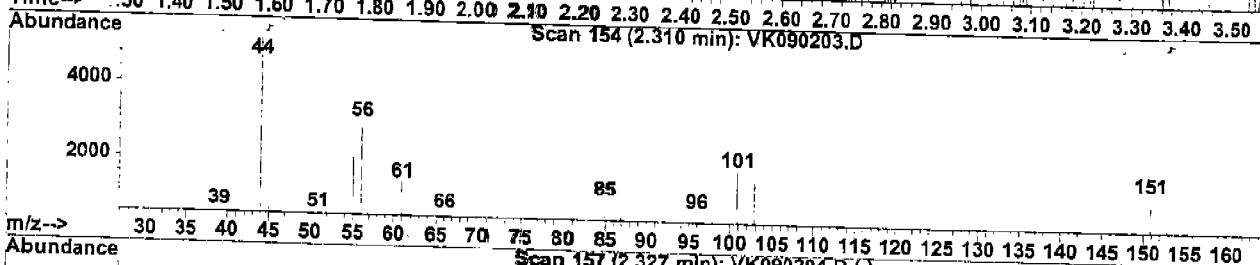
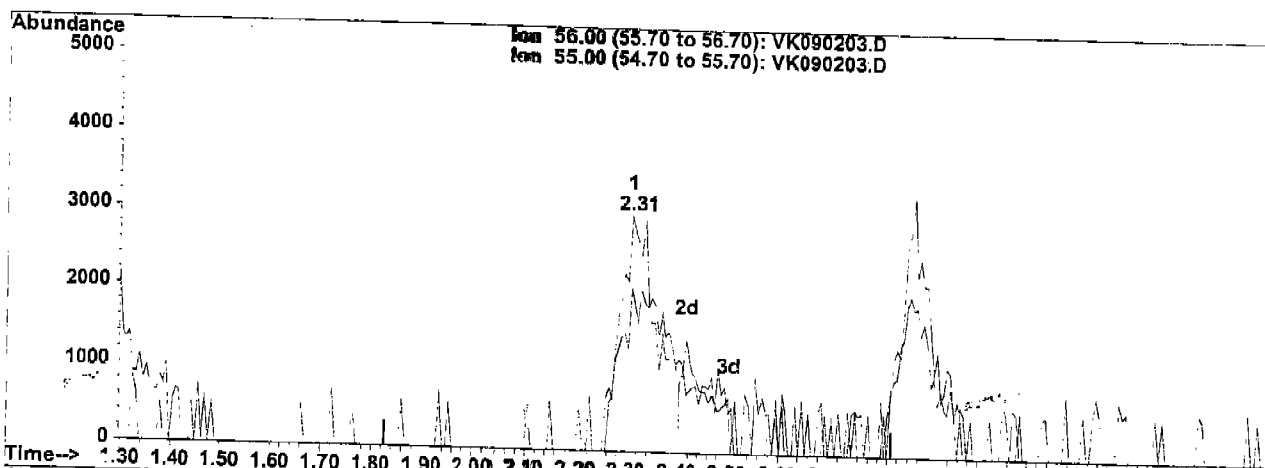
(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090203.D  
 Acq On : 2 Sep 2004 2:19 am  
 Sample : 4 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:45 2004

Vial: 13  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(14) Acrolein (T)

2.31min 17.58ug/l

response 15821

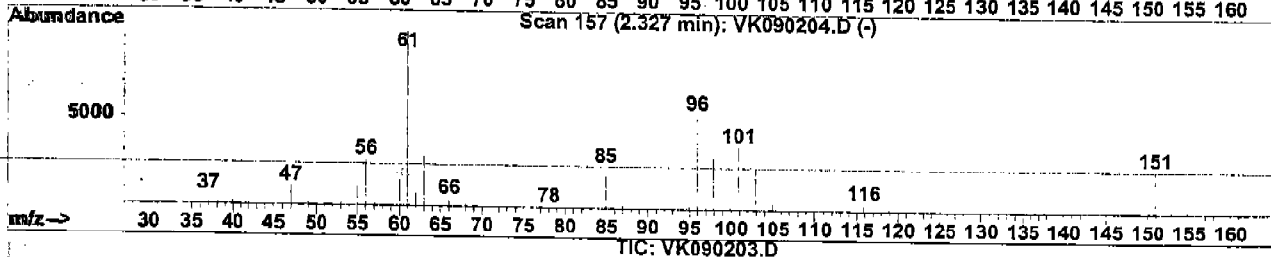
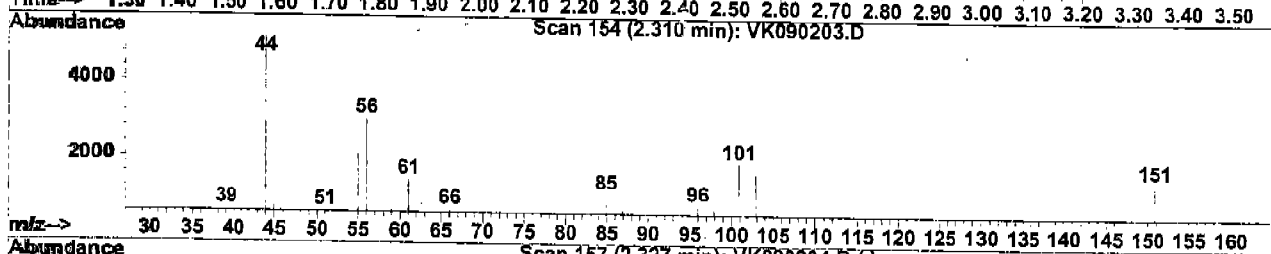
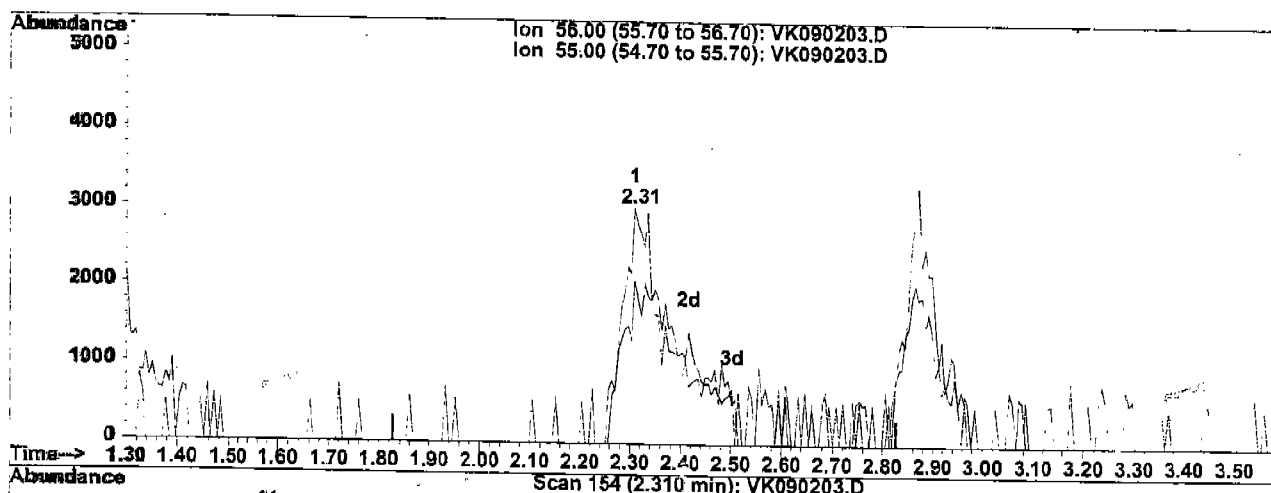
Ion	Exp%	Act%
56.00	100	100
55.00	686.40	36.42#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090203.D  
 Acq On : 2 Sep 2004 2:19 am  
 Sample : 4 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:45 2004

Vial: 13  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(14) Acrolein (T)

2.31min 23.36ug/l m

response 21020

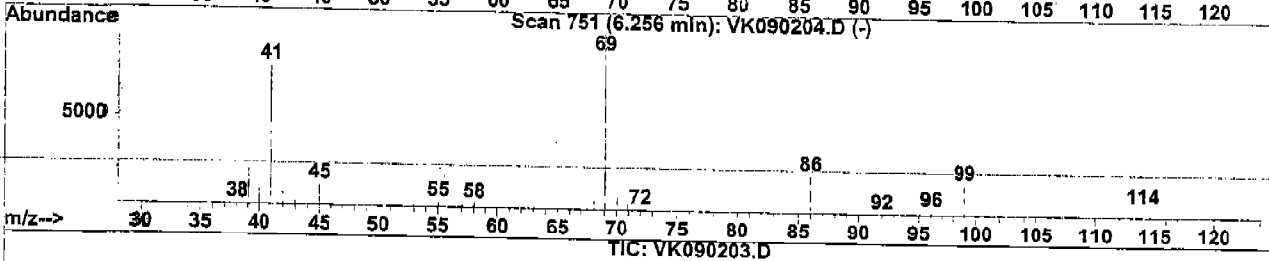
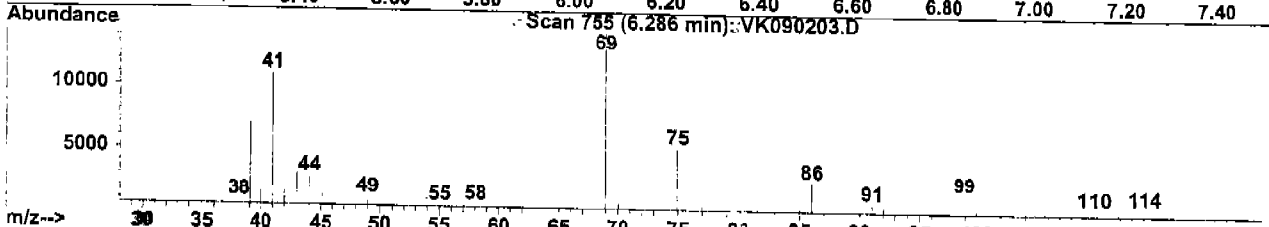
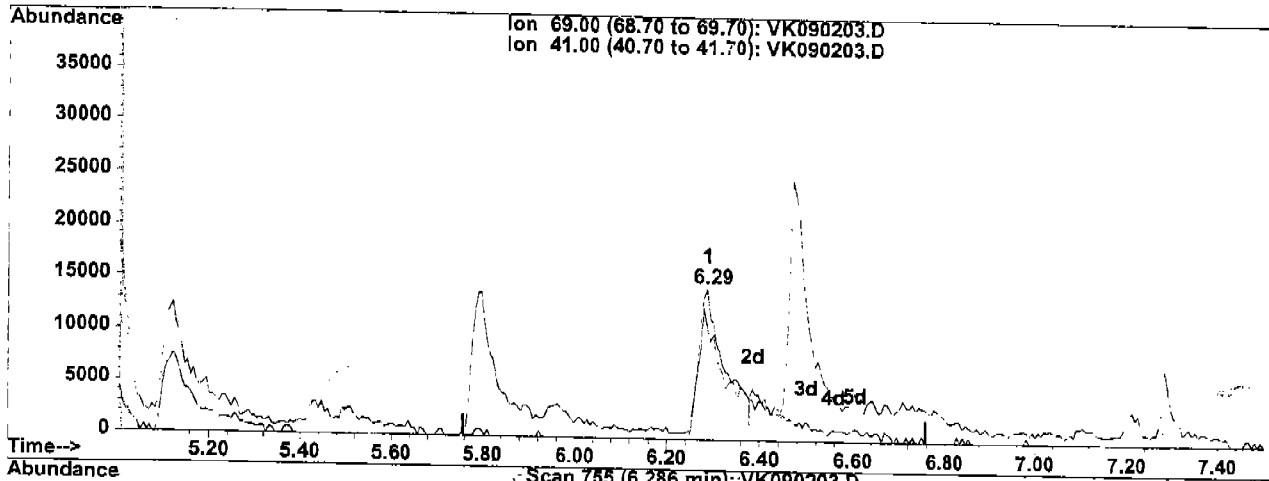
Ion	Exp%	Act%
56.00	100	100
55.00	686.40	27.41#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090203.D  
 Acq On : 2 Sep 2004 2:19 am  
 Sample : 4 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:45 2004

Vial: 13  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(40) Methyl Methacrylate

6.29min 2.60ug/l

response 58949

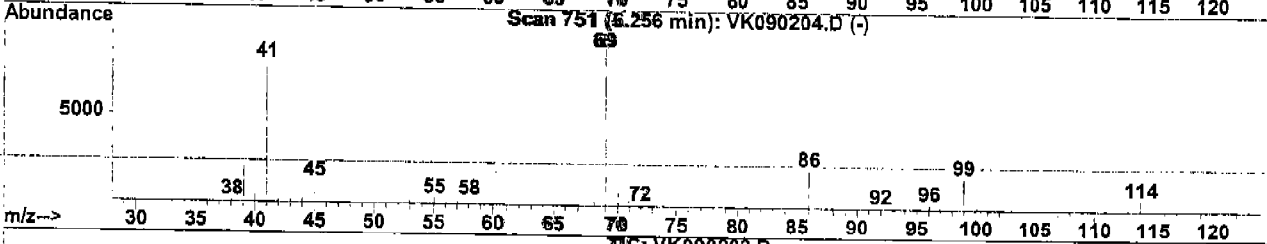
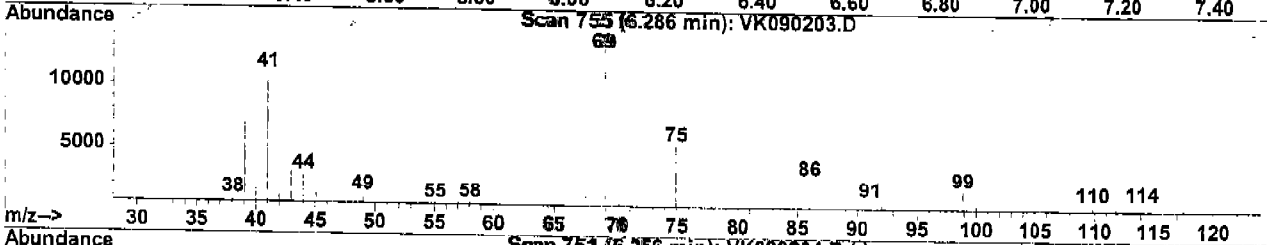
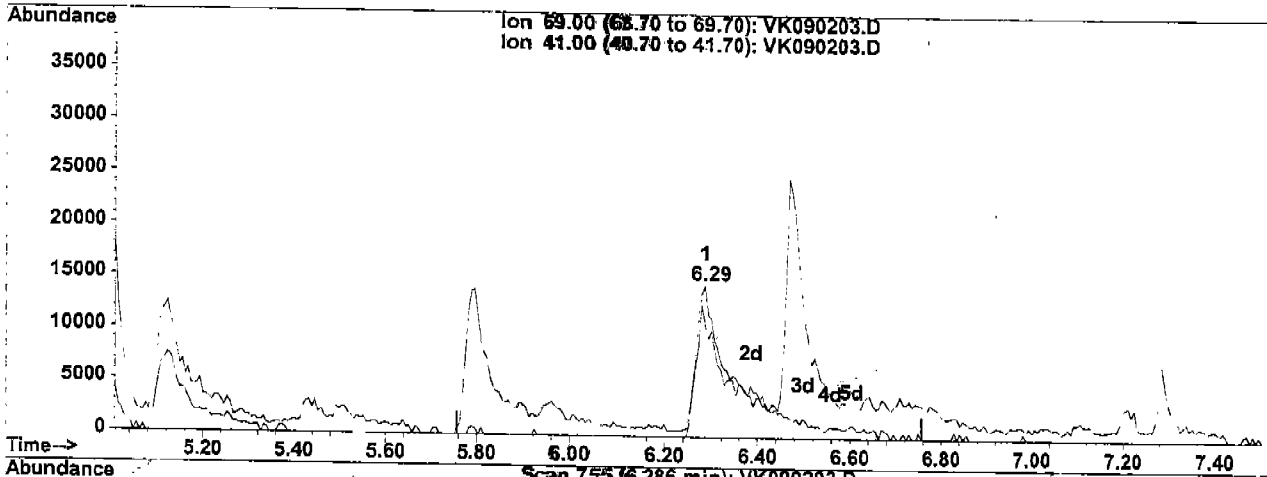
Ion	Exp%	Act%
69.00	100	100
41.00	65.60	69.81
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090203.D  
 Acq On : 2 Sep 2004 2:19 am  
 Sample : 4 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:46 2004

Vial: 13  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(40) Methyl Methacrylate

6.29min 3.85ug/l m

response 87537

Ion	Exp%	Act%
69.00	100	100
41.00	65.60	47.01#
0.00	0.00	0.00
0.00	0.00	0.00

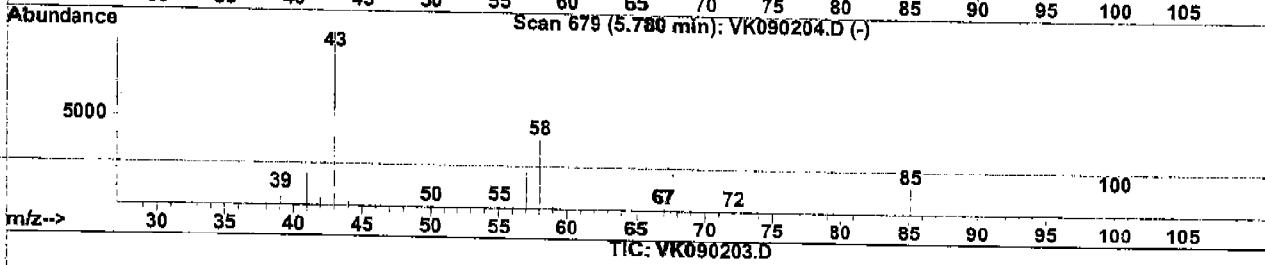
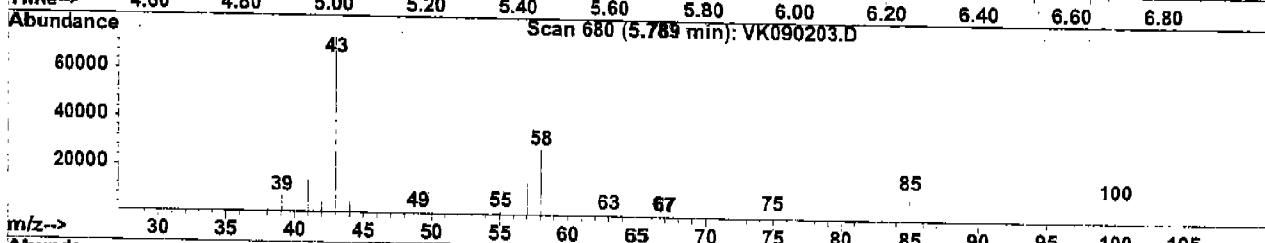
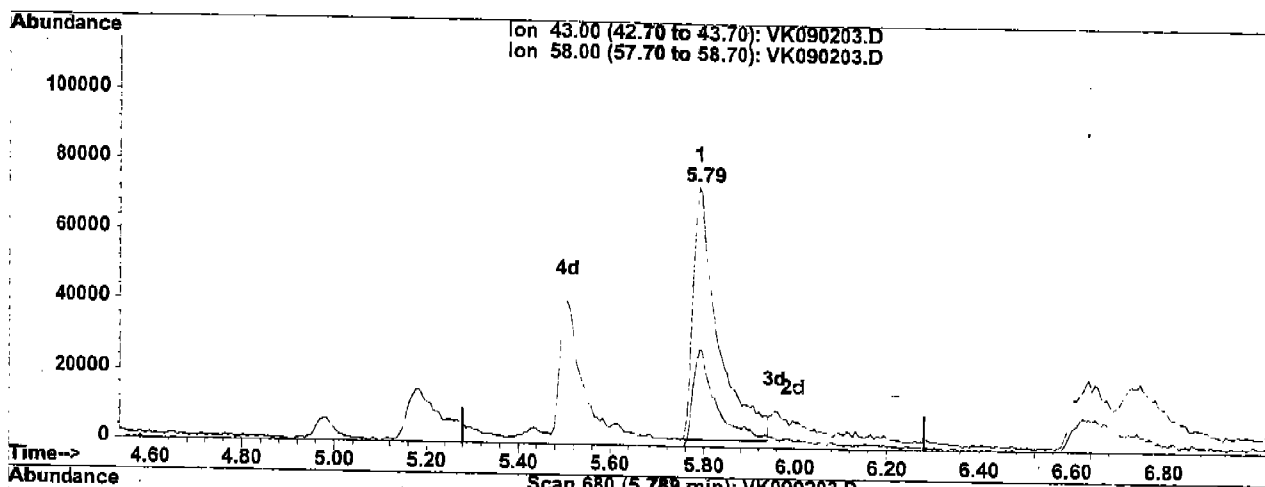


Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090203.D  
 Acq On : 2 Sep 2004 2:19 am  
 Sample : 4 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:46 2004

Vial: 13  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(46) 4-Methyl-2-Pentanone (T)

5.79min 16.65ug/l

response 271376

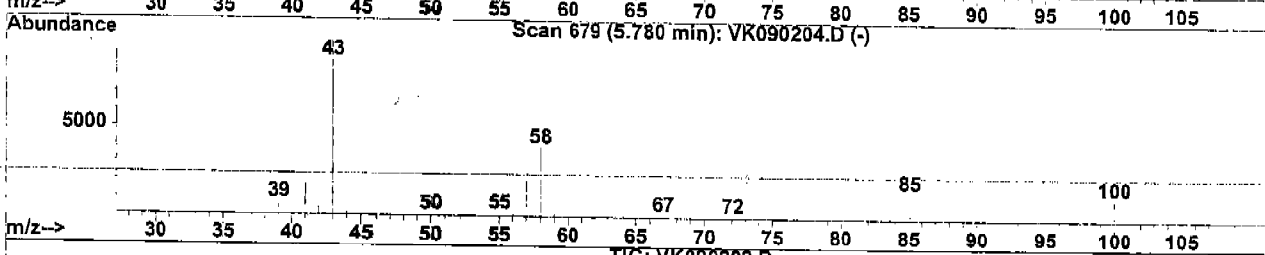
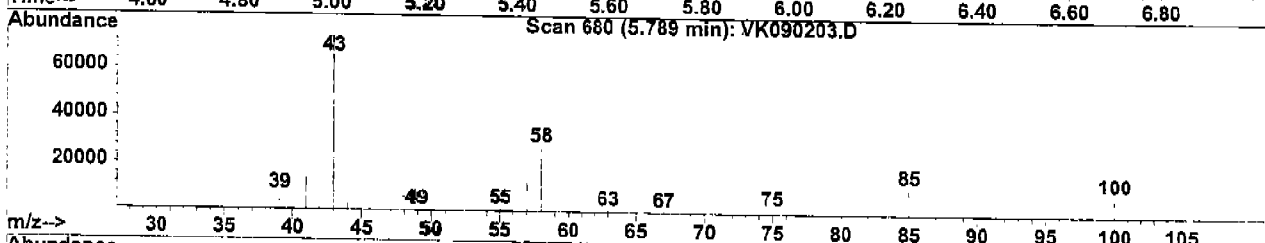
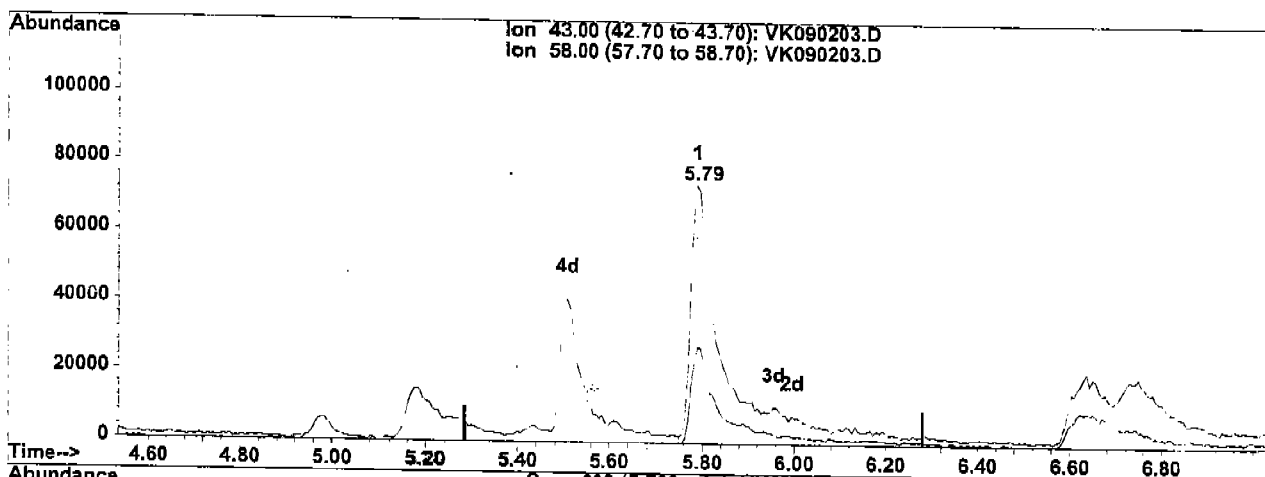
Ion	Exp%	Act%
43.00	100	100
58.00	35.60	34.60
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090203.D  
 Acq On : 2 Sep 2004 2:19 am  
 Sample : 4 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:46 2004

Vial: 13  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(46) 4-Methyl-2-Pentanone (T)

5.79min 22.94ug/l m

response 374025

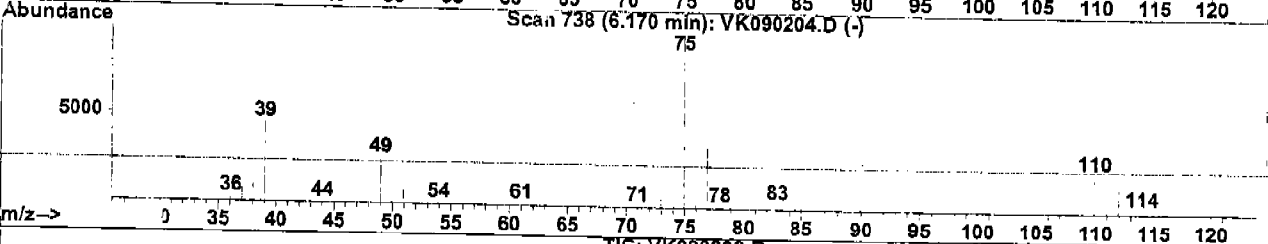
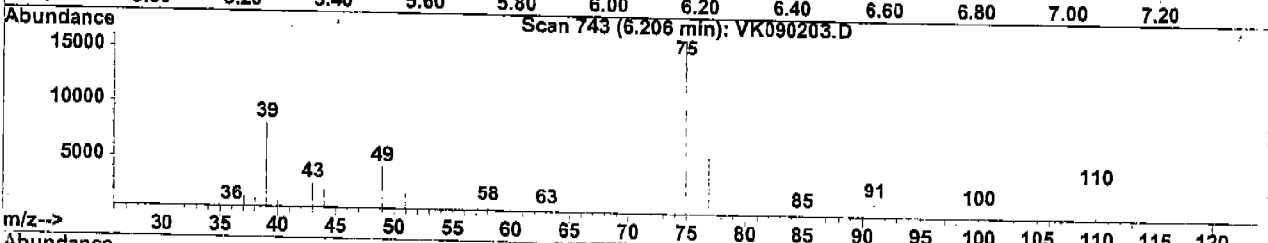
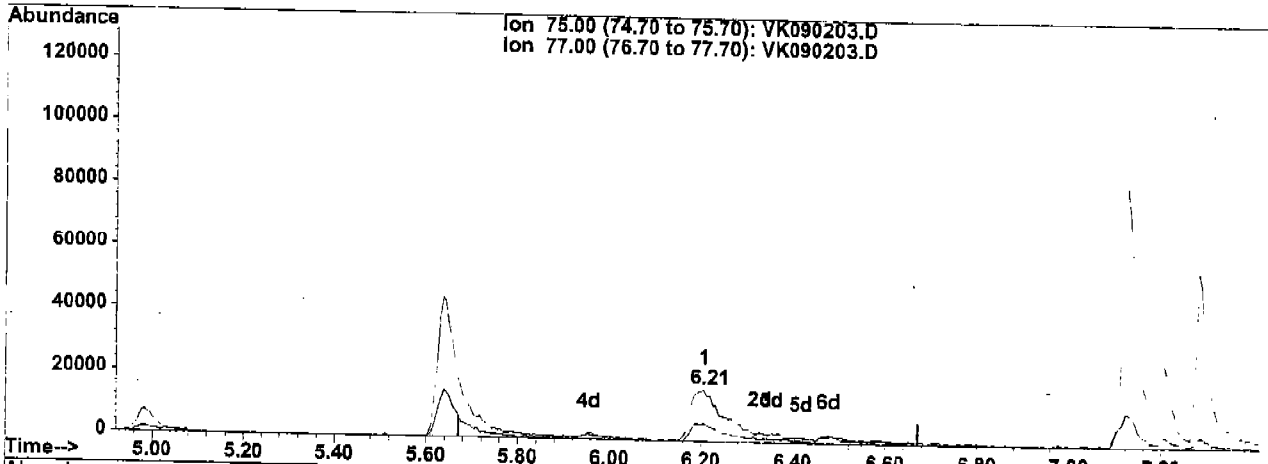
Ion	Exp%	Act%
43.00	100	100
58.00	35.60	25.10
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090203.D  
 Acq On : 2 Sep 2004 2:19 am  
 Sample : 4 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:46 2004

Vial: 13  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(48) t-1,3-Dichloropropene (T)

6.21min 3.13ug/l

response 84317

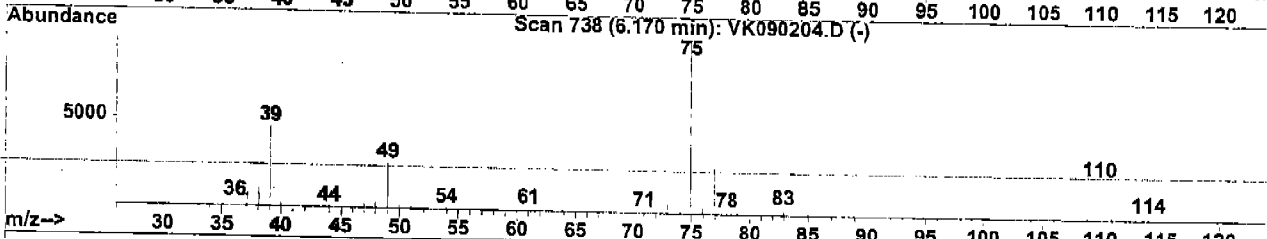
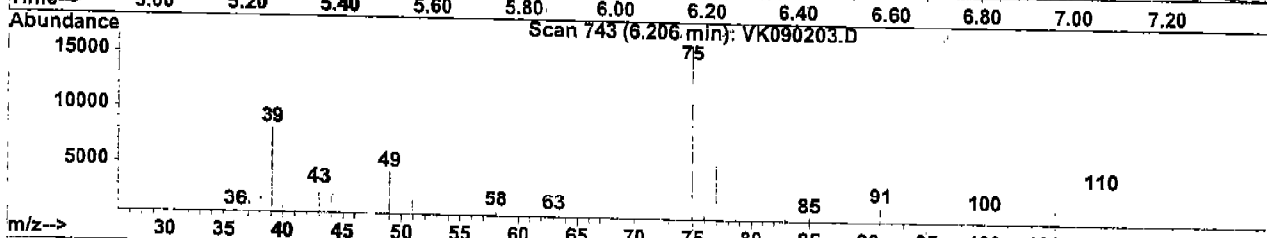
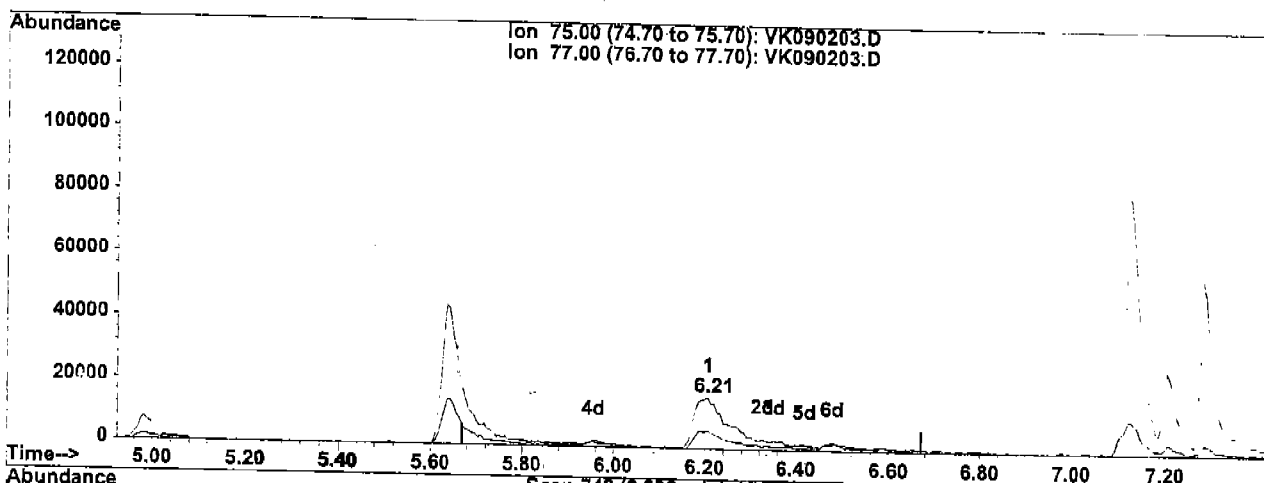
Ion	Exp%	Act%
75.00	100	100
77.00	34.30	34.62
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090203.D  
 Acq On : 2 Sep 2004 2:19 am  
 Sample : 4 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:46 2004

Vial: 13  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(48) t-1,3-Dichloropropene (T)

6.21min 3.70ug/l m

response 99762

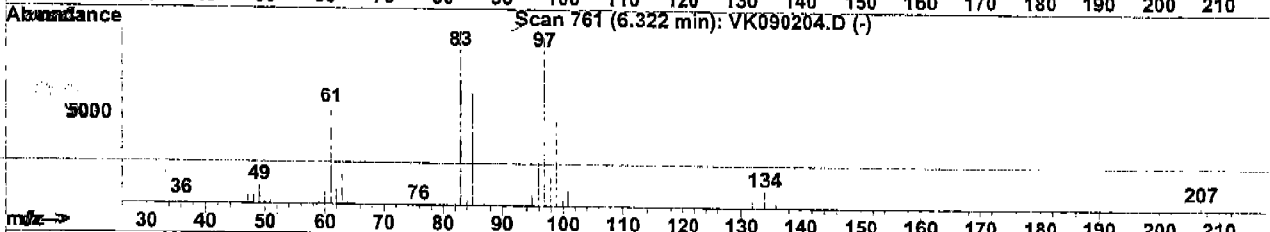
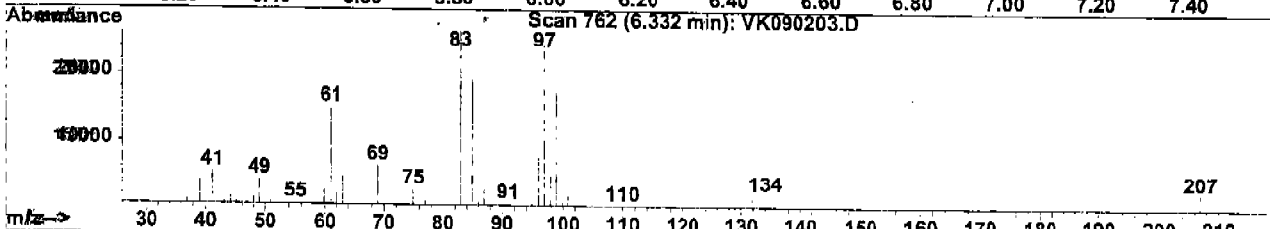
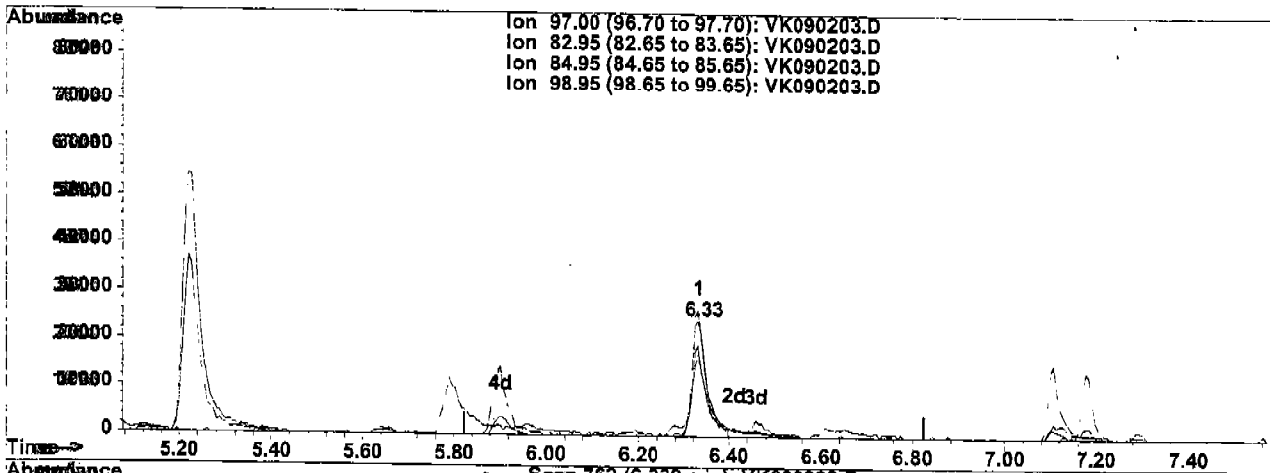
Ion	Exp%	Act%
75.00	100	100
77.00	34.30	34.62
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090203.D  
 Acq On : 2 Sep 2004 2:19 am  
 Sample : 4 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:46 2004

Vial: 13  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(50) 1,1,2-Trichloroethane (T)

6.33min 3.41ug/l

response 56241

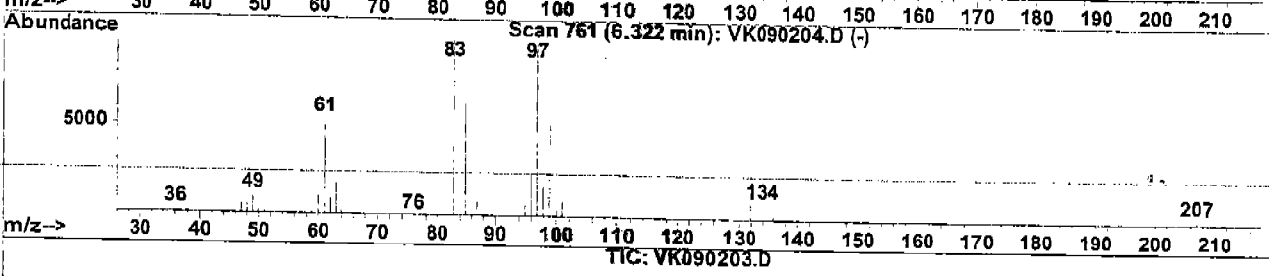
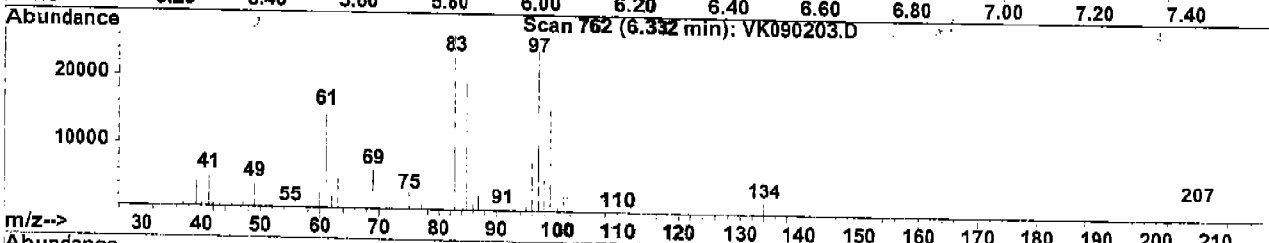
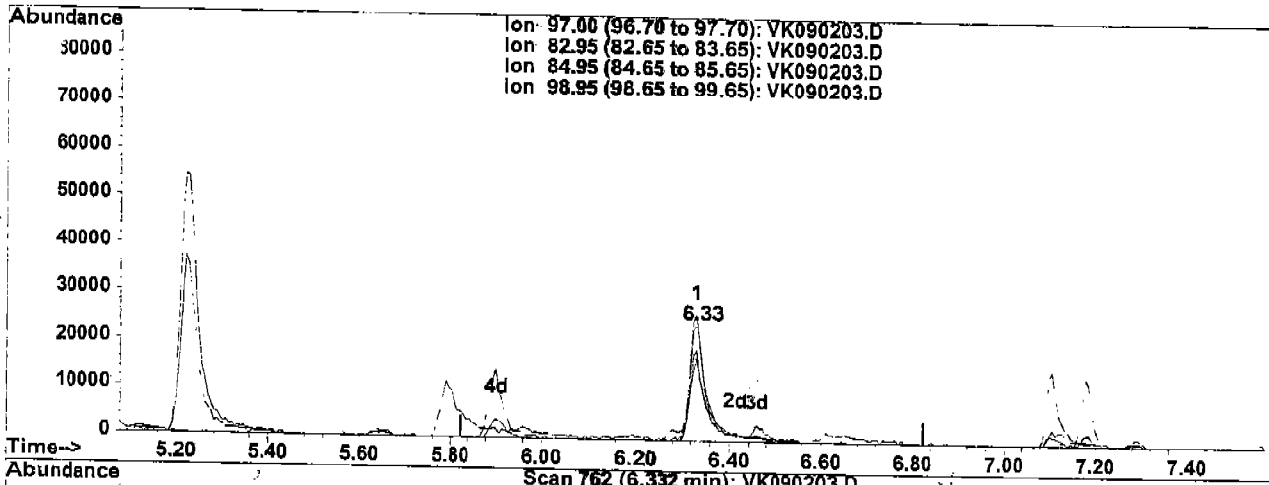
Ion	Exp%	Act%
97.00	100	100
82.95	101.50	109.21
84.95	64.60	79.28#
98.95	58.40	64.04

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090203.D  
 Acq On : 2 Sep 2004 2:19 am  
 Sample : 4 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:47 2004

Vial: 13  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(50) 1,1,2-Trichloroethane (T)

6.33min 3.84ug/l m

response 63224

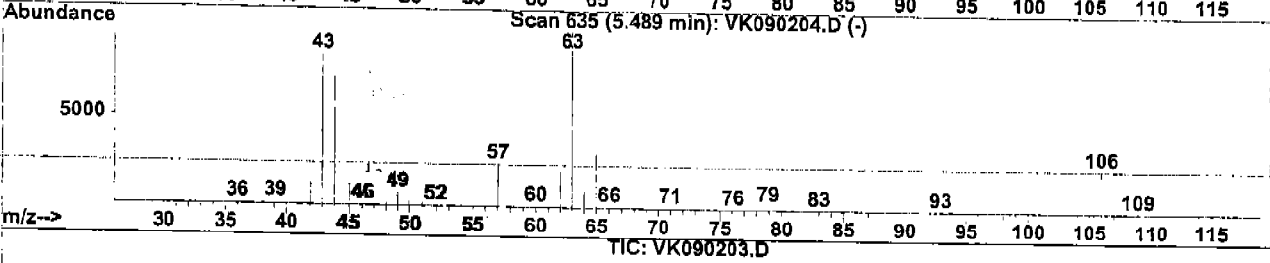
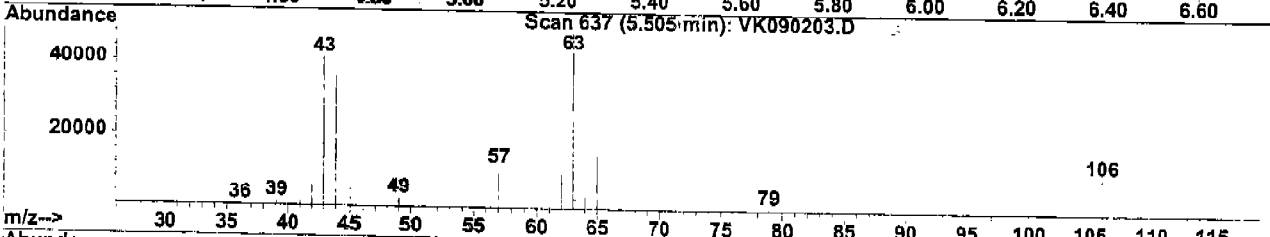
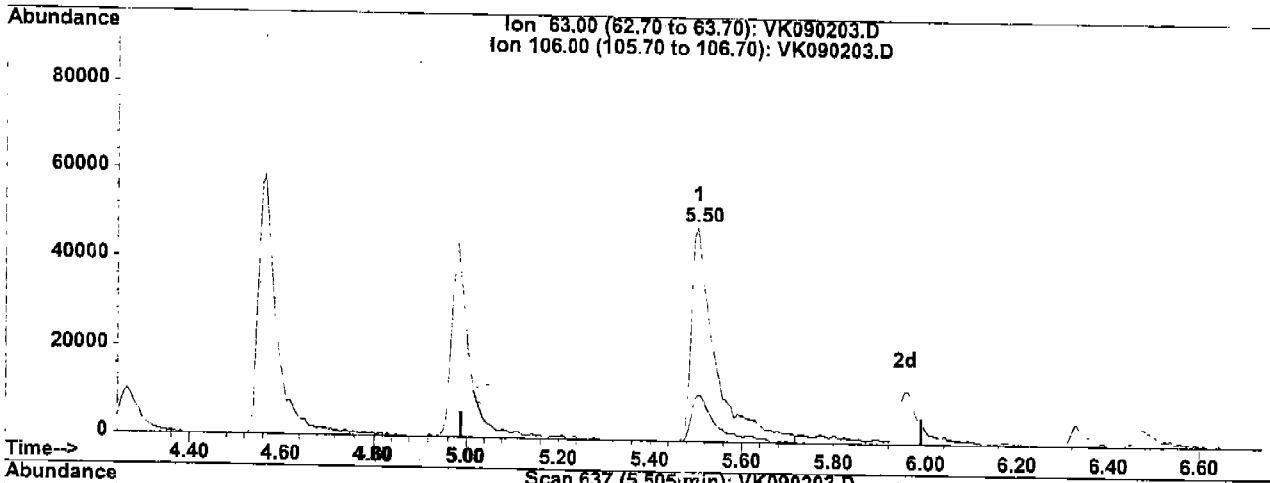
Ion	Exp%	Act%
97.00	100	100
82.95	101.50	109.21
84.95	64.60	79.28#
98.95	58.40	71.61#

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090203.D  
 Acq On : 2 Sep 2004 2:19 am  
 Sample : 4 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:47 2004

Vial: 13  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(52) 2-Chloroethyl vinyl ether (T)

5.50min 16.19ug/l

response 174236

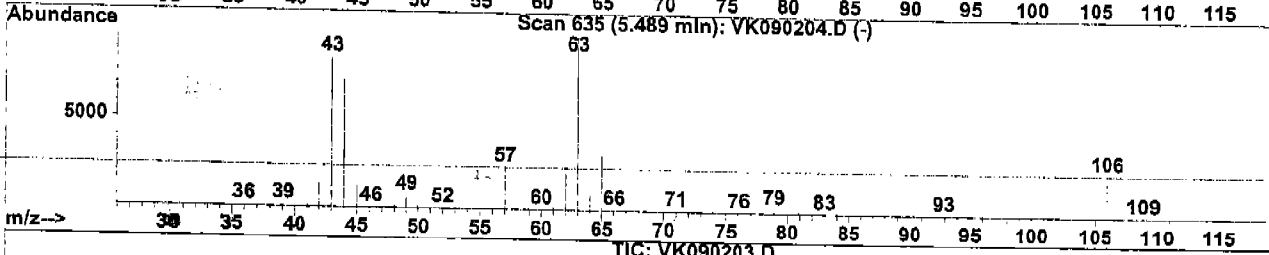
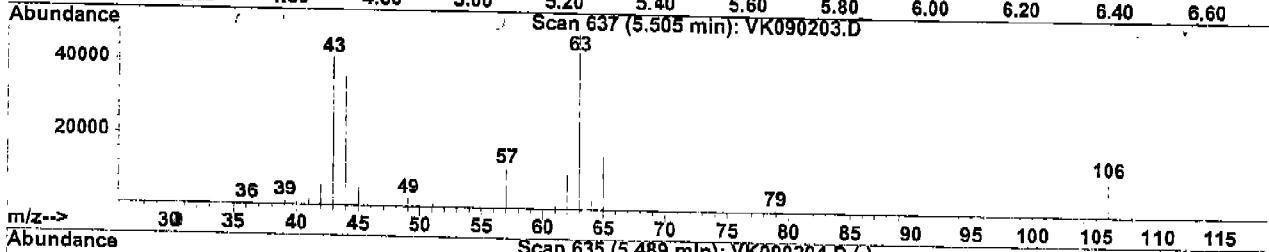
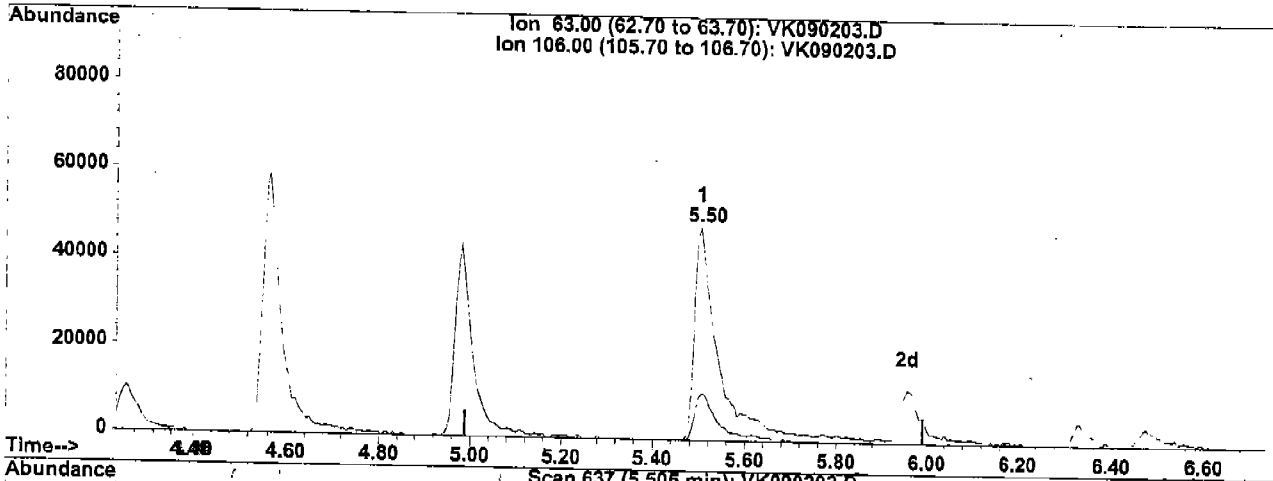
Ion	Exp%	Act%
63.00	100	100
106.00	23.20	19.98
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090203.D  
 Acq On : 2 Sep 2004 2:19 am  
 Sample : 4 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:47 2004

Vial: 13  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(52) 2-Chloroethyl vinyl ether (T)

5.50min 17.35ug/l m

response 186720

Ion	Exp%	Act%
63.00	100	100
106.00	23.20	18.64
0.00	0.00	0.00
0.00	0.00	0.00

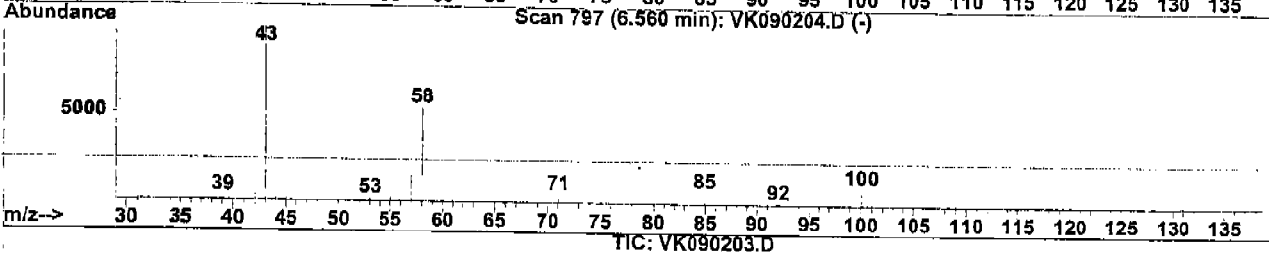
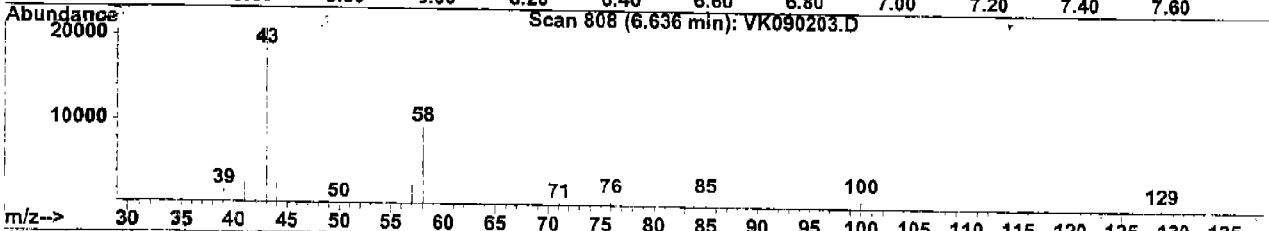
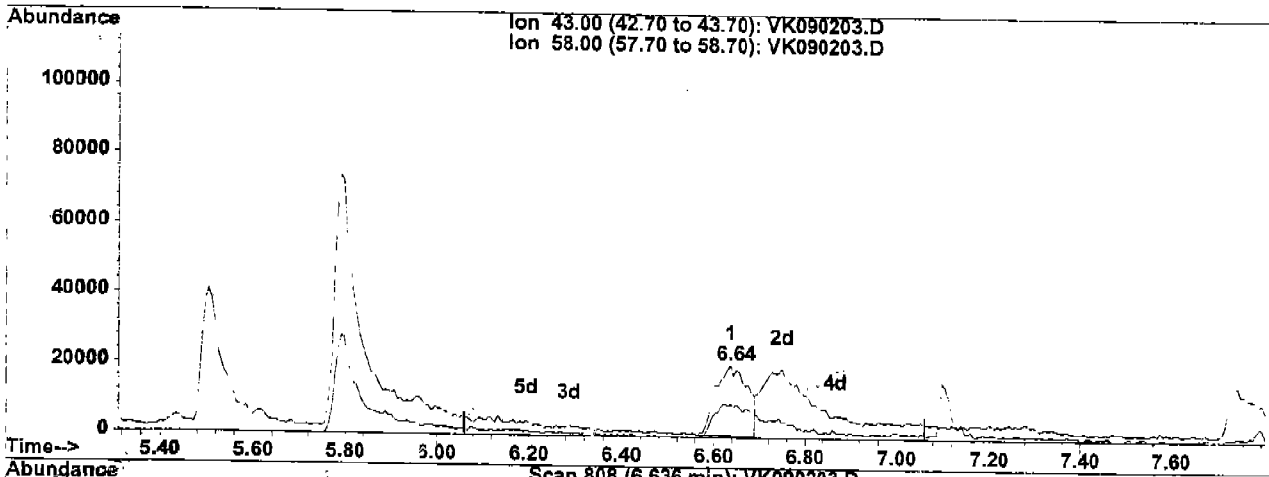


Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090203.D  
 Acq On : 2 Sep 2004 2:19 am  
 Sample : 4 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:47 2004

Vial: 13  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(53) 2-Hexanone (T)

6.64min 11.02ug/l

response 95271

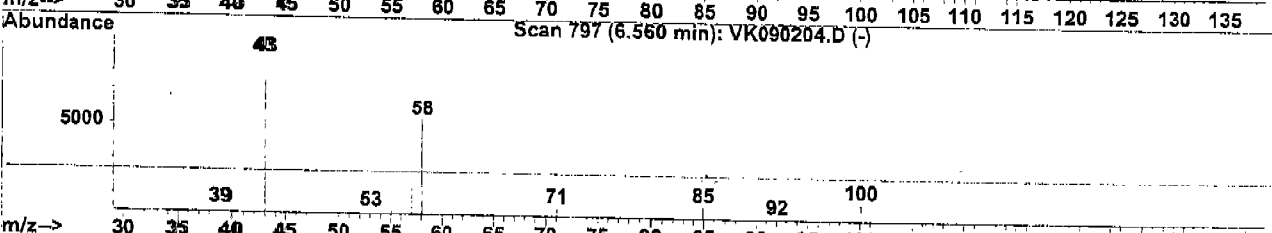
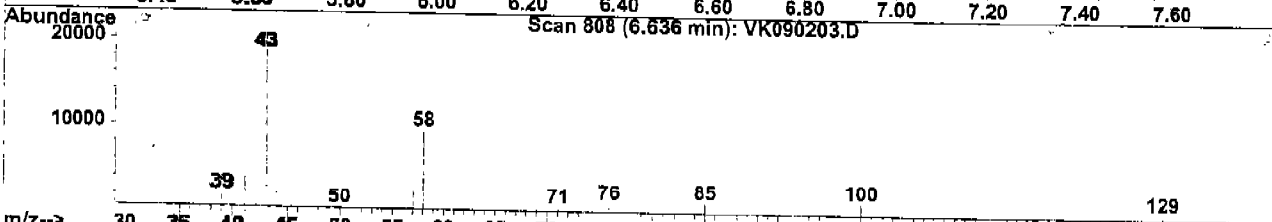
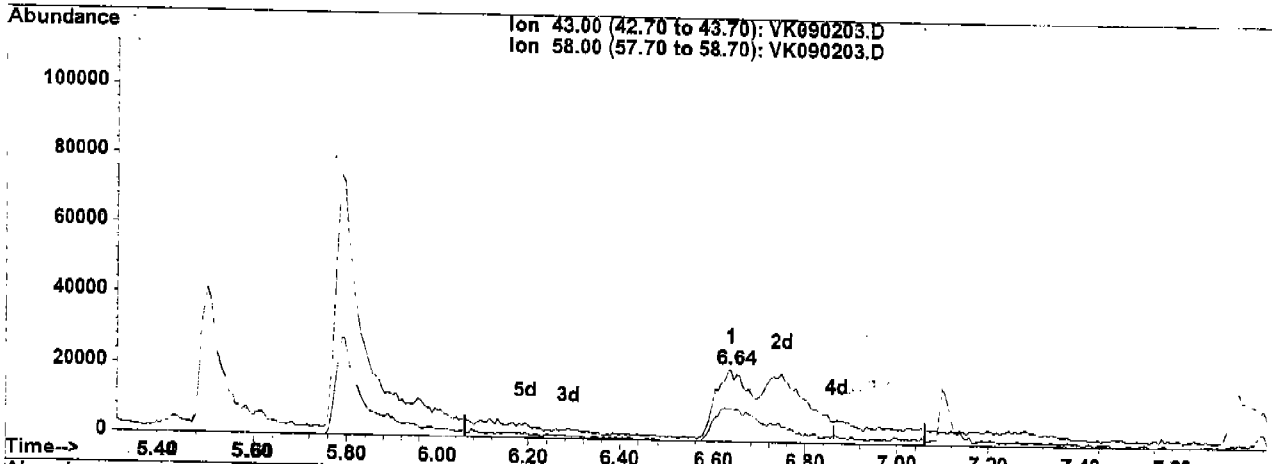
Ion	Exp%	Act%
43.00	100	100
58.00	60.10	40.42
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090203.D  
 Acq On : 2 Sep 2004 2:19 am  
 Sample : 4 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:47 2004

Vial: 13  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



TIC: VK090203.D

(53) 2-Hexanone (T)  
 6.64min 27.43ug/l m  
 response 237127

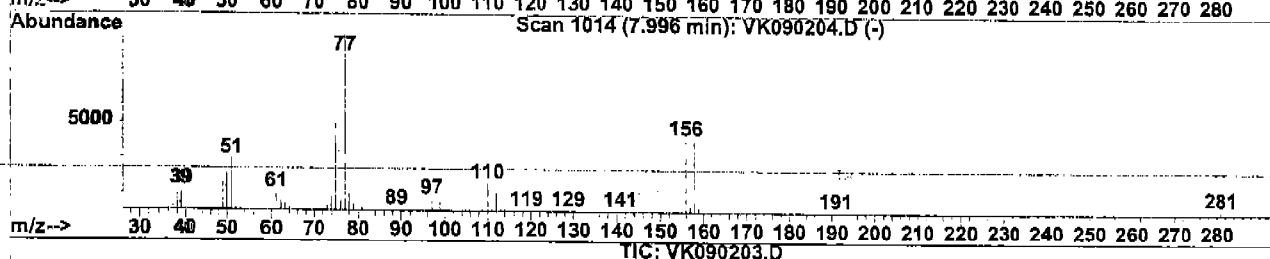
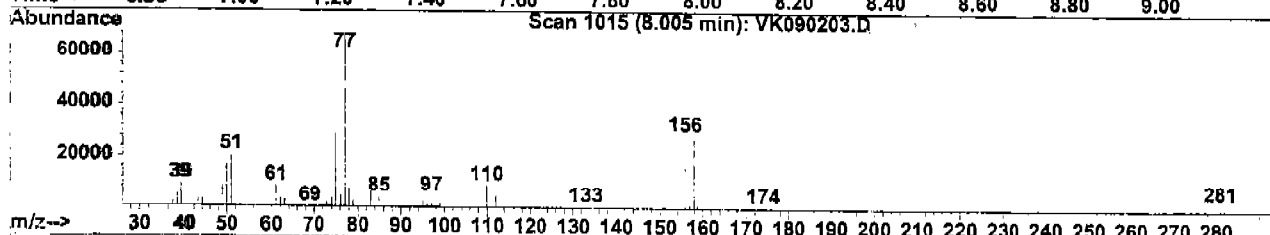
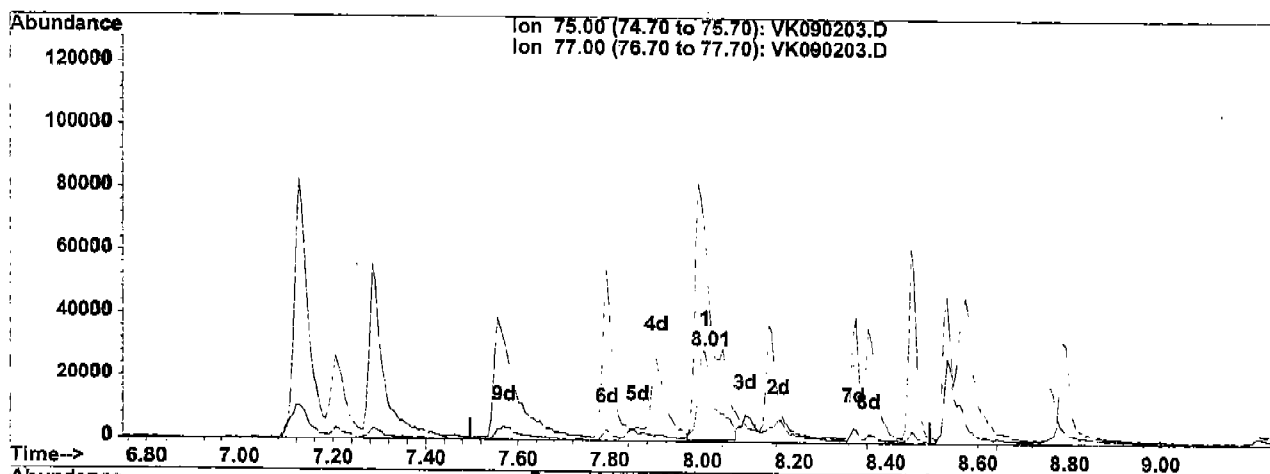
Ion	Exp%	Act%
43.00	100	100
58.00	60.10	16.24#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090203.D  
 Acq On : 2 Sep 2004 2:19 am  
 Sample : 4 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:47 2004

Vial: 13  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(69) 1,2,3-Trichloropropane (T)

8.01min 3.54ug/l

response 71731

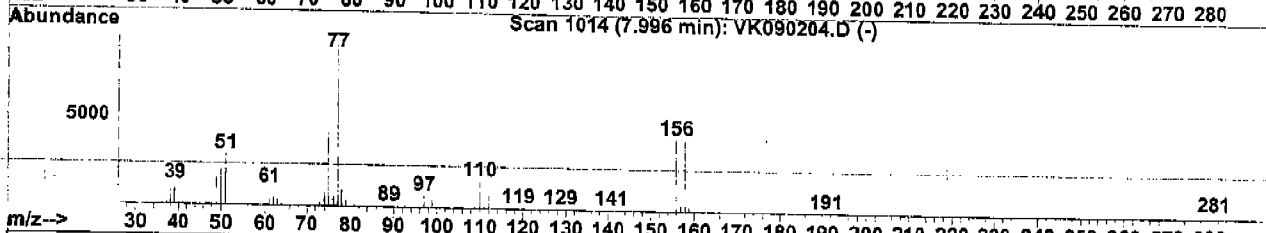
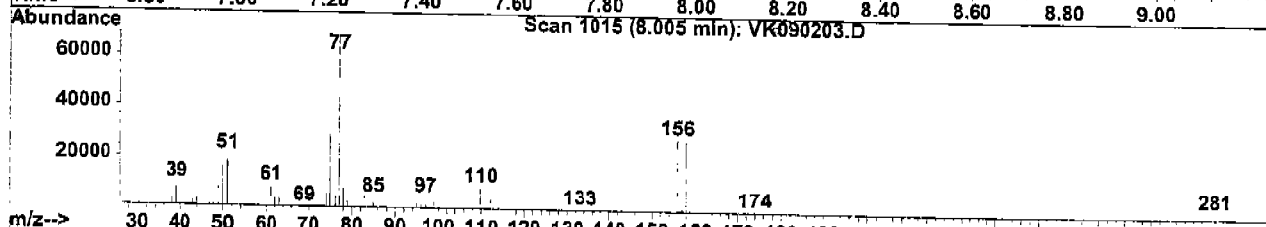
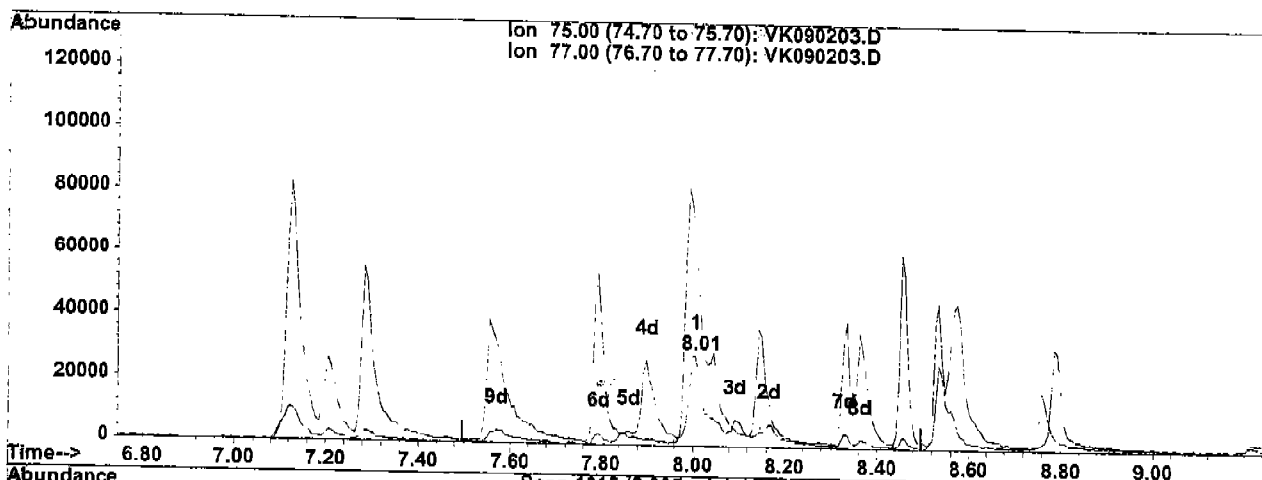
Ion	Exp%	Act%
75.00	100	100
77.00	250.60	326.50
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090203.D  
 Acq On : 2 Sep 2004 2:19 am  
 Sample : 4 PPE ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:47 2004

Vial: 13  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(69) 1,2,3-Trichloropropane (T)

8.01min 4.62ug/l m

response 93547

Ion	Exp%	Act%
75.00	100	100
77.00	250.60	250.36
0.00	0.00	0.00
0.00	0.00	0.00

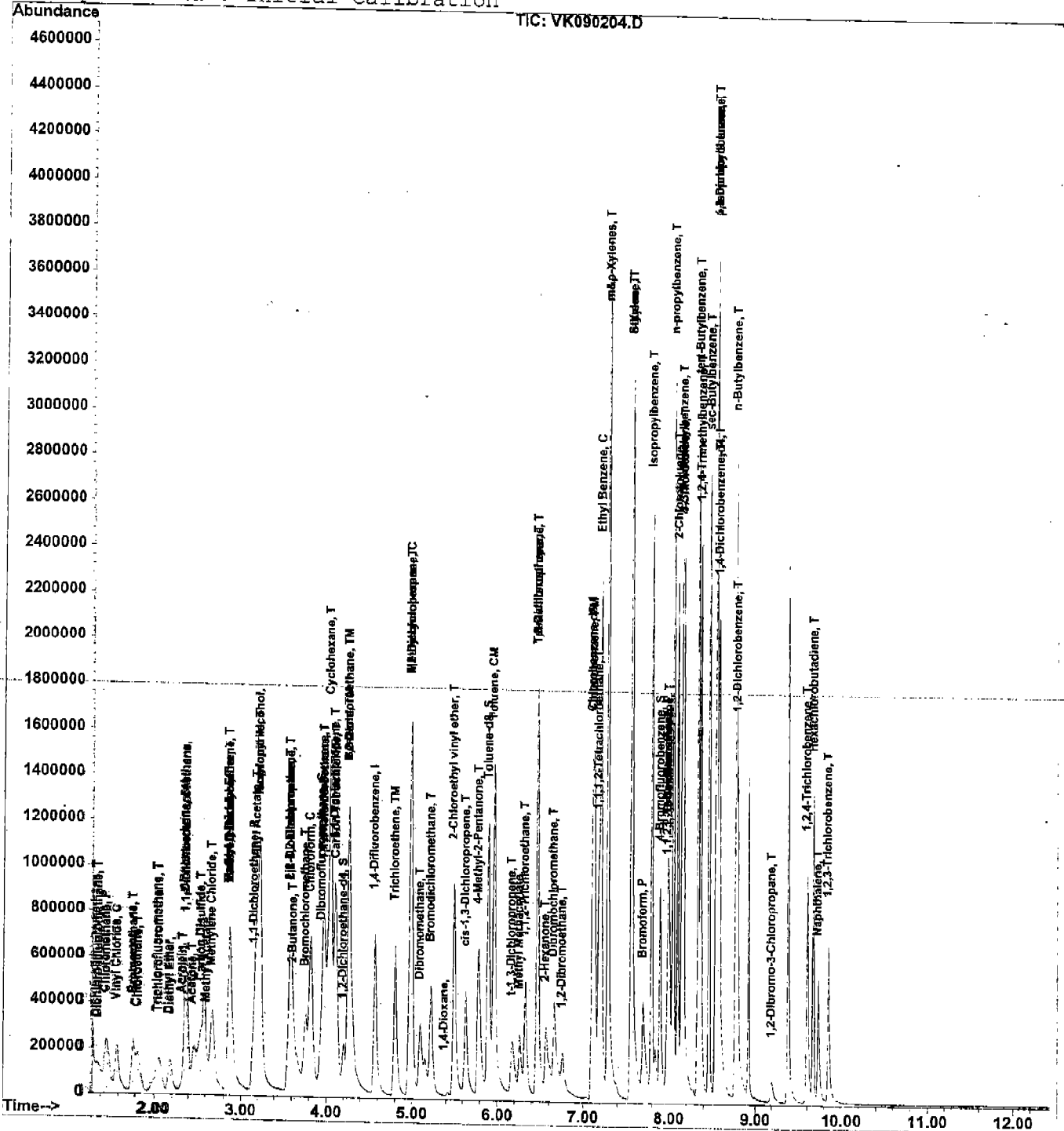
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090204.D  
Acq On : 2 Sep 2004 2:58 am  
Sample : 10 PPB ICC  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 2 10:37 2004

Vial: 14  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090204.D Vial: 14  
 Acq On : 2 Sep 2004 2:58 am Operator: KP  
 Sample : 10 PPB ICC Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 10:37 2004 Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:41 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.96	168	383645	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.56	114	766306	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.10	117	658161	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.56	152	303066	10.00	ug/l	0.00

System Monitoring Compounds

32) 1,2-Dichloroethane-d	4.20	65	185140	10.00	ug/l	0.00
Spiked Amount	10.000		Recovery	=	100.00%	
34) Dibromofluoromethane	3.93	113	205030	10.00	ug/l	0.00
Spiked Amount	10.000		Recovery	=	100.00%	
45) Toluene-d8	5.89	98	902657	10.00	ug/l	0.00
Spiked Amount	10.000		Recovery	=	100.00%	
56) 4-Bromofluorobenzene	7.89	95	367397	10.00	ug/l	0.00
Spiked Amount	10.000		Recovery	=	100.00%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluorometh	1.37	85	316452	10.00	ug/l	100
3) Chloromethane	1.46	50	536651	10.00	ug/l	100
4) Vinyl Chloride	1.59	62	411159	10.00	ug/l	100
5) Bromomethane	1.78	94	305362	10.00	ug/l	100
6) Chloroethane	1.82	64	214609	10.00	ug/l	100
8) Trichlorofluorometha	2.04	101	368381	10.00	ug/l	100
9) 1,1,2-Trichlorotrifl	2.37	101	245679	10.00	ug/l	100
<del>10) Tert-butyl alcohol</del>	<del>2.86</del>	<del>59</del>	<del>29315</del>	<del>50.00</del>	<del>ug/l</del>	<del>100</del>
11) Diethyl Ether	2.18	74	109415	10.00	ug/l	100
12) Isopropyl Alcohol	3.21	45	1129612	10.00	ug/l	100
13) 1,1-Dichloroethene	2.37	96	246303	10.00	ug/l	100
14) Acrolein	2.33	56	45741	50.00	ug/l #	1
15) Acrylonitrile	3.22	53	445016	50.00	ug/l	100
16) Acetone	2.45	43	77501	50.00	ug/l	100
17) Carbon Disulfide	2.54	76	1069093	10.00	ug/l	100
18) Methyl tert-butyl Et	2.87	73	478221	10.00	ug/l	100
19) Methyl Acetate	2.62	43	118295m	10.00	ug/l	
20) Methylene Chloride	2.67	84	287266	10.00	ug/l	100
21) trans-1,2-Dichloroet	2.86	96	264235	10.00	ug/l	100
22) Vinyl Acetate	3.17	43	1612013	50.00	ug/l	100

Analyst Signature: IGP Analyst Name: \_\_\_\_\_ Date: 09.02.04

REASONS FOR MANUAL INTEGRATIONS

Poor resolution of peaks exhibited on chromatogram. Compound #: 19  
 Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090204.D  
 Acq On : 2 Sep 2004 2:58 am  
 Sample : 10 PPB ICC  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 10:37 2004

Vial: 14  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:41 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1-Dichloroethane	3.15	63	466154	10.00	ug/l	100
24) Cyclohexane	4.03	56	1427714	10.00	ug/l	100
25) 2-Butanone	3.62	43	382113	50.00	ug/l	100
26) 2,2-Dichloropropane	3.59	77	368902	10.00	ug/l	100
27) cis-1,2-Dichloroethe	3.58	96	273049	10.00	ug/l	100
28) Bromochloromethane	3.76	128	107934	10.00	ug/l	100
29) Chloroform	3.81	83	549623	10.00	ug/l	100
30) 1,1,1-Trichloroethan	3.97	97	420835	10.00	ug/l	100
31) Methylcyclohexane	4.98	63	296787	10.00	ug/l	100
35) 1,1-Dichloropropene	4.09	75	411440	10.00	ug/l	100
36) Carbon Tetrachloride	4.11	117	327064	10.00	ug/l	100
37) Benzene	4.26	78	1349777	10.00	ug/l	100
38) 1,2-Dichloroethane	4.26	62	231580	10.00	ug/l	100
39) Trichloroethene	4.80	130	314874	10.00	ug/l	100
40) Methyl Methacrylate	6.26	69	234539	10.00	ug/l	100
41) 1,2-Dichloropropane	4.98	63	296787	10.00	ug/l	100
42) Dibromomethane	5.09	93	122936	10.00	ug/l	100
43) 1,4-Dioxane	5.39	88	5287m	200.00	ug/l	100
44) Bromodichloromethane	5.22	83	390867	10.00	ug/l	100
46) 4-Methyl-2-Pentanone	5.78	43	841687	50.00	ug/l	100
47) Toluene	5.95	92	858163	10.00	ug/l	100
48) t-1,3-Dichloropropen	6.17	75	278211	10.00	ug/l	100
49) cis-1,3-Dichloroprop	5.63	75	415849	10.00	ug/l	100
<del>50) 1,1,2-Trichloroethan</del>	<del>6.32</del>	<del>97</del>	<del>170224</del>	<del>10.00</del>	<del>ug/l</del>	<del>100</del>
51) 1,3-Dichloropropane	6.47	76	326929	10.00	ug/l	100
52) 2-Chloroethyl vinyl	5.49	63	555481	50.00	ug/l	100
53) 2-Hexanone	6.56	43	446283	50.00	ug/l	100
54) Dibromochloromethane	6.65	129	200377	10.00	ug/l	100
55) 1,2-Dibromoethane	6.75	107	127632	10.00	ug/l	100
58) Tetrachloroethene	6.46	164	310384	10.00	ug/l	100
59) Chlorobenzene	7.12	112	672240	10.00	ug/l	100
60) 1,1,1,2-Tetrachloroe	7.18	131	253381	10.00	ug/l	100
61) Ethyl Benzene	7.20	106	343470	10.00	ug/l	100
62) m&p-Xylenes	7.28	106	879004	20.00	ug/l	100
63) o-Xylene	7.55	106	434533	10.00	ug/l	100
64) Styrene	7.56	104	739606	10.00	ug/l	100

Analyst Signature: ICP Analyst Name: \_\_\_\_\_ Date: 09.02.04

REASONS FOR MANUAL INTEGRATIONS

✓ Poor resolution of peaks exhibited on chromatogram. Compound #: 43

Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090204.D  
 Acq On : 2 Sep 2004 2:58 am  
 Sample : 10 PPB ICC  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 10:37 2004

Vial: 14  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:41 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
65) Bromoform	7.68	173	87822	10.00	ug/l	100
67) Isopropylbenzene	7.79	105	1174687	10.00	ug/l	100
68) 1,1,2,2-Tetrachloroe	7.97	83	215483	10.00	ug/l	100
69) 1,2,3-Trichloropropa	8.00	75	214135	10.00	ug/l	100
70) Bromobenzene	7.98	156	229872	10.00	ug/l	100
71) n-propylbenzene	8.04	91	1986864	10.00	ug/l	100
72) 2-Chlorotoluene	8.09	91	1144299	10.00	ug/l	100
73) 1,3,5-Trimethylbenze	8.14	105	931230	10.00	ug/l	100
74) 4-Chlorotoluene	8.16	91	1313242	10.18	ug/l	99
75) tert-Butylbenzene	8.33	119	1049117	10.00	ug/l	100
76) 1,2,4-Trimethylbenze	8.36	105	934991	10.00	ug/l	100
77) sec-Butylbenzene	8.46	105	1305884	10.00	ug/l	100
78) p-Isopropyltoluene	8.54	119	1148400	10.00	ug/l	100
79) 1,3-Dichlorobenzene	8.52	146	425609	10.00	ug/l	100
80) 1,4-Dichlorobenzene	8.57	146	512976	10.00	ug/l	100
81) n-Butylbenzene	8.76	91	1453817	10.00	ug/l	100
82) 1,2-Dichlorobenzene	8.78	146	404543	10.00	ug/l	100
83) 1,2-Dibromo-3-Chloro	9.20	75	28916	10.00	ug/l	100
84) 1,2,4-Trichlorobenze	9.60	180	265383	10.00	ug/l	100
85) Hexachlorobutadiene	9.67	225	175089	10.00	ug/l	100
86) Naphthalene	9.73	128	482674	10.00	ug/l	100
87) 1,2,3-Trichlorobenze	9.85	180	208510	10.00	ug/l	100

Analyst Signature: 10 Analyst Name: \_\_\_\_\_ Date: 09.02.04

REASONS FOR MANUAL INTEGRATIONS

Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

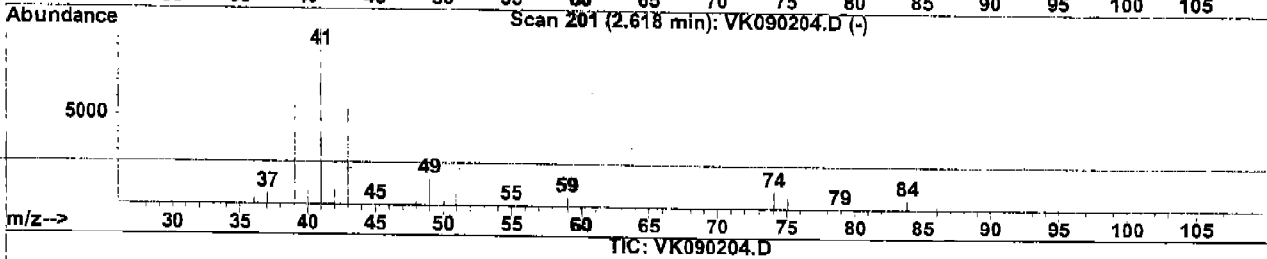
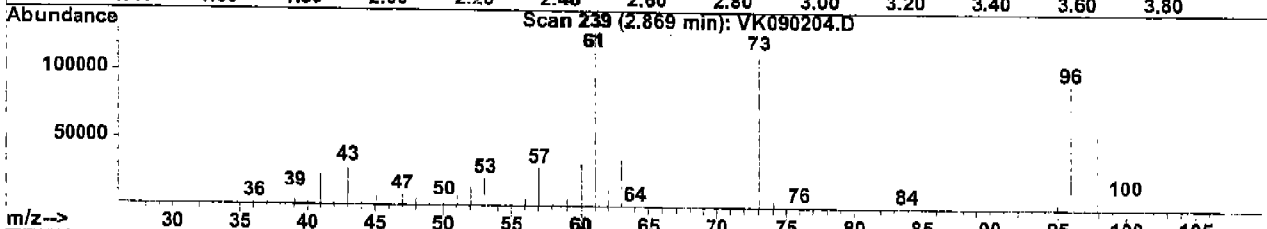
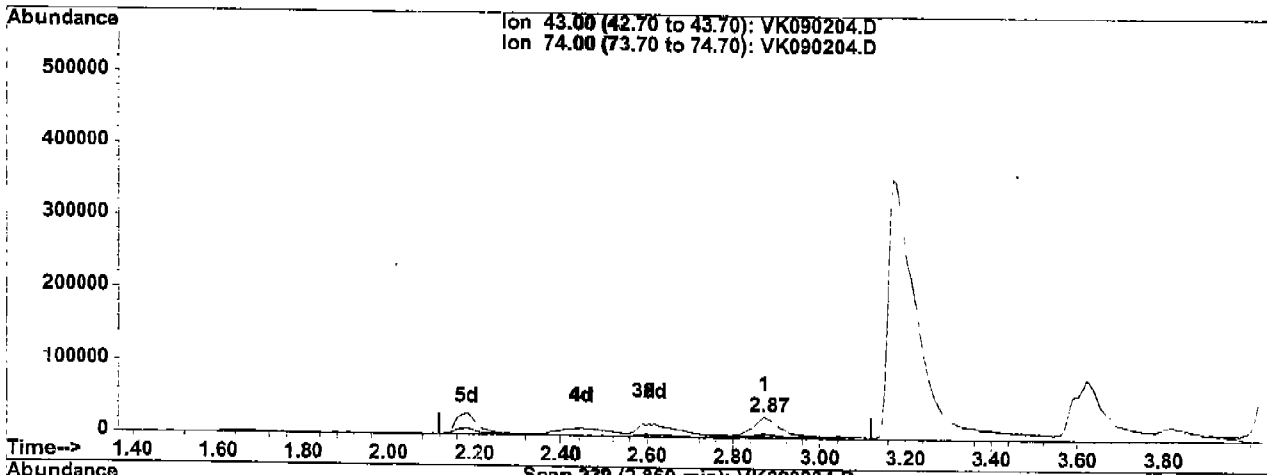


Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090204.D  
 Acq On : 2 Sep 2004 2:58 am  
 Sample : 10 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:35 2004

Vial: 14  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(19) Methyl Acetate

2.87min 9.29ug/l

response 109955

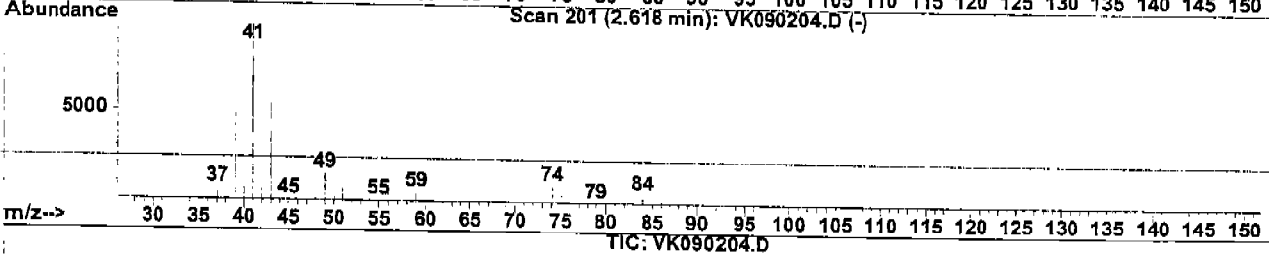
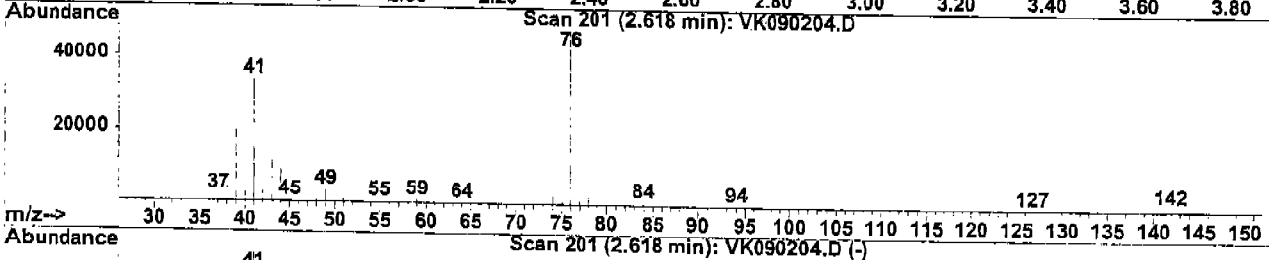
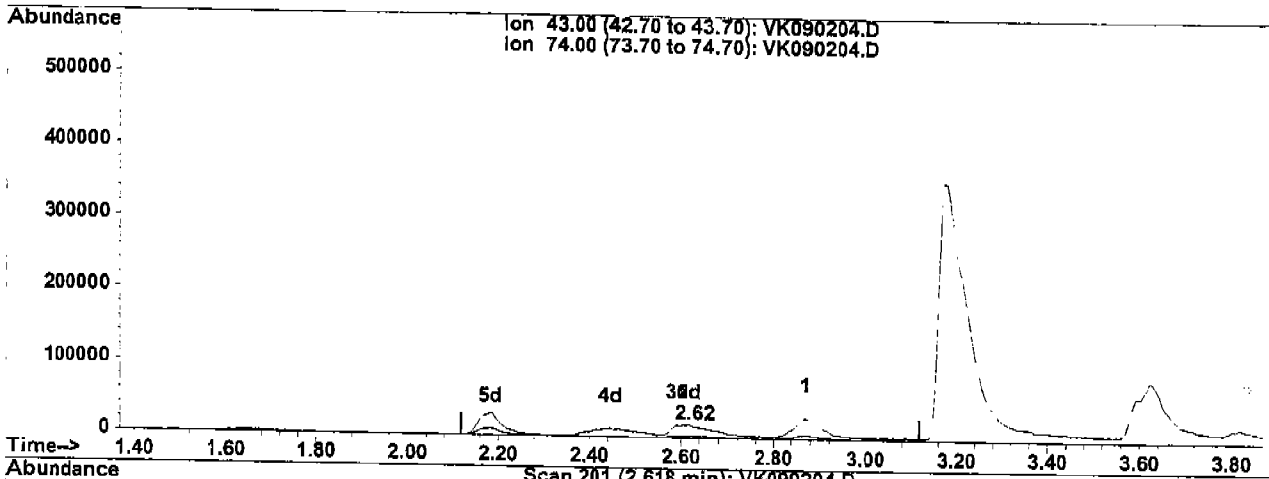
Ion	Exp%	Act%
43.00	100	100
74.00	21.20	22.81
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090204.D  
Acq On : 2 Sep 2004 2:58 am  
Sample : 10 PPB ICC  
Misc : 25mL  
Quant Time: Sep 2 10:36 2004

Vial: 14  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00  
Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:34:44 2004  
Response via : Single Level Calibration



(19) Methyl Acetate

2.62min 10.00ug/l m

response 118295

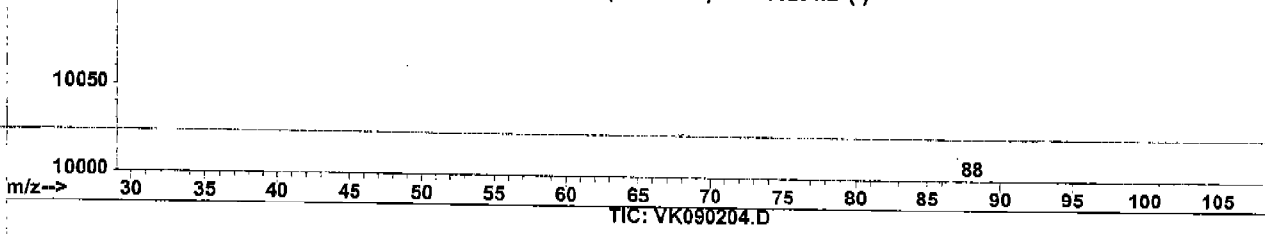
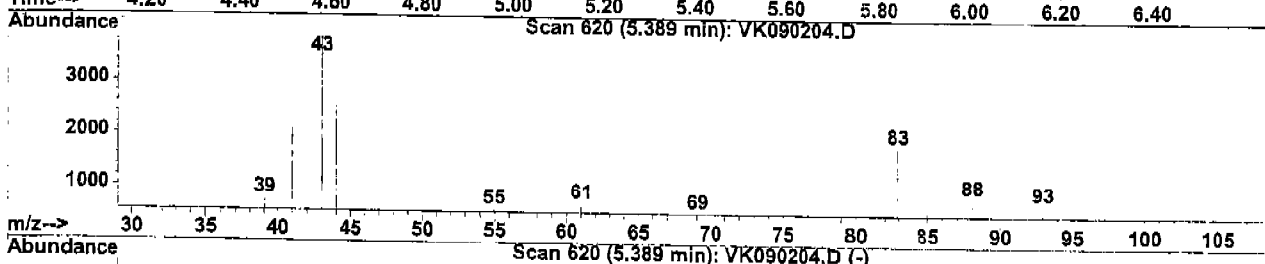
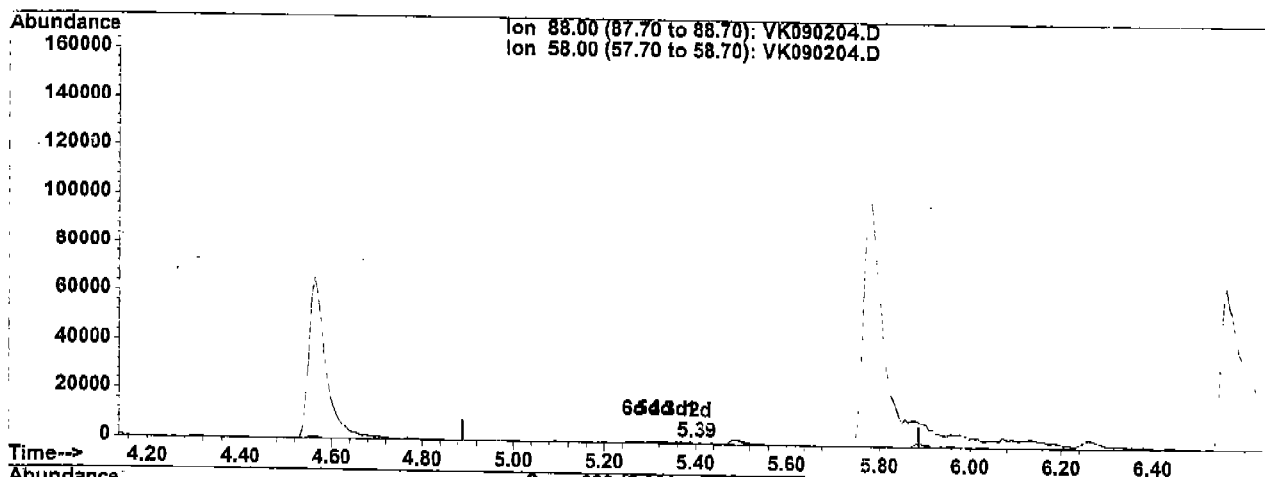
Ion	Exp%	Act%
43.00	100	100
74.00	21.20	21.20
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090204.D  
 Acq On : 2 Sep 2004 2:58 am  
 Sample : 10 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:36 2004

Vial: 14  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(43) 1,4-Dioxane

5.39min 22.77ug/l

response 602

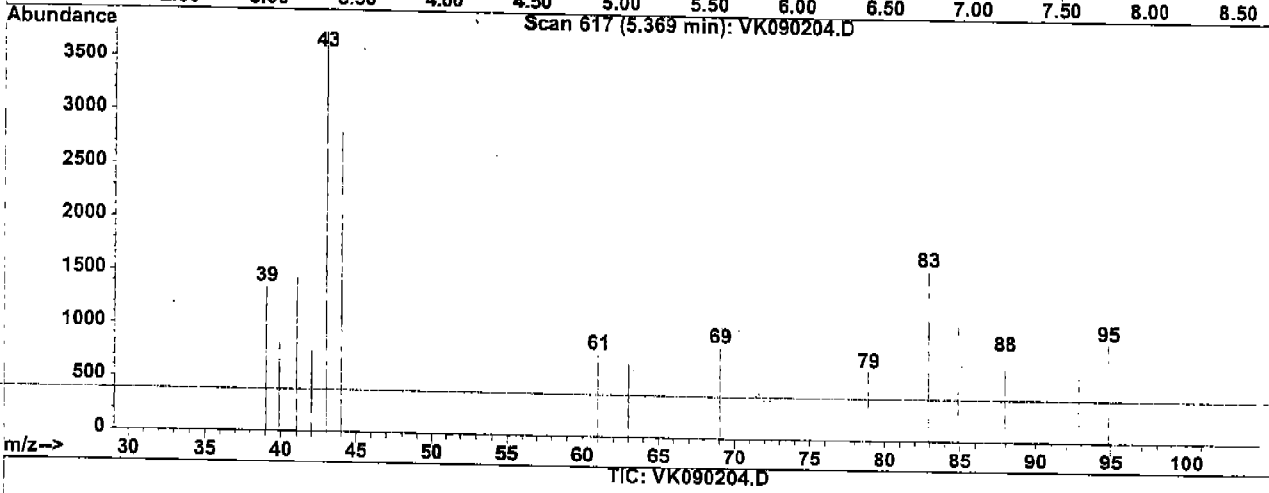
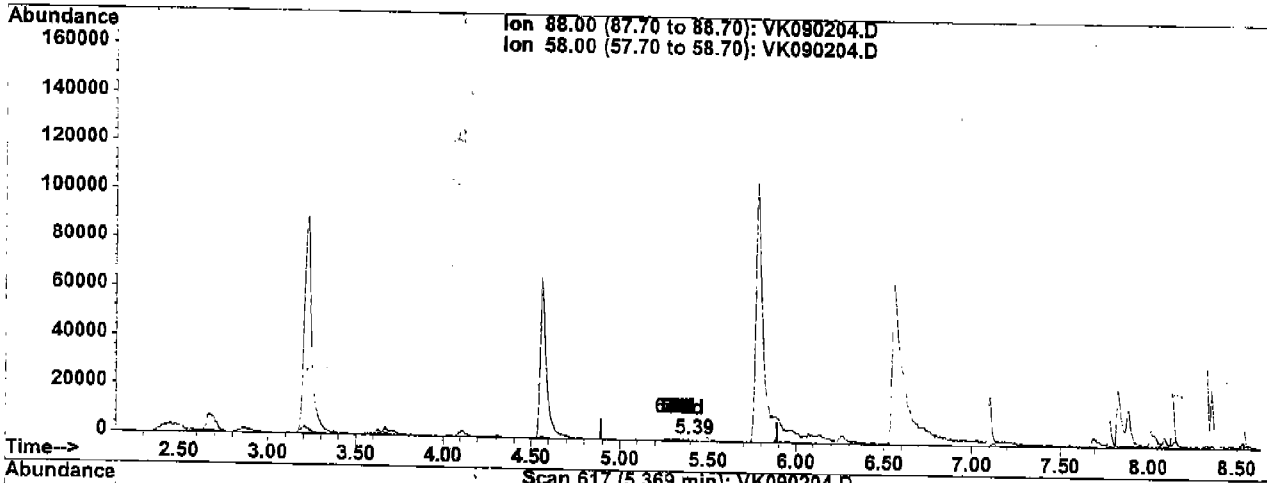
Ion	Exp%	Act%
88.00	100	100
58.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090204.D  
Acq On : 2 Sep 2004 2:58 am  
Sample : 10 PPB ICC  
Misc : 25mL  
Quant Time: Sep 2 10:37 2004

Vial: 14  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00  
Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:34:44 2004  
Response via : Single Level Calibration



TIC: VK090204.D

(43) 1,4-Dioxane		
5.39min 200.00ug/l m		
response 5287		
Ion	Exp%	Act%
88.00	100	100
58.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

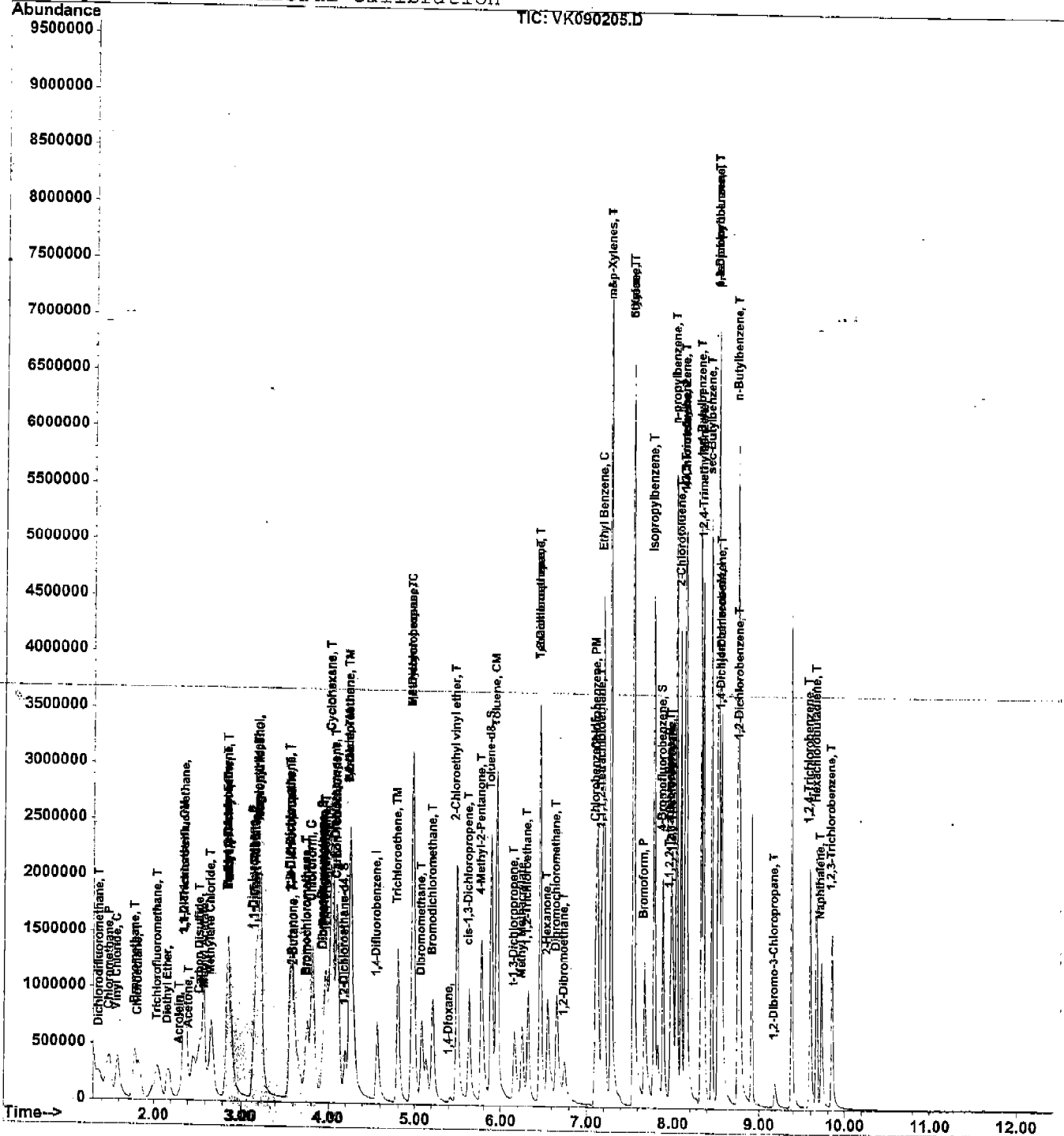
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090205.D  
Acq On : 2 Sep 2004 3:37 am  
Sample : 20 PPB ICC  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 2 10:49 2004

Vial: 15  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090205.D  
 Acq On : 2 Sep 2004 3:37 am  
 Sample : 20 PPB ICC  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 10:49 2004

Vial: 15  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:41 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.95	168	361564	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.56	114	717145	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.10	117	618428	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.56	152	277246	10.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) 1,2-Dichloroethane-d	4.19	65	365935	20.97	ug/l	0.00
Spiked Amount	10.000					
						Recovery = 209.70%
34) Dibromofluoromethane	3.93	113	401517	20.93	ug/l	0.00
Spiked Amount	10.000					
						Recovery = 209.30%
45) Toluene-d8	5.89	98	1770963	20.96	ug/l	0.00
Spiked Amount	10.000					
						Recovery = 209.60%
56) 4-Bromofluorobenzene	7.88	95	703600	20.46	ug/l	0.00
Spiked Amount	10.000					
						Recovery = 204.60%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluorometh	1.37	85	623659	20.91	ug/l	98
3) Chloromethane	1.48	50	1004170	19.85	ug/l	97
4) Vinyl Chloride	1.59	62	779624	20.12	ug/l	95
5) Bromomethane	1.78	94	559592	19.44	ug/l	98
6) Chloroethane	1.82	64	427337	21.13	ug/l	100
8) Trichlorofluorometha	2.04	101	704429	20.29	ug/l	97
9) 1,1,2-Trichlorotrifl	2.37	101	449656	19.42	ug/l	99
10) Tert-butyl-alcohol	2.86	59	73232	132.53	ug/l	100
11) Diethyl Ether	2.17	74	203729	19.76	ug/l	98
12) Isopropyl Alcohol	3.21	45	2032965	19.10	ug/l	100
13) 1,1-Dichloroethene	2.35	96	453207	19.52	ug/l	96
14) Acrolein	2.30	56	101554m	117.79	ug/l	
15) Acrylonitrile	3.22	53	828852	98.81	ug/l	99
16) Acetone	2.42	43	143766	98.42	ug/l	94
17) Carbon Disulfide	2.54	76	1977680	19.63	ug/l	100
18) Methyl tert-butyl Et	2.87	73	883926	19.61	ug/l	98
19) Methyl Acetate	2.61	43	219338m	19.67	ug/l	
20) Methylene Chloride	2.66	84	527291	19.48	ug/l	97
21) trans-1,2-Dichloroet	2.86	96	500344	20.09	ug/l	98
22) Vinyl Acetate	3.17	43	2666100	87.74	ug/l	98

Analyst Signature: iqp Analyst Name: \_\_\_\_\_ Date: 09.02.04

REASONS FOR MANUAL INTEGRATIONS

Poor resolution of peaks exhibited on chromatogram. Compound #: 14,19

Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090205.D  
 Acq On : 2 Sep 2004 3:37 am  
 Sample : 20 PPB ICC  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 10:49 2004

Vial: 15  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:41 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1-Dichloroethane	3.15	63	876798	19.96	ug/l	98
24) Cyclohexane	4.03	56	2735475	20.33	ug/l	98
25) 2-Butanone	3.62	43	885989m	123.01	ug/l	
26) 2,2-Dichloropropane	3.59	77	693294	19.94	ug/l	100
27) cis-1,2-Dichloroethe	3.58	96	539420	20.96	ug/l	99
28) Bromochloromethane	3.76	128	211552	20.80	ug/l	96
29) Chloroform	3.81	83	1077614	20.80	ug/l	96
30) 1,1,1-Trichloroethan	3.98	97	814963	20.55	ug/l	# 79
31) Methylcyclohexane	4.97	63	573727	20.51	ug/l	98
35) 1,1-Dichloropropene	4.09	75	793773	20.62	ug/l	98
36) Carbon Tetrachloride	4.11	117	630396	20.60	ug/l	98
37) Benzene	4.26	78	2577357	20.40	ug/l	100
38) 1,2-Dichloroethane	4.26	62	465597	21.48	ug/l	99
39) Trichloroethene	4.79	130	623067	21.14	ug/l	96
40) Methyl Methacrylate	6.25	69	428460	19.52	ug/l	# 82
41) 1,2-Dichloropropane	4.97	63	573727	20.66	ug/l	98
42) Dibromomethane	5.09	93	239761	20.84	ug/l	97
43) 1,4-Dioxane	5.40	88	4022	162.58	ug/l	# 100
44) Bromodichloromethane	5.22	83	764573	20.90	ug/l	98
46) 4-Methyl-2-Pentanone	5.77	43	1658849	105.30	ug/l	99
47) Toluene	5.95	92	1670845	20.80	ug/l	99
48) t-1,3-Dichloropropen	6.16	75	574250	22.06	ug/l	97
49) cis-1,3-Dichloroprop	5.63	75	816456	20.98	ug/l	100
50) 1,1,2-Trichloroethan	6.32	97	322944	20.27	ug/l	99
51) 1,3-Dichloropropane	6.46	76	616650	20.15	ug/l	100
52) 2-Chloroethyl vinyl	5.49	63	1133226	109.00	ug/l	99
53) 2-Hexanone	6.55	43	1029242	123.22	ug/l	100
54) Dibromochloromethane	6.65	129	400585	21.36	ug/l	99
55) 1,2-Dibromoethane	6.75	107	254797	21.33	ug/l	99
58) Tetrachloroethene	6.45	164	596140	20.44	ug/l	98
59) Chlorobenzene	7.12	112	1292188	20.46	ug/l	100
60) 1,1,1,2-Tetrachloroe	7.18	131	485082	20.37	ug/l	96
61) Ethyl Benzene	7.20	106	648438	20.09	ug/l	100
62) m&p-Xylenes	7.28	106	1621662	39.27	ug/l	98
63) o-Xylene	7.55	106	807020	19.77	ug/l	97
64) Styrene	7.56	104	1405370	20.22	ug/l	99

Analyst Signature:   ap   Analyst Name: \_\_\_\_\_ Date: 09.02.04

-----REASONS FOR MANUAL INTEGRATIONS-----

Poor resolution of peaks exhibited on chromatogram. Compound #: 25

Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090205.D  
 Acq On : 2 Sep 2004 3:37 am  
 Sample : 20 PPB ICC  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 10:49 2004

Vial: 15  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:41 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
65) Bromoform	7.69	173	170456	20.66	ug/l	99
67) Isopropylbenzene	7.78	105	2191496	20.39	ug/l	100
68) 1,1,2,2-Tetrachloroe	7.96	83	400388	20.31	ug/l	99
69) 1,2,3-Trichloropropa	8.00	75	429905	21.95	ug/l	95
70) Bromobenzene	7.98	156	443126	21.07	ug/l	99
71) n-propylbenzene	8.04	91	3757954	20.68	ug/l	99
72) 2-Chlorotoluene	8.10	91	2171616	20.75	ug/l	99
73) 1,3,5-Trimethylbenze	8.14	105	1726757	20.27	ug/l	99
74) 4-Chlorotoluene	8.16	91	2424537	20.55	ug/l	99
75) tert-Butylbenzene	8.33	119	1935472	20.17	ug/l	99
76) 1,2,4-Trimethylbenze	8.36	105	1732857	20.26	ug/l	88
77) sec-Butylbenzene	8.45	105	2451329	20.52	ug/l	99
78) p-Isopropyltoluene	8.53	119	2119063	20.17	ug/l	99
79) 1,3-Dichlorobenzene	8.53	146	846474	21.74	ug/l	97
80) 1,4-Dichlorobenzene	8.57	146	950876	20.26	ug/l	97
81) n-Butylbenzene	8.76	91	2757143	20.73	ug/l	99
82) 1,2-Dichlorobenzene	8.78	146	779300	21.06	ug/l	99
83) 1,2-Dibromo-3-Chloro	9.19	75	53722	20.31	ug/l	91
84) 1,2,4-Trichlorobenze	9.59	180	521467	21.48	ug/l	98
85) Hexachlorobutadiene	9.67	225	333024	20.79	ug/l	98
86) Naphthalene	9.72	128	965133	21.86	ug/l	100
87) 1,2,3-Trichlorobenze	9.85	180	407587	21.37	ug/l	97

Analyst Signature: Top Analyst Name: \_\_\_\_\_ Date: 09.02.04

REASONS FOR MANUAL INTEGRATIONS

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

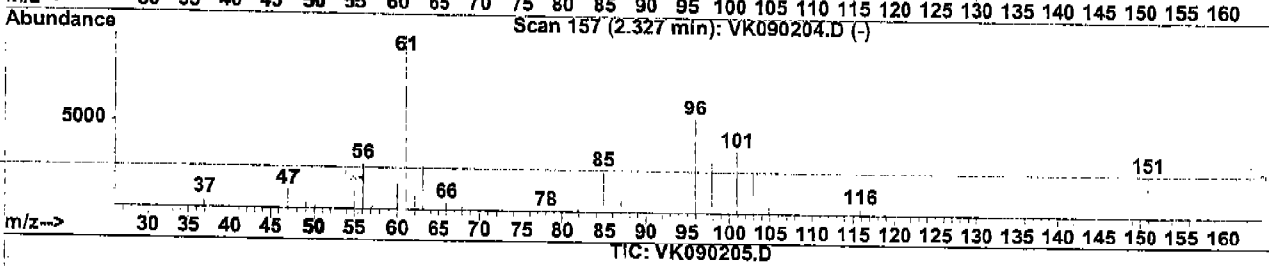
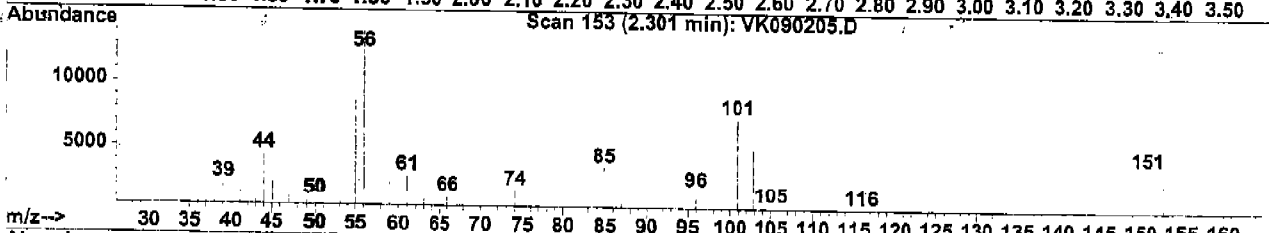
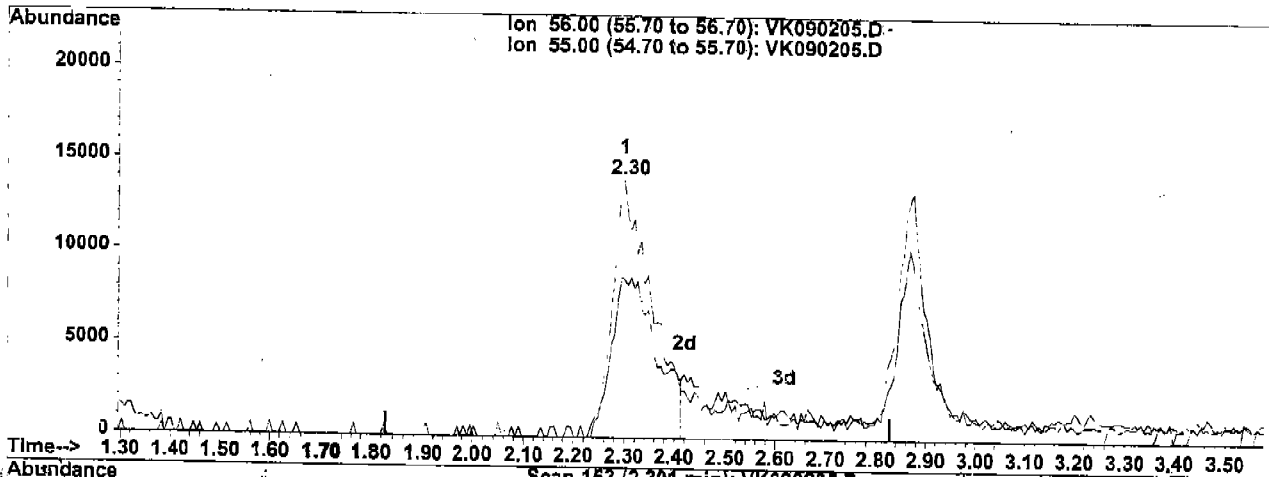


Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090205.D  
 Acq On : 2 Sep 2004 3:37 am  
 Sample : 20 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:48 2004

Vial: 15  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



TIC: VK090205.D

(14) Acrolein (T)  
 2.30min 87.30ug/l  
 response 75272

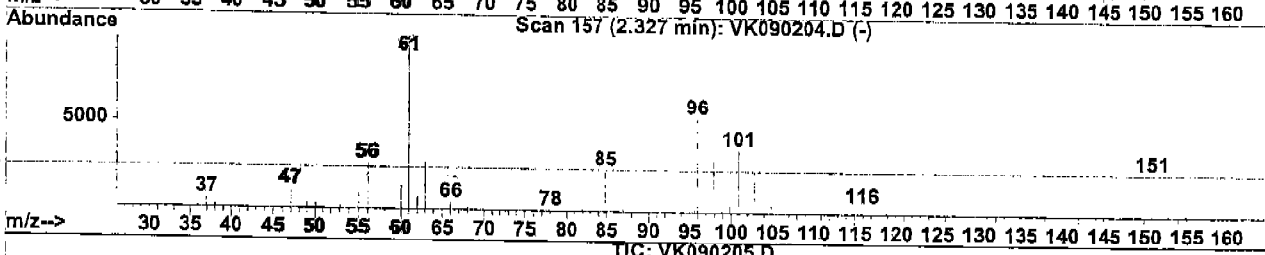
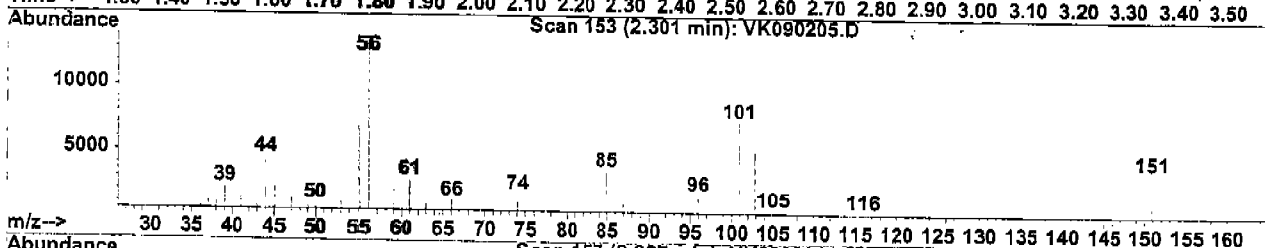
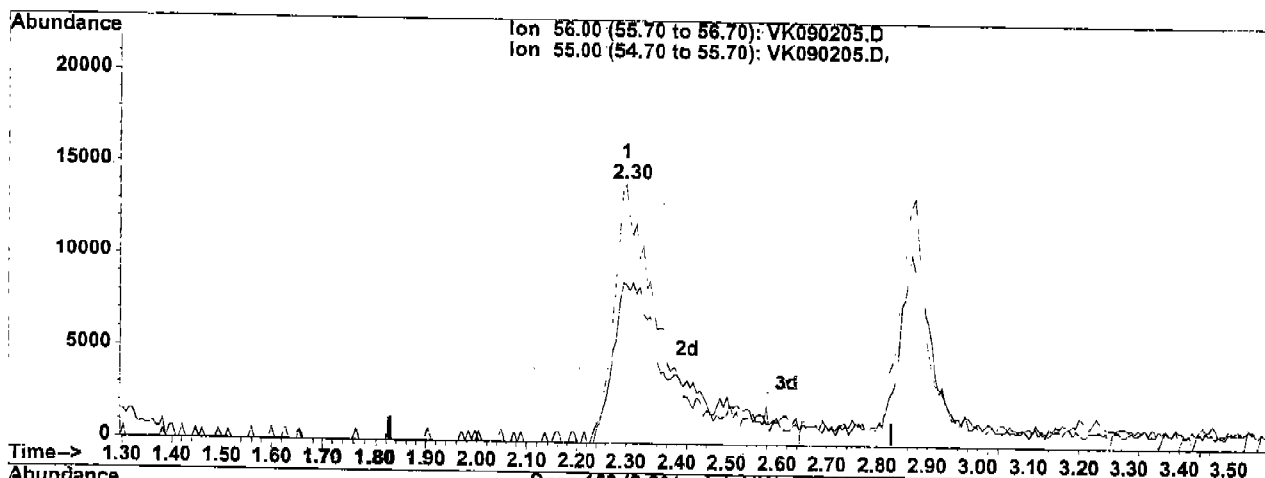
Ion	Exp%	Act%
56.00	100	100
55.00	686.40	28.06#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090205.D  
 Acq On : 2 Sep 2004 3:37 am  
 Sample : 20 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:49 2004

Vial: 15  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(14) Acrolein (T)

2.30min 117.79ug/l m

response 101554

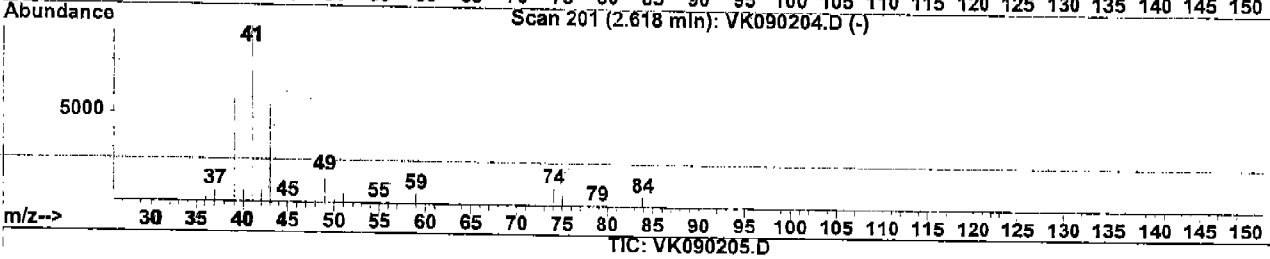
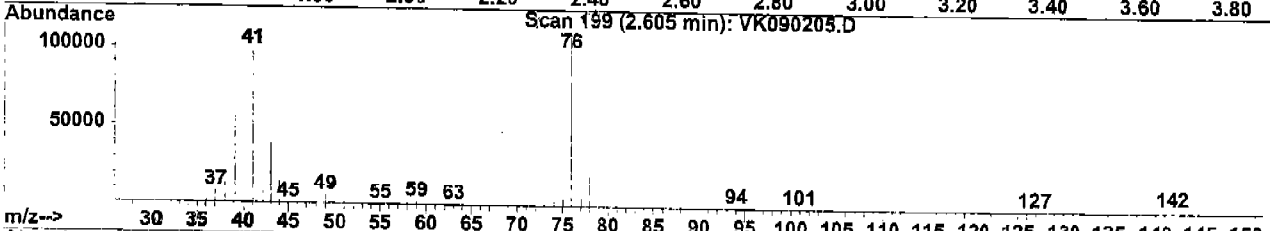
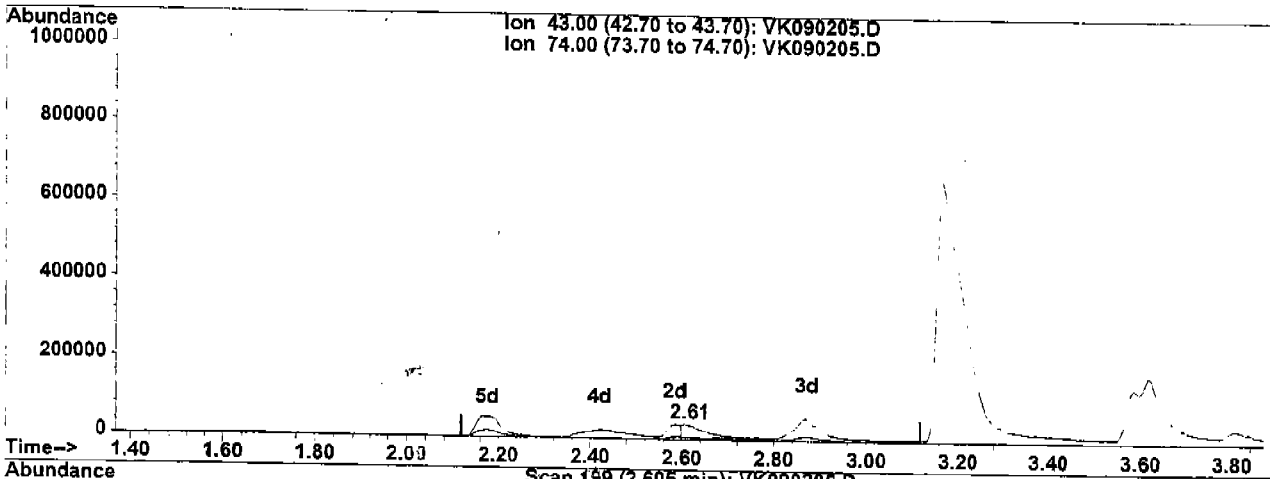
Ion	Exp%	Act%
56.00	100	100
55.00	686.40	20.80#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090205.D  
 Acq On : 2 Sep 2004 3:37 am  
 Sample : 20 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:49 2004

Vial: 15  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(19) Methyl Acetate

2.61min 9.51ug/l

response 106078

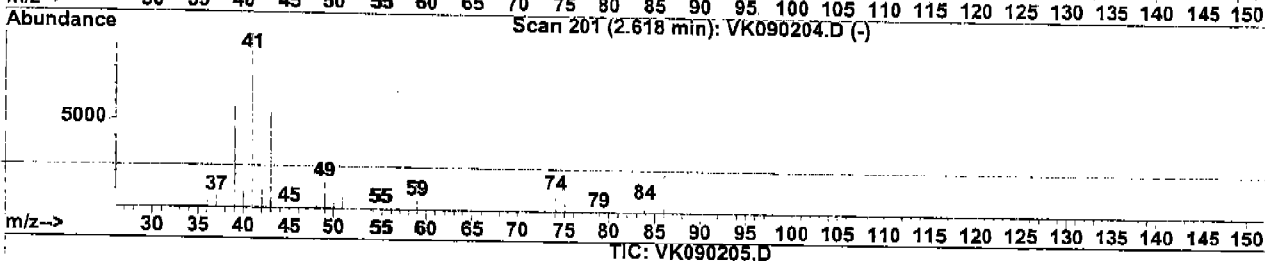
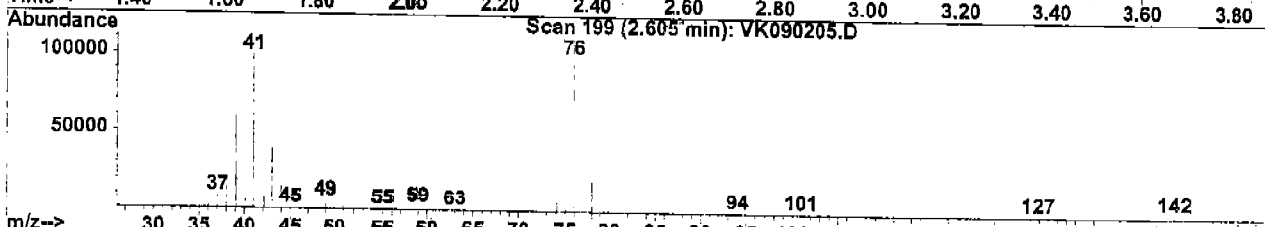
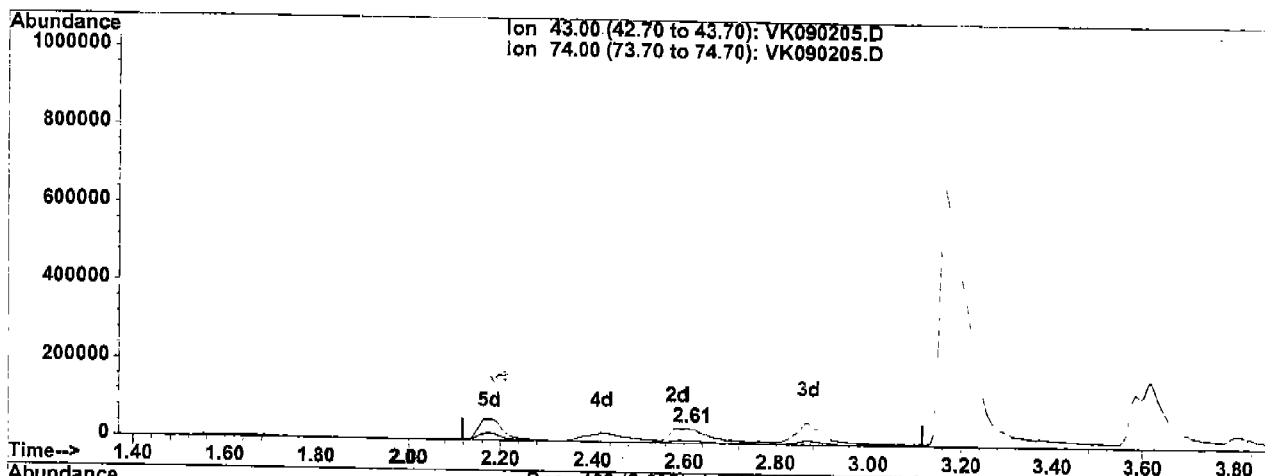
Ion	Exp%	Act%
43.00	100	100
74.00	21.20	19.99
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090205.D  
 Acq On : 2 Sep 2004 3:37 am  
 Sample : 20 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:49 2004

Vial: 15  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(19) Methyl Acetate

2.61min 19.67ug/l m

response 219338

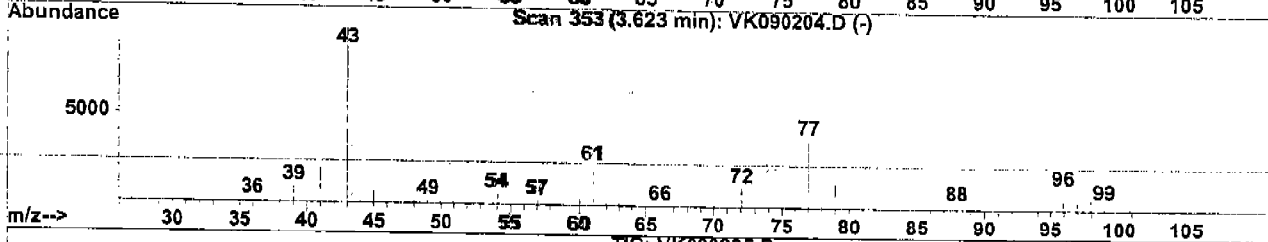
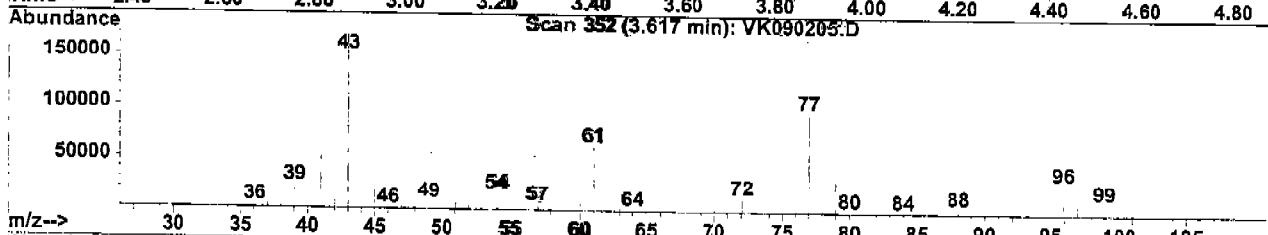
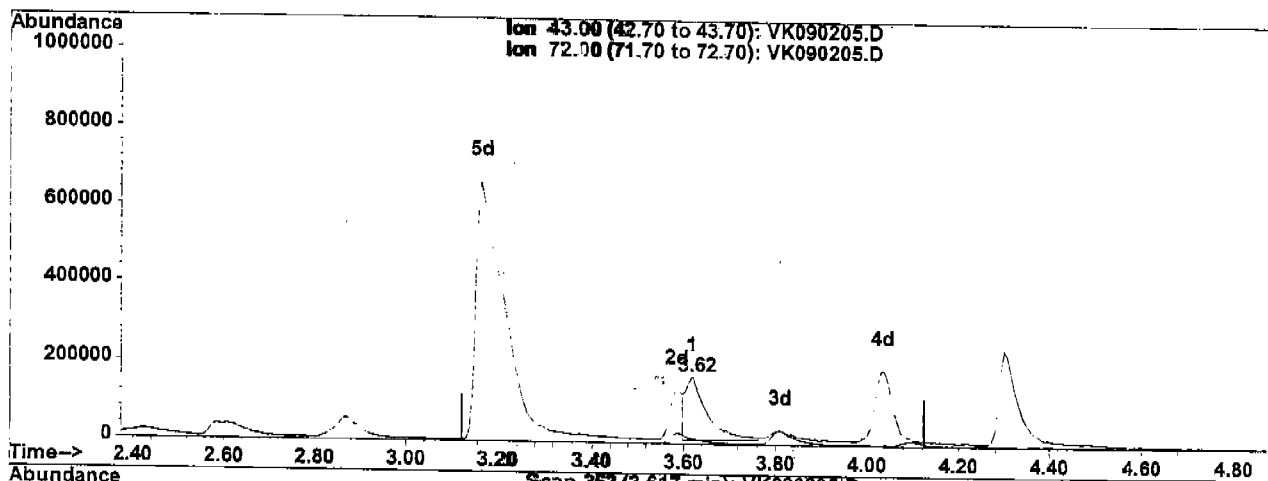
Ion	Exp%	Act%
43.00	100	100
74.00	21.20	9.67
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090205.D  
 Acq On : 2 Sep 2004 3:37 am  
 Sample : 20 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:49 2004

Vial: 15  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



TIC: VK090205.D

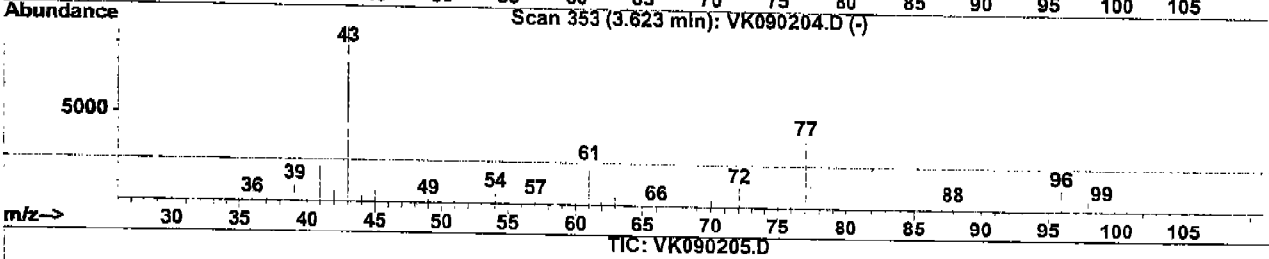
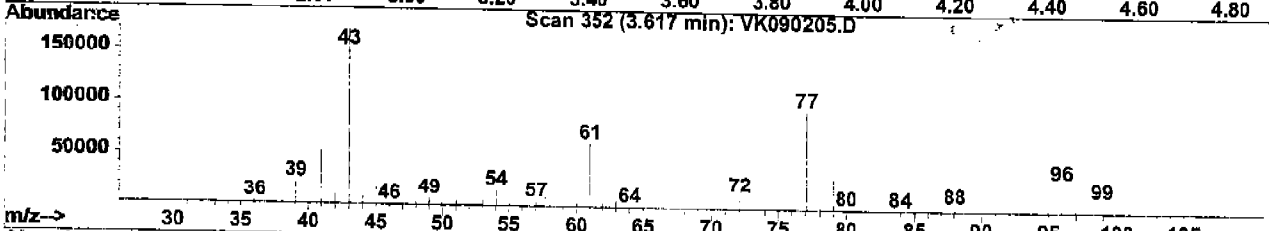
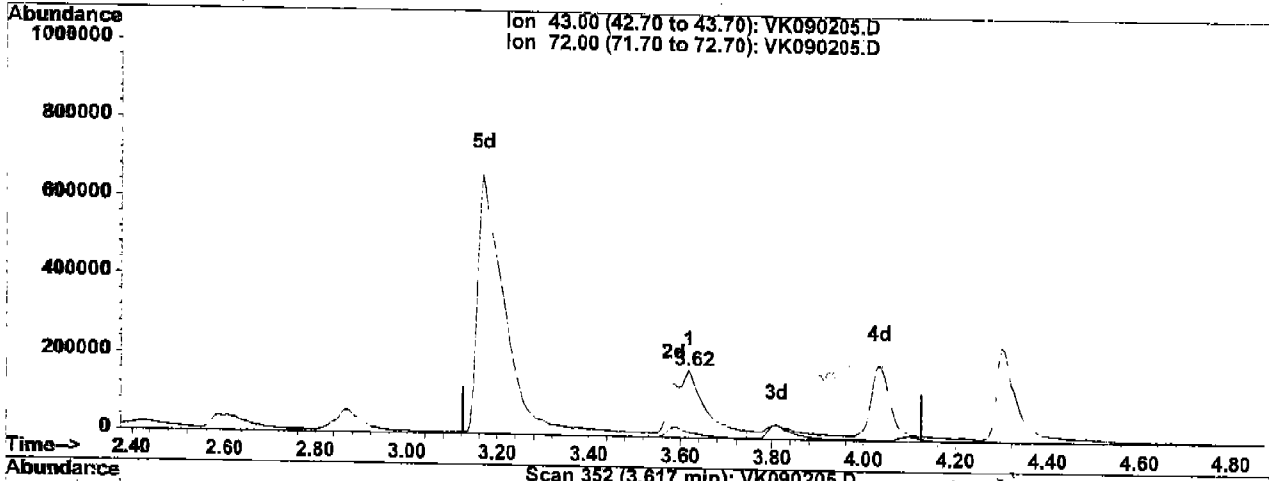
(25) 2-Butanone (T)		
3.62min	73.62ug/l	
response	530218	
Ion	Exp%	Act%
43.00	100	100
72.00	11.10	7.38#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090205.D  
 Acq On : 2 Sep 2004 3:37 am  
 Sample : 20 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:49 2004

Vial: 15  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



TIC: VK090205.D

(25) 2-Butanone (T)  
 3.62min 123.01ug/l m  
 response 885989

Ion	Exp%	Act%
43.00	100	100
72.00	11.10	7.77#
0.00	0.00	0.00
0.00	0.00	0.00

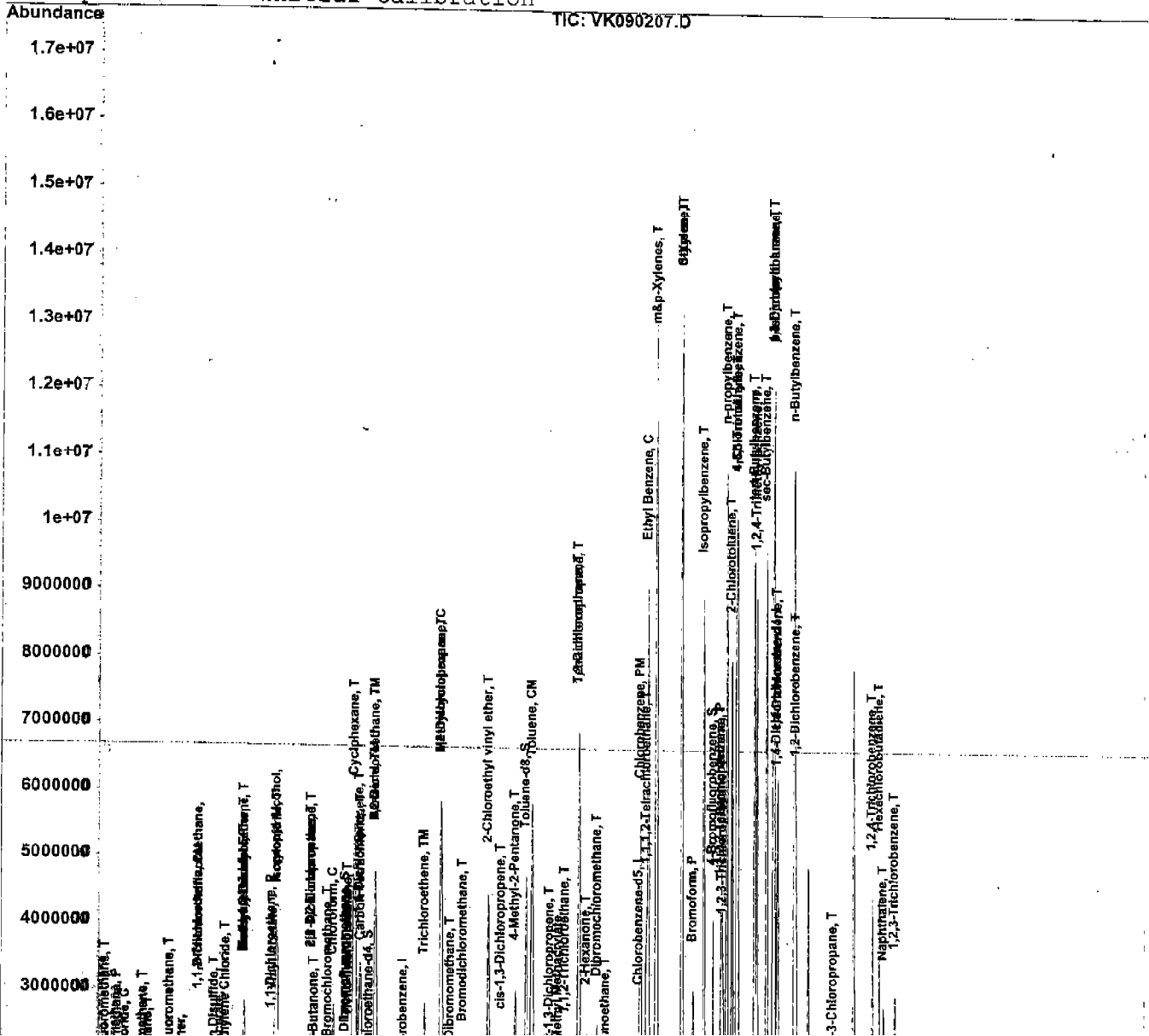
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090207.D  
 Acq On : 2 Sep 2004 4:55 am  
 Sample : 40 PPB ICC  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 10:53 2004

Vial: 17  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration







CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090207.D  
 Acq On : 2 Sep 2004 4:55 am  
 Sample : 40 PPB ICC  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 10:53 2004

Vial: 17  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:41 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1-Dichloroethane	3.15	63	1607373	38.58	ug/l	98
24) Cyclohexane	4.03	56	5125410	40.17	ug/l	99
25) 2-Pentanone	3.62	43	1612010	236.02	ug/l	95
26) 2,2-Dichloropropane	3.58	77	1265730	38.39	ug/l	98
27) cis-1,2-Dichloroethane	3.58	96	1057285	43.33	ug/l	99
28) Bromochloromethane	3.76	128	432990	44.89	ug/l	73
29) Chloroform	3.81	83	2075862	42.26	ug/l	98
30) 1,1,1-Trichloroethane	3.97	97	1570906	41.77	ug/l	# 70
31) Methylcyclohexane	4.97	63	1080332	40.73	ug/l	97
35) 1,1-Dichloropropene	4.09	75	1466318	38.71	ug/l	99
36) Carbon Tetrachloride	4.11	117	1186064	39.39	ug/l	99
37) Benzene	4.26	78	4869093	39.18	ug/l	100
38) 1,2-Dichloroethane	4.26	62	922381	43.26	ug/l	98
39) Trichloroethene	4.79	130	1204313	41.54	ug/l	96
40) Methyl Methacrylate	6.24	69	981529	45.45	ug/l	86
41) 1,2-Dichloropropane	4.97	63	1080332	39.54	ug/l	97
42) Dibromomethane	5.08	93	486125	42.95	ug/l	97
44) Bromodichloromethane	5.21	83	1511062	41.99	ug/l	98
46) 4-Methyl-2-Pentanone	5.77	43	3527500	227.60	ug/l	98
47) Toluene	5.95	92	3188087	40.35	ug/l	98
48) t-1,3-Dichloropropene	6.15	75	1210791	47.27	ug/l	97
49) cis-1,3-Dichloropropene	5.62	75	1593223	41.61	ug/l	100
50) 1,1,2-Trichloroethane	6.32	97	628029	40.07	ug/l	97
51) 1,3-Dichloropropane	6.46	76	1175448	39.05	ug/l	99
52) 2-Chloroethyl vinyl	5.48	63	2288704	223.75	ug/l	100
53) 2-Hexanone	6.54	43	2248520	273.61	ug/l	98
54) Dibromochloromethane	6.65	129	780242	42.29	ug/l	97
55) 1,2-Dibromoethane	6.75	107	550488	46.85	ug/l	99
58) Tetrachloroethene	6.46	164	1131443	39.77	ug/l	98
59) Chlorobenzene	7.12	112	2447738	39.73	ug/l	99
60) 1,1,1,2-Tetrachloroethane	7.18	131	940630	40.50	ug/l	97
61) Ethyl Benzene	7.20	106	1208226	38.38	ug/l	100
62) m,p-Xylenes	7.28	106	2923049	72.56	ug/l	95
63) o-Xylene	7.55	106	1483350	37.24	ug/l	91
64) Styrene	7.56	104	2644850	39.02	ug/l	99
65) Bromoform	7.68	173	364787	45.32	ug/l	98

Analyst Signature: 19 Analyst Name: \_\_\_\_\_ Date: 09.02.04

-----REASONS FOR MANUAL INTEGRATIONS-----

Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_  
 Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090207.D  
 Acq On : 2 Sep 2004 4:55 am  
 Sample : 40 PPB ICC  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 10:53 2004

Vial: 17  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:41 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
67) Isopropylbenzene	7.78	105	4104261	39.71	ug/l	99
68) 1,1,2,2-Tetrachloroe	7.96	83	808477	42.64	ug/l	98
69) 1,2,3-Trichloropropa	8.00	75	902233	47.88	ug/l	89
70) Bromobenzene	7.98	156	868780	42.95	ug/l	97
71) n-propylbenzene	8.04	91	6964688	39.84	ug/l	98
72) 2-Chlorotoluene	8.10	91	4148078	41.20	ug/l	99
73) 1,3,5-Trimethylbenze	8.14	105	3164205	38.62	ug/l	97
74) 4-Chlorotoluene	8.15	91	4632194	40.82	ug/l	97
75) tert-Butylbenzene	8.33	119	3499518	37.91	ug/l	95
76) 1,2,4-Trimethylbenze	8.36	105	3249627	39.50	ug/l	90
77) sec-Butylbenzene	8.45	105	4489264	39.07	ug/l	100
78) p-Isopropyltoluene	8.53	119	3722908	36.84	ug/l	97
79) 1,3-Dichlorobenzene	8.53	146	1619018	43.23	ug/l	96
80) 1,4-Dichlorobenzene	8.57	146	1757801	38.94	ug/l	97
81) n-Butylbenzene	8.75	91	5190902	40.58	ug/l	99
82) 1,2-Dichlorobenzene	8.78	146	1507053	42.34	ug/l	98
83) 1,2-Dibromo-3-Chloro	9.18	75	111381	43.78	ug/l	79
84) 1,2,4-Trichlorobenze	9.59	180	994930	42.61	ug/l	100
85) Hexachlorobutadiene	9.67	225	637023	41.35	ug/l	98
86) Naphthalene	9.72	128	1934420	45.55	ug/l	100
87) 1,2,3-Trichlorobenze	9.85	180	773273	42.15	ug/l	97

Analyst Signature: kp Analyst Name: \_\_\_\_\_ Date: 09.02.04

REASONS FOR MANUAL INTEGRATIONS

Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

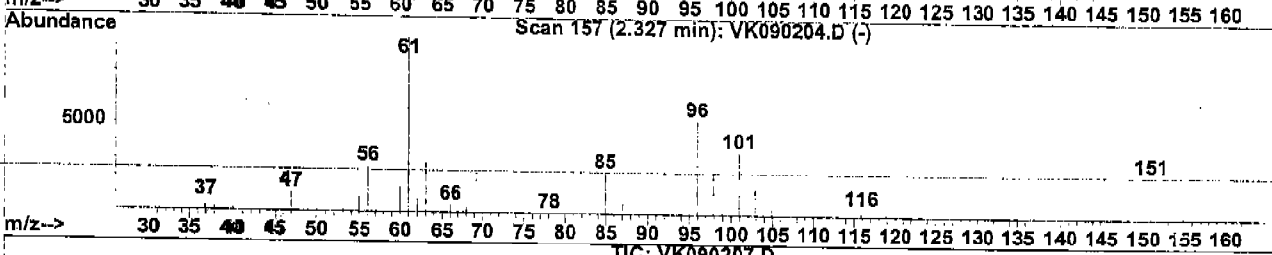
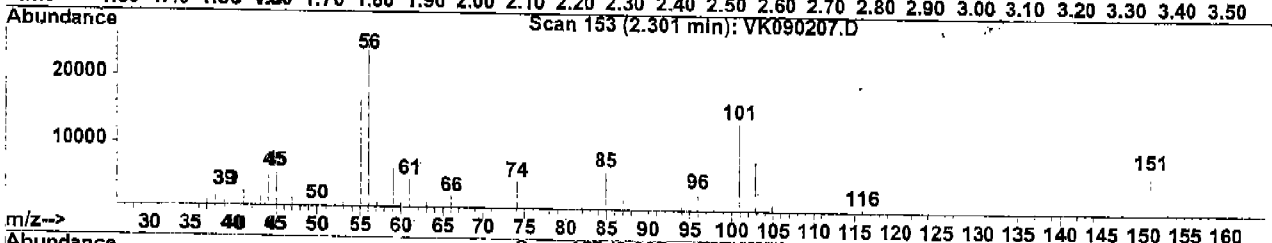
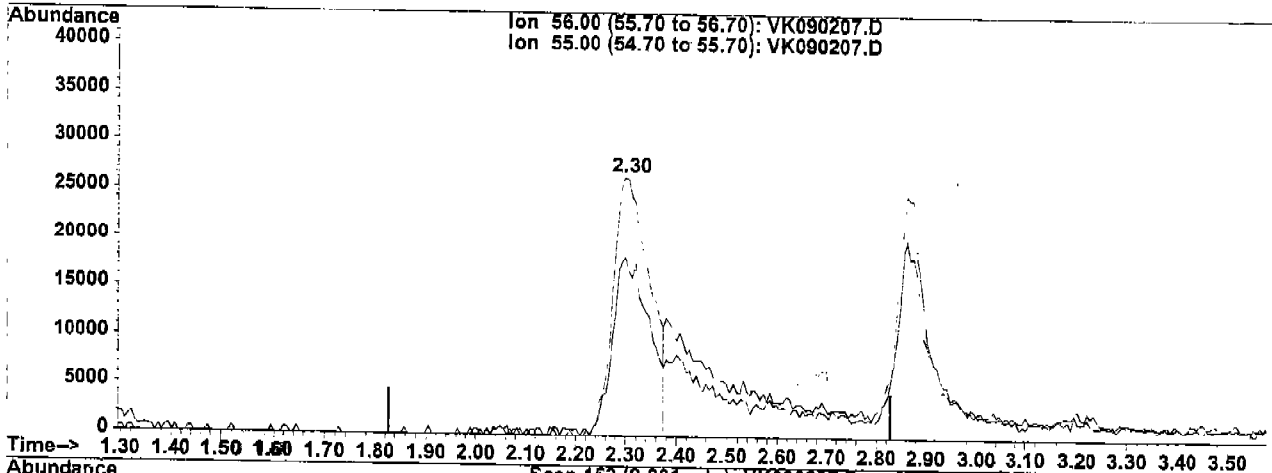
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090207.D  
 Acq On : 2 Sep 2004 4:55 am  
 Sample : 40 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:53 2004

Vial: 17  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(14) Acrolein (T)

2.30min 161.52ug/l

response 132061

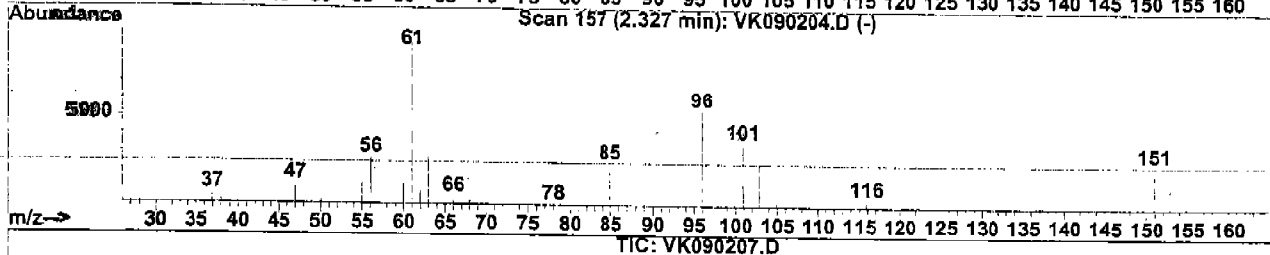
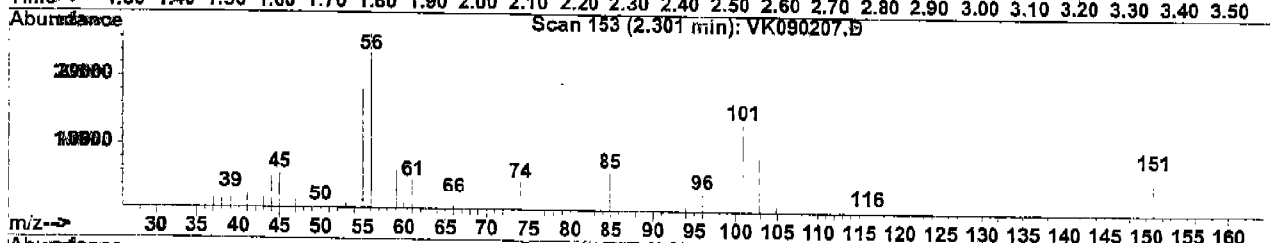
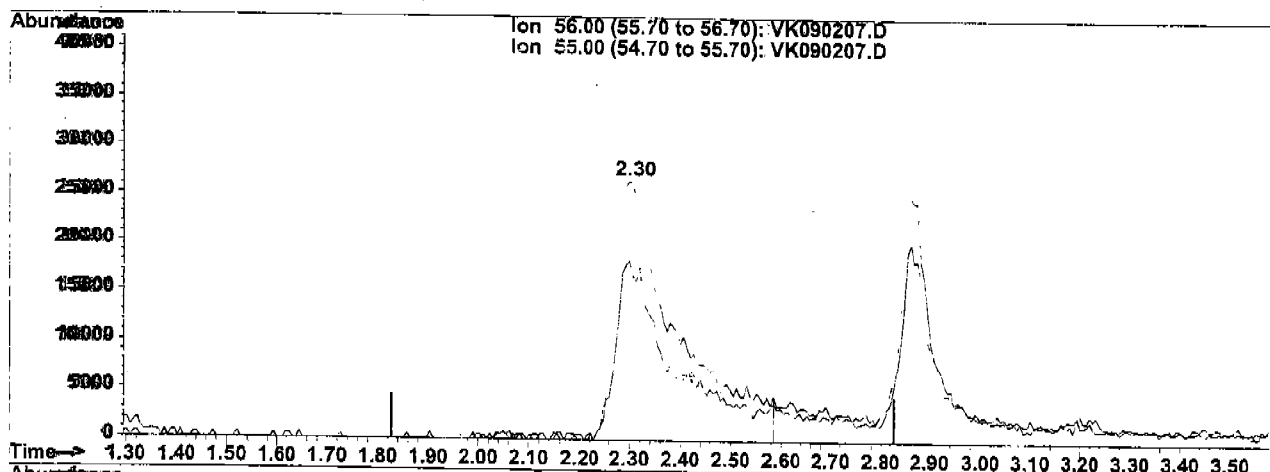
Ion	Exp%	Act%
56.00	100	100
55.00	66.40	69.88#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090207.D  
 Acq On : 2 Sep 2004 4:55 am  
 Sample : 40 PPB ICC  
 Misc : 25mL  
 Quant Time: Sep 2 10:53 2004

Vial: 17  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:34:44 2004  
 Response via : Single Level Calibration



(14) Acrolein (T)

2.30min 266.50ug/l m

response 217896

Ion	Exp%	Act%
56.00	100	100
55.00	686.40	42.35#
0.00	0.00	0.00
0.00	0.00	0.00



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090208.D  
 Acq On : 2 Sep 2004 5:34 am  
 Sample : 20 PPB ICV  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 11:07 2004

Vial: 18  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.96	168	364727	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.57	114	739991	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.10	117	644138	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.56	152	289780	10.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) 1,2-Dichloroethane-d Spiked Amount 10.000	4.19	65	364540	19.88	ug/l	-0.01
			Recovery =	198.80%		
34) Dibromofluoromethane Spiked Amount 10.000	3.93	113	385234	19.18	ug/l	-0.01
			Recovery =	191.80%		
45) Toluene-d8 Spiked Amount 10.000	5.89	98	1719157	19.59	ug/l	-0.02
			Recovery =	195.90%		
56) 4-Bromofluorobenzene Spiked Amount 10.000	7.89	95	704199	19.66	ug/l	-0.05
			Recovery =	196.60%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluorometh	1.37	85	555589	17.79	ug/l	99
3) Chloromethane	1.49	50	901412	18.62	ug/l	99
4) Vinyl Chloride	1.59	62	712851	18.90	ug/l	95
5) Bromomethane	1.78	94	527145	18.45	ug/l	97
6) Chloroethane	1.83	64	390079	18.88	ug/l	97
8) Trichlorofluorometha	2.04	101	655948	18.73	ug/l	91
9) 1,1,2-Trichlorotrifl	2.38	101	458780	19.67	ug/l	99
10) Tert-butyl-alcohol	2.86	59	75487	140.77	ug/l	100
11) Diethyl Ether	2.17	74	193890	18.58	ug/l	99
12) Isopropyl Alcohol	3.20	45	1989843	19.09	ug/l	100
13) 1,1-Dichloroethene	2.36	96	441625	19.27	ug/l	100
15) Acrylonitrile	3.22	53	838610	98.07	ug/l	97
16) Acetone	2.42	43	162013m	88.88	ug/l	
17) Carbon Disulfide	2.53	76	2040490	20.18	ug/l	99
18) Methyl tert-butyl Et	2.87	73	930013	20.33	ug/l	96
19) Methyl Acetate	2.59	43	210585m	18.31	ug/l	
20) Methylene Chloride	2.67	84	527412	18.07	ug/l	99
21) trans-1,2-Dichloroet	2.86	96	497645	20.30	ug/l	98
22) Vinyl Acetate	3.17	43	2491151	88.05	ug/l	100
23) 1,1-Dichloroethane	3.15	63	852964	19.04	ug/l	99

Analyst Signature: 100 Analyst Name: \_\_\_\_\_ Date: 09.02.04

-----REASONS FOR MANUAL INTEGRATIONS-----  
 Poor resolution of peaks exhibited on chromatogram. Compound #: 18, 19  
 Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090208.D  
 Acq On : 2 Sep 2004 5:34 am  
 Sample : 20 PPB ICV  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 11:07 2004

Vial: 18  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
24) Cyclohexane	4.04	56	2623337	19.66	ug/l	98
25) 2-Butanone	3.62	43	1058024m	122.13	ug/l	
26) 2,2-Dichloropropane	3.59	77	668701	18.86	ug/l	97
27) cis-1,2-Dichloroethane	3.58	96	590078	22.36	ug/l	98
29) Chloroform	3.81	83	1081622	20.39	ug/l	96
30) 1,1,1-Trichloroethane	3.98	97	812958	20.26	ug/l	# 79
31) Methylcyclohexane	4.98	63	576507	20.58	ug/l	97
35) 1,1-Dichloropropene	4.10	75	779015	19.26	ug/l	99
36) Carbon Tetrachloride	4.11	117	624014	19.27	ug/l	97
37) Benzene	4.25	78	2561468	19.69	ug/l	100
38) 1,2-Dichloroethane	4.25	62	477367	20.31	ug/l	99
39) Trichloroethene	4.80	130	646866	21.15	ug/l	98
40) Methyl Methacrylate	6.25	69	493094m	21.62	ug/l	
41) 1,2-Dichloropropane	4.98	63	576507	19.85	ug/l	97
42) Dibromomethane	5.09	93	246537	21.07	ug/l	96
44) Bromodichloromethane	5.21	83	781029	20.54	ug/l	97
46) 4-Methyl-2-Pentanone	5.77	43	1860637	98.81	ug/l	98
47) Toluene	5.95	92	1713763	20.28	ug/l	100
48) t-1,3-Dichloropropene	6.16	75	599216	21.24	ug/l	98
49) cis-1,3-Dichloropropene	5.62	75	835822	21.42	ug/l	100
50) 1,1,2-Trichloroethane	6.32	97	334919	20.28	ug/l	98
51) 1,3-Dichloropropane	6.46	76	636693	20.20	ug/l	99
52) 2-Chloroethyl vinyl	5.48	63	1150411	106.98	ug/l	99
53) 2-Hexanone	6.54	43	1089920	94.58	ug/l	95
54) Dibromochloromethane	6.65	129	412737	21.07	ug/l	97
55) 1,2-Dibromoethane	6.75	107	280652	22.29	ug/l	99
58) Tetrachloroethene	6.46	164	623815	20.78	ug/l	99
59) Chlorobenzene	7.12	112	1310907	20.26	ug/l	99
60) 1,1,1,2-Tetrachloroethane	7.18	131	499982	20.63	ug/l	96
61) Ethyl Benzene	7.20	106	669446	20.93	ug/l	100
62) m&p-Xylenes	7.28	106	1652223	39.54	ug/l	96
63) o-Xylene	7.55	106	829099	19.85	ug/l	96
64) Styrene	7.56	104	1446414	21.12	ug/l	99
65) Bromoform	7.68	173	192210	23.41	ug/l	98
67) Isopropylbenzene	7.79	105	2258437	20.05	ug/l	100
68) 1,1,2,2-Tetrachloroethane	7.97	83	423728	20.53	ug/l	98

Analyst Signature: 16 Analyst Name: \_\_\_\_\_ Date: 09.02.04

REASONS FOR MANUAL INTEGRATIONS

— Poor resolution of peaks exhibited on chromatogram. Compound #: 25,40  
 Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090208.D  
 Acq On : 2 Sep 2004 5:34 am  
 Sample : 20 PPB ICV  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 11:07 2004

Vial: 18  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
69) 1,2,3-Trichloropropa	7.99	75	473886	21.73 ug/l	89
70) Bromobenzene	7.98	156	463784	21.51 ug/l	98
71) n-propylbenzene	8.04	91	3887402	21.86 ug/l	99
72) 2-Chlorotoluene	8.09	91	2222989	18.83 ug/l	99
73) 1,3,5-Trimethylbenze	8.14	105	1791884	20.11 ug/l	99
74) 4-Chlorotoluene	8.16	91	2537428	20.30 ug/l	99
75) tert-Butylbenzene	8.33	119	1968902	19.81 ug/l	98
76) 1,2,4-Trimethylbenze	8.36	105	1796816	20.41 ug/l	89
77) sec-Butylbenzene	8.45	105	2493290	19.82 ug/l	100
78) p-Isopropyltoluene	8.53	119	2141785	19.67 ug/l	99
79) 1,3-Dichlorobenzene	8.52	146	883203	21.55 ug/l	97
80) 1,4-Dichlorobenzene	8.57	146	969934	19.55 ug/l	98
81) n-Butylbenzene	8.75	91	2862794	21.24 ug/l	100
82) 1,2-Dichlorobenzene	8.78	146	823769	21.13 ug/l	98
83) 1,2-Dibromo-3-Chloro	9.19	75	53634	21.20 ug/l	71
84) 1,2,4-Trichlorobenze	9.60	180	552211	22.06 ug/l	99
85) Hexachlorobutadiene	9.68	225	353902	20.72 ug/l	99
86) Naphthalene	9.72	128	1089343	22.58 ug/l	100
87) 1,2,3-Trichlorobenze	9.85	180	425957	21.04 ug/l	96

Analyst Signature: lcp Analyst Name: \_\_\_\_\_ Date: 09.02.04

---REASONS FOR MANUAL INTEGRATIONS---

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

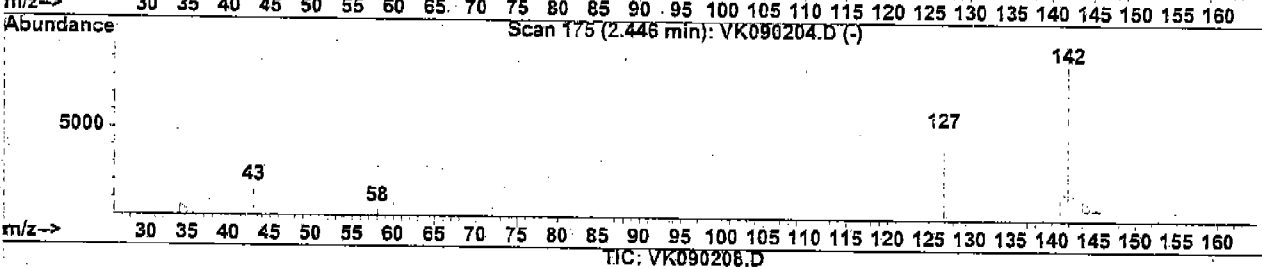
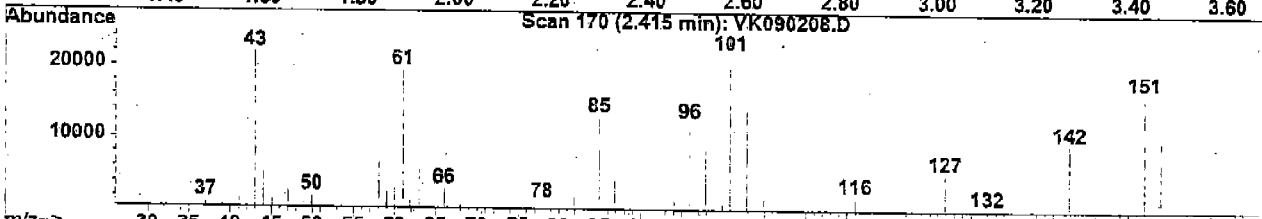
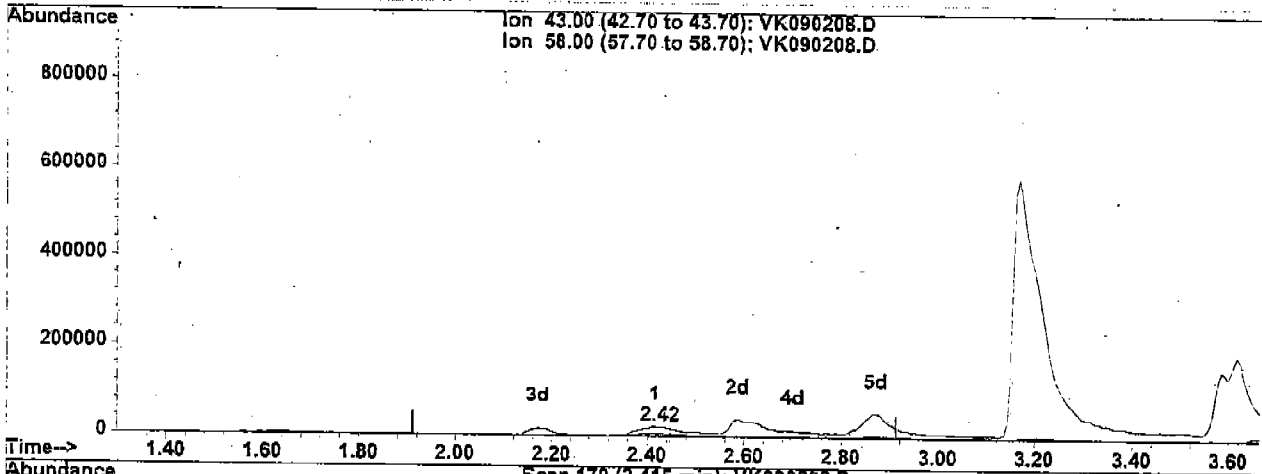


Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090208.D  
 Acq On : 2 Sep 2004 5:34 am  
 Sample : 20 PPB ICV  
 Misc : 25mL  
 Quant Time: Sep 2 11:04 2004

Vial: 18  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:59:35 2004  
 Response via : Multiple Level Calibration



(16) Acetone (T)

2.42min 64.26ug/l

response 117144

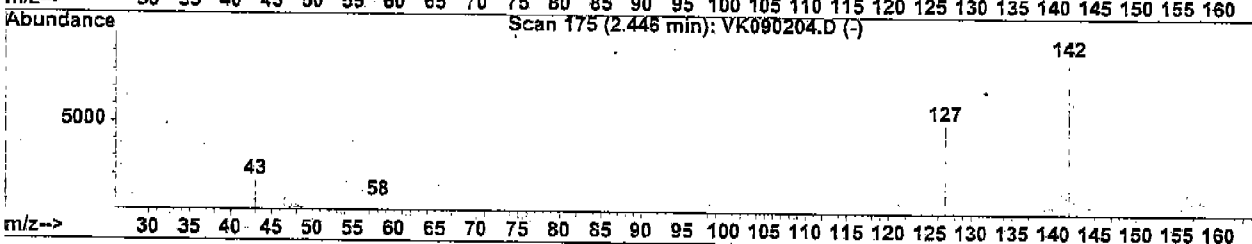
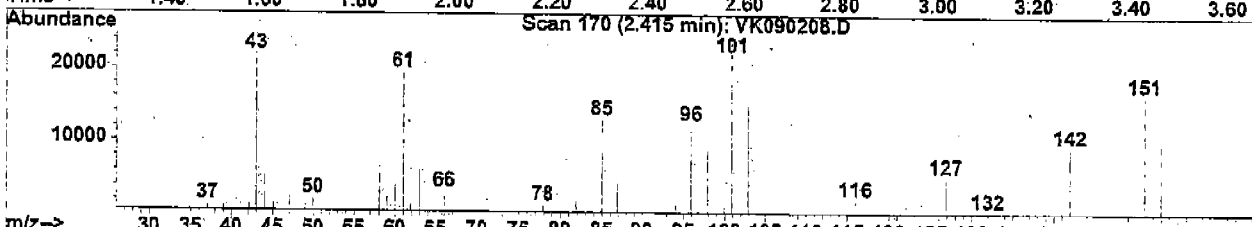
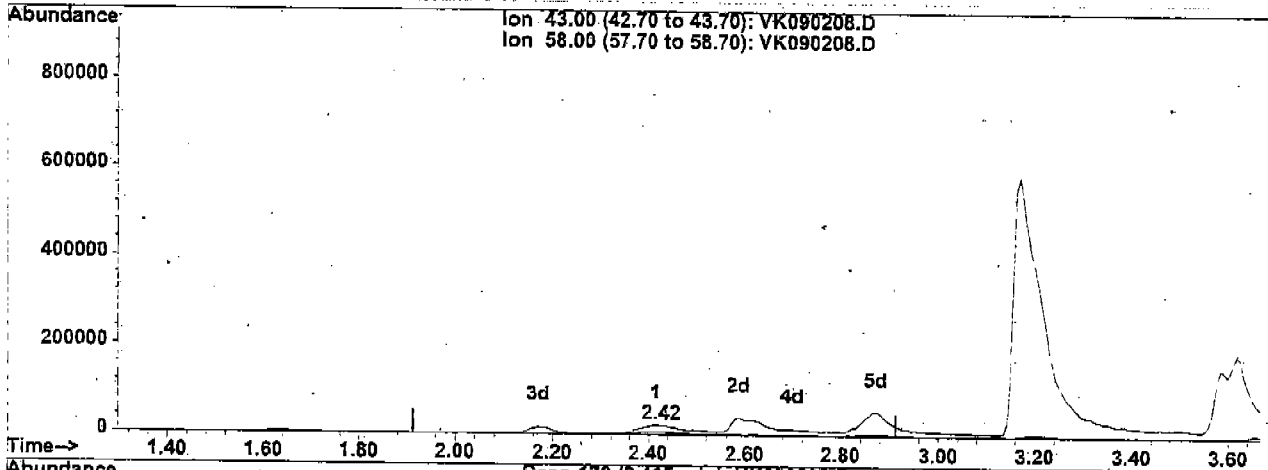
Ion	Exp%	Act%
43.00	100	100
58.00	30.30	31.98
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090208.D  
 Acq On : 2 Sep 2004 5:34 am  
 Sample : 20 PPB ICV  
 Misc : 25mL  
 Quant Time: Sep 2 11:04 2004

Vial: 18  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:59:35 2004  
 Response via : Multiple Level Calibration



(16) Acetone (T)

2.42min 88.88ug/l m

response 162013

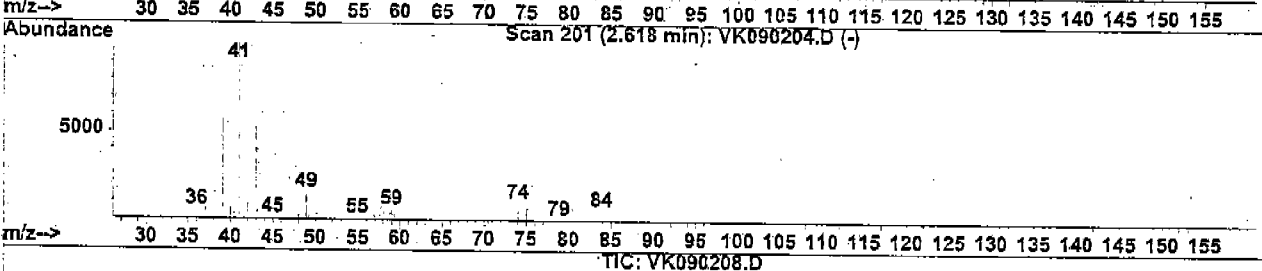
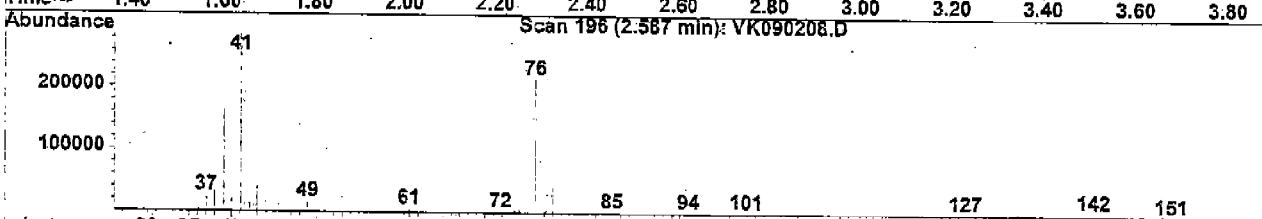
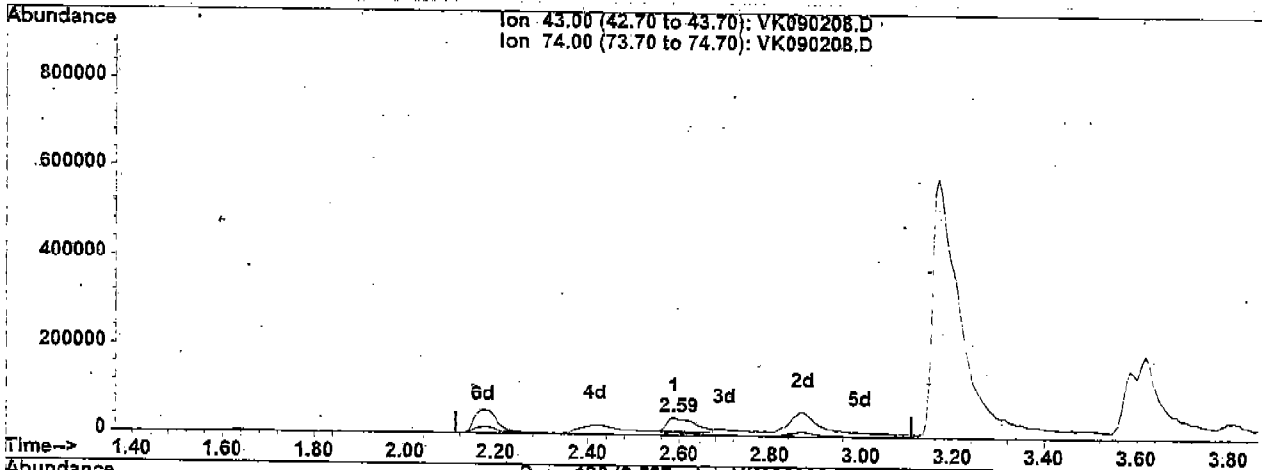
Ion	Exp%	Act%
43.00	100	100
58.00	30.30	30.40
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090208.D  
 Acq On : 2 Sep 2004 5:34 am  
 Sample : 20 PPB ICV  
 Misc : 25mL  
 Quant Time: Sep 2 11:05 2004

Vial: 18  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:59:35 2004  
 Response via : Multiple Level Calibration



(19) Methyl Acetate

2.59min 11.71ug/l

response 134686

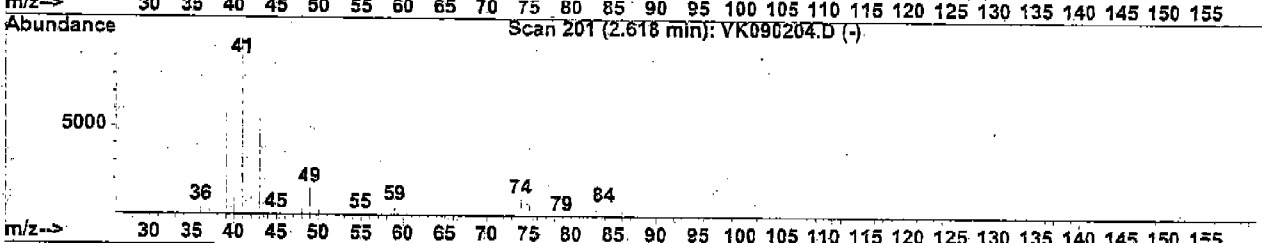
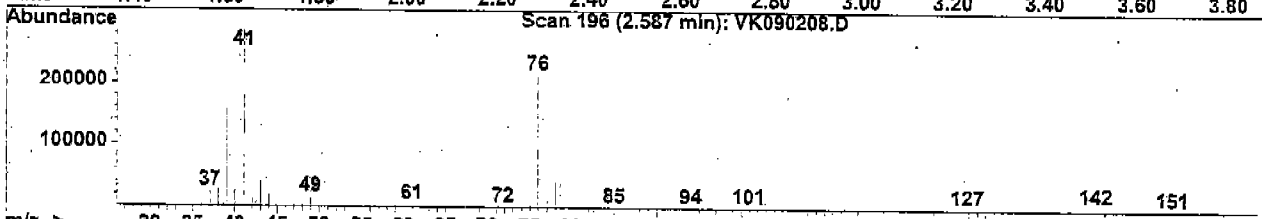
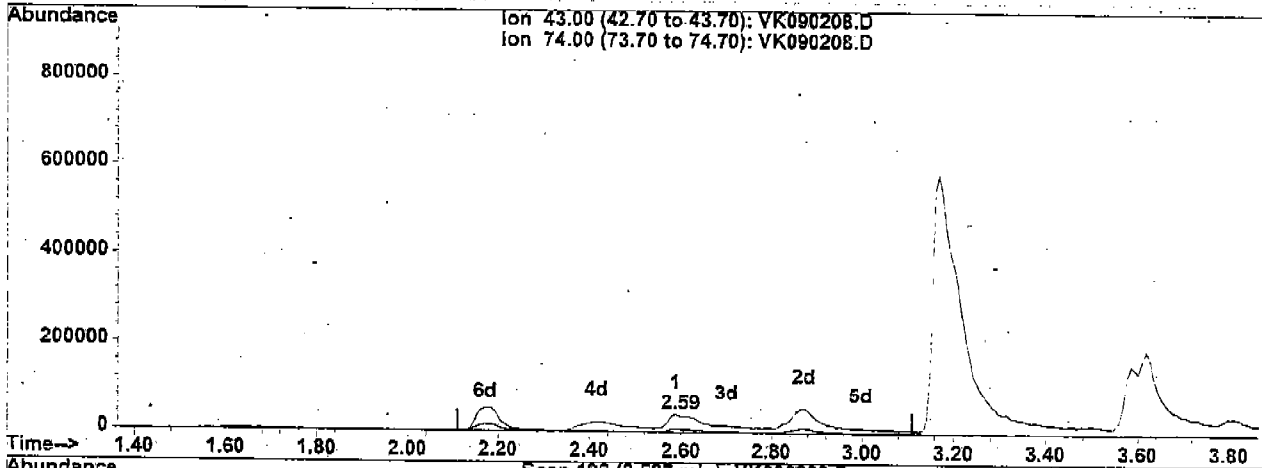
Ion	Exp%	Act%
43.00	100	100
74.00	21.20	13.73
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090208.D  
 Acq On : 2 Sep 2004 5:34 am  
 Sample : 20 PPB ICV  
 Misc : 25mL  
 Quant Time: Sep 2 11:07 2004

Vial: 18  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846-8260  
 Last Update : Thu Sep 02 10:59:35 2004  
 Response via : Multiple Level Calibration



(19) Methyl Acetate

2.59min 18.31ug/l m

response 210585

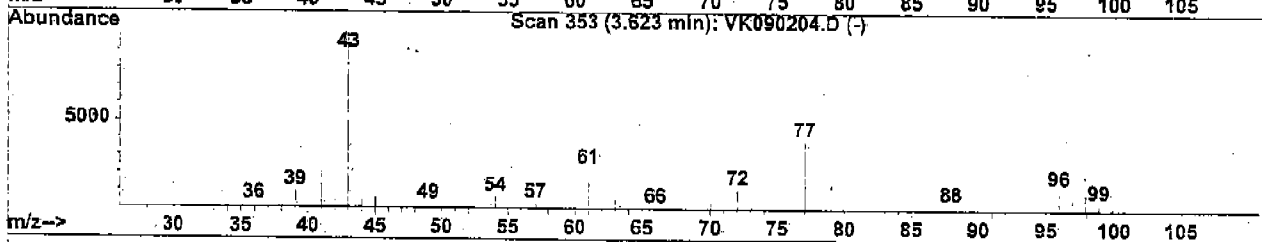
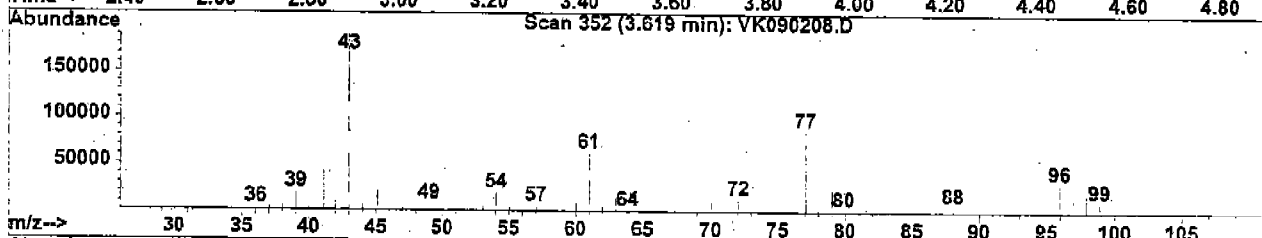
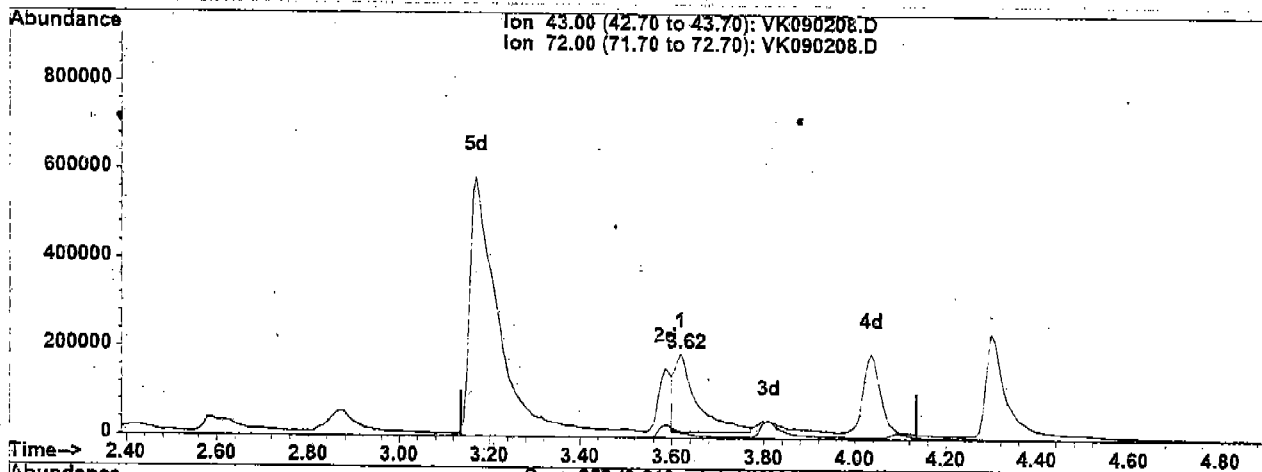
Ion	Exp%	Act%
43.00	100	100
74.00	21.20	8.78
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090208.D  
 Acq On : 2 Sep 2004 5:34 am  
 Sample : 20 PPB ICV  
 Misc : 25mL  
 Quant Time: Sep 2 11:04 2004

Vial: 18  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:59:35 2004  
 Response via : Multiple Level Calibration



(25) 2-Butanone (T)

3.62min 68.06ug/l

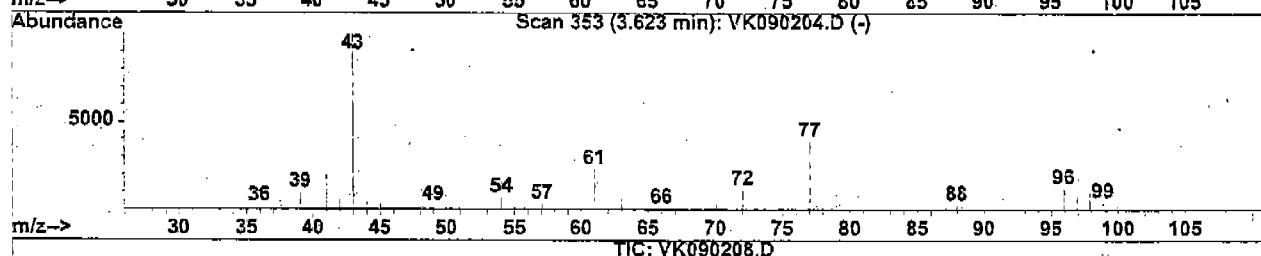
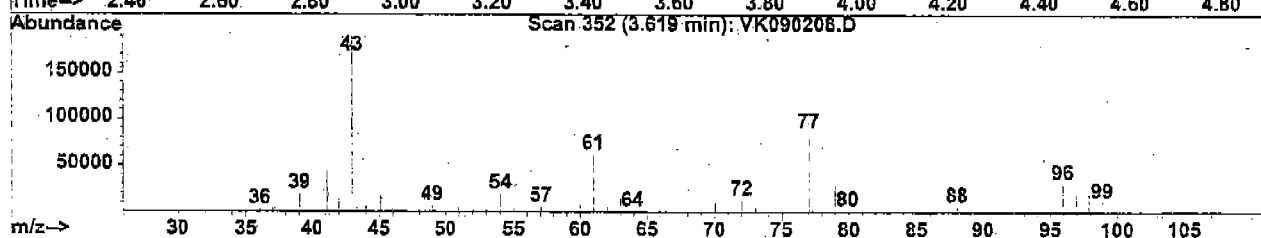
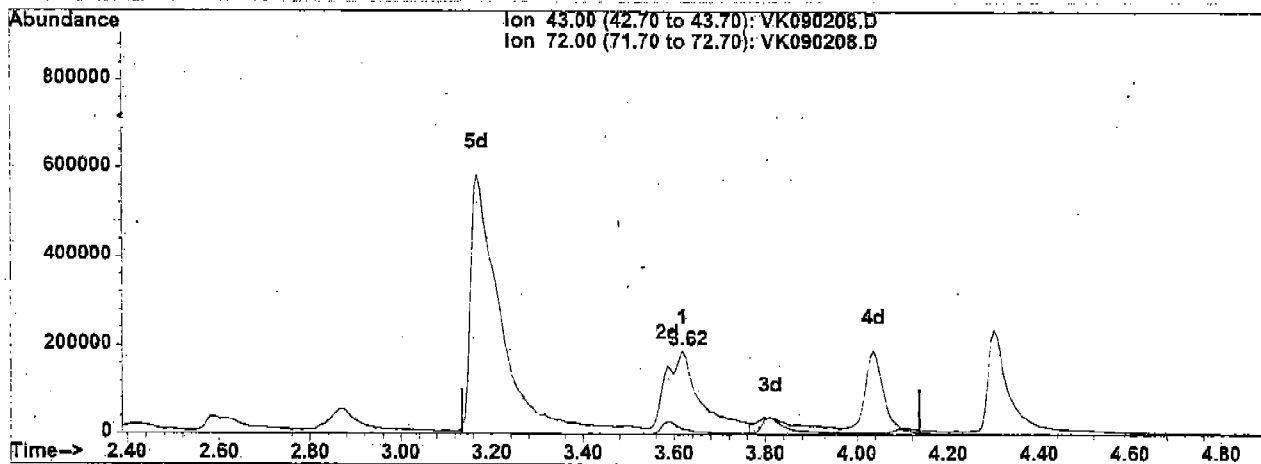
response 589642

Ion	Exp%	Act%
43.00	100	100
72.00	11.10	5.53#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090208.D Vial: 18  
 Acq On : 2 Sep 2004 5:34 am Operator: KP  
 Sample : 20 PPB ICV Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 Quant Time: Sep 2 11:04 2004 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:59:35 2004  
 Response via : Multiple Level Calibration



(25) 2-Butanone (T)

3.62min 122.13ug/l m

response 1058024

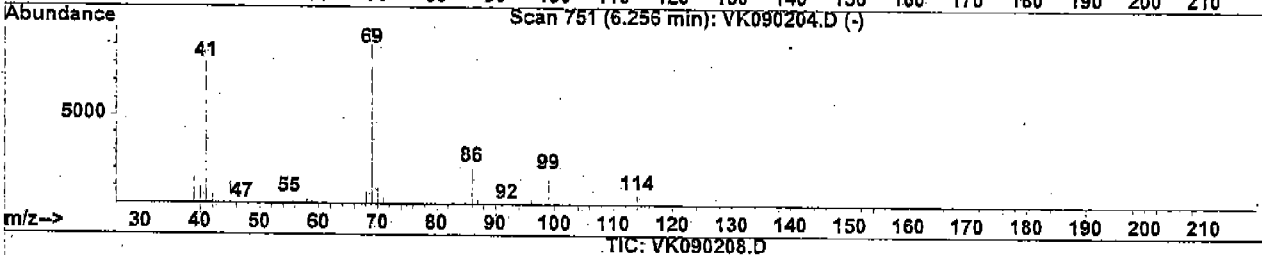
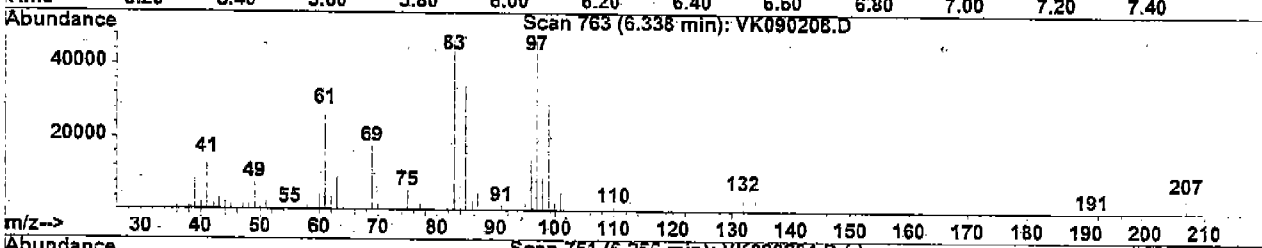
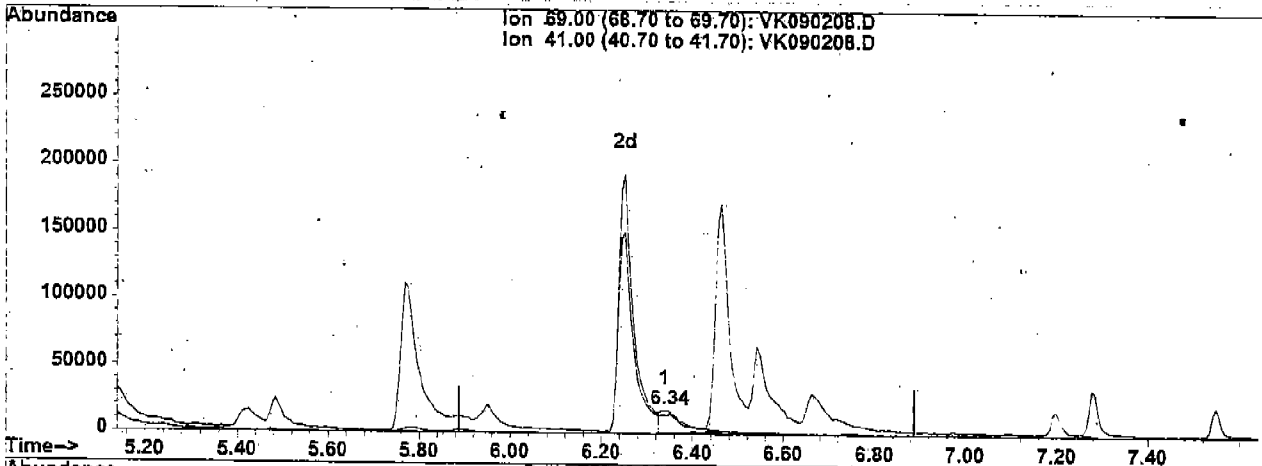
Ion	Exp%	Act%
43.00	100	100
72.00	11.10	6.74#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090208.D  
 Acq On : 2 Sep 2004 5:34 am  
 Sample : 20 PPB ICV  
 Misc : 25mL  
 Quant Time: Sep 2 11:04 2004

Vial: 18  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:59:35 2004  
 Response via : Multiple Level Calibration



(40) Methyl Methacrylate

6.34min 2.46ug/l

response 56022

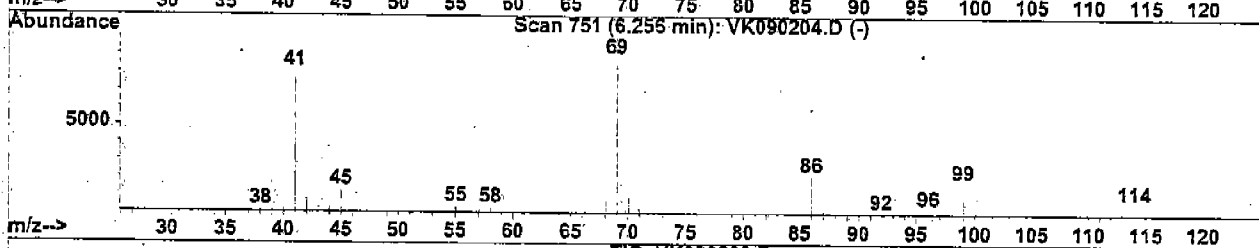
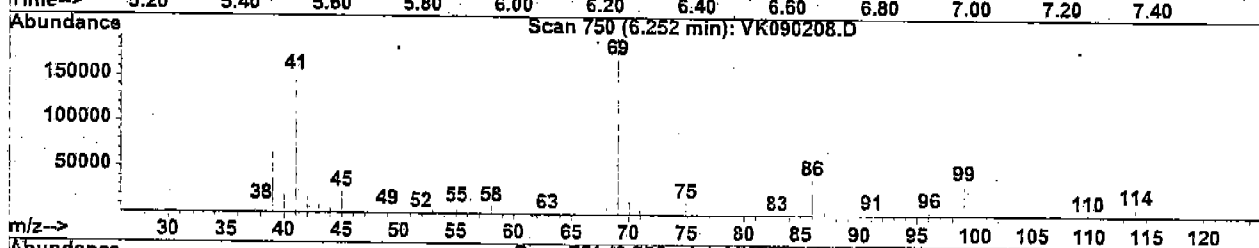
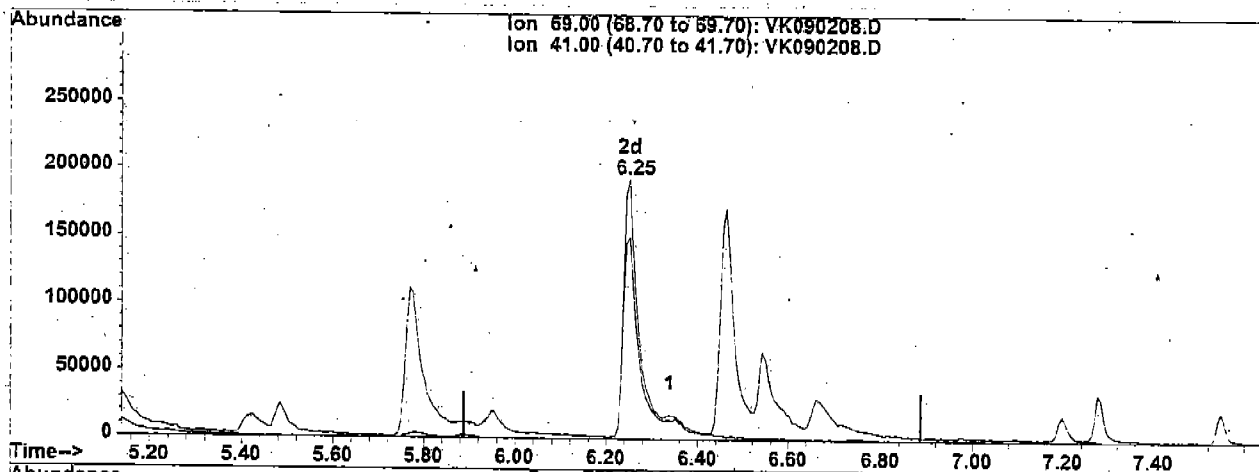
Ion	Exp%	Act%
69.00	100	100
41.00	65.60	0.00#
9.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090208.D  
 Acq On : 2 Sep 2004 5:34 am  
 Sample : 20 PPB ICV  
 Misc : 25mL  
 Quant Time: Sep 2 11:05 2004

Vial: 18  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:59:35 2004  
 Response via : Multiple Level Calibration



(40) Methyl Methacrylate

6.25min 21.62ug/l m

response 493094

Ion	Exp%	Act%
69.00	100	100
41.00	65.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00



## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4436 SAS No.: S4436 SDG No.: S4436  
 Instrument ID: MSVOAK Calibration Date/Time: 9/2/2004 14:08  
 Lab File ID: VK090221.D Init. Calib. Date(s): 9/2/2004 9/2/2004  
 Heated Purge: (Y/N) N Init. Calib. Time(s): 01:40 04:55  
 GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF	RRF10	MIN RRF	%D	MAX%D
Chloromethane	1.328	1.466	0.100	10.4	
Vinyl Chloride	1.034	1.113		7.6	20.0
Bromomethane	0.783	0.780		0.4	
Chloroethane	0.567	0.607		7.1	
1,1-Dichloroethane	0.629	0.672		6.8	20.0
Acetone	0.050	0.052		4.0	
Carbon Disulfide	2.772	2.955		6.6	
Methylene Chloride	0.800	0.857		7.1	
trans-1,2-Dichloroethene	0.672	0.689		2.5	
1,1-Dichloroethane	1.228	1.304	0.100	6.2	
2-Butanone	0.238	0.245		2.9	
Carbon Tetrachloride	0.438	0.444		1.4	
cis-1,2-Dichloroethene	0.724	0.753		4.0	
Chloroform	1.455	1.541		5.9	20.0
1,1,1-Trichloroethane	1.100	1.134		3.1	
Benzene	1.758	1.822		3.6	
1,2-Dichloroethane	0.318	0.317		0.3	
Trichloroethene	0.413	0.403		2.4	
1,2-Dichloropropane	0.393	0.394		0.3	20.0
Bromodichloromethane	0.514	0.528		2.7	
4-Methyl-2-Pentanone	0.254	0.231		9.1	
Toluene	1.142	1.132		0.9	20.0
t-1,3-Dichloropropene	0.381	0.325		14.7	
cis-1,3-Dichloropropene	0.527	0.517		1.9	
1,1,2-Trichloroethane	0.223	0.220		1.3	
2-Hexanone	0.156	0.158		1.3	
Dibromochloromethane	0.265	0.262		1.1	
Tetrachloroethene	0.466	0.432		7.3	
Chlorobenzene	1.004	1.041	0.300	3.7	
Ethyl Benzene	0.497	0.528		6.2	20.0
m&p-Xylenes	0.649	0.717		10.5	
o-Xylene	0.648	0.658		1.5	
Styrene	1.063	1.134		6.7	
Bromoform	0.127	0.131	0.100	3.1	
1,1,2,2-Tetrachloroethane	0.712	0.807	0.300	13.3	
1,2-Dichloroethane-d4	0.503	0.542		7.8	
Dibromofluoromethane	0.271	0.295		8.9	
Toluene-d8	1.186	1.211		2.1	
4-Bromofluorobenzene	0.484	0.454		6.2	

All other compounds must meet a minimum RRF of 0.010.

Evaluate Continuing Calibration Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090221.D  
 Acq On : 2 Sep 2004 2:08 pm  
 Sample : 4 PFB CCC  
 Misc : 25mL  
 MS Integration Params: RTEINT.P

Vial: 3  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 20% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 500%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev (min)
1 I	Pentafluorobenzene	1.000	1.000	0.0	97	0.00
2 T	Dichlorodifluoromethane	0.856	0.880	-2.8	106	0.00
3 P	Chloromethane	1.328	1.466	-10.4	119	0.04
4 C	Vinyl Chloride	1.034	1.113	-7.6#	109	0.04
5 T	Bromomethane	0.783	0.780	0.4	102	0.02
6 T	Chloroethane	0.567	0.607	-7.1	107	0.02
7	Ethanol	0.000	3.093	0.0	0#	0.35
8 T	Trichlorofluoromethane	0.960	0.987	-2.8	102	0.03
9	1,1,2-Trichlorotrifluoroeth	0.639	0.706	-10.5	103	0.00
10 T	Tert butyl alcohol	0.015	0.012	20.0	57	0.02
11	Diethyl Ether	0.286	0.329	-15.0	116	0.00
12	Isopropyl Alcohol	2.858	3.126	-9.4	104	0.00
13 CM	1,1-Dichloroethene	0.628	0.672	-7.0#	103	0.02
14 T	Acrolein	0.026	0.035	-34.6#	121	0.00
15 T	Acrylonitrile	0.234	0.240	-2.6	103	0.00
16 T	Acetone	0.050	0.052	-4.0	110	0.05
17 T	Carbon Disulfide	2.772	2.955	-6.6	103	0.02
18 T	Methyl tert-butyl Ether	1.255	1.390	-10.8	107	0.00
19	Methyl Acetate	0.315	0.321	-1.9	120	0.00
20 T	Methylene Chloride	0.800	0.857	-7.1	107	0.00
21 T	trans-1,2-Dichloroethene	0.672	0.689	-2.5	101	0.00
22 T	Vinyl Acetate	0.776	1.100	-41.8#	129	-0.02
23 P	1,1-Dichloroethane	1.228	1.304	-6.2	107	0.00
24 T	Cyclohexane	3.659	3.814	-4.2	100	0.00
25 T	2-Butanone	0.238	0.245	-2.9	109	0.00
26 T	2,2-Dichloropropane	0.972	1.141	-17.4	112	0.00
27 T	cis-1,2-Dichloroethene	0.723	0.753	-4.1	102	0.00
28 T	Bromochloromethane	0.279	0.302	-8.2	106	0.00
29 C	Chloroform	1.454	1.541	-6.0#	105	0.00
30 T	1,1,1-Trichloroethane	1.100	1.134	-3.1	102	0.00
31 T	Methylcyclohexane	0.768	0.791	-3.0	101	0.00
32 S	1,2-Dichloroethane-d4	0.503	0.542	-7.8	115	0.00
33 T	1,4-Difluorobenzene	1.000	1.000	0.0	99	0.00
34 S	<del>Dibromodifluoromethane</del>	<del>0.271</del>	<del>0.295</del>	<del>8.9</del>	<del>113</del>	<del>0.00</del>
35 T	1,1-Dichloropropene	0.547	0.562	-2.7	103	0.00
36 T	Carbon Tetrachloride	0.438	0.444	-1.4	104	0.00
37 TM	Benzene	1.758	1.822	-3.6	104	0.00
38 TM	1,2-Dichloroethane	0.318	0.317	0.3	103	-0.01
39 TM	Trichloroethene	0.413	0.403	2.4	100	-0.01
40	Methyl Methacrylate	0.308	0.316	-2.6	106	-0.11

Evaluate Continuing Calibration Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090221.D Vial: 3  
 Acq On : 2 Sep 2004 2:08 pm Operator: KP  
 Sample : 4 PPB CCC Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 20% Max. R.T. Dev. 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 500%

Compound	AvgRF	CCRF	%Dev	Area#	Dev(min)	
41 C	1,2-Dichloropropane	0.393	0.394	-0.3#	101	0.00
42 T	Dibromomethane	0.158	0.159	-0.6	105	0.00
43	1,4-Dioxane	0.000	0.001#	0.0	0#	0.07
44 T	Bromodichloromethane	0.514	0.528	-2.7	105	-0.01
45 S	Toluene-d8	1.186	1.211	-2.1	107	-0.02
46 T	4-Methyl-2-Pentanone	0.254	0.231	9.1	90	-0.04
47 CM	Toluene	1.142	1.132	0.9#	101	-0.02
48 T	t-1,3-Dichloropropene	0.381	0.325	14.7	96	-0.04
49 T	cis-1,3-Dichloropropene	0.527	0.517	1.9	105	-0.02
50 T	1,1,2-Trichloroethane	0.223	0.220	1.3	102	-0.02
51 T	1,3-Dichloropropane	0.426	0.422	0.9	103	-0.01
52 T	2-Chloroethyl vinyl ether	0.145	0.113	22.1#	89	-0.03
53 T	2-Hexanone	0.156	0.158	-1.3	98	-0.13
54 T	Dibromochloromethane	0.265	0.262	1.1	103	-0.01
55 T	1,2-Dibromoethane	0.170	0.148	12.9	92	-0.02
56 S	4-Bromofluorobenzene	0.484	0.454	6.2	109	-0.04
57 I	Chlorobenzene-d5	1.000	1.000	0.0	103	0.00
58 T	Tetrachloroethene	0.466	0.432	7.3	90	0.00
59 PM	Chlorobenzene	1.004	1.041	-3.7	101	0.00
60 T	1,1,1,2-Tetrachloroethane	0.376	0.399	-6.1	101	0.00
61 C	Ethyl Benzene	0.497	0.528	-6.2#	102	-0.02
62 T	m&p-Xylenes	0.649	0.717	-10.5	106	-0.02
63 T	o-Xylene	0.649	0.658	-1.4	99	-0.02
64 T	Styrene	1.063	1.134	-6.7	105	-0.04
65 P	Bromoform	0.127	0.131	-3.1	107	-0.02
66 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	101	0.00
67 T	Isopropylbenzene	3.886	3.950	-1.6	101	-0.01
68 P	1,1,1,2-Tetrachloroethane	0.712	0.807	-13.3	116	-0.01
69 T	1,2,3-Trichloropropane	0.753	0.733	2.7	91	0.00
70 T	Bromobenzene	0.744	0.775	-4.2	107	-0.04
71 T	n-propylbenzene	6.137	6.298	-2.6	105	-0.01
72 T	2-Chlorotoluene	4.074	3.872	5.0	99	-0.01
73 T	1,1,1-Trimethylbenzene	3.075	3.178	-3.3	103	0.00
74 T	4-Chlorotoluene	4.314	4.634	-7.4	107	-0.02
75 T	tert-Butylbenzene	3.429	3.685	-7.5	107	0.00
76 T	1,2,4-Trimethylbenzene	3.039	3.171	-4.3	106	-0.01
77 T	sec-Butylbenzene	4.342	4.439	-2.2	101	0.00
78 T	p-Isopropyltoluene	3.758	3.986	-6.1	105	0.00
79 T	1,2-Dichlorobenzene	1.414	1.404	0.7	102	0.00

Evaluate Continuing Calibration Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090221.D Vial: 3  
 Acq On : 2 Sep 2004 2:08 pm Operator: KP  
 Sample : 4 PPB CCC Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 20% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 500%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev (min)
80 T	1,4-Dichlorobenzene	1.712	1.768	-3.3	101	0.00
81 T	n-Butylbenzene	4.652	4.733	-1.7	101	-0.01
82 T	1,2-Dichlorobenzene	1.346	1.401	-4.1	101	-0.01
83 T	1,2-Dibromo-3-Chloropropane	0.087	0.091	-4.6	116	-0.01
84 T	1,2,4-Trichlorobenzene	0.864	0.872	-0.9	105	0.03
85 T	Hexachlorobutadiene	0.589	0.585	0.7	103	0.06
86 T	Naphthalene	1.665	1.638	1.6	105	0.03
87 T	1,2,3-Trichlorobenzene	0.699	0.721	-3.1	107	0.05



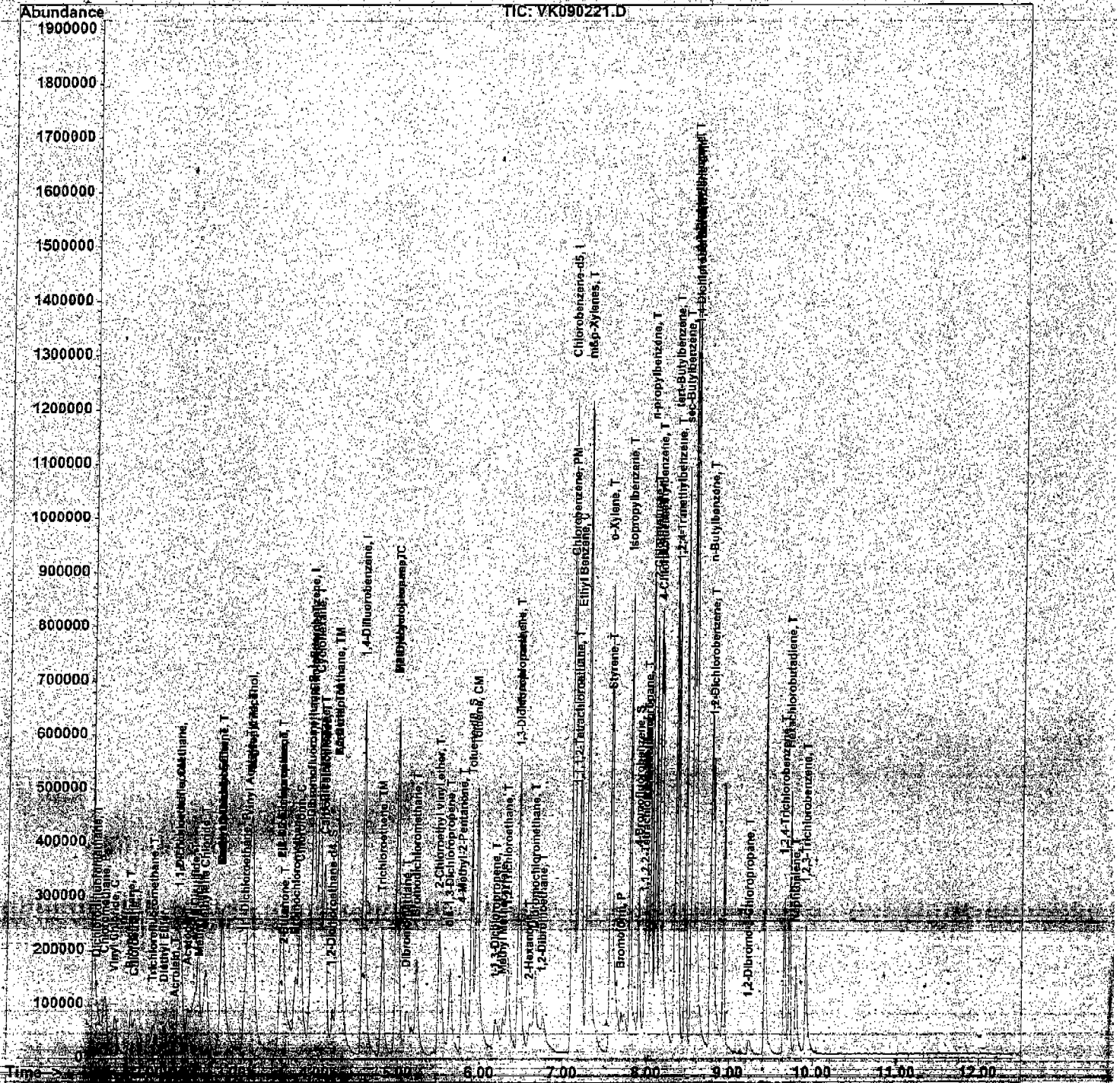
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090221.D  
Acq On : 2 Sep 2004 2:08 pm  
Sample : 4 PPB CCC  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 2 15:18 2004

Vial: 3  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846.8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090221.D Vial: 3  
 Acq On : 2 Sep 2004 2:08 pm Operator: KP  
 Sample : 4 PPB CCC Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 15:18 2004 Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Pentafluorobenzene	3.96	168	365266	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.56	114	733669	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.10	117	613689	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.57	152	289941	10.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) 1,2-Dichloroethane-d	4.20	65	79217	4.31	ug/l	0.00
Spiked Amount						
						Recovery = 43.10%
34) Dibromofluoromethane	3.94	113	86433	4.34	ug/l	0.00
Spiked Amount						
						Recovery = 43.40%
45) Toluene-d8	5.89	98	355468	4.08	ug/l	-0.02
Spiked Amount						
						Recovery = 40.80%
56) 4-Bromofluorobenzene	7.90	95	133309	3.75	ug/l	-0.04
Spiked Amount						
						Recovery = 37.50%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluorometh	1.37	85	128604	4.11	ug/l	90
3) Chloromethane	1.46	50	214169	4.42	ug/l	94
4) Vinyl Chloride	1.59	62	162631	4.31	ug/l	97
5) Bromomethane	1.77	94	113989	3.98	ug/l	99
6) Chloroethane	1.83	64	88634	4.28	ug/l	99
8) Trichlorofluorometha	2.06	101	144273	4.11	ug/l	99
9) 1,1,2-Trichlorotrifl	2.37	101	103175	4.42	ug/l	98
10) Tert butyl alcohol	2.87	59	8583	15.98	ug/l	100
11) Diethyl Ether	2.19	74	48051	4.60	ug/l	99
12) Isopropyl Alcohol	3.21	45	456795	4.38	ug/l	100
13) 1,1-Dichloroethere	2.35	96	98226	4.28	ug/l	99
14) Acrolein	2.32	56	25475m	26.61	ug/l	
15) Acrylonitrile	3.22	53	175620	20.51	ug/l	98
16) Acetone	2.46	43	37710m	20.66	ug/l	
17) Carbon Disulfide	2.55	76	431693	4.26	ug/l	97
18) Methyl tert-butyl Et	2.88	73	203132	4.43	ug/l	98
19) Methyl Acetate	2.62	43	46877m	4.07	ug/l	
20) Methylene Chloride	2.67	84	125228	4.28	ug/l	94
21) trans-1,2-Dichlorost	2.87	96	100612	4.10	ug/l	92
22) Vinyl Acetate	3.18	43	803497	28.36	ug/l	96

Analyst Signature: *Jep* Analyst Name: Date: 09.02.04

REASONS FOR MANUAL INTEGRATIONS

✓ Poor resolution of peaks exhibited on chromatogram. Compound #: 14, 16, 19

\* Peak integrated by software incorrectly. Compound #:

\* Other: Compound #:

(#) = Manual integration

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090221.D Vial: 3  
 Acq On : 2 Sep 2004 2:08 pm Operator: KP  
 Sample : 4 PPB CCC Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 15:18 2004 Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1-Dichloroethane	3.15	63	190507	4.25	ug/l	99
24) Cyclohexane	4.04	56	557262	4.17	ug/l	99
25) 2-Butanone	3.64	43	178805	20.61	ug/l	95
26) 2,2-Dichloropropane	3.59	77	166636	4.69	ug/l	96
27) cis-1,2-Dichloroethe	3.59	96	109951	4.16	ug/l	96
28) Bromochloromethane	3.76	128	44073	4.33	ug/l	98
29) Chloroform	3.82	83	225109	4.24	ug/l	99
30) 1,1,1-Trichloroethan	3.98	97	165616	4.12	ug/l #	44
31) Methylcyclohexane	4.98	63	115595	4.12	ug/l	97
35) 1,1-Dichloropropene	4.10	75	164850	4.11	ug/l	98
36) Carbon Tetrachloride	4.11	117	130164	4.05	ug/l	98
37) Benzene	4.26	78	534725	4.14	ug/l	100
38) 1,2-Dichloroethane	4.26	62	93059	3.99	ug/l	97
39) Trichloroethene	4.80	130	118271	3.90	ug/l	99
40) Methyl Methacrylate	6.28	69	92875m	4.11	ug/l	
41) 1,2-Dichloropropane	4.98	63	115595	4.01	ug/l	97
42) Dibromomethane	5.10	93	46716	4.03	ug/l	95
44) Bromodichloromethane	5.22	83	154881	4.11	ug/l	99
46) 4-Methyl-2-Pentanone	5.79	43	338254	18.12	ug/l	97
47) Toluene	5.95	92	332166	3.97	ug/l	98
48) t-1,3-Dichloropropen	6.19	75	95458	3.41	ug/l	98
49) cis-1,3-Dichloroprop	5.64	75	151739	3.92	ug/l	100
50) 1,1,2-Trichloroethan	6.33	97	64707	3.95	ug/l	98
51) 1,3-Dichloropropane	6.48	76	123761	3.96	ug/l	99
52) 2-Chloroethyl vinyl	5.50	63	165699	15.54	ug/l	99
53) 2-Hexanone	6.60	43	231689m	20.28	ug/l	
54) Dibromochloromethane	6.66	129	76933	3.96	ug/l	97
55) 1,2-Dibromoethane	6.77	107	43461	3.48	ug/l	86
58) Tetrachloroethene	6.46	164	106006	3.71	ug/l	97
59) Chlorobenzene	7.12	112	255456	4.14	ug/l	98
60) 1,1,1,2-tetrachloroe	7.18	131	97829	4.24	ug/l	97
61) Ethyl Benzene	7.20	106	129526	4.25	ug/l	100
62) m,p-Xylenes	7.28	106	351960	8.84	ug/l	96
63) o-Xylene	7.55	106	161616	4.06	ug/l	98
64) Styrene	7.57	104	278300	4.27	ug/l	99
65) Bromoform	7.69	173	32086	4.10	ug/l	98

Analyst Signature: Jep Analyst Name: Date: 09.02.04

REASONS FOR MANUAL INTEGRATIONS

Poor resolution of peaks exhibited on chromatogram. Compound #: 40,57

Peak designated by software incorrectly. Compound #:

OTHER: Compound #:

(#) = quality control range (m) = manual integration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090221.D Vial: 3  
 Acq On : 2 Sep 2004 2:08 pm Operator: KP  
 Sample : 4 PPB CCC Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 2 15:18 2004

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)

Title : SW846 8260

Last Update : Thu Sep 02 10:57:19 2004

Response via : Initial Calibration

DataAcq Meth : VP

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
67) Isopropylbenzene	7.79	105	458143	4.07	ug/l	99
68) 1,1,2,2-Tetrachloroe	7.97	83	93569	4.53	ug/l	95
69) 1,2,3-Trichloropropa	8.00	75	85018	3.90	ug/l	89
70) Bromobenzene	7.99	156	89856	4.16	ug/l	94
71) n-propylbenzene	8.04	91	730363	4.10	ug/l	96
72) 2-Chlorotoluene	8.10	91	449086	3.80	ug/l	99
73) 1,3,5-Trimethylbenze	8.15	105	368574	4.13	ug/l	97
74) 4-Chlorotoluene	8.17	91	537477	4.30	ug/l	95
75) tert-Butylbenzene	8.33	119	427430	4.30	ug/l	96
76) 1,2,4-Trimethylbenze	8.37	105	367716	4.17	ug/l	99
77) sec-Butylbenzene	8.46	105	514836	4.09	ug/l	99
78) p-Isopropyltoluene	8.54	119	462255	4.24	ug/l	99
79) 1,3-Dichlorobenzene	8.54	146	162833	3.97	ug/l	98
80) 1,4-Dichlorobenzene	8.58	146	205091	4.13	ug/l	98
81) n-Butylbenzene	8.77	91	548894	4.07	ug/l	97
82) 1,2-Dichlorobenzene	8.80	146	162470	4.16	ug/l	98
83) 1,2-Dibromo-3-Chloro	9.23	75	10545	4.17	ug/l	99
84) 1,2,4-Trichlorobenze	9.66	180	101121	4.04	ug/l	96
85) Hexachlorobutadiene	9.73	225	67884	3.97	ug/l	98
86) Naphthalene	9.80	128	190002	3.94	ug/l	100
87) 1,2,3-Trichlorobenze	9.92	180	83631	4.13	ug/l	97

Analyst Signature: *[Signature]* Analyst Name: \_\_\_\_\_ Date: 09.02.04

REASONS FOR MANUAL INTEGRATIONS

Poor resolution of peaks exhibited on chromatogram. Compound #:

Peak identification software incorrectly. Compound #:

Other: \_\_\_\_\_ Compound #:

(#) \_\_\_\_\_ manual integration

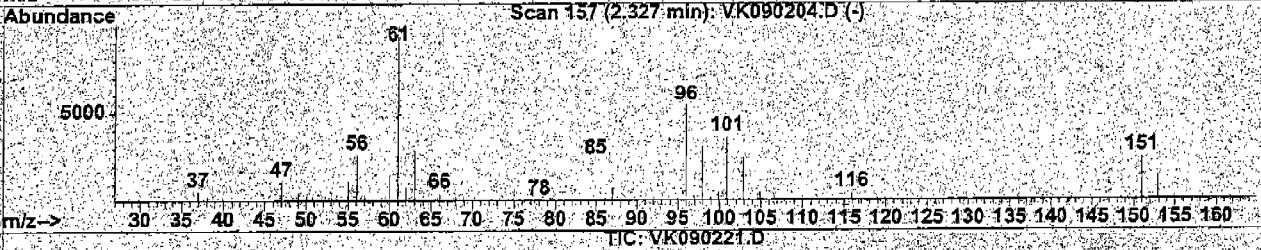
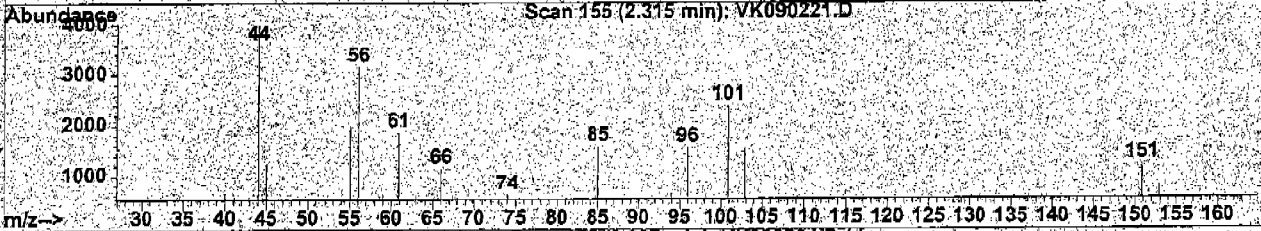
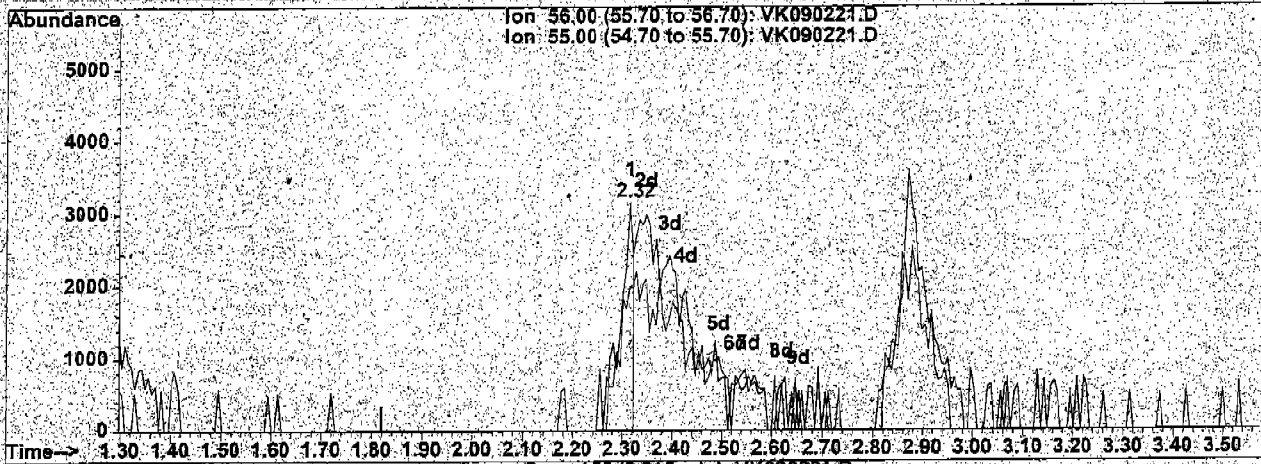


Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090221.D  
 Acq On : 2 Sep 2004 2:08 pm  
 Sample : 4 PPB CCC  
 Misc : 25mL  
 Quant Time: Sep 2 15:14 2004

Vial: 3  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(14) Acrolein (I)

2.32min 5.87ug/l

response 5620

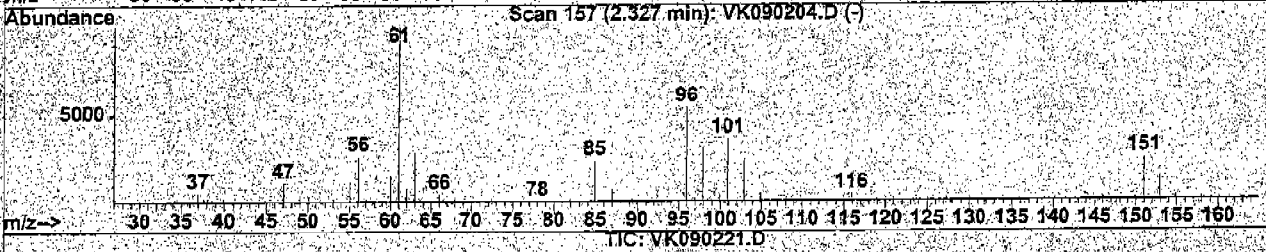
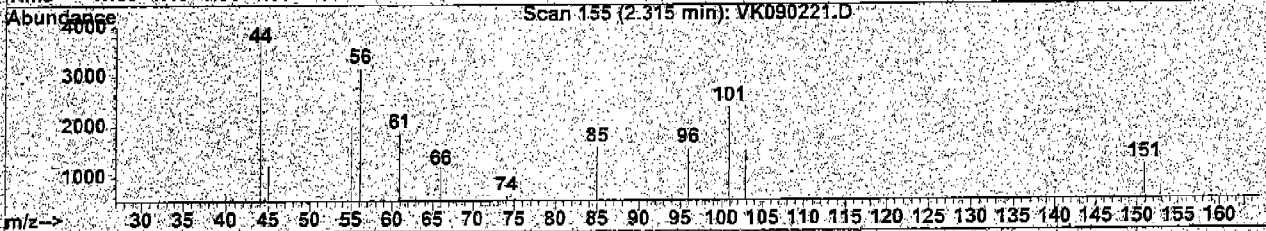
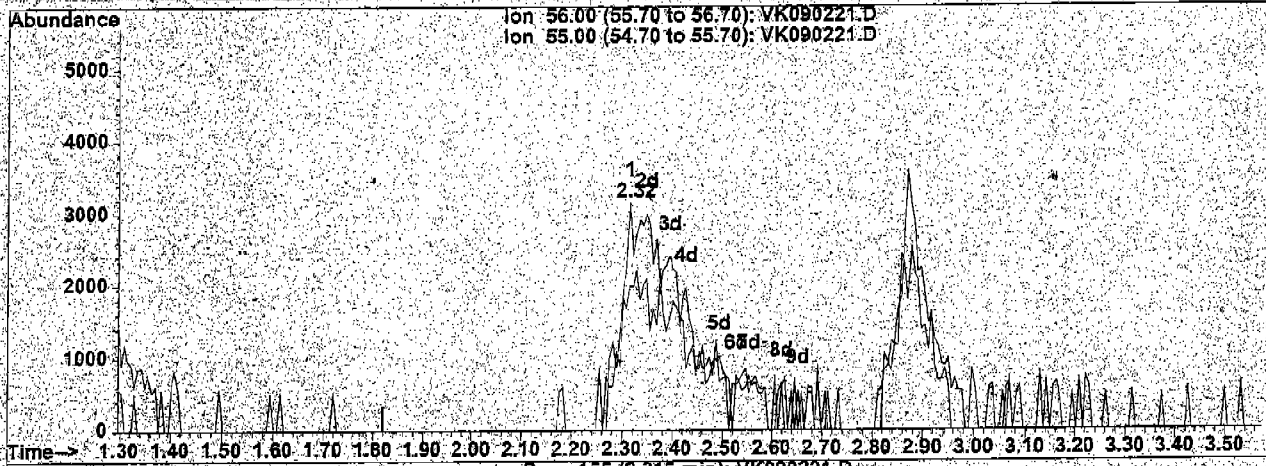
Ion	Exp%	Act%
56.00	100	100
55.00	586.40	147.56#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090221.D  
 Acq On : 2 Sep 2004 2:08 pm  
 Sample : 4 PPB CCC  
 Misc : 25mL  
 Quant Time: Sep 2 15:16 2004

Vial: 3  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(14) Acrolein (T)

2.32min 1.26.61ug/l/m

response 25475

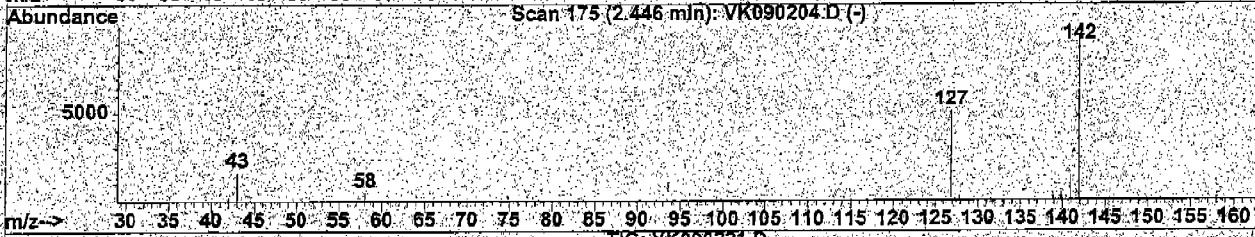
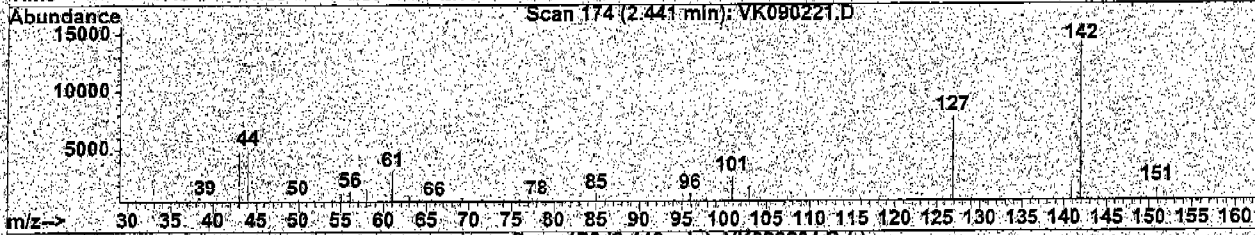
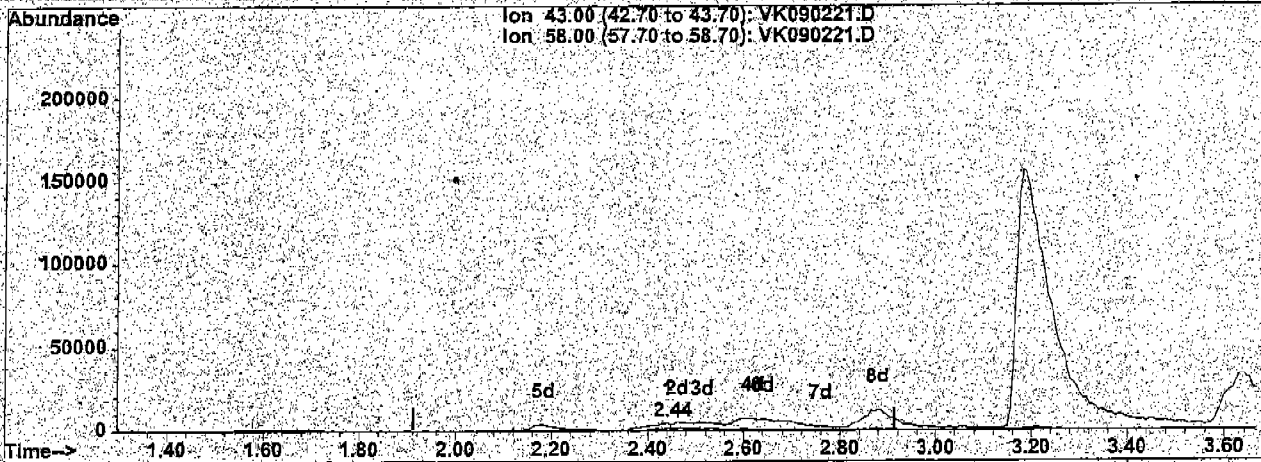
Ion	Exp%	Act%
56.00	100	100
55.00	586.40	32.56%
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090221.D  
 Acq On : 2 Sep 2004 2:08 pm  
 Sample : 4 PPB CCC  
 Misc : 25mL  
 Quant Time: Sep 2 15:16 2004

Vial: 3  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : k:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(16) Acetone (T)

2.44min 8.63ug/l

response 15752

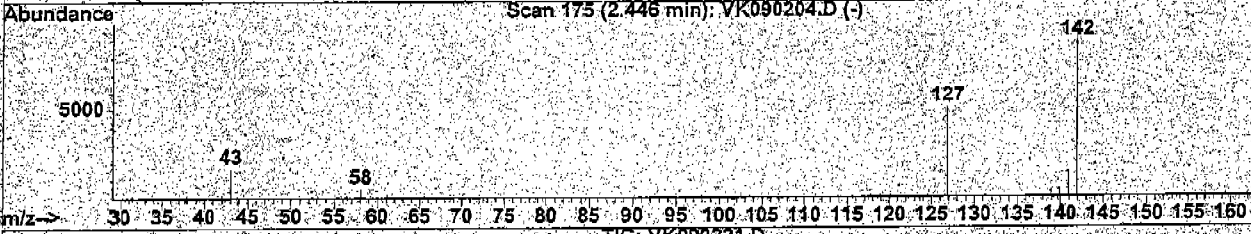
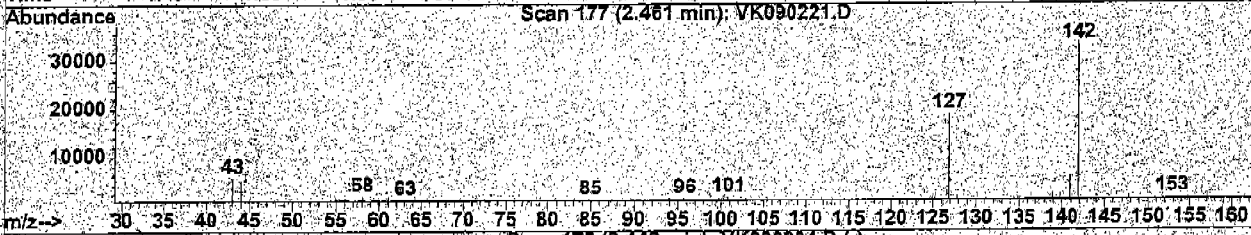
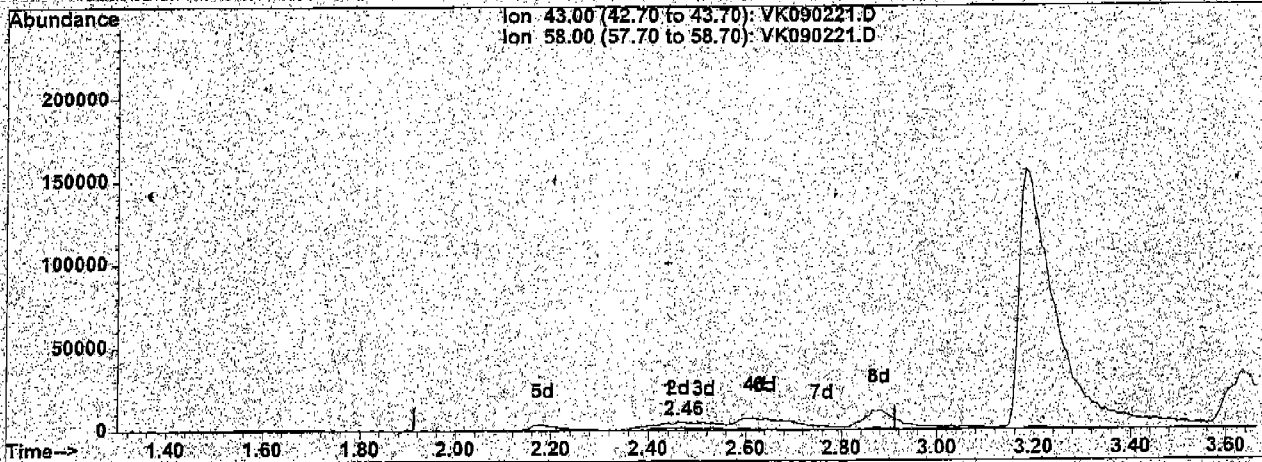
Ion	Exp%	Act%
43.00	100	100
58.00	30.30	30.50
0.00	0.00	0.00
0.00	0.00	0.00



Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090221.D Vial: 3  
 Acq On : 2 Sep 2004 2:08 pm Operator: KP  
 Sample : 4 PEB CCC Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 Quant Time: Sep 2 15:16 2004 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(16) Acetone (T)

2.46min 20.66ug/l m

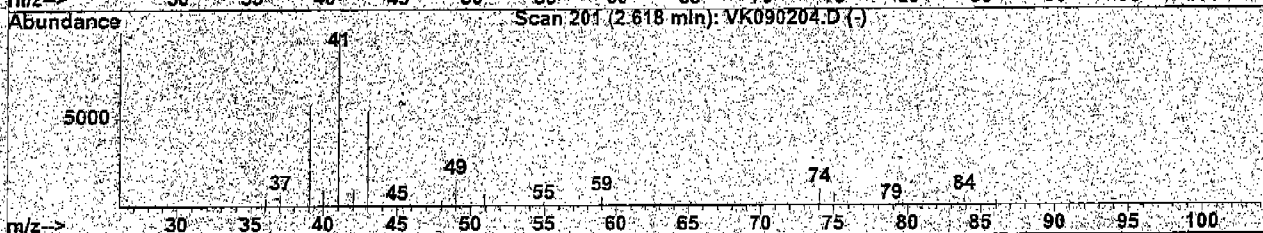
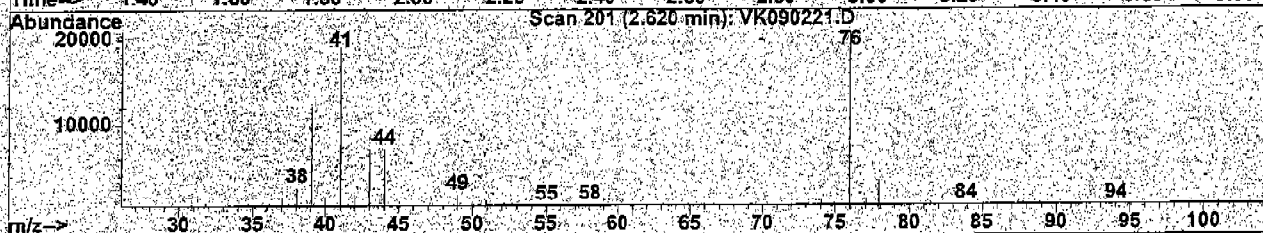
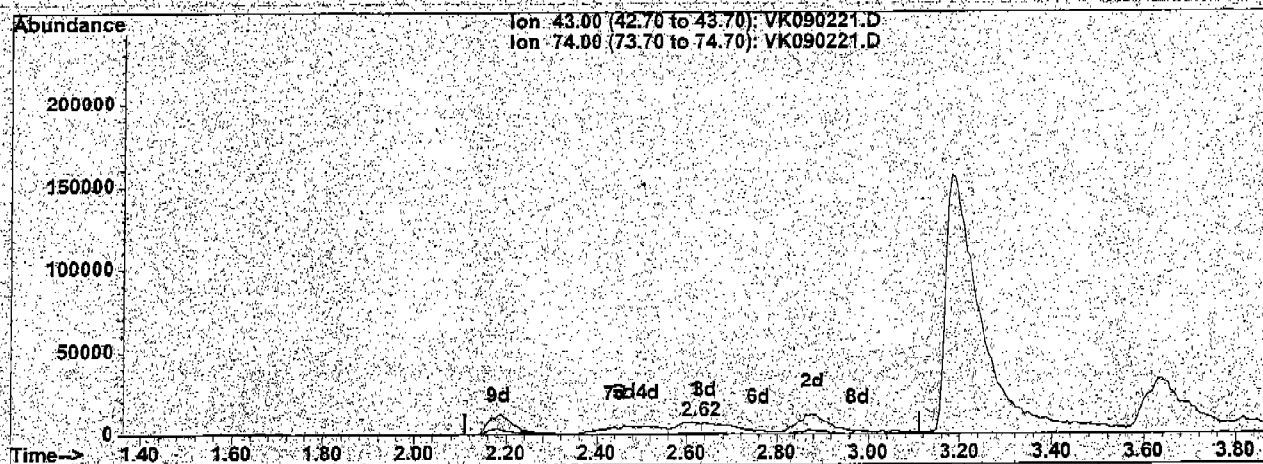
response 377.10

Ion	Exp%	Act%
43.00	100	100
58.00	30.30	27.55
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090221.D Vial: 3  
 Acq On : 2 Sep 2004 2:08 pm Operator: KP  
 Sample : 4 PPB CCC Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 Quant Time: Sep 2 15:16 2004 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(19) Methyl Acetate

2.62min 2.10ug/l

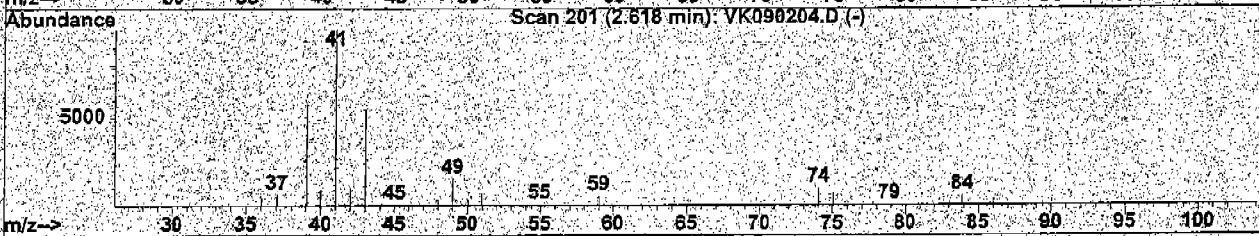
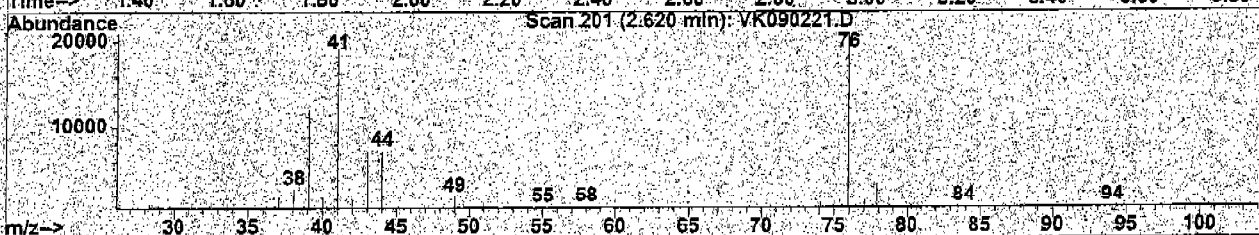
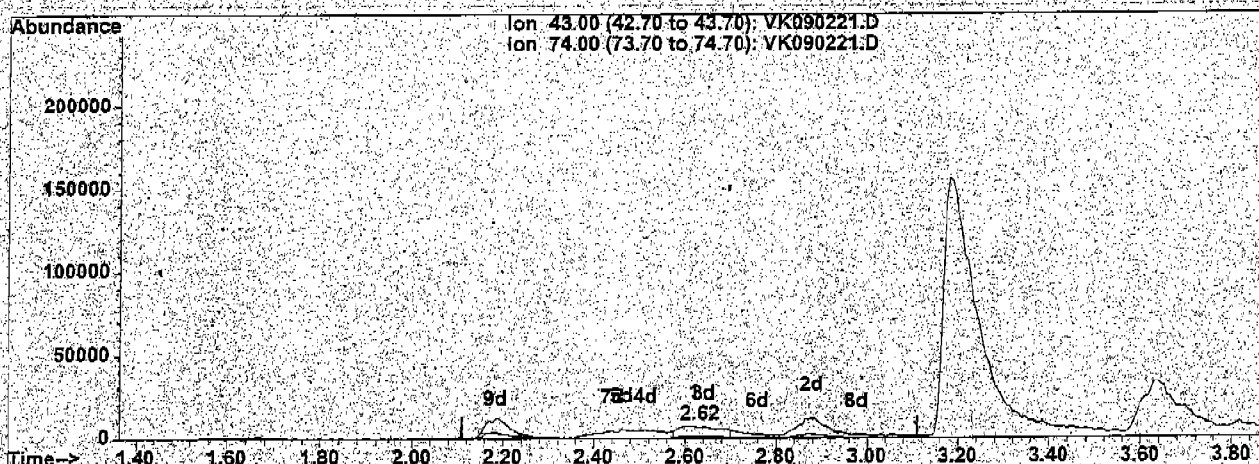
response: 24163

Ion	Exp%	Act%
43.00	100	100
74.00	21.20	14.39
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090221.D Vial: 3  
 Acq On : 2 Sep 2004 2:08 pm Operator: KP  
 Sample : 4 PPB CCC Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 Quant Time: Sep 2 15:17 2004 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(19) Methyl Acetate

2.62min 4.07ug/l-m

response 46677

Ion Exp% Act%

43.00 100 100

74.00 21.20 7.42

0.00 0.00 0.00

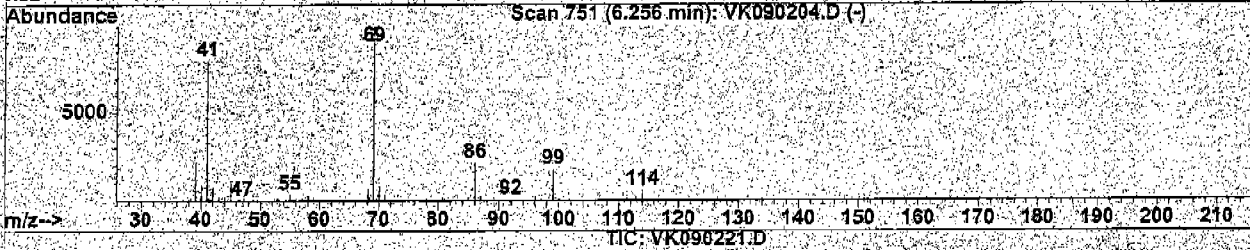
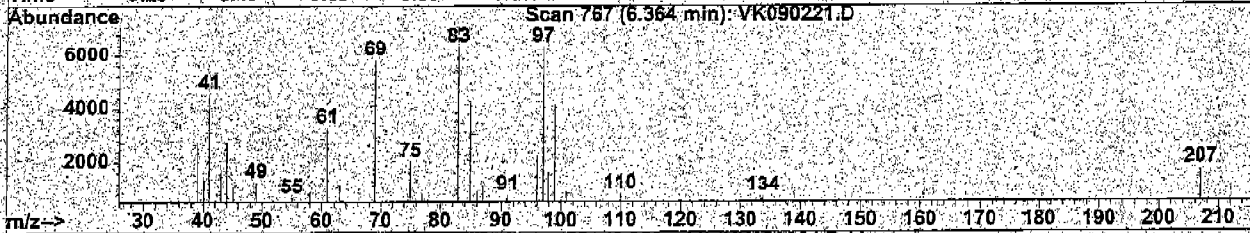
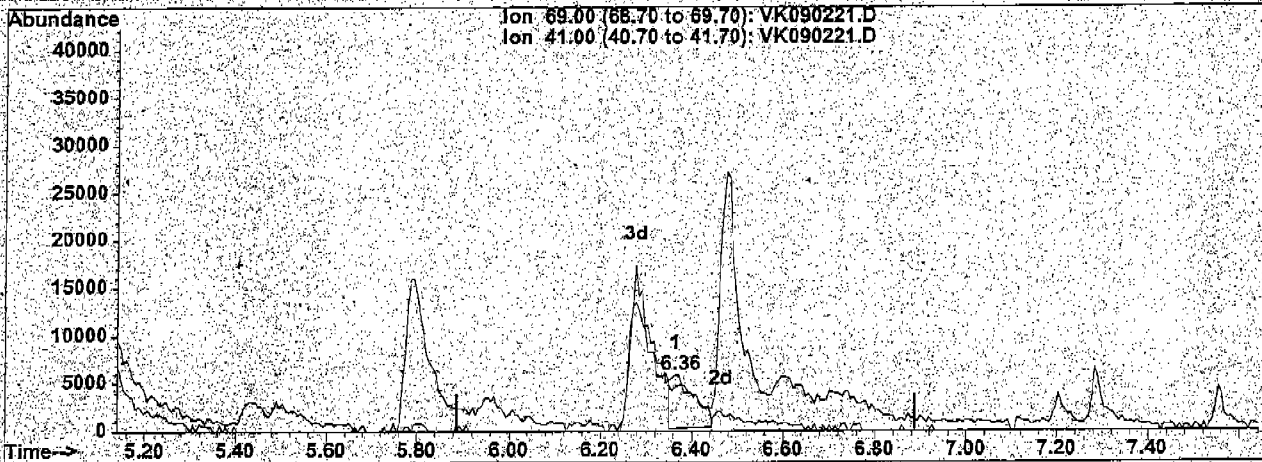
0.00 0.00 0.00



Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090221.D Vial: 3  
 Acq On : 2 Sep 2004 2:08 pm Operator: KP  
 Sample : 4 PPB CCC Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 Quant Time: Sep 2 15:17 2004 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(40) Methyl Methacrylate

6.36min 0.86ug/l

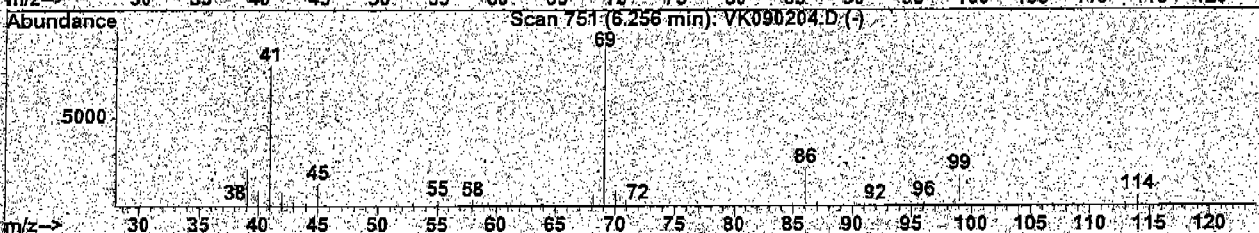
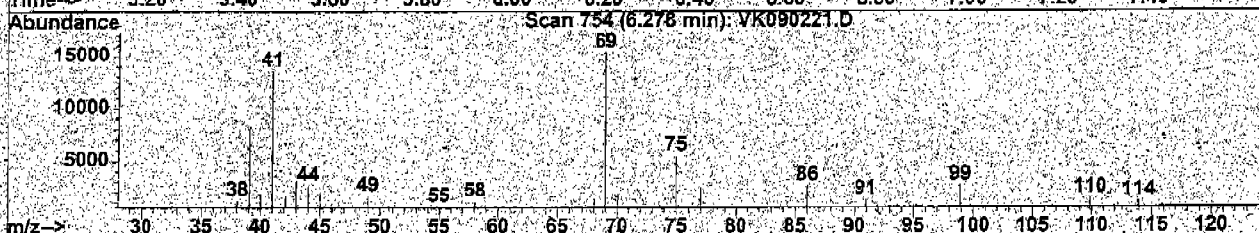
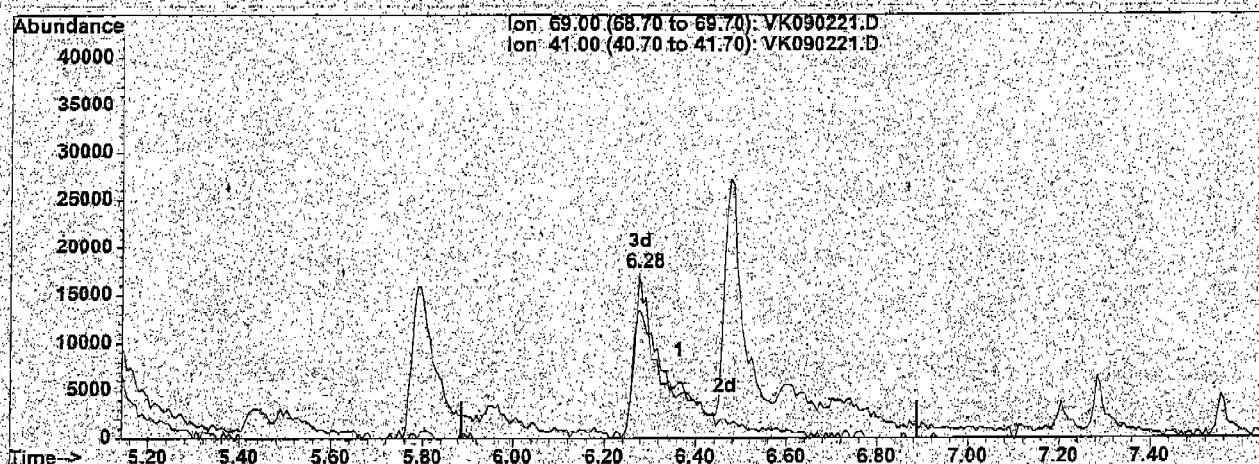
response 19511

Ion	Exp%	Act%
69.00	100	100
41.00	65.60	57.05
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090221.D Vial: 3  
 Acq On : 2 Sep 2004 2:08 pm Operator: KP  
 Sample : 4 PPB CCC Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 Quant Time: Sep 2 15:17 2004 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(40) Methyl Methacrylate

6.28min 4.11ug/l.m

response: 92875

Ion Exp% Act%

69.00 100 100

41.00 65.60 11.98\*

0.00 0.00 0.00

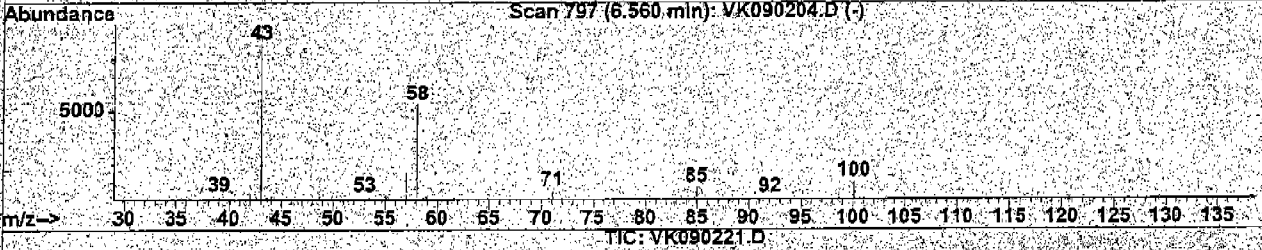
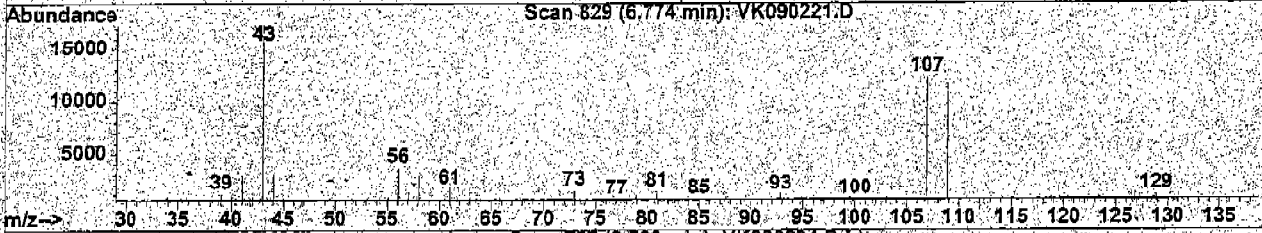
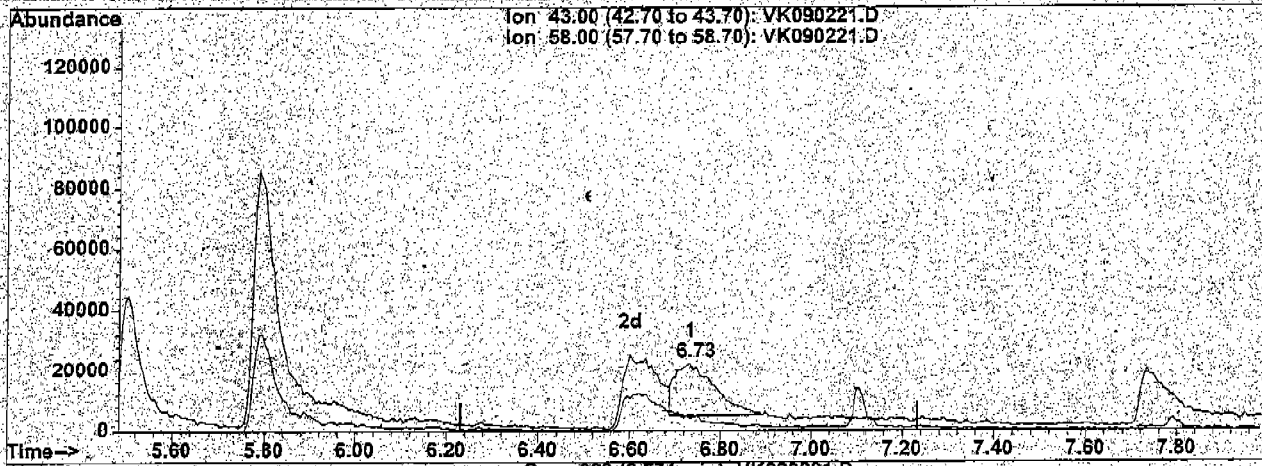
0.00 0.00 0.00



Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090221.D Vial: 3  
 Acc On : 2 Sep 2004 2:08 pm Operator: KP  
 Sample : 4 PPB CCC Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 Quant Time: Sep 2 15:17 2004 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



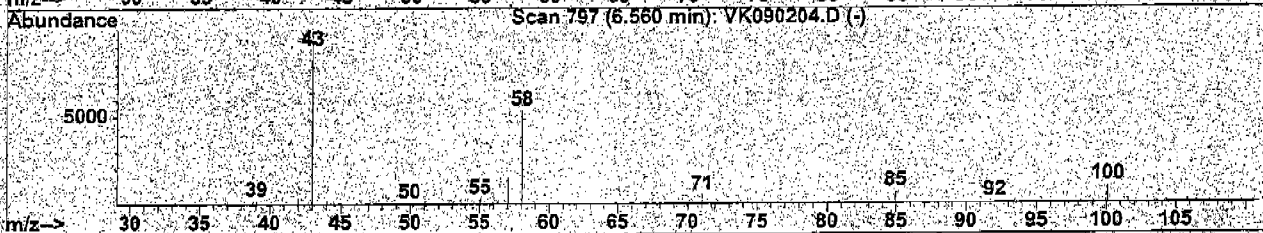
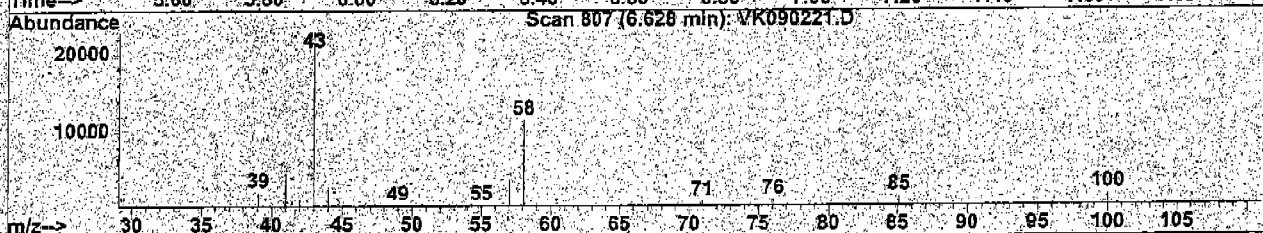
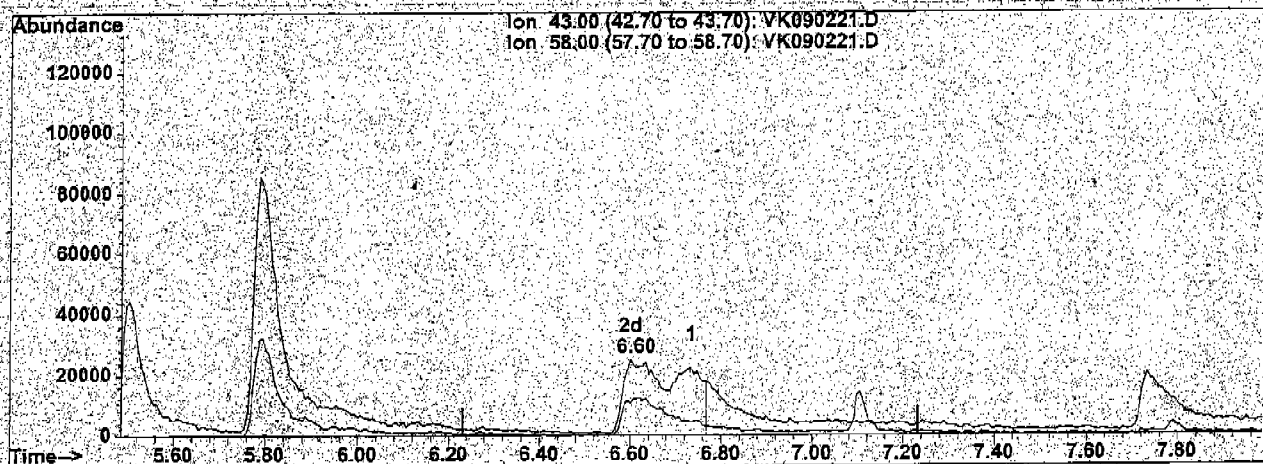
(53) 2-Hexanone (T)  
 6.73min 9.17ug/l  
 response 104804

Ion	Exp%	Act%
43.00	100.00	100.00
58.00	60.10	11.19%
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090221.D Vial: 3  
 Acq On : 2 Sep 2004 2:08 pm Operator: KP  
 Sample : 4 PPB CCC Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 Quant Time: Sep 2 15:18 2004 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



TIC: VK090221.D

(53) 2-Hexanone (T)

6.60min 20.28ug/l/m

response 231689

Ion Exp% Act%

43.00 1.180 100

58.00 60.10 5.06%

0.00 0.00 0.00

0.00 0.00 0.00

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Chemtech Contract: PARS04  
 Lab Code: CTECH Case No.: S4436 SAS No.: S4436 SDG No.: S4436  
 Instrument ID: MSVOAK Calibration Date/Time: 9/3/2004 16:22  
 Lab File ID: VK090334.D Init. Calib. Date(s): 9/2/2004 9/2/2004  
 Heated Purge: (Y/N) N Init. Calib. Time(s): 01:40 04:55  
 GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF	RRF10	MIN RRF	%D	MAX%D
Chloromethane	1.328	1.362	0.100	2.6	
Vinyl Chloride	1.034	1.132		9.5	20.0
Bromomethane	0.783	0.816		4.2	
Chloroethane	0.567	0.608		7.2	
1,1-Dichloroethane	0.629	0.750		19.2	20.0
Acetone	0.050	0.051		2.0	
Carbon Disulfide	2.772	3.264		17.7	
Methylene Chloride	0.800	0.944		18.0	
trans-1,2-Dichloroethene	0.672	0.817		21.6	
1,1-Dichloroethane	1.228	1.408	0.100	14.7	
2-Butanone	0.238	0.254		6.7	
Carbon Tetrachloride	0.438	0.429		2.1	
cis-1,2-Dichloroethene	0.724	0.864		19.3	
Chloroform	1.455	1.711		17.6	20.0
1,1,1-Trichloroethane	1.100	1.297		17.9	
Benzene	1.758	1.831		4.2	
1,2-Dichloroethane	0.318	0.337		6.0	
Trichloroethene	0.413	0.419		1.5	
1,2-Dichloropropane	0.393	0.411		4.6	20.0
Bromodichloromethane	0.514	0.554		7.8	
4-Methyl-2-Pentanone	0.254	0.263		3.5	
Toluene	1.142	1.161		1.7	20.0
t-1,3-Dichloropropene	0.381	0.399		4.7	
cis-1,3-Dichloropropene	0.527	0.594		12.7	
1,1,2-Trichloroethane	0.223	0.236		5.8	
2-Hexanone	0.156	0.138		11.5	
Dibromochloromethane	0.265	0.292		10.2	
Tetrachloroethane	0.466	0.367		21.2	
Chlorobenzene	1.004	1.055	0.300	5.1	
Ethyl Benzene	0.497	0.537		8.0	20.0
m&p-Xylenes	0.649	0.691		6.5	
o-Xylene	0.648	0.691		6.6	
Styrene	1.063	1.179		10.9	
Bromoform	0.127	0.146	0.100	15.0	
1,1,2,2-Tetrachloroethane	0.712	0.811	0.300	13.9	
1,2-Dichloroethane-d4	0.503	0.580		15.3	
Dibromofluoromethane	0.271	0.278		2.6	
Toluene-d8	1.186	1.199		1.1	
4-Bromofluorobenzene	0.484	0.481		0.6	

All other compounds must meet a minimum RRF of 0.010.

Evaluate Continuing Calibration Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090334.D  
 Acq On : 3 Sep 2004 4:22 pm  
 Sample : 10 PPB CCC  
 Misc : 25mL  
 MS Integration Params: RTEINT.P

Vial: 2  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 20% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 500%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	1.000	1.000	0.0	91	0.00
2 T	Dichlorodifluoromethane	0.856	0.974	-13.8	108	0.00
3 P	Chloromethane	1.328	1.362	-2.6	89	0.04
4 C	Vinyl Chloride	1.034	1.132	-9.5#	97	0.04
5 T	Bromomethane	0.783	0.816	-4.2	94	0.03
6 T	Chloroethane	0.567	0.608	-7.2	99	0.02
7	Ethanol	0.000	0.000#	0.0	0#	-2.87#
8 T	Trichlorofluoromethane	0.960	1.021	-6.4	97	0.01
9	1,1,2-Trichlorotrifluoroeth	0.639	0.751	-17.5	107	0.01
10 T	Tert butyl alcohol	0.015	0.026	-73.3#	158	0.00
11	Diethyl Ether	0.286	0.331	-15.7	106	0.00
12	Isopropyl Alcohol	2.858	3.459	-21.0#	107	0.00
13 CM	1,1-Dichloroethene	0.628	0.750	-19.4#	107	0.02
14 T	Acrolein	0.026	0.031	-19.2	117	-0.01
15 T	Acrylonitrile	0.234	0.249	-6.4	98	0.00
16 T	Acetone	0.050	0.051	-2.0	115	0.02
17 T	Carbon Disulfide	2.772	3.264	-17.7	107	0.02
18 T	Methyl tert-butyl Ether	1.255	1.571	-25.2#	115	0.00
19	Methyl Acetate	0.315	0.222	29.5#	66	-0.02
20 T	Methylene Chloride	0.800	0.944	-18.0	115	0.00
21 T	trans-1,2-Dichloroethene	0.672	0.817	-21.6#	108	0.00
22 T	Vinyl Acetate	0.776	1.348	-73.7#	147	-0.03
23 P	1,1-Dichloroethane	1.228	1.408	-14.7	106	0.00
24 T	Cyclohexane	3.659	4.222	-15.4	104	0.00
25 T	2-Butanone	0.238	0.254	-6.7	117	-0.01
26 T	2,2-Dichloropropane	0.972	1.274	-31.1#	121	0.01
27 T	cis-1,2-Dichloroethene	0.723	0.864	-19.5	111	0.00
28 T	Bromochloromethane	0.279	0.355	-27.2#	115	0.00
29 C	Chloroform	1.454	1.711	-17.7#	109	0.00
30 T	1,1,1-Trichloroethane	1.100	1.297	-17.9	108	0.00
31 T	Methylcyclohexane	0.768	0.923	-20.2#	109	0.00
32 S	1,2-Dichloroethane-d4	0.503	0.580	-15.3	110	0.00
33 I	1,4-Difluorobenzene	1.000	1.000	0.0	103	0.00
34 S	Dibromodifluoromethane	0.271	0.278	-2.6	108	0.00
35 T	1,1-Dichloropropene	0.547	0.553	-1.1	106	0.00
36 T	Carbon Tetrachloride	0.438	0.429	2.1	103	0.00
37 TM	Benzene	1.758	1.831	-4.2	107	0.00
38 TM	1,2-Dichloroethane	0.318	0.337	-6.0	114	-0.01
39 TM	Trichloroethene	0.413	0.419	-1.5	105	-0.01
40	Methyl Methacrylate	0.308	0.350	-13.6	117	-0.13

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090334.D  
 Acq On : 3 Sep 2004 4:22 pm  
 Sample : 10 PPB CCC  
 Misc : 25mL  
 MS Integration Params: RTEINT.P

Vial: 2  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 20% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 500%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev (min)
41 C	1,2-Dichloropropane	0.393	0.411	-4.6#	109	0.00
42 T	Dibromomethane	0.158	0.169	-7.0	108	-0.01
43	1,4-Dioxane	0.000	0.007#	0.0	0#	-0.13
44 T	Bromodichloromethane	0.514	0.554	-7.8	112	-0.01
45 S	Toluene-d8	1.186	1.199	-1.1	104	-0.02
46 T	4-Methyl-2-Pentanone	0.254	0.263	-3.5	123	-0.05
47 CM	Toluene	1.142	1.161	-1.7#	106	-0.02
48 T	t-1,3-Dichloropropene	0.381	0.399	-4.7	113	-0.06
49 T	cis-1,3-Dichloropropene	0.527	0.594	-12.7	112	-0.03
50 T	1,1,2-Trichloroethane	0.223	0.236	-5.8	109	-0.03
51 T	1,3-Dichloropropane	0.426	0.465	-9.2	112	-0.02
52 T	2-Chloroethyl vinyl ether	0.145	0.160	-10.3	113	-0.04
53 T	2-Hexanone	0.156	0.138	11.5	122	-0.17
54 T	Dibromochloromethane	0.265	0.292	-10.2	115	-0.02
55 T	1,2-Dibromoethane	0.170	0.188	-10.6	116	-0.03
56 S	4-Bromofluorobenzene	0.484	0.481	0.6	103	-0.05
57 I	Chlorobenzene-d5	1.000	1.000	0.0	103	0.00
58 T	Tetrachloroethene	0.466	0.367	21.2#	80	0.00
59 PM	Chlorobenzene	1.004	1.055	-5.1	106	0.00
60 T	1,1,1,2-Tetrachloroethane	0.376	0.410	-9.0	109	0.00
61 C	Ethyl Benzene	0.497	0.537	-8.0#	106	-0.02
62 T	m&p-Xylenes	0.649	0.691	-6.5	106	-0.01
63 T	o-Xylene	0.649	0.691	-6.5	108	-0.02
64 T	Styrene	1.063	1.179	-10.9	108	-0.05
65 P	Bromoform	0.127	0.146	-15.0	112	-0.02
66 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	107	0.00
67 T	Isopropylbenzene	3.886	3.899	-0.3	107	-0.01
68 P	1,1,2,2-Tetrachloroethane	0.712	0.811	-13.9	122	-0.01
69 T	1,2,3-Trichloropropane	0.753	0.798	-6.0	120	-0.01
70 T	Bromobenzene	0.744	0.778	-4.6	109	-0.04
71 T	n-propylbenzene	6.137	6.558	-6.9	107	-0.01
72 T	2-Chlorotoluene	4.074	3.767	7.5	106	-0.01
73 T	1,3-Dimethylbenzene	3.075	3.105	-1.0	108	-0.00
74 T	4-Chlorotoluene	4.314	4.333	-0.4	107	-0.03
75 T	tert-Butylbenzene	3.429	3.712	-8.3	114	0.00
76 T	1,2,4-Trimethylbenzene	3.039	3.045	-0.2	105	-0.01
77 T	sec-Butylbenzene	4.342	4.338	0.1	107	0.00
78 T	p-Isopropyltoluene	3.758	3.814	-1.5	107	0.00
79 T	1,3-Dichlorobenzene	1.414	1.474	-4.2	112	-0.01



Evaluate Continuing Calibration Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090334.D  
 Acq On : 3 Sep 2004 4:22 pm  
 Sample : 10 PPB CCC  
 Misc : 25mL  
 MS Integration Params: RTEINT.P

Vial: 2  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 20% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 500%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev (min)
80 T	1,4-Dichlorobenzene	1.712	1.693	1.1	107	0.00
81 T	n-Butylbenzene	4.652	4.899	-5.3	109	-0.02
82 T	1,2-Dichlorobenzene	1.346	1.454	-8.0	116	-0.02
83 T	1,2-Dibromo-3-Chloropropane	0.087	0.111	-27.6#	124	-0.03
84 T	1,2,4-Trichlorobenzene	0.864	0.930	-7.6	113	0.00
85 T	Hexachlorobutadiene	0.589	0.599	-1.7	111	0.04
86 T	Naphthalene	1.665	1.839	-10.5	123	0.00
87 T	1,2,3-Trichlorobenzene	0.699	0.718	-2.7	111	0.03

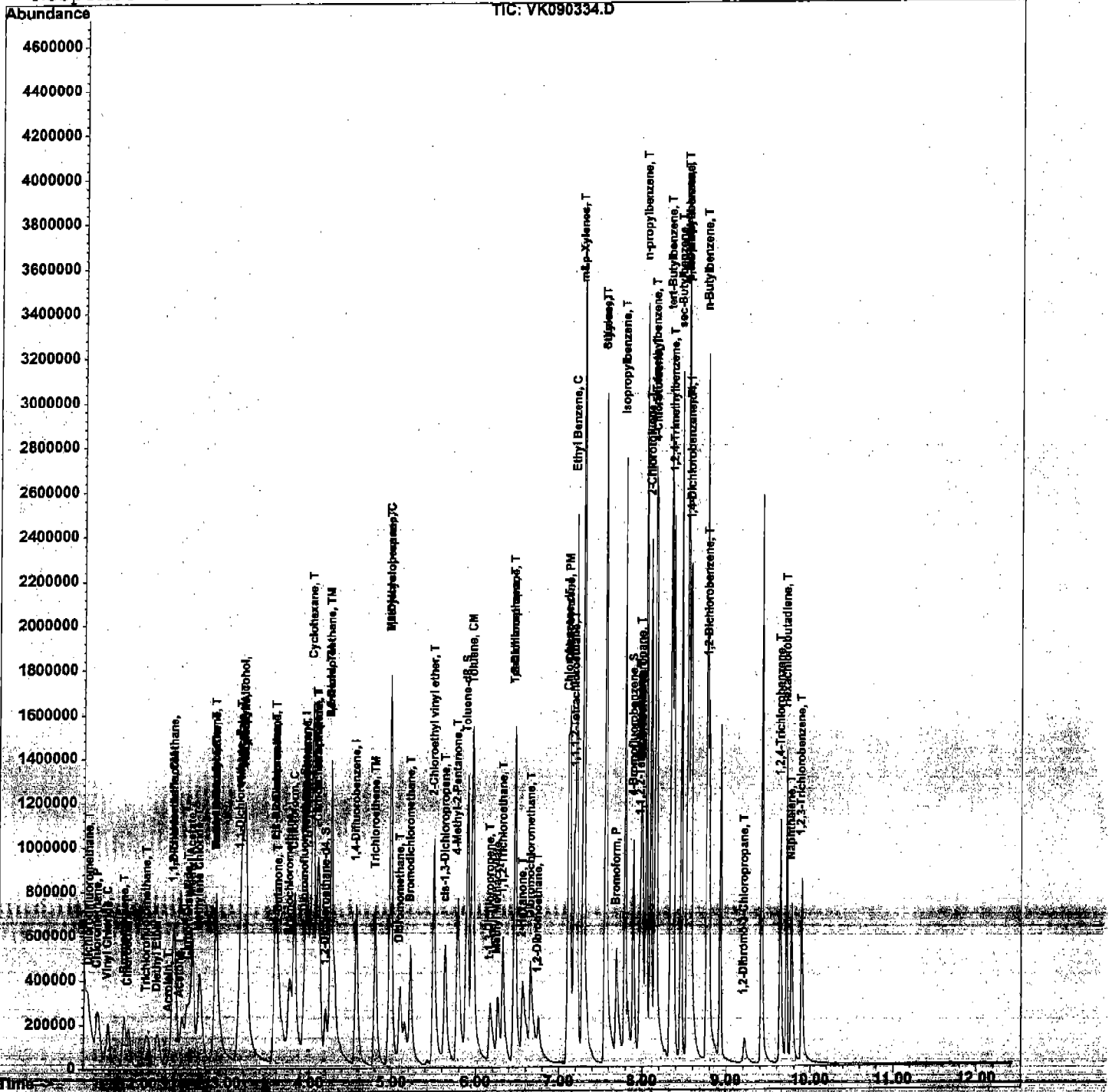
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090334.D  
Acq On : 3 Sep 2004 4:22 pm  
Sample : 10 PPB CCC  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 7 10:00 2004

Vial: 2  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090304\VK090334.D  
 Acq On : 3 Sep 2004 4:22 pm  
 Sample : 10 PPB CCC  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 7 10:00 2004

Vial: 2  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.96	168	350521	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.56	114	786586	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.10	117	676665	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.56	152	323393	10.00	ug/l	0.00

System Monitoring Compounds

32) 1,2-Dichloroethane-d	4.20	65	203259	11.54	ug/l	0.00
Spiked Amount	10.000		Recovery	=	115.40%	
34) Dibromofluoromethane	3.93	113	218403	10.23	ug/l	0.00
Spiked Amount	10.000		Recovery	=	102.30%	
45) Toluene-d8	5.89	98	943140	10.11	ug/l	-0.02
Spiked Amount	10.000		Recovery	=	101.10%	
56) 4-Bromofluorobenzene	7.89	95	378122	9.93	ug/l	-0.05
Spiked Amount	10.000		Recovery	=	99.30%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluorometh	1.37	85	341400	11.37	ug/l	99
3) Chloromethane	1.47	50	477540	10.26	ug/l	97
4) Vinyl Chloride	1.58	62	396871	10.95	ug/l	100
5) Bromomethane	1.78	94	286018	10.42	ug/l	100
6) Chloroethane	1.83	64	213078	10.73	ug/l	95
8) Trichlorofluorometha	2.04	101	357988	10.64	ug/l	97
9) 1,1,2-Trichlorotrifl	2.37	101	263097	11.74	ug/l	99
10) Tert butyl alcohol	2.86	59	46343	89.93	ug/l	100
11) Diethyl Ether	2.17	74	116147	11.58	ug/l	96
12) Isopropyl Alcohol	3.21	45	1212450	12.10	ug/l	100
13) 1,1-Dichloroethene	2.36	96	263027	11.94	ug/l	94
14) Acrolein	2.31	56	53715m	58.47	ug/l	
15) Acrylonitrile	3.23	53	436795	53.15	ug/l #	94
16) Acetone	2.43	43	89466m	51.07	ug/l	
17) Carbon Disulfide	2.54	76	1144004	11.77	ug/l	100
18) Methyl tert-butyl Et	2.87	73	550758	12.52	ug/l	95
19) Methyl Acetate	2.59	43	77948	7.05	ug/l	94
20) Methylene Chloride	2.68	84	330791	11.79	ug/l	98
<del>21) trans-1,2-Dichloroet</del>	<del>2.87</del>	<del>96</del>	<del>286220</del>	<del>12.15</del>	<del>ug/l</del>	<del>99</del>
22) Vinyl Acetate	3.17	43	2361986	86.87	ug/l	99

Analyst Signature: 19 Analyst Name: \_\_\_\_\_ Date: 09.07.04

REASONS FOR MANUAL INTEGRATIONS

Poor resolution of peaks exhibited on chromatogram. Compound #: 14,16

Peak integrated by software incorrectly. Compound #:

Other: \_\_\_\_\_ Compound #:

(#) = peak within 0.1 min range (m) = manual integration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090304\VK090334.D  
 Acq On : 3 Sep 2004 4:22 pm  
 Sample : 10 PPB CCC  
 Misc : 25mL

Vial: 2  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

MS Integration Params: RTEINT.P  
 Quant Time: Sep 7 10:00 2004

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1-Dichloroethane	3.15	63	493662	11.47	ug/l	98
24) Cyclohexane	4.04	56	1479910	11.54	ug/l	98
25) 2-Butanone	3.62	43	445722	53.54	ug/l	99
26) 2,2-Dichloropropane	3.60	77	446720	13.11	ug/l	98
27) cis-1,2-Dichloroethe	3.58	96	302955	11.95	ug/l	97
28) Bromochloromethane	3.76	128	124465	12.74	ug/l	95
29) Chloroform	3.81	83	599855m	11.77	ug/l	
30) 1,1,1-Trichloroethan	3.98	97	454727	11.79	ug/l	94
31) Methylcyclohexane	4.98	63	323546	12.02	ug/l	94
35) 1,1-Dichloropropene	4.10	75	434972	10.12	ug/l	99
36) Carbon Tetrachloride	4.11	117	337708	9.81	ug/l	98
37) Benzene	4.26	78	1440536	10.42	ug/l	100
38) 1,2-Dichloroethane	4.26	62	264985	10.60	ug/l	99
39) Trichloroethene	4.80	130	329385	10.13	ug/l	99
40) Methyl Methacrylate	6.26	69	275172	11.35	ug/l	85
41) 1,2-Dichloropropane	4.98	63	323546	10.48	ug/l	94
42) Dibromomethane	5.09	93	132898	10.69	ug/l	95
44) Bromodichloromethane	5.22	83	436042	10.79	ug/l	100
46) 4-Methyl-2-Pentanone	5.78	43	1032683	51.59	ug/l	98
47) Toluene	5.96	92	913354	10.17	ug/l	98
48) t-1,3-Dichloropropen	6.17	75	314039	10.47	ug/l	93
49) cis-1,3-Dichloroprop	5.63	75	466920	11.26	ug/l	100
50) 1,1,2-Trichloroethan	6.32	97	185428	10.56	ug/l	95
51) 1,3-Dichloropropane	6.47	76	366014	10.93	ug/l	99
52) 2-Chloroethyl vinyl	5.49	63	628424	54.98	ug/l	97
53) 2-Hexanone	6.56	43	542273	44.27	ug/l	89
54) Dibromochloromethane	6.65	129	229941	11.04	ug/l	96
55) 1,2-Dibromoethane	6.76	107	148006	11.06	ug/l	99
58) Tetrachloroethene	6.46	164	248382	7.88	ug/l	97
59) Chlorobenzene	7.12	112	714126	10.51	ug/l	98
60) 1,1,1,2-Tetrachloroe	7.18	131	277366	10.90	ug/l	98
61) Ethyl Benzene	7.20	106	363509	10.82	ug/l	100
62) m&p-Xylenes	7.29	106	935190	21.30	ug/l	98
63) o-Xylene	7.55	106	467774	10.66	ug/l	95
64) p-Xylene	7.56	104	798114	11.09	ug/l	99
65) Bromoform	7.69	173	98731	11.45	ug/l	97

Analyst Signature: lcp Analyst Name: \_\_\_\_\_ Date: 09.07.04

-----REASONS FOR MANUAL INTEGRATIONS-----

✓ Poor resolution of peaks exhibited on chromatogram. Compound #: 29  
 Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 Compound #: \_\_\_\_\_

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090304\VK090334.D  
 Acq On : 3 Sep 2004 4:22 pm  
 Sample : 10 PPB CCC  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 7 10:00 2004

Vial: 2  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
67) Isopropylbenzene	7.79	105	1260995	10.03	ug/l	100
68) 1,1,2,2-Tetrachloroe	7.97	83	262183	11.38	ug/l	100
69) 1,2,3-Trichloropropa	7.99	75	257999	10.60	ug/l	87
70) Bromobenzene	7.99	156	251657	10.46	ug/l	99
71) n-propylbenzene	8.04	91	2120760	10.69	ug/l	100
72) 2-Chlorotoluene	8.09	91	1218114	9.25	ug/l	100
73) 1,3,5-Trimethylbenze	8.15	105	1004289	10.10	ug/l	100
74) 4-Chlorotoluene	8.16	91	1401131	10.04	ug/l	99
75) tert-Butylbenzene	8.33	119	1200424	10.82	ug/l	93
76) 1,2,4-Trimethylbenze	8.37	105	984805	10.02	ug/l	99
77) sec-Butylbenzene	8.46	105	1402984	9.99	ug/l	100
78) p-Isopropyltoluene	8.54	119	1233386	10.15	ug/l	99
79) 1,3-Dichlorobenzene	8.53	146	476760	10.42	ug/l	98
80) 1,4-Dichlorobenzene	8.58	146	547576	9.89	ug/l	99
81) n-Butylbenzene	8.76	91	1584264	10.53	ug/l	99
82) 1,2-Dichlorobenzene	8.79	146	470144	10.80	ug/l	97
83) 1,2-Dibromo-3-Chloro	9.22	75	35772	12.67	ug/l	94
84) 1,2,4-Trichlorobenze	9.64	180	300600	10.76	ug/l	98
85) Hexachlorobutadiene	9.71	225	193579	10.15	ug/l	100
86) Naphthalene	9.77	128	594658	11.04	ug/l	100
87) 1,2,3-Trichlorobenze	9.89	180	232274	10.28	ug/l	96

Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_  
 Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 Other: \_\_\_\_\_ Compound #: \_\_\_\_\_

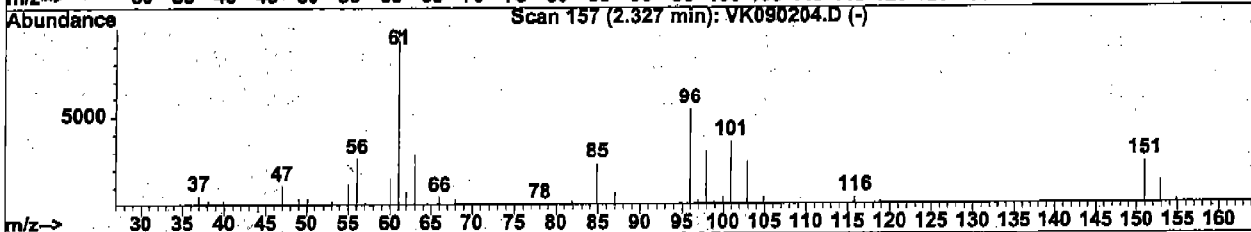
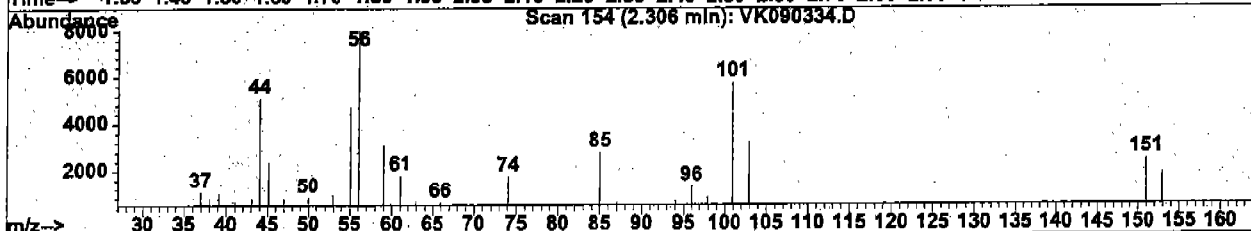
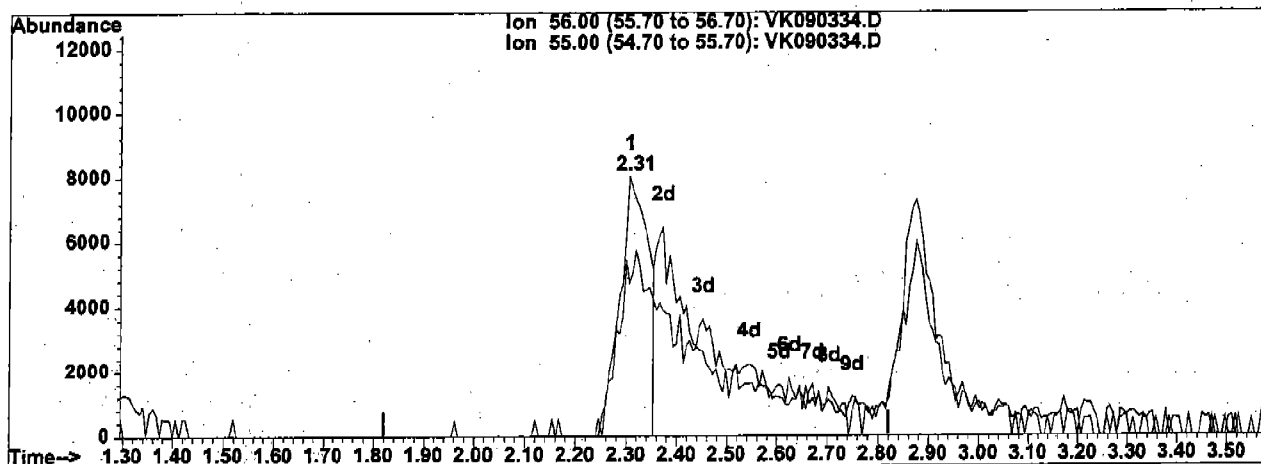
(#) = number of compounds manually integrated

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090334.D  
 Acq On : 3 Sep 2004 4:22 pm  
 Sample : 10 PPB CCC  
 Misc : 25mL  
 Quant Time: Sep 7 9:55 2004

Vial: 2  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(14) Acrolein (T)

2.31min 34.19ug/l  
 response 31409

Ion	Exp%	Act%
-----	------	------

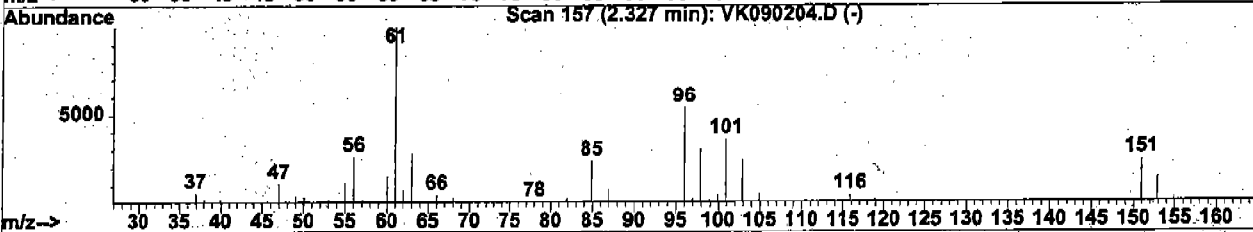
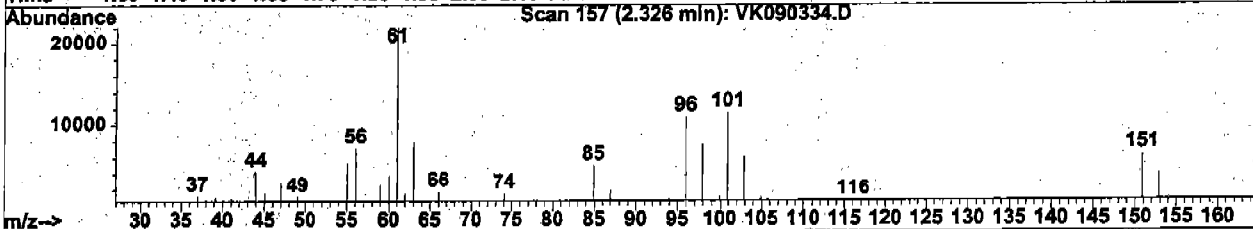
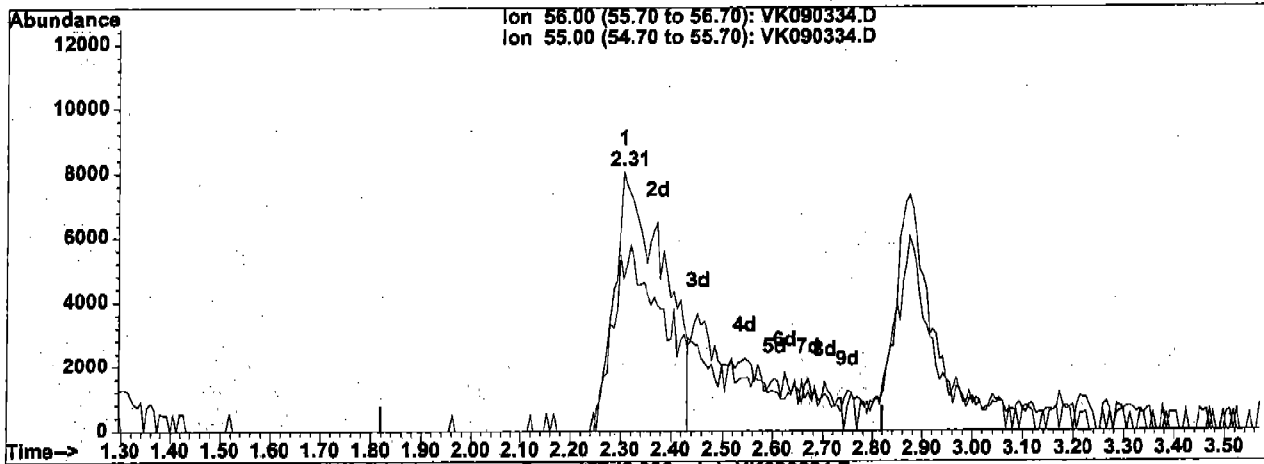
56.00	100.00	100.00
55.00	686.40	107.36#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090334.D  
 Acq On : 3 Sep 2004 4:22 pm  
 Sample : 10 PPB CCC  
 Misc : 25mL  
 Quant Time: Sep 7 9:56 2004

Vial: 2  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(14) Acrolein (T)

2.31min \* 58.47ug/l/m

response \* 53715

Ion Exp% Act%

56.00 100.00 100.00

55.00 686.40 62.78#

0.00 0.00 0.00

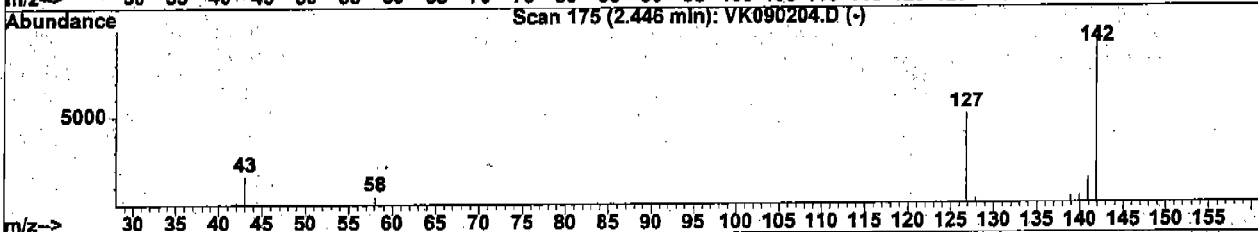
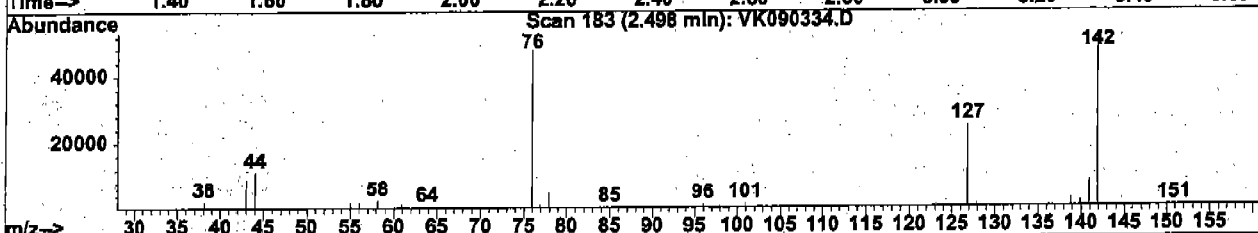
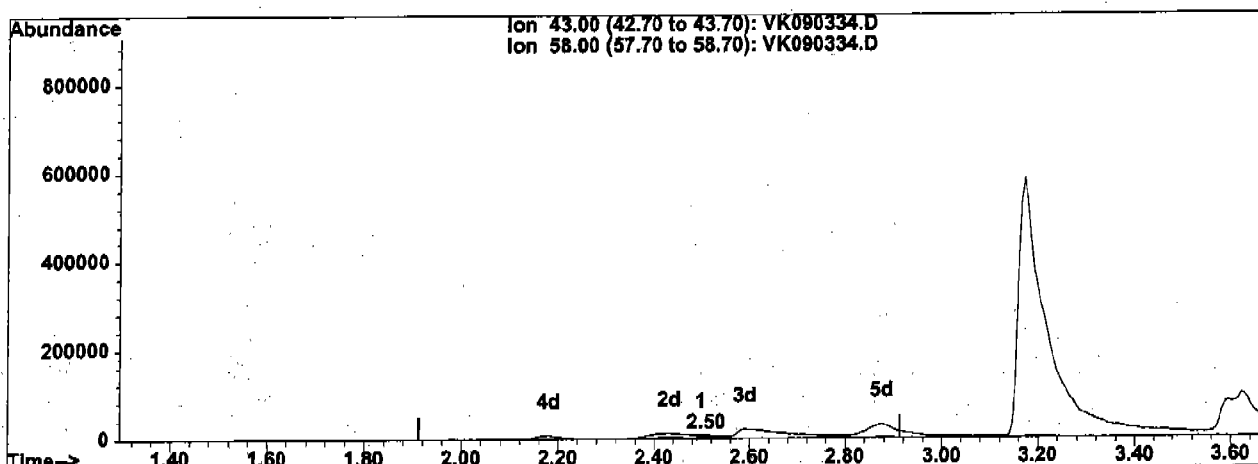
0.00 0.00 0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090334.D  
 Acq On : 3 Sep 2004 4:22 pm  
 Sample : 10 PPB CCC  
 Misc : 25mL  
 Quant Time: Sep 7 9:56 2004

Vial: 2  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(16) Acetone (T)

2.50min: 2.87ug/l

response: 5030

Ion Exp% Act%

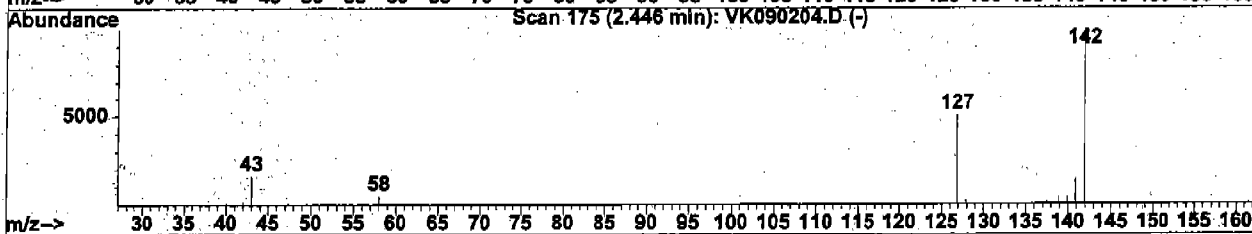
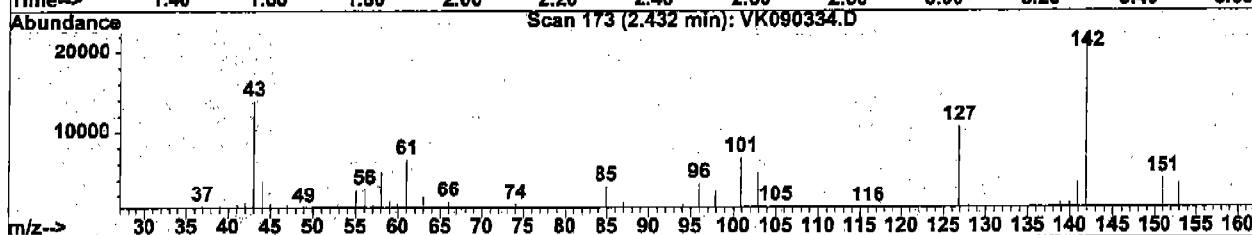
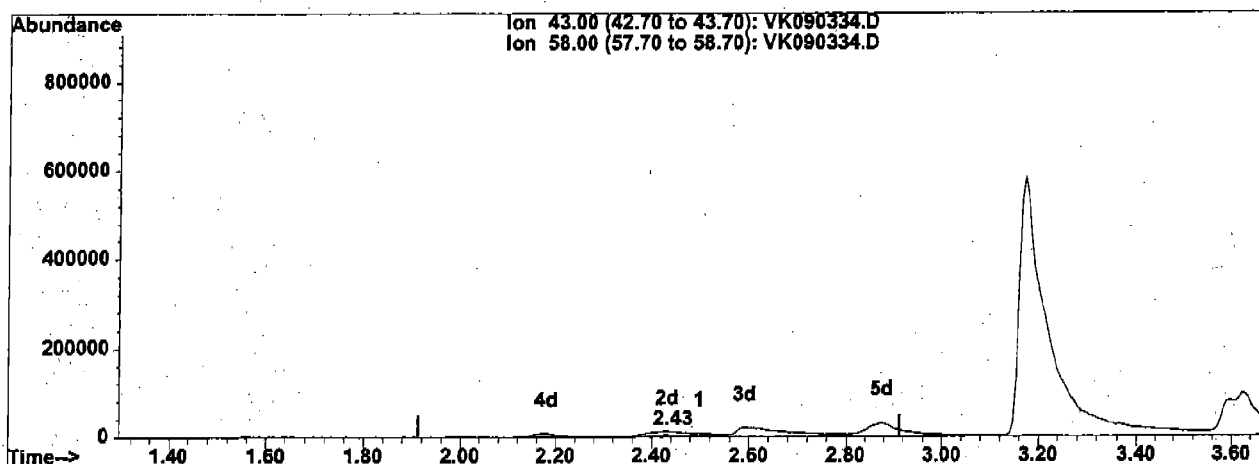
Ion	Exp%	Act%
58.00	30.30	35.97
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090334.D  
 Acq On : 3 Sep 2004 4:22 pm  
 Sample : 10 PPB CCC  
 Misc : 25mL  
 Quant Time: Sep 7 9:56 2004

Vial: 2  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(16) Acetone (T)

2.43min: 51.07ug/l m

response: 89486

Ion	Exp%	Act%
43.00	100.00	100.00
58.00	30.30	36.74#
0.00	0.00	0.00
0.00	0.00	0.00

43.00 100.00 100.00

58.00 30.30 36.74#

0.00 0.00 0.00

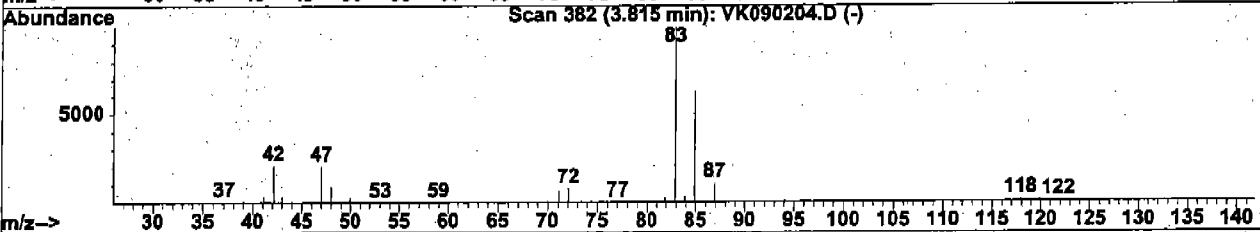
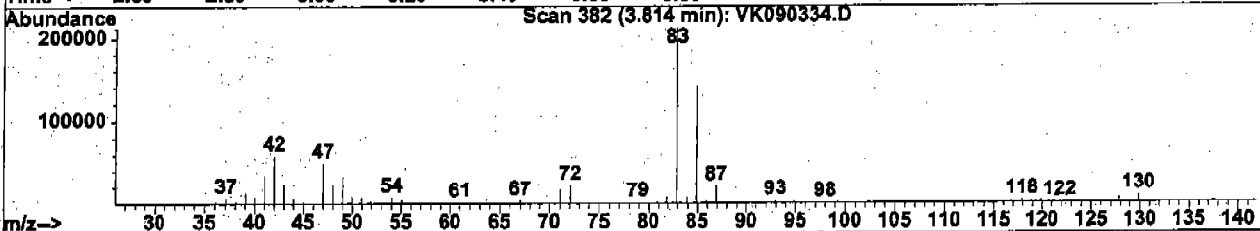
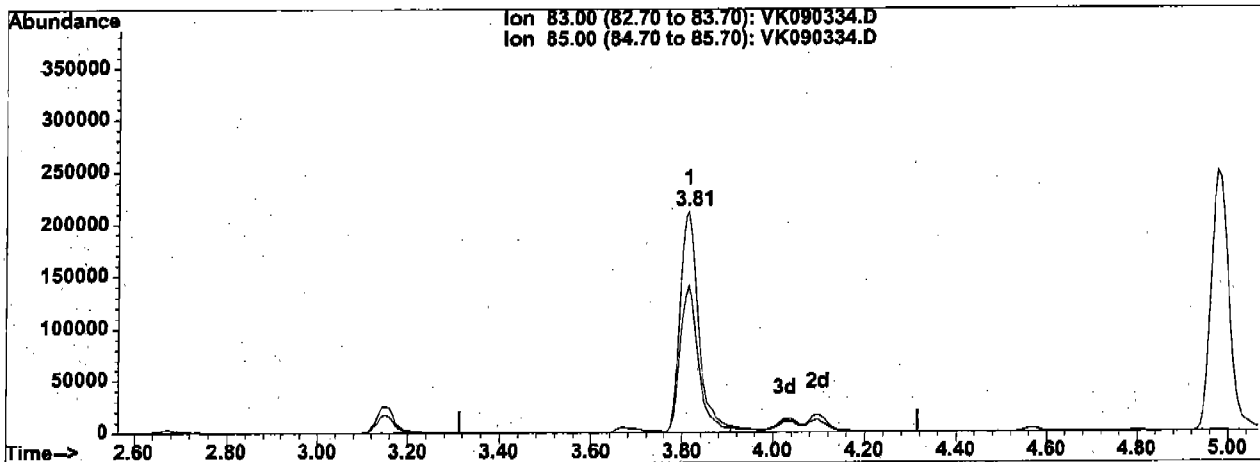
0.00 0.00 0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090334.D  
 Acq On : 3 Sep 2004 4:22 pm  
 Sample : 10 PPB CCC  
 Misc : 25mL  
 Quant Time: Sep 7 10:00 2004

Vial: 2  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(29) Chloroform (C)

3.81min: 11770ug/Lm

response: 599855

Ion Exp% Act%

83.00 100 100

85.00 63.90 66.90

0.00 0.00 0.00

0.00 0.00 0.00

CHEMTECH

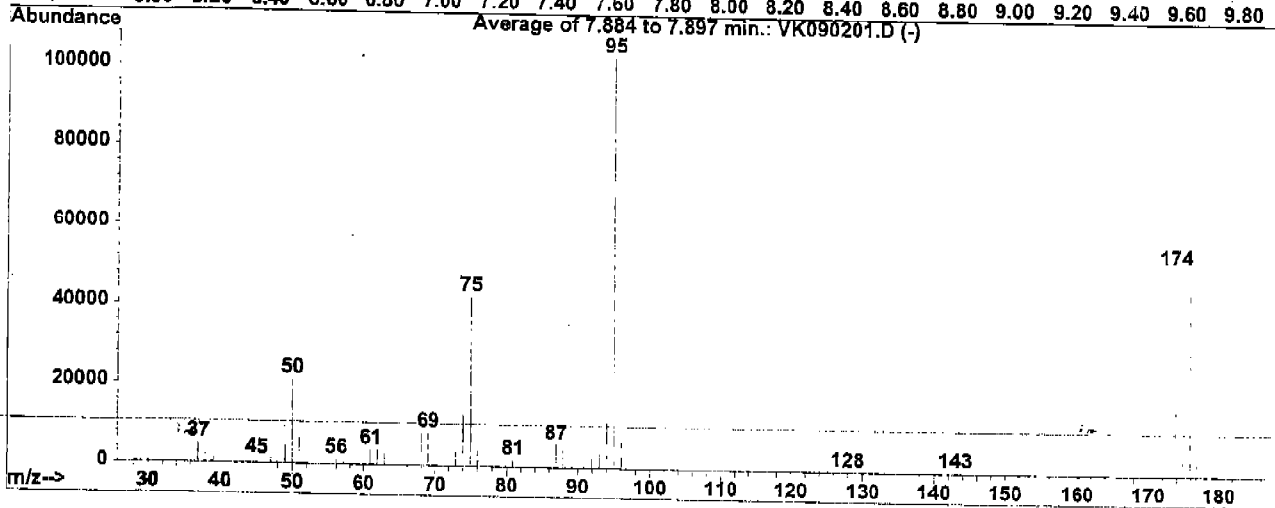
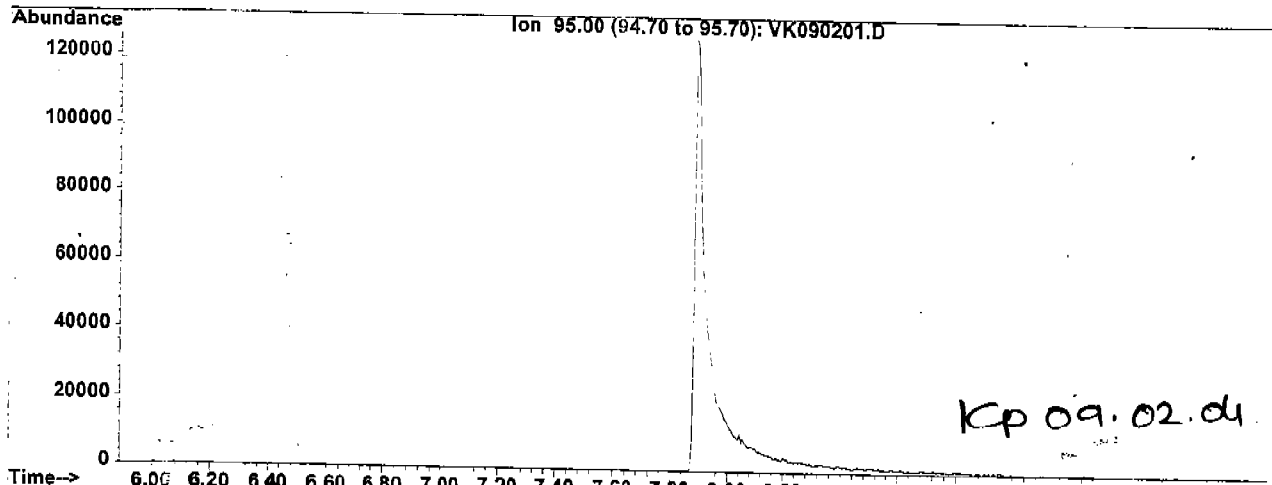
VOLATILES  
RAW QC  
DATA



BFB

Data File : K:\1\DATA\MSVOAK\VK090204\VK090201.D  
Acq On : 2 Sep 2004 1:01 am  
Sample : BFB TUNE CHECK  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260

Vial: 11  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

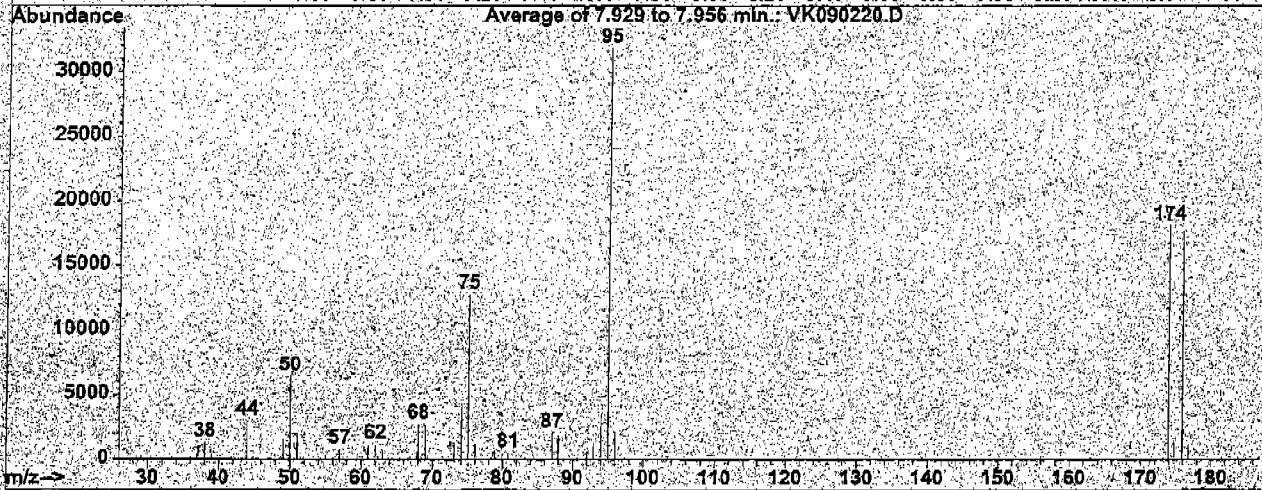
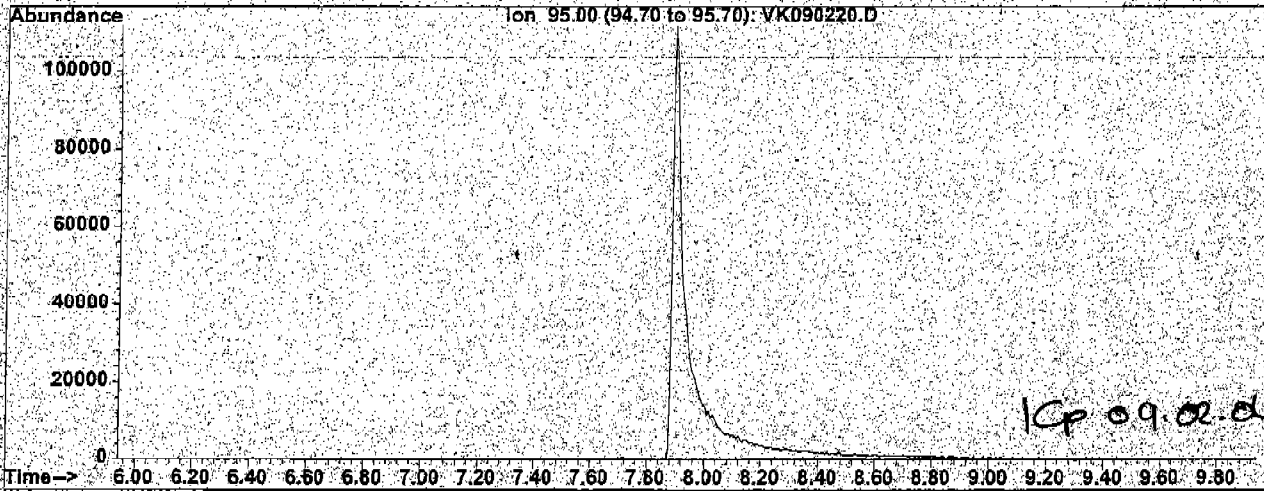


Spectrum Information: Average of 7.884 to 7.897 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
50	95	15	40	20.4	21069	PASS
75	95	30	60	41.3	42581	PASS
95	95	100	100	100.0	103077	PASS
96	95	5	9	6.3	6454	PASS
173	174	0.00	2	0.5	250	PASS
174	95	50	100	50.6	52131	PASS
175	174	5	9	7.8	4047	PASS
176	174	95	101	96.4	50280	PASS
177	176	5	9	6.9	3468	PASS

BFB

Data File : K:\1\DATA\MSVOAK\VK090204\VK090220.D Vial: 2  
Acq On : 2 Sep 2004 1:29 pm Operator: KP  
Sample : BFB TUNE CHECK Inst : MSVOA J/K  
Misc : 25mL Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260



Spectrum Information: Average of 7.929 to 7.956 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
50	95	15	40	20.2	6433	PASS
75	95	30	60	40.1	12779	PASS
95	95	100	100	100.0	31854	PASS
96	95	5	9	6.7	2137	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	56.9	18128	PASS
175	174	5	9	6.9	1254	PASS
176	174	95	101	97.0	17592	PASS
177	75	5	9	6.2	1090	PASS

BFB

Data File : K:\1\DATA\MSVOAK\VK090304\VK090333.D

Vial: 1

Acq On : 3 Sep 2004 3:43 pm

Operator: KP

Sample : BFB TUNE CHECK

Inst : MSVOA J/K

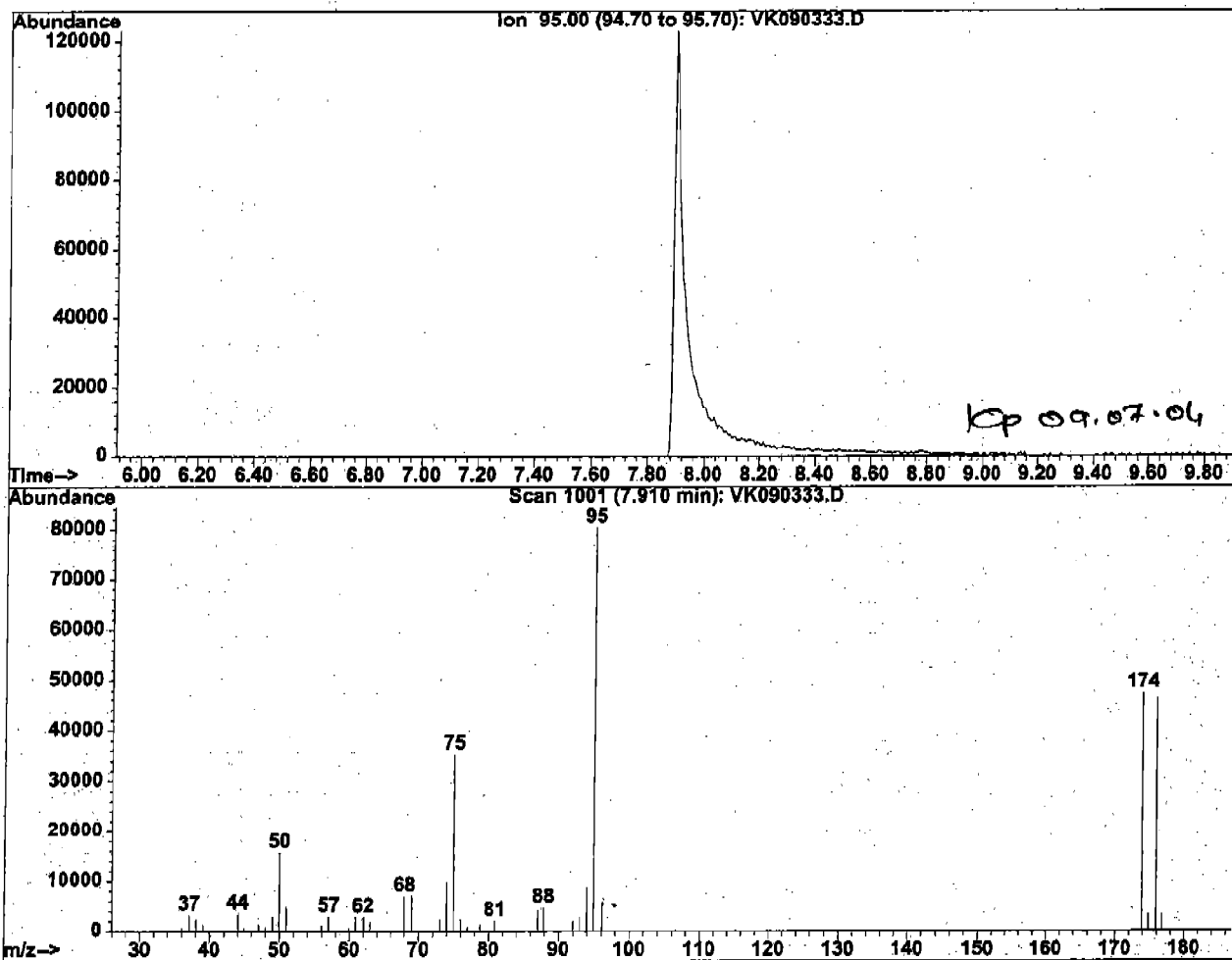
Misc : 25mL

Multiplr: 1.00

MS Integration Params: RTEINT.P

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)

Title : SW846 8260



Kp 09.07.04

Spectrum Information: Scan 1001

Target Mass	Relative Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
50	95	15	40	19.5	15664	PASS
75	95	30	60	43.9	35264	PASS
95	95	100	100	100.0	208360	PASS
96	95	5	9	6.1	4930	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	58.8	47248	PASS
175	174	5	9	7.0	3320	PASS
176	174	95	101	97.8	46200	PASS
177	176	5	9	7.3	3357	PASS

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VBLK01</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>VBK0902W2</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090210.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
74-87-3	Chloromethane	0.16	U	1.0	0.16	ug/L
75-01-4	Vinyl chloride	0.11	U	1.0	0.11	ug/L
74-83-9	Bromomethane	0.12	U	1.0	0.12	ug/L
75-00-3	Chloroethane	0.18	U	1.0	0.18	ug/L
75-35-4	1,1-Dichloroethene	0.20	U	1.0	0.20	ug/L
67-64-1	Acetone	1.2	U	5.0	1.2	ug/L
75-15-0	Carbon disulfide	0.21	U	1.0	0.21	ug/L
75-09-2	Methylene Chloride	0.36	U	1.0	0.36	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	1.0	0.25	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.92	U	5.0	0.92	ug/L
56-23-5	Carbon Tetrachloride	0.17	U	1.0	0.17	ug/L
156-59-2	cis-1,2-Dichloroethene	0.27	U	1.0	0.27	ug/L
67-66-3	Chloroform	0.23	U	1.0	0.23	ug/L
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22	ug/L
71-43-2	Benzene	0.20	U	1.0	0.20	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	0.19	U	1.0	0.19	ug/L
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17	ug/L
108-10-1	4-Methyl-2-Pentanone	0.77	U	5.0	0.77	ug/L
108-88-3	Toluene	0.19	U	1.0	0.19	ug/L
10061-02-6	t-1,3-Dichloropropene	0.15	U	1.0	0.15	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L
591-78-6	2-Hexanone	0.58	U	5.0	0.58	ug/L
124-48-1	Dibromochloromethane	0.21	U	1.0	0.21	ug/L
127-18-4	Tetrachloroethene	0.20	U	1.0	0.20	ug/L
108-90-7	Chlorobenzene	0.16	U	1.0	0.16	ug/L
100-41-4	Ethyl Benzene	0.18	U	1.0	0.18	ug/L
136777-61-2	m&p-Xylenes	0.36	U	1.0	0.36	ug/L
95-47-6	o-Xylene	0.17	U	1.0	0.17	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VBLK01</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>VBK0902W2</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090210.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
100-42-5	Styrene	0.17	U	1.0	0.17	ug/L
75-25-2	Bromoform	0.37	U	1.0	0.37	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13	ug/L

**SURROGATES**

17060-07-0	1,2-Dichloroethane-d4	10.42	104 %	72 - 119	SPK: 10
1868-53-7	Dibromofluoromethane	10.64	106 %	85 - 115	SPK: 10
2037-26-5	Toluene-d8	9.67	97 %	81 - 120	SPK: 10
460-00-4	4-Bromofluorobenzene	8.59	86 %	76 - 119	SPK: 10

**INTERNAL STANDARDS**

363-72-4	Pentafluorobenzene	343864	3.96
540-36-3	1,4-Difluorobenzene	762386	4.56
3114-55-4	Chlorobenzene-d5	623215	7.11
3855-82-1	1,4-Dichlorobenzene-d4	305532	8.56

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

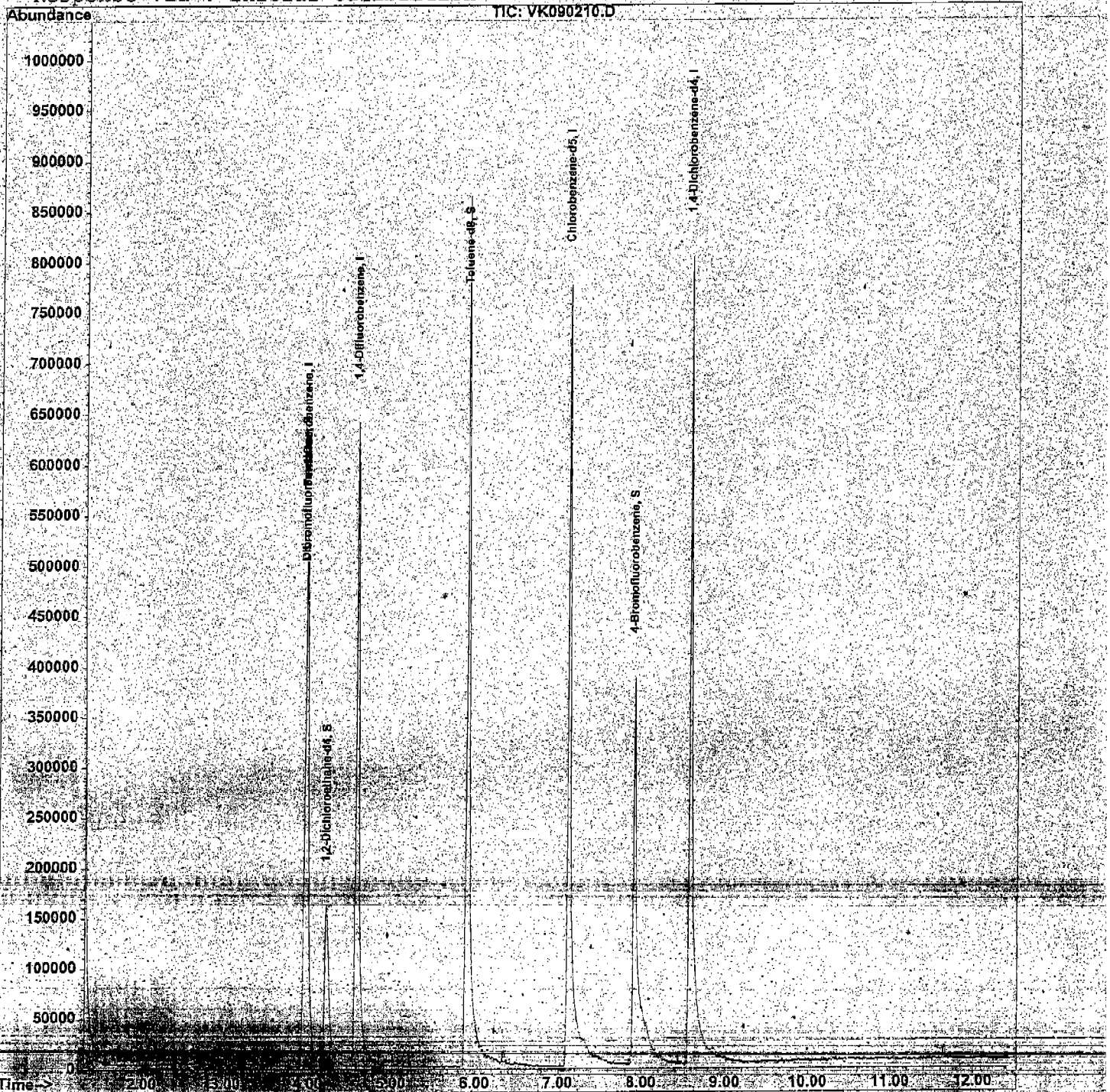
Quantitation Report

Data File : K:\1\DATA\MSVQAK\VK090204\VK090210.D  
Acq On : 2 Sep 2004 6:51 am  
Sample : VBK0902W2  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 2 17:44 2004

Vial: 20  
Operator: KP  
Inst : MSVQA J/K  
Multiplier: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration





CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090210.D Vial: 20  
 Acq On : 2 Sep 2004 6:51 am Operator: KP  
 Sample : VBK0902W2 Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 17:44 2004 Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.96	168	343864	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.56	114	762386	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.11	117	623215	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.56	152	305532	10.00	ug/l	0.00
<b>System Monitoring Compounds</b>						
32) 1,2-Dichloroethane-d	4.21	65	180086	10.42	ug/l	0.00
Spiked Amount	10.000		Recovery	=	104.20%	
34) Dibromofluoromethane	3.94	113	220161	10.64	ug/l	0.00
Spiked Amount	10.000		Recovery	=	106.40%	
45) Toluene-d8	5.89	98	874047	9.67	ug/l	-0.02
Spiked Amount	10.000		Recovery	=	96.70%	
56) 4-Bromofluorobenzene	7.90	95	316840	8.59	ug/l	-0.04
Spiked Amount	10.000		Recovery	=	85.90%	
Target Compounds						Qvalue

Analyst Signature: JCP Analyst Name: \_\_\_\_\_ Date: 09.02.04

REASONS FOR MANUAL INTEGRATIONS

Poor resolution or peaks exhibited on chromatogram Compound #:

Peak(s) present or were incorrectly Compound #:

OTHER \_\_\_\_\_ Compound #:

(#) = number of peaks manually integrated (m) = manual integration

LSC Area Percent Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090210.D Vial: 20  
 Acq On : 2 Sep 2004 6:51 am Operator: KP  
 Sample : VBK0902W2 Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Smoothing : ON Filtering: 5  
 Sampling : 1 Min Area: 3 % of largest Peak  
 Start Thrs: 0.02 Max Peaks: 100  
 Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max	% of total
1	3.954	386	403	434	rBV3	534788	1779018	74.99%	15.176%
2	4.205	434	441	476	rVB2	159813	577292	24.33%	4.925%
3	4.562	489	495	529	rBV	639227	1794265	75.63%	15.307%
4	5.892	689	696	734	rBV	862664	2372431	100.00%	20.239%
5	7.109	873	880	908	rBV	774878	2006275	84.57%	17.115%
6	7.896	993	999	1021	rBV	385155	1209357	50.98%	10.317%
7	8.564	1095	1100	1143	rBV	799989	1983598	83.61%	16.922%

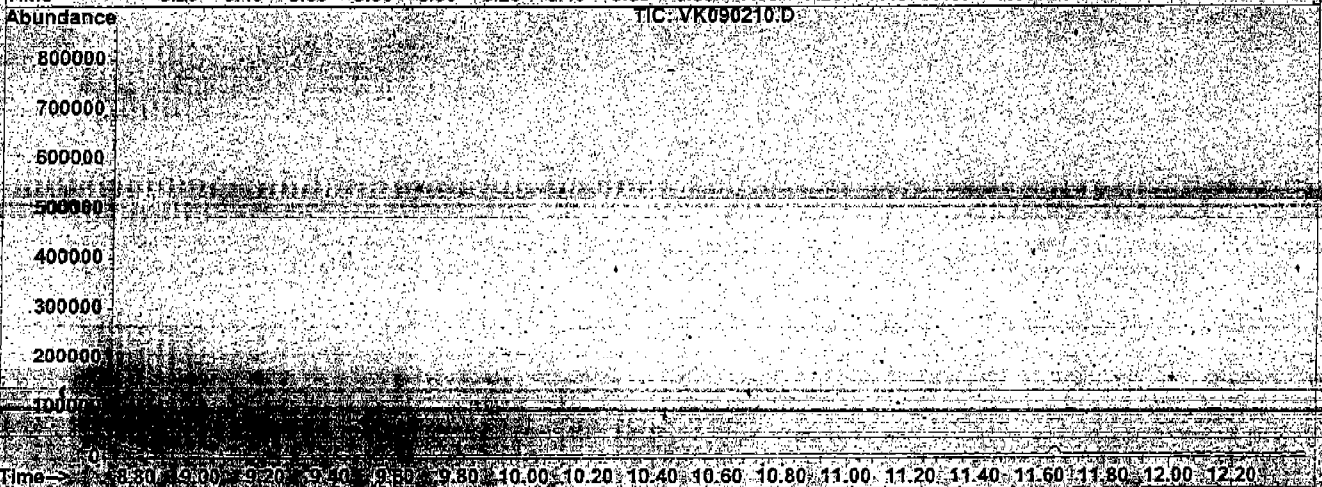
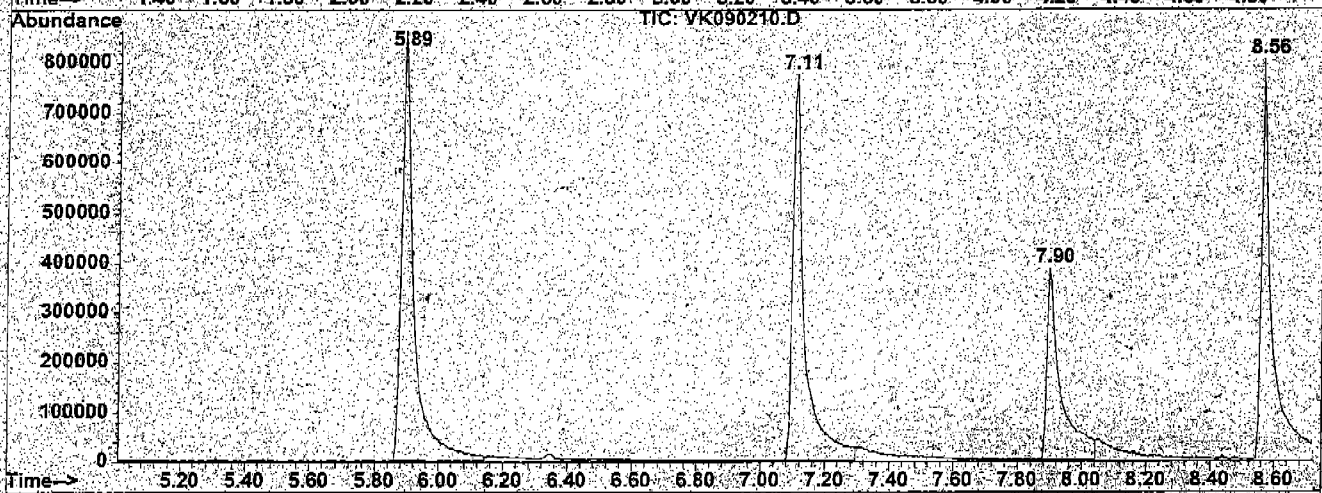
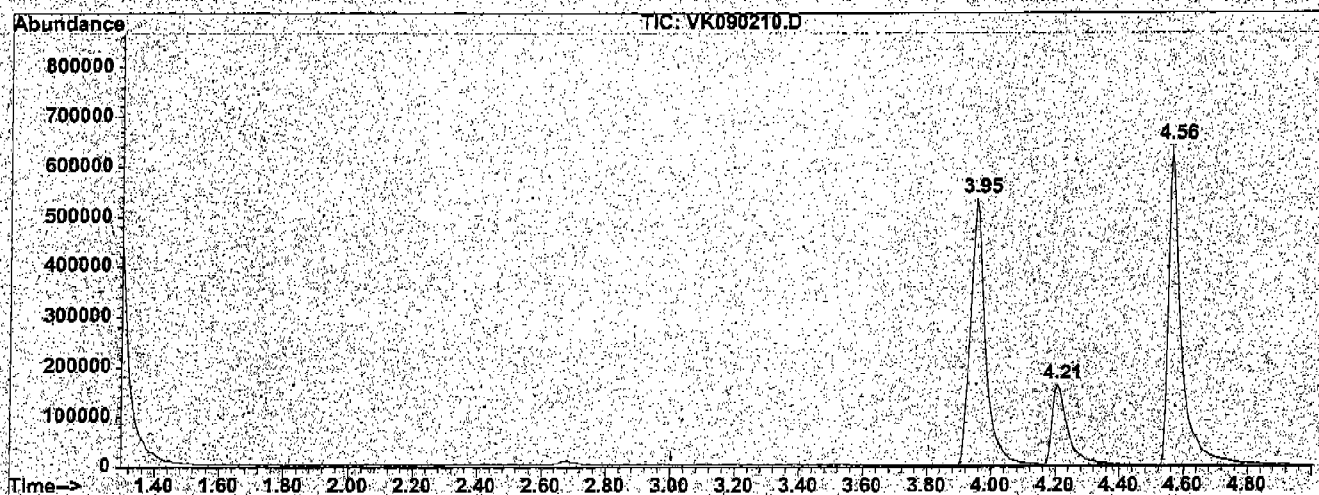
Sum of corrected areas: 11722236

VK090210.D SAK0902W.M Thu Sep 02 17:45:42 2004 LABMANAGER



LSC Report - Integrated Chromatogram

File : K:\1\DATA\MSVOAK\VK090204\VK090210.D  
 Operator : KP  
 Acquired : 2 Sep 2004 6:51 am using AcqMethod VP  
 Instrument : MSVOA J/K  
 Sample Name: VBK0902W2  
 Misc Info : 25mL  
 Vial Number: 20  
 Quant File :SAK0902W.RES (RTE Integrator)



Tentatively Identified Compound (LSC) summary

Operator ID: KP Date Acquired: 2 Sep 2004 6:51 am

Data File: K:\1\DATA\MSVOAK\VK090204\VK090210.D

Name: VBK0902W2

Misc: 25mL

Method: K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)

Title: SW846 8260

Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name RT EstConc Units Area IntStd ISRT ISArea ISConc

-----  
VK090210.D SAK0902W.M Thu Sep 02 17:45:43 2004 LABMANAGER



## Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VBLK02</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>VBK0902W4</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090223.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
74-87-3	Chloromethane	0.16	U	1.0	0.16	ug/L
75-01-4	Vinyl chloride	0.11	U	1.0	0.11	ug/L
74-83-9	Bromomethane	0.12	U	1.0	0.12	ug/L
75-00-3	Chloroethane	0.18	U	1.0	0.18	ug/L
75-35-4	1,1-Dichloroethene	0.20	U	1.0	0.20	ug/L
67-64-1	Acetone	1.2	U	5.0	1.2	ug/L
75-15-0	Carbon disulfide	0.21	U	1.0	0.21	ug/L
75-09-2	Methylene Chloride	0.36	U	1.0	0.36	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	1.0	0.25	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.92	U	5.0	0.92	ug/L
56-23-5	Carbon Tetrachloride	0.17	U	1.0	0.17	ug/L
156-59-2	cis-1,2-Dichloroethene	0.27	U	1.0	0.27	ug/L
67-66-3	Chloroform	0.23	U	1.0	0.23	ug/L
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22	ug/L
71-43-2	Benzene	0.20	U	1.0	0.20	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	0.19	U	1.0	0.19	ug/L
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17	ug/L
108-10-1	4-Methyl-2-Pentanone	0.77	U	5.0	0.77	ug/L
108-88-3	Toluene	0.19	U	1.0	0.19	ug/L
10061-02-6	t-1,3-Dichloropropene	0.15	U	1.0	0.15	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L
591-78-6	2-Hexanone	0.58	U	5.0	0.58	ug/L
124-48-1	Dibromochloromethane	0.21	U	1.0	0.21	ug/L
127-18-4	Tetrachloroethene	0.20	U	1.0	0.20	ug/L
108-90-7	Chlorobenzene	0.16	U	1.0	0.16	ug/L
100-41-4	Ethyl Benzene	0.18	U	1.0	0.18	ug/L
136777-61-2	m&p-Xylenes	0.36	U	1.0	0.36	ug/L
95-47-6	o-Xylene	0.17	U	1.0	0.17	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VBLK02</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>VBK0902W4</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Allquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090223.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
100-42-5	Styrene	0.17	U	1.0	0.17	ug/L
75-25-2	Bromoform	0.37	U	1.0	0.37	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	10.78	108 %	72 - 119		SPK: 10
1868-53-7	Dibromofluoromethane	10.18	102 %	85 - 115		SPK: 10
2037-26-5	Toluene-d8	9.38	94 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	10.08	101 %	76 - 119		SPK: 10
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	330398	3.96			
540-36-3	1,4-Difluorobenzene	752763	4.56			
3114-55-4	Chlorobenzene-d5	619249	7.11			
3855-82-1	1,4-Dichlorobenzene-d4	286802	8.57			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090223.D  
Acq On : 2 Sep 2004 3:26 pm  
Sample : VBK0902W4  
Misc : 25ml

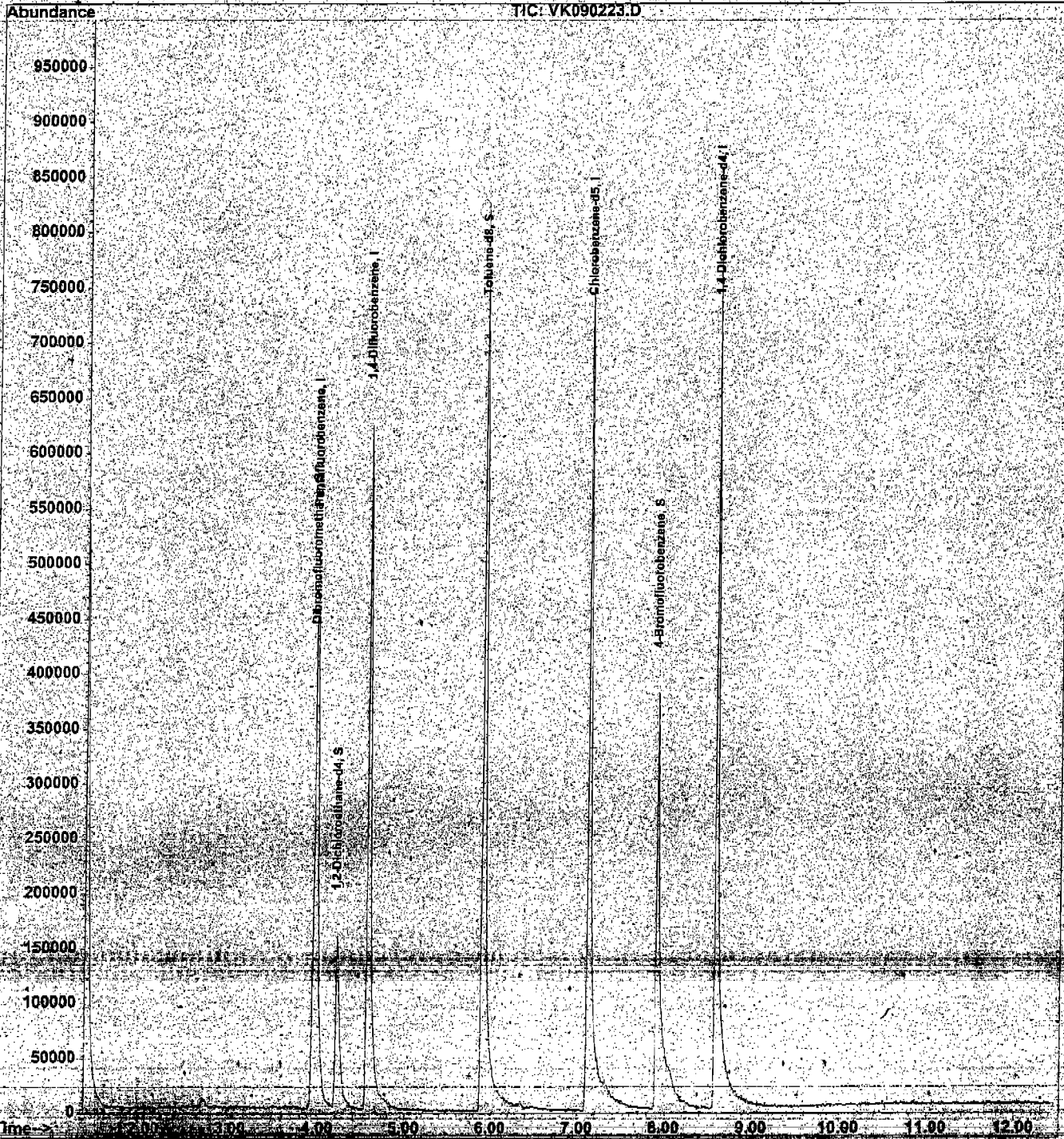
Vial: 5  
Operator: KP  
Inst : MSVOA J/K  
Multiplier: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 2 18:21 2004

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration





CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090223.D Vial: 5  
 Acq On : 2 Sep 2004 3:26 pm Operator: KP  
 Sample : VBK0902W4 Inst : MSVOA J/K  
 Misc : 25ml Multiplr: 1.00

MS Integration Params: RTEINT.P  
 Quant Time: Sep 2 18:21 2004 Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth: VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.96	168	330398	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.56	114	752763	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.11	117	619249	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.57	152	286802	10.00	ug/l	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d	4.21	65	179123	10.78	ug/l	0.00
Spiked Amount	10.000		Recovery	= 107.80%		
34) Dibromofluoromethane	3.94	113	208093	10.18	ug/l	0.00
Spiked Amount	10.000		Recovery	= 101.80%		
45) Toluene-d8	5.89	98	837257	9.38	ug/l	-0.02
Spiked Amount	10.000		Recovery	= 93.80%		
56) 4-Bromofluorobenzene	7.90	95	367158m	10.08	ug/l	-0.04
Spiked Amount	10.000		Recovery	= 100.80%		
Target Compounds						Qvalue

Analyst Signature: [Signature] Analyst Name: \_\_\_\_\_ Date: 09.02.04

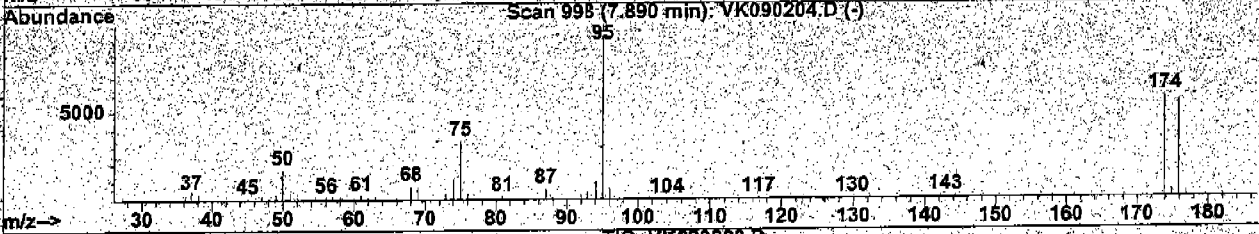
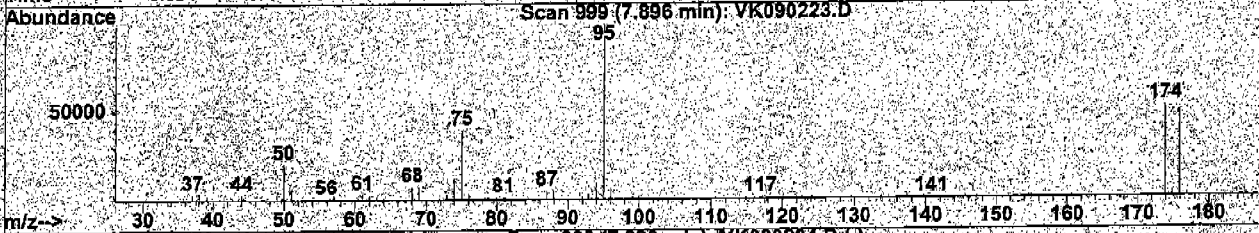
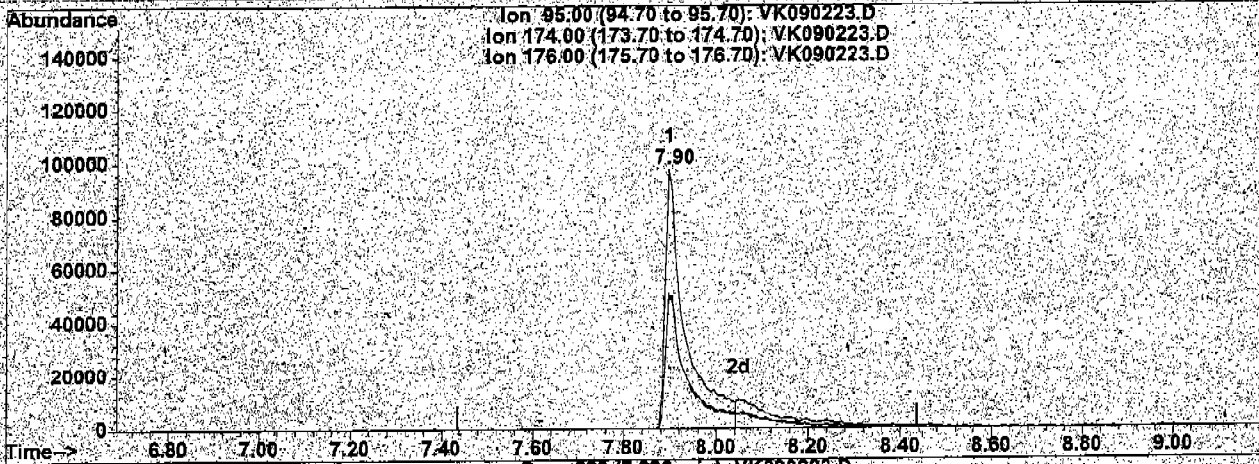
REASONS FOR MANUAL INTEGRATIONS  
 Poor resolution of peaks exhibited on chromatogram. Compound #: 56  
 Peak integrated by software incorrectly. Compound #:  
 OTHER \_\_\_\_\_ Compound #:

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090223.D  
 Acq On : 2 Sep 2004 3:26 pm  
 Sample : VBK0902W4  
 Misc : 25mL  
 Quant Time: Sep 2 18:21 2004

Vial: 5  
 Operator: KP  
 Inst : MSVOA J/K  
 MultiPr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



TIC: VK090223.D

(56) 4-Bromofluorobenzene (S)

7.90min 6.14ug/l

response 236782

Ion Exp% Act%

95.00 100 100

174.00 56.30 52.83

176.00 54.20 49.35

0.00 0.00 0.00

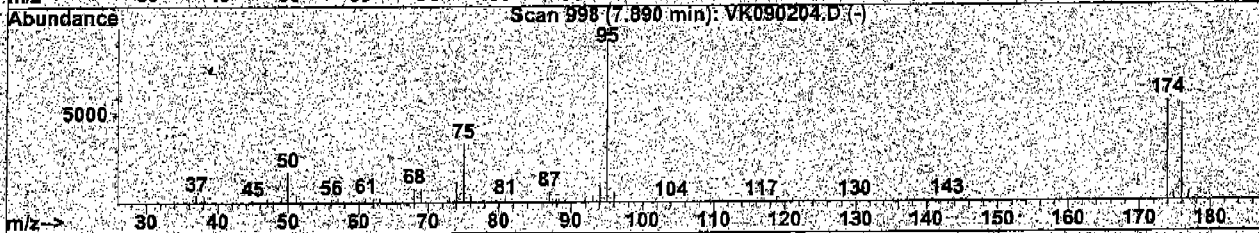
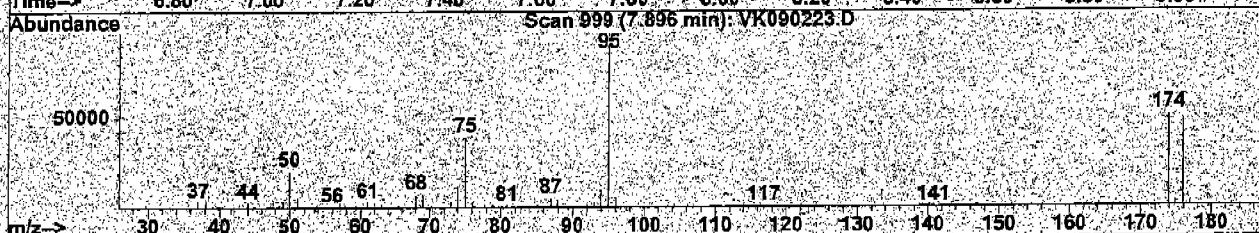
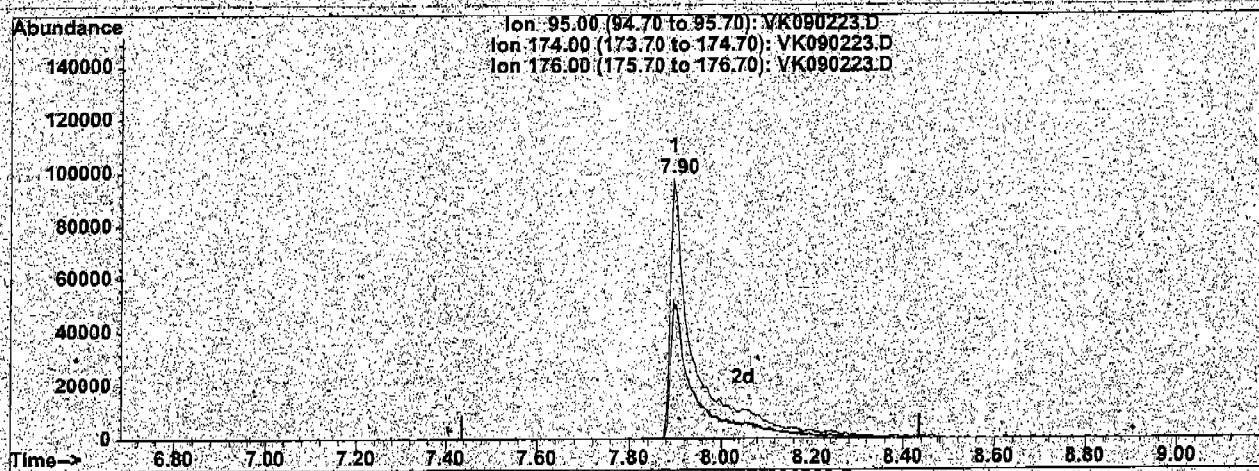


Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090223.D  
 Acq On : 2 Sep 2004 3:26 pm  
 Sample : VBK0902W4  
 Misc : 25mL  
 Quant Time: Sep 2 18:21 2004

Vial: 5  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



TIC: VK090223.D

(56) 4-Bromofluorobenzene(S)

7.90min: 10.08ug/l.m

response: 367158

Ion Exp% Act%

95.00 100 100

174.00 56.30 42.71%

176.00 54.20 39.89%

0.00 0.00 0.00



LSC Area Percent Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090223.D  
 Acq On : 2 Sep 2004 3:26 pm  
 Sample : VBK0902W4  
 Misc : 25mL  
 MS Integration Params: RTEINT.P

Vial: 5  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SWB46 8260  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.02  
 Stop Thrs : 0

Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

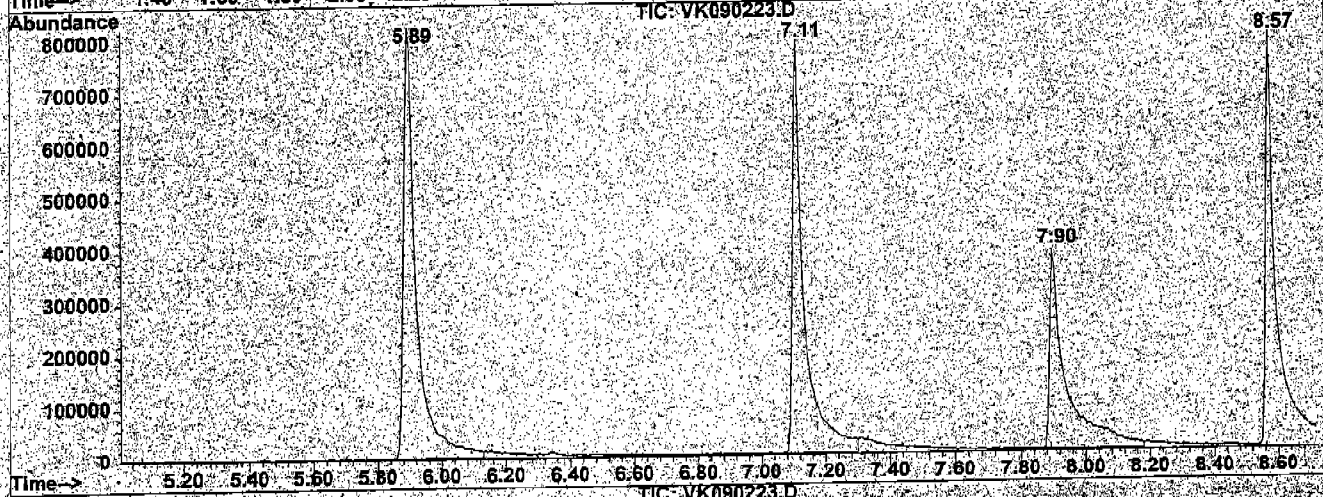
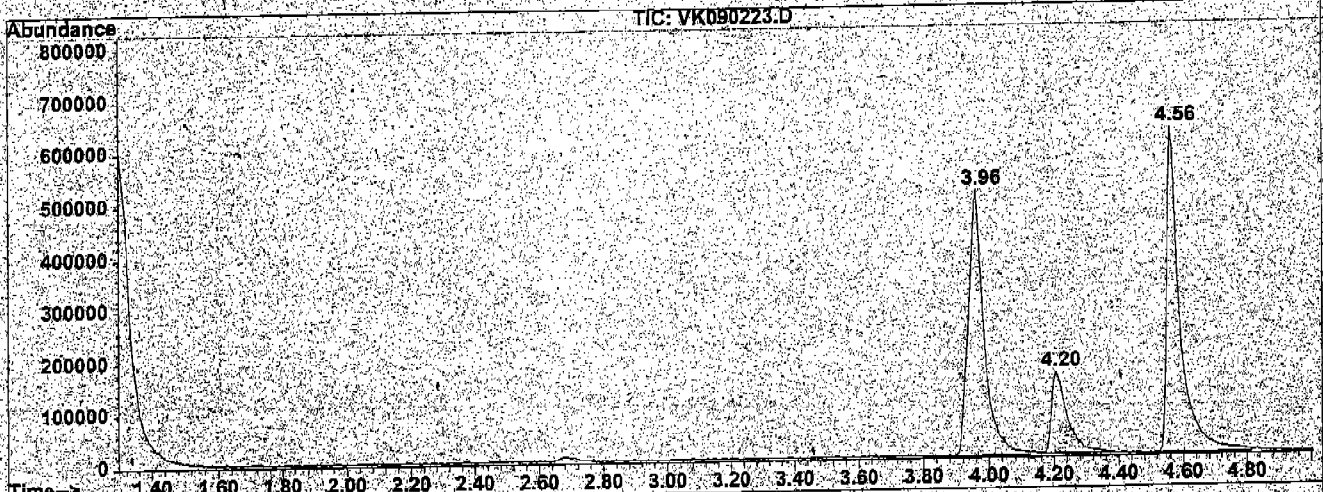
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max	% of total
1	3.960	393	404	429	rBV3	508101	1696409	73.48%	14.676%
2	4.205	435	441	471	rVB	156800	535291	23.19%	4.631%
3	4.562	487	495	533	rBV	622815	1743792	75.54%	15.086%
4	5.892	687	696	732	rBV	824489	2308556	100.00%	19.972%
5	7.109	873	880	909	rBV	790918	1987308	86.08%	17.193%
6	7.896	994	999	1042	rBV	378756	1344370	58.23%	11.630%
7	8.571	1093	1101	1144	rBV	789766	1943392	84.18%	16.813%

Sum of corrected areas: 11559118

VK090223.D SAK0902W.M Thu Sep 02 18:22:23 2004 LABMANAGER

LSC Report - Integrated Chromatogram

File : K:\1\DATA\MSVOAK\VK090204\VK090223.D  
Operator : KP  
Acquired : 2 Sep 2004 3:26 pm using AcqMethod VP  
Instrument : MSVOA J/K  
Sample Name: VBK0902W4  
Misc Info : 25mL  
Vial Number: 5  
Quant File : SAK0902W.RES (RTE Integrator)





Tentatively Identified Compound (LSC) summary

Operator ID: KP Date Acquired: 2 Sep 2004 3:26 pm  
Data File: K:\1\DATA\MSVOAK\VK090204\VK090223.D  
Name: VEK0902W4  
Misc: 25mL  
Method: K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title: SW846 8260  
Library Searched: C:\DATABASE\NBS75K.L

TIC	Top	Fit	name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
VK090223.D	SAK0902W.M			Thu Sep 02	18:22:25		2004				LABMANAGER

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VBLK03</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>VBK0903W2</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090336.D</b>	<b>1</b>		<b>9/3/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
74-87-3	Chloromethane	0.16	U	1.0	0.16	ug/L
75-01-4	Vinyl chloride	0.11	U	1.0	0.11	ug/L
74-83-9	Bromomethane	0.12	U	1.0	0.12	ug/L
75-00-3	Chloroethane	0.18	U	1.0	0.18	ug/L
75-35-4	1,1-Dichloroethene	0.20	U	1.0	0.20	ug/L
67-64-1	Acetone	1.2	U	5.0	1.2	ug/L
75-15-0	Carbon disulfide	0.21	U	1.0	0.21	ug/L
75-09-2	Methylene Chloride	0.36	U	1.0	0.36	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	1.0	0.25	ug/L
75-34-3	1,1-Dichloroethane	0.21	U	1.0	0.21	ug/L
78-93-3	2-Butanone	0.92	U	5.0	0.92	ug/L
56-23-5	Carbon Tetrachloride	0.17	U	1.0	0.17	ug/L
156-59-2	cis-1,2-Dichloroethene	0.27	U	1.0	0.27	ug/L
67-66-3	Chloroform	0.23	U	1.0	0.23	ug/L
71-55-6	1,1,1-Trichloroethane	0.22	U	1.0	0.22	ug/L
71-43-2	Benzene	0.20	U	1.0	0.20	ug/L
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L
79-01-6	Trichloroethene	0.19	U	1.0	0.19	ug/L
78-87-5	1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17	ug/L
108-10-1	4-Methyl-2-Pentanone	0.77	U	5.0	0.77	ug/L
108-88-3	Toluene	0.19	U	1.0	0.19	ug/L
10061-02-6	t-1,3-Dichloropropene	0.15	U	1.0	0.15	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	0.20	U	1.0	0.20	ug/L
591-78-6	2-Hexanone	0.58	U	5.0	0.58	ug/L
124-48-1	Dibromochloromethane	0.21	U	1.0	0.21	ug/L
127-18-4	Tetrachloroethene	0.20	U	1.0	0.20	ug/L
108-90-7	Chlorobenzene	0.16	U	1.0	0.16	ug/L
100-41-4	Ethyl Benzene	0.18	U	1.0	0.18	ug/L
136777-61-2	m&p-Xylenes	0.36	U	1.0	0.36	ug/L
95-47-6	o-Xylene	0.17	U	1.0	0.17	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VBLK03</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>VBK0903W2</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090336.D</b>	<b>1</b>		<b>9/3/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
100-42-5	Styrene	0.17	U	1.0	0.17	ug/L
75-25-2	Bromoform	0.37	U	1.0	0.37	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	10.48	105 %	72 - 119		SPK: 10
1868-53-7	Dibromofluoromethane	10.29	103 %	85 - 115		SPK: 10
2037-26-5	Toluene-d8	9.59	96 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	10.01	100 %	76 - 119		SPK: 10
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	344653	3.96			
540-36-3	1,4-Difluorobenzene	766593	4.57			
3114-55-4	Chlorobenzene-d5	632277	7.11			
3855-82-1	1,4-Dichlorobenzene-d4	298677	8.57			

U = Not Detected  
RL = Reporting Limit  
MDL = Method Detection Limit  
E = Value Exceeds Calibration Range

J = Estimated Value  
B = Analyte Found in Associated Method Blank  
N = Presumptive Evidence of a Compound

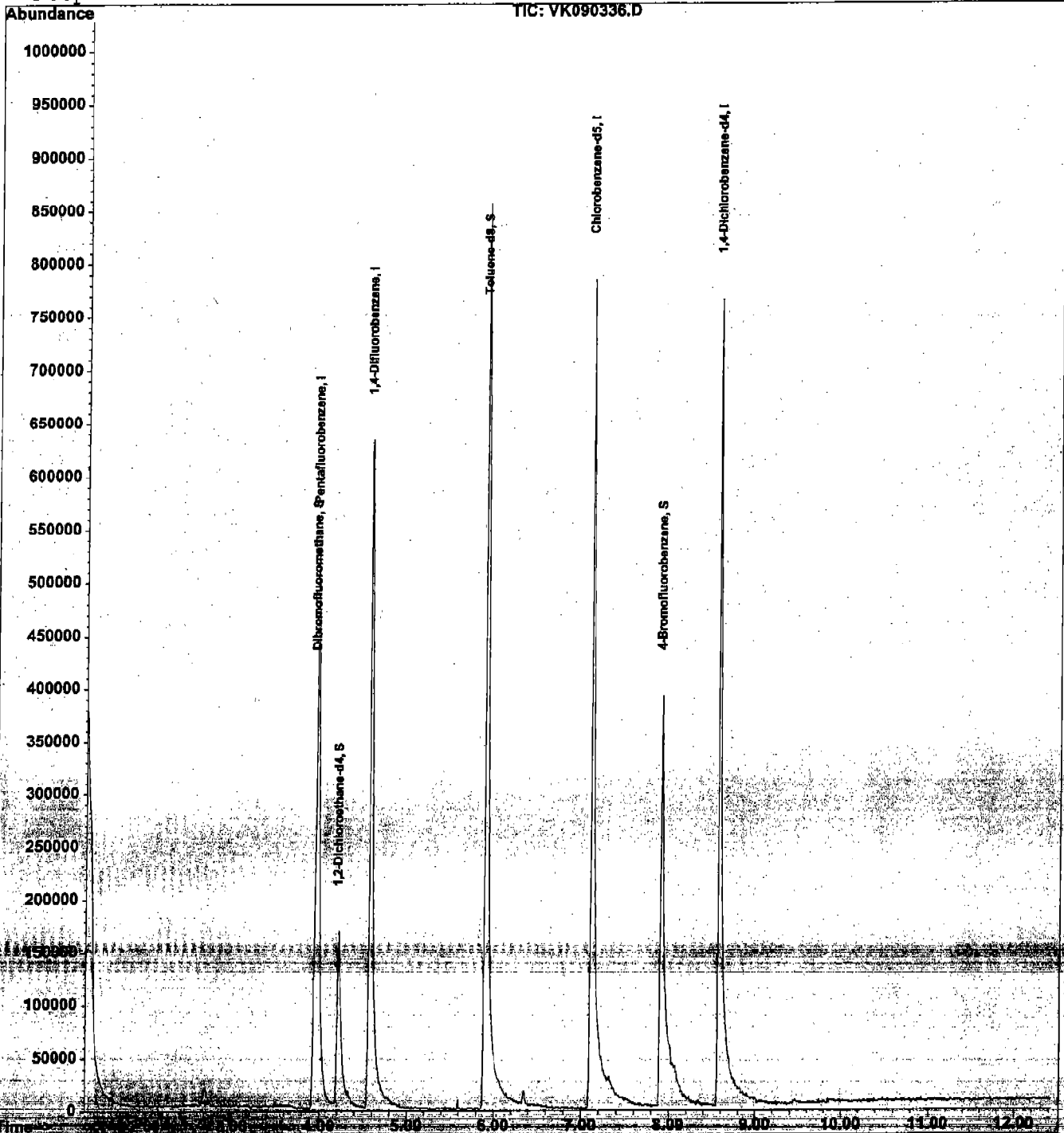
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090336.D  
Acq On : 3 Sep 2004 5:39 pm  
Sample : VBK0903W2  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 7 11:32 2004

Vial: 4  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090304\VK090336.D  
 Acq On : 3 Sep 2004 5:39 pm  
 Sample : VBK0903W2  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 7 11:32 2004

Vial: 4  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.96	168	344653	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.57	114	766593	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.11	117	632277	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.57	152	298677	10.00	ug/l	0.00
System Monitoring Compounds						
32) 1,2-Dichloroethane-d	4.20	65	181525	10.48	ug/l	0.00
Spiked Amount						
						Recovery = 104.80%
34) Dibromofluoromethane	3.94	113	214221	10.29	ug/l	0.00
Spiked Amount						
						Recovery = 102.90%
45) Toluene-d8	5.90	98	871951	9.59	ug/l	-0.01
Spiked Amount						
						Recovery = 95.90%
56) 4-Bromofluorobenzene	7.90	95	371336	10.01	ug/l	-0.03
Spiked Amount						
						Recovery = 100.10%

Target Compounds

Qvalue

Analyst Signature: 190 Analyst Name: \_\_\_\_\_ Date: 09/07/04

REASONS FOR MANUAL INTEGRATIONS

Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

Peak not identified. Compound #: \_\_\_\_\_

Peak identified as \_\_\_\_\_ manual integration

LSC Area Percent Report

Data File : K:\1\DATA\MSVOAK\VK090304\VK090336.D  
 Acq On : 3 Sep 2004 5:39 pm  
 Sample : VBK0903W2  
 Misc : 25mL  
 MS Integration Params: RTEINT.P

Vial: 4  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.02  
 Stop Thrs : 0

Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	peak area	peak % max.	% of total
1	3.960	392	404	430	rBV3	529599	1745577	72.26%	14.990%
2	4.205	434	441	457	rBV2	162948	509721	21.10%	4.377%
3	4.569	489	496	537	rBV	631874	1797981	74.43%	15.440%
4	5.898	689	697	739	rBV	855293	2415753	100.00%	20.745%
5	7.109	874	880	907	rBV	783226	1998501	82.73%	17.162%
6	7.903	992	1000	1019	rBV	389197	1190481	49.28%	10.223%
7	8.571	1095	1101	1137	rBV	761540	1986870	82.25%	17.062%

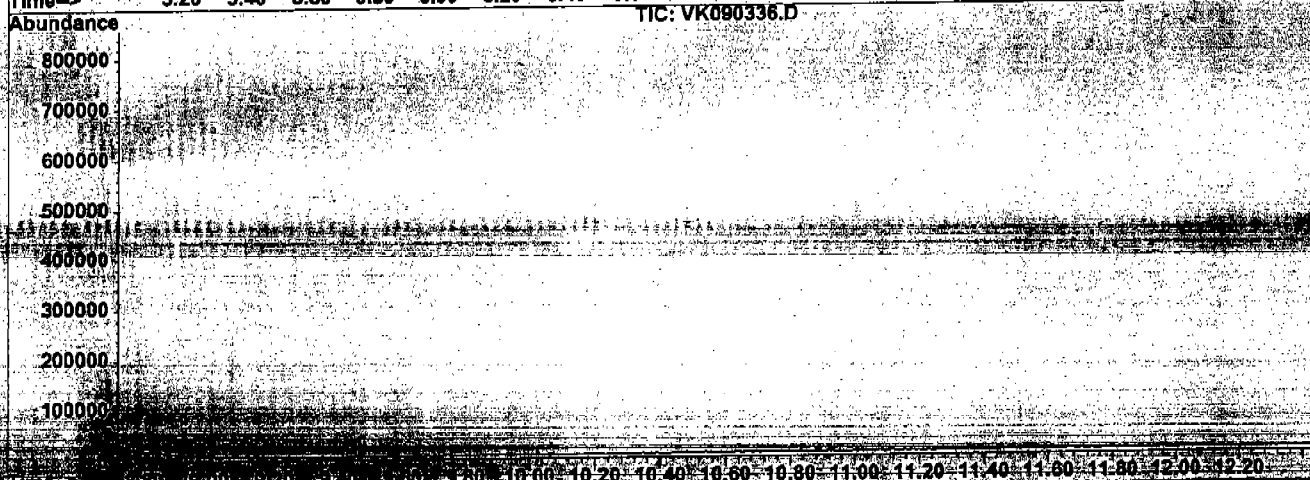
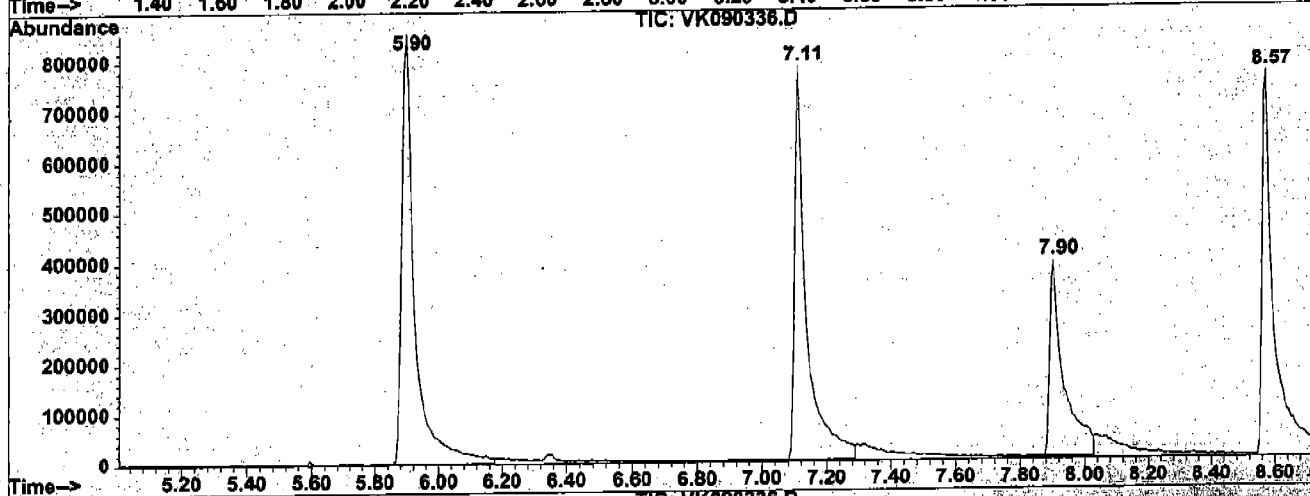
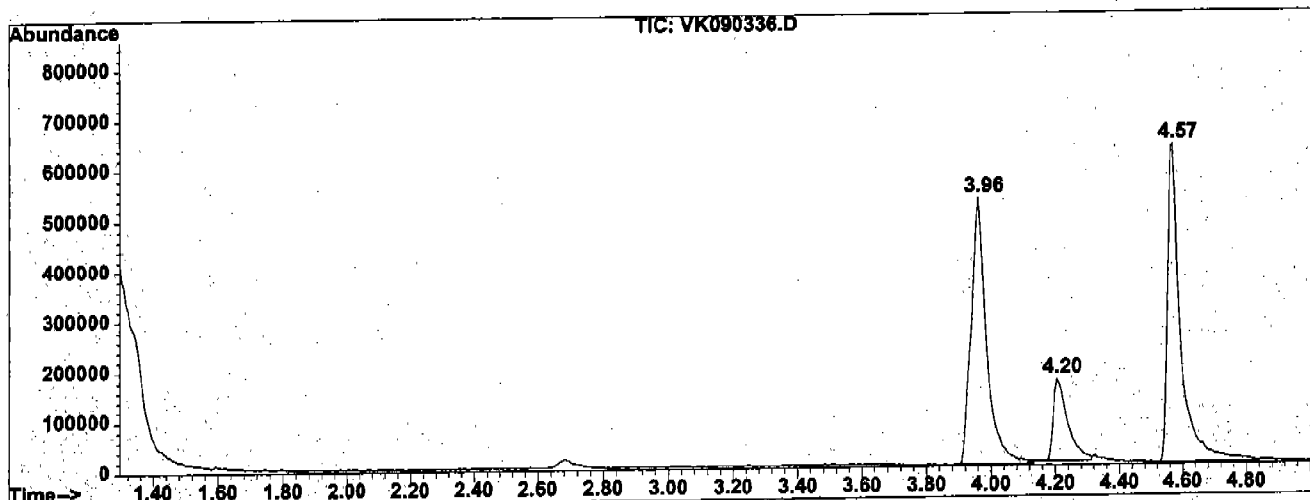
Sum of corrected areas: 11644884

VK090336.D SAK0902W.M Tue Sep 07 11:33:09 2004 LABMANAGER



LSC Report - Integrated Chromatogram

File : K:\1\DATA\MSVOAK\VK090304\VK090336.D  
Operator : KP  
Acquired : 3 Sep 2004 5:39 pm using AcqMethod VP  
Instrument : MSVOA J/K  
Sample Name: VBK0903W2  
Misc Info : 25mL  
Vial Number: 4  
Quant File : SAK0902W.RES (RTE Integrator)





**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VLCS01</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>BSK0902W3</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090236.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
74-87-3	Chloromethane	12		1.0	0.16	ug/L
75-01-4	Vinyl chloride	12		1.0	0.11	ug/L
74-83-9	Bromomethane	11		1.0	0.12	ug/L
75-00-3	Chloroethane	12		1.0	0.18	ug/L
75-35-4	1,1-Dichloroethene	12		1.0	0.20	ug/L
67-64-1	Acetone	52		5.0	1.2	ug/L
75-15-0	Carbon disulfide	13		1.0	0.21	ug/L
75-09-2	Methylene Chloride	12		1.0	0.36	ug/L
156-60-5	trans-1,2-Dichloroethene	12		1.0	0.25	ug/L
75-34-3	1,1-Dichloroethane	13		1.0	0.21	ug/L
78-93-3	2-Butanone	54		5.0	0.92	ug/L
56-23-5	Carbon Tetrachloride	11		1.0	0.17	ug/L
156-59-2	cis-1,2-Dichloroethene	12		1.0	0.27	ug/L
67-66-3	Chloroform	12		1.0	0.23	ug/L
71-55-6	1,1,1-Trichloroethane	12		1.0	0.22	ug/L
71-43-2	Benzene	11		1.0	0.20	ug/L
107-06-2	1,2-Dichloroethane	11		1.0	0.21	ug/L
79-01-6	Trichloroethene	12		1.0	0.19	ug/L
78-87-5	1,2-Dichloropropane	11		1.0	0.18	ug/L
75-27-4	Bromodichloromethane	11		1.0	0.17	ug/L
108-10-1	4-Methyl-2-Pentanone	49		5.0	0.77	ug/L
108-88-3	Toluene	11		1.0	0.19	ug/L
10061-02-6	t-1,3-Dichloropropene	11		1.0	0.15	ug/L
10061-01-5	cis-1,3-Dichloropropene	12		1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	10		1.0	0.20	ug/L
591-78-6	2-Hexanone	43		5.0	0.58	ug/L
124-48-1	Dibromochloromethane	11		1.0	0.21	ug/L
127-18-4	Tetrachloroethene	11		1.0	0.20	ug/L
108-90-7	Chlorobenzene	11		1.0	0.16	ug/L
100-41-4	Ethyl Benzene	12		1.0	0.18	ug/L
136777-61-2	m&p-Xylenes	23		1.0	0.36	ug/L
95-47-6	o-Xylene	11		1.0	0.17	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	
<b>Client Sample ID:</b>	<b>VLCS01</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>BSK0902W3</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090236.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
100-42-5	Styrene	11		1.0	0.17	ug/L
75-25-2	Bromoform	11		1.0	0.37	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	11		1.0	0.13	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	11.16	112 %	72 - 119		SPK: 10
1868-53-7	Dibromofluoromethane	9.9	99 %	85 - 115		SPK: 10
2037-26-5	Toluene-d8	9.82	98 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	9.69	97 %	76 - 119		SPK: 10
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	318775	3.95			
540-36-3	1,4-Difluorobenzene	725939	4.56			
3114-55-4	Chlorobenzene-d5	633366	7.10			
3855-82-1	1,4-Dichlorobenzene-d4	291423	8.56			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

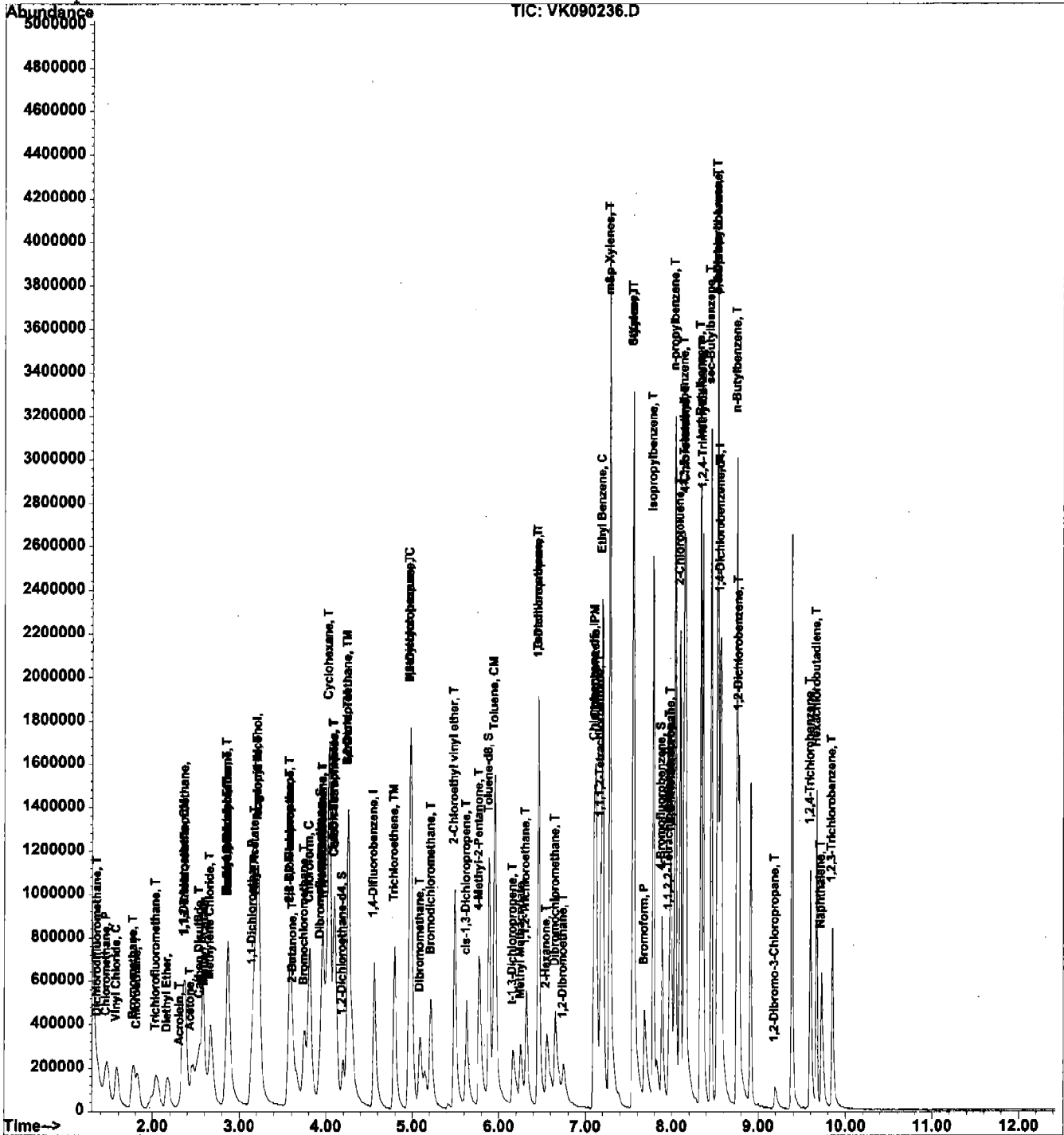
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090236.D  
Acq On : 2 Sep 2004 11:52 pm  
Sample : BSK0902W3  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 13 18:41 2004

Vial: 18  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090236.D  
 Acq On : 2 Sep 2004 11:52 pm  
 Sample : BSK0902W3  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 13 18:41 2004

Vial: 18  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.95	168	318775	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.56	114	725939	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.10	117	633366	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.56	152	291423	10.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) 1,2-Dichloroethane-d	4.20	65	178849	11.16	ug/l	0.00
Spiked Amount	10.000		Recovery	=	111.60%	
34) Dibromofluoromethane	3.93	113	195022	9.90	ug/l	0.00
Spiked Amount	10.000		Recovery	=	99.00%	
45) Toluene-d8	5.89	98	845580	9.82	ug/l	-0.03
Spiked Amount	10.000		Recovery	=	98.20%	
56) 4-Bromofluorobenzene	7.88	95	340551	9.69	ug/l	-0.05
Spiked Amount	10.000		Recovery	=	96.90%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluorometh	1.37	85	346966	12.71	ug/l	97
3) Chloromethane	1.47	50	503361	11.89	ug/l	99
4) Vinyl Chloride	1.59	62	403122	12.23	ug/l	94
5) Bromomethane	1.78	94	275660	11.04	ug/l	88
6) Chloroethane	1.83	64	211994	11.74	ug/l	97
8) Trichlorofluorometha	2.04	101	354771	11.59	ug/l	99
9) 1,1,2-Trichlorotrifl	2.38	101	257472	12.63	ug/l	99
10) Tert butyl alcohol	2.86	59	42137	89.91	ug/l	100
11) Diethyl Ether	2.17	74	117599	12.89	ug/l	93
12) Isopropyl Alcohol	3.21	45	1205282	13.23	ug/l	100
13) 1,1-Dichloroethene	2.36	96	250129m	12.48	ug/l	
14) Acrolein	2.31	56	32765	39.21	ug/l #	1
15) Acrylonitrile	3.22	53	455688	60.97	ug/l	98
16) Acetone	2.43	43	82134	51.55	ug/l	97
17) Carbon Disulfide	2.54	76	1182859	13.38	ug/l	96
18) Methyl tert-butyl Et	2.87	73	507448	12.69	ug/l	98
19) Methyl Acetate	2.60	43	76219	7.58	ug/l	97
20) Methylene Chloride	2.66	84	299261	11.73	ug/l	97
21) trans-1,2-Dichloroet	2.86	96	265375	12.38	ug/l	91
22) Vinyl Acetate	3.17	43	1245655	50.37	ug/l	95

Analyst Signature: lcp Analyst Name: \_\_\_\_\_ Date: 09/13/04

-----REASONS FOR MANUAL INTEGRATIONS-----

✓ Poor resolution of peaks exhibited on chromatogram. Compound #: 12  
 Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090236.D                      Vial: 18  
 Acq On : 2 Sep 2004 11:52 pm    Operator: KP  
 Sample : BSK0902W3    Inst : MSVOA J/K  
 Misc : 25mL    Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 13 18:41 2004    Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1-Dichloroethane	3.15	63	498147	12.73	ug/l	98
24) Cyclohexane	4.03	56	1485691	12.74	ug/l	100
25) 2-Butanone	3.62	43	407737	53.85	ug/l #	94
26) 2,2-Dichloropropane	3.59	77	336522	10.86	ug/l	97
27) cis-1,2-Dichloroethe	3.58	96	282250	12.24	ug/l	98
28) Bromochloromethane	3.76	128	104841	11.80	ug/l	95
29) Chloroform	3.81	83	577712	12.46	ug/l	97
30) 1,1,1-Trichloroethan	3.97	97	438279	12.50	ug/l	91
31) Methylcyclohexane	4.97	63	317520	12.97	ug/l	99
35) 1,1-Dichloropropene	4.09	75	437583	11.03	ug/l	99
36) Carbon Tetrachloride	4.11	117	349176	10.99	ug/l	99
37) Benzene	4.25	78	1443123	11.31	ug/l	100
38) 1,2-Dichloroethane	4.26	62	247175	10.72	ug/l	98
39) Trichloroethene	4.79	130	346199	11.54	ug/l	98
40) Methyl Methacrylate	6.26	69	251095m	11.22	ug/l	
41) 1,2-Dichloropropane	4.97	63	317520	11.14	ug/l	99
42) Dibromomethane	5.08	93	125938	10.97	ug/l	98
44) Bromodichloromethane	5.22	83	416129	11.15	ug/l	95
46) 4-Methyl-2-Pentanone	5.77	43	899897	48.71	ug/l	98
47) Toluene	5.95	92	907931	10.95	ug/l	100
48) t-1,3-Dichloropropen	6.16	75	309421	11.18	ug/l	95
49) cis-1,3-Dichloroprop	5.63	75	440626	11.51	ug/l	100
50) 1,1,2-Trichloroethan	6.32	97	169964	10.49	ug/l	90
51) 1,3-Dichloropropane	6.47	76	349269	11.30	ug/l	100
52) 2-Chloroethyl vinyl	5.49	63	571878	54.21	ug/l	99
53) 2-Hexanone	6.55	43	489346	43.29	ug/l	98
54) Dibromochloromethane	6.65	129	208242	10.84	ug/l	100
55) 1,2-Dibromoethane	6.75	107	141081	11.42	ug/l	93
58) Tetrachloroethene	6.45	164	327595	11.10	ug/l	96
59) Chlorobenzene	7.12	112	702163	11.04	ug/l	100
60) 1,1,1,2-Tetrachloroe	7.18	131	259135	10.88	ug/l	99
61) Ethyl Benzene	7.20	106	363396	11.55	ug/l	100
62) m&p-Xylenes	7.28	106	934166	22.74	ug/l	95
63) o-Xylene	7.55	106	453174	11.03	ug/l	98
64) Styrene	7.56	104	767702	11.40	ug/l	98
65) Bromoform	7.68	173	91880	11.38	ug/l	97

Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

✓ Poor resolution of peaks exhibited on chromatogram. Compound #: 39

Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090236.D Vial: 18  
 Acq On : 2 Sep 2004 11:52 pm Operator: KP  
 Sample : BSK0902W3 Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 13 18:41 2004 Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
67) Isopropylbenzene	7.78	105	1241312	10.96	ug/l	100
68) 1,1,2,2-Tetrachloroe	7.96	83	219822	10.59	ug/l	99
69) 1,2,3-Trichloropropa	8.00	75	234921	10.71	ug/l	95
70) Bromobenzene	7.98	156	241491	11.14	ug/l	99
71) n-propylbenzene	8.04	91	2043790	11.43	ug/l	98
72) 2-Chlorotoluene	8.09	91	1214247	10.23	ug/l	99
73) 1,3,5-Trimethylbenze	8.14	105	989051	11.04	ug/l	99
74) 4-Chlorotoluene	8.16	91	1361915	10.83	ug/l	99
75) tert-Butylbenzene	8.33	119	1097556	10.98	ug/l	99
76) 1,2,4-Trimethylbenze	8.36	105	995447	11.24	ug/l	87
77) sec-Butylbenzene	8.45	105	1413704	11.17	ug/l	99
78) p-Isopropyltoluene	8.53	119	1223985	11.18	ug/l	99
79) 1,3-Dichlorobenzene	8.52	146	455767	11.06	ug/l	98
80) 1,4-Dichlorobenzene	8.57	146	520267	10.43	ug/l	96
81) n-Butylbenzene	8.76	91	1522413	11.23	ug/l	100
82) 1,2-Dichlorobenzene	8.78	146	434111	11.07	ug/l	99
83) 1,2-Dibromo-3-Chloro	9.19	75	32984	12.96	ug/l	95
84) 1,2,4-Trichlorobenze	9.60	180	283362	11.26	ug/l	98
85) Hexachlorobutadiene	9.67	225	184569	10.74	ug/l	99
86) Naphthalene	9.72	128	540877	11.15	ug/l	100
87) 1,2,3-Trichlorobenze	9.85	180	225257	11.06	ug/l	98

-----  
 Analyst Signature: \_\_\_\_\_ Analyst Name: \_\_\_\_\_ Date: \_\_\_\_\_

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

\_\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

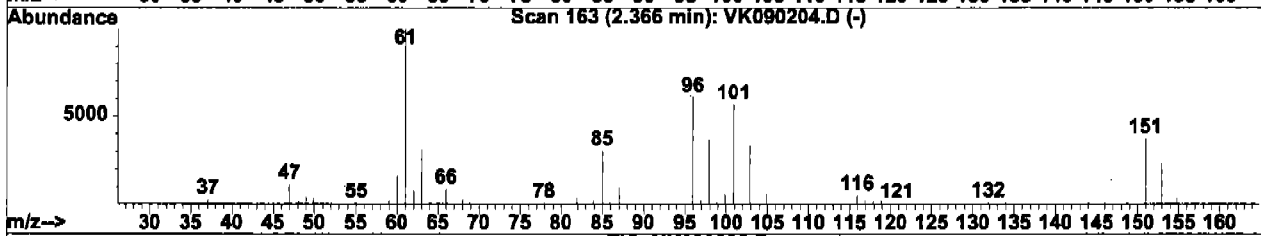
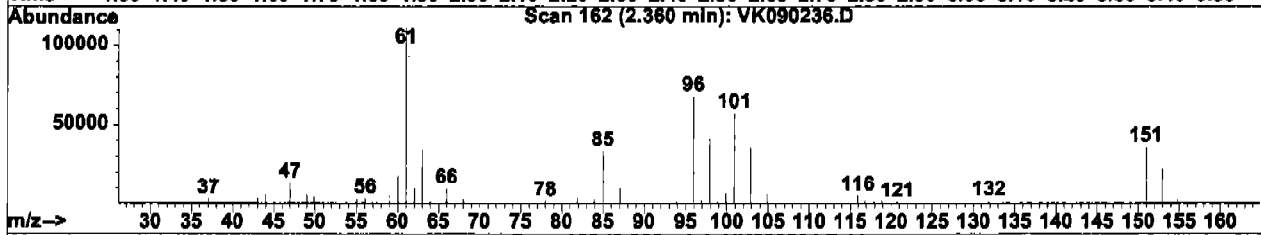
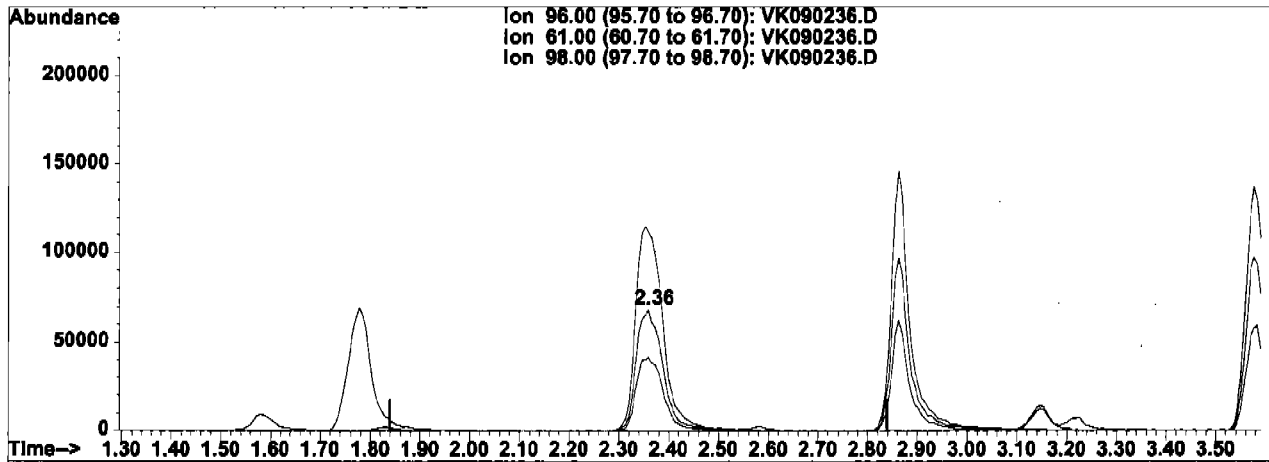


Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090236.D  
 Acq On : 2 Sep 2004 11:52 pm  
 Sample : BSK0902W3  
 Misc : 25mL  
 Quant Time: Sep 13 18:41 2004

Vial: 18  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(13) 1,1-Dichloroethene (CM)

2.36min 12.48ug/l m

response 250129

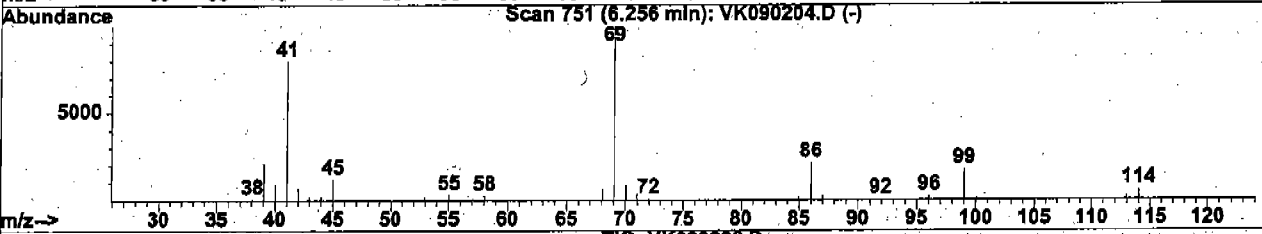
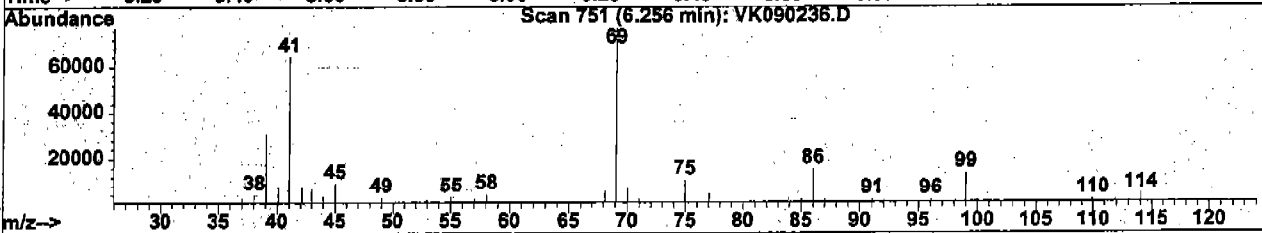
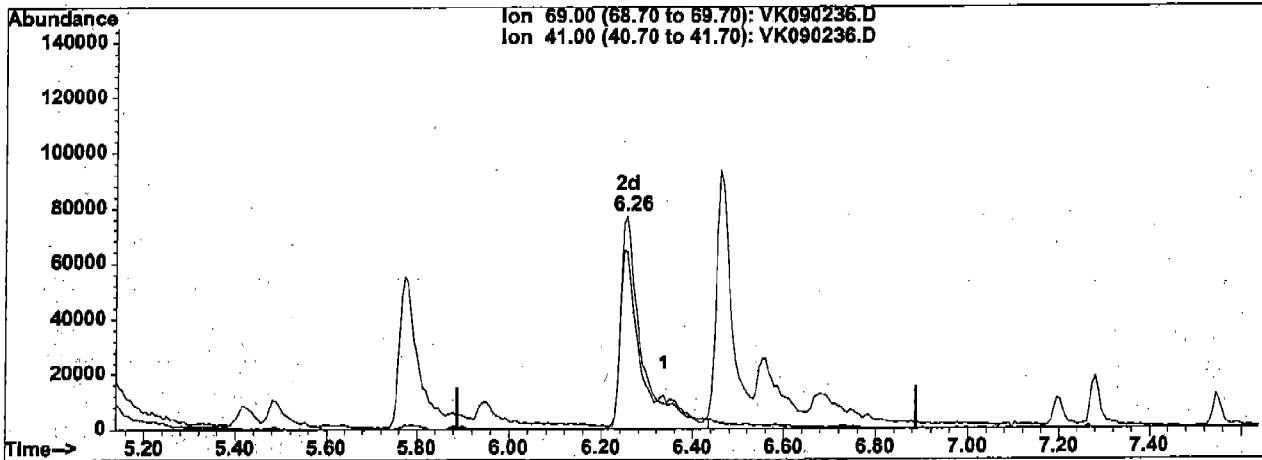
Ion	Exp%	Act%
96.00	100	100
61.00	163.60	164.29
98.00	60.10	61.56
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090236.D  
 Acq On : 2 Sep 2004 11:52 pm  
 Sample : BSK0902W3  
 Misc : 25mL  
 Quant Time: Sep 3 14:46 2004

Vial: 18  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(40) Methyl Methacrylate

6.26min : 11.22ug/l m

response : 251095

Ion Exp% Act%

69.00 100 100

41.00 65.60 0.00#

0.00 0.00 0.00

0.00 0.00 0.00

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2246MS</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-10MS</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090227.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
74-87-3	Chloromethane	9.1		1.0	0.16	ug/L
75-01-4	Vinyl chloride	59	E	1.0	0.11	ug/L
74-83-9	Bromomethane	9.7		1.0	0.12	ug/L
75-00-3	Chloroethane	11		1.0	0.18	ug/L
75-35-4	1,1-Dichloroethene	12		1.0	0.20	ug/L
67-64-1	Acetone	37		5.0	1.2	ug/L
75-15-0	Carbon disulfide	11		1.0	0.21	ug/L
75-09-2	Methylene Chloride	10		1.0	0.36	ug/L
156-60-5	trans-1,2-Dichloroethene	13		1.0	0.25	ug/L
75-34-3	1,1-Dichloroethane	15		1.0	0.21	ug/L
78-93-3	2-Butanone	42		5.0	0.92	ug/L
56-23-5	Carbon Tetrachloride	8.9		1.0	0.17	ug/L
156-59-2	cis-1,2-Dichloroethene	220	E	1.0	0.27	ug/L
67-66-3	Chloroform	10		1.0	0.23	ug/L
71-55-6	1,1,1-Trichloroethane	12		1.0	0.22	ug/L
71-43-2	Benzene	9.4		1.0	0.20	ug/L
107-06-2	1,2-Dichloroethane	9.2		1.0	0.21	ug/L
79-01-6	Trichloroethene	19		1.0	0.19	ug/L
78-87-5	1,2-Dichloropropane	9.5		1.0	0.18	ug/L
75-27-4	Bromodichloromethane	9.6		1.0	0.17	ug/L
108-10-1	4-Methyl-2-Pentanone	48		5.0	0.77	ug/L
108-88-3	Toluene	9.1		1.0	0.19	ug/L
10061-02-6	t-1,3-Dichloropropene	8.3		1.0	0.15	ug/L
10061-01-5	cis-1,3-Dichloropropene	8.8		1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	9.6		1.0	0.20	ug/L
591-78-6	2-Hexanone	40		5.0	0.58	ug/L
124-48-1	Dibromochloromethane	9.9		1.0	0.21	ug/L
127-18-4	Tetrachloroethene	5.5		1.0	0.20	ug/L
108-90-7	Chlorobenzene	9.5		1.0	0.16	ug/L
100-41-4	Ethyl Benzene	9.6		1.0	0.18	ug/L
136777-61-2	m&p-Xylenes	19		1.0	0.36	ug/L
95-47-6	o-Xylene	9.4		1.0	0.17	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2246MS</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-10MS</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090227.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
100-42-5	Styrene	9.8		1.0	0.17	ug/L
75-25-2	Bromoform	10		1.0	0.37	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	11		1.0	0.13	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	11.25	112 %	72 - 119		SPK: 10
1868-53-7	Dibromofluoromethane	10	100 %	85 - 115		SPK: 10
2037-26-5	Toluene-d8	10.1	101 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	9.88	99 %	76 - 119		SPK: 10
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	335237	3.96			
540-36-3	1,4-Difluorobenzene	761653	4.56			
3114-55-4	Chlorobenzene-d5	663229	7.10			
3855-82-1	1,4-Dichlorobenzene-d4	315275	8.56			

U = Not Detected  
RL = Reporting Limit  
MDL = Method Detection Limit  
E = Value Exceeds Calibration Range

J = Estimated Value  
B = Analyte Found in Associated Method Blank  
N = Presumptive Evidence of a Compound

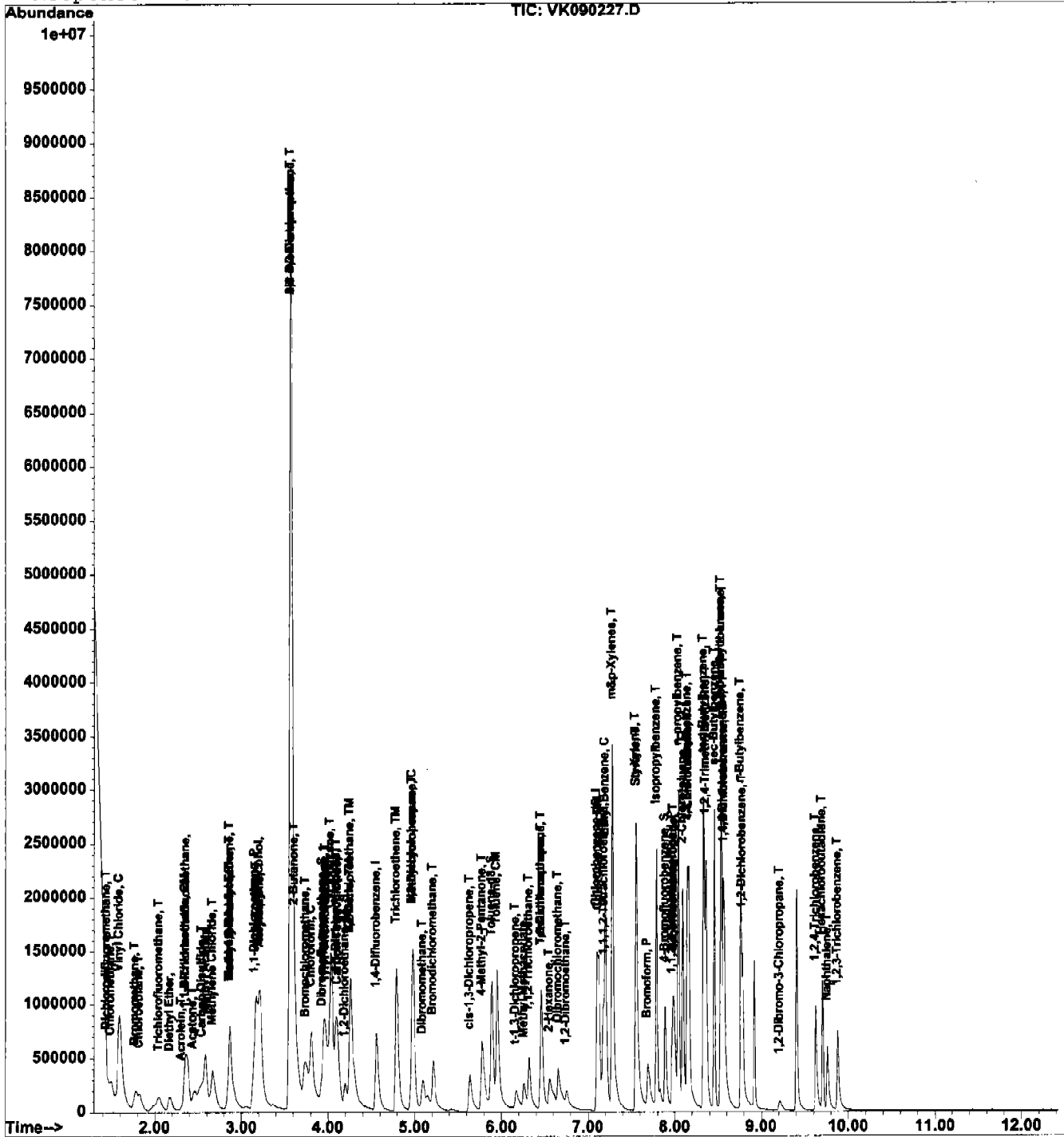
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090227.D  
Acq On : 2 Sep 2004 6:02 pm  
Sample : S4436-10MS  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 3 13:53 2004

Vial: 9  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090227.D Vial: 9  
 Acq On : 2 Sep 2004 6:02 pm Operator: KP  
 Sample : S4436-10MS Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 3 13:53 2004 Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.96	168	335237	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.56	114	761653	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.10	117	663229	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.56	152	315275	10.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) 1,2-Dichloroethane-d	4.20	65	189592	11.25	ug/l	0.00
Spiked Amount 10.000			Recovery =	112.50%		
34) Dibromofluoromethane	3.93	113	206777	10.00	ug/l	0.00
Spiked Amount 10.000			Recovery =	100.00%		
45) Toluene-d8	5.89	98	912563	10.10	ug/l	-0.02
Spiked Amount 10.000			Recovery =	101.00%		
56) 4-Bromofluorobenzene	7.89	95	364097	9.88	ug/l	-0.05
Spiked Amount 10.000			Recovery =	98.80%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluorometh	1.45	85	139220m	4.85	ug/l	
3) Chloromethane	1.50	50	405032	9.10	ug/l	100
4) Vinyl Chloride	1.59	62	2038296	58.81	ug/l	98
5) Bromomethane	1.78	94	254874	9.71	ug/l	94
6) Chloroethane	1.83	64	202953	10.69	ug/l	99
8) Trichlorofluorometha	2.05	101	316703	9.84	ug/l	93
9) 1,1,2-Trichlorotrifl	2.37	101	240113	11.20	ug/l	97
10) Tert butyl alcohol	2.86	59	30282	61.44	ug/l	100
11) Diethyl Ether	2.18	74	111516	11.62	ug/l	100
12) Isopropyl Alcohol	3.21	45	1095382	11.43	ug/l	100
13) 1,1-Dichloroethene	2.35	96	242661	11.52	ug/l	93
14) Acrolein	2.31	56	51067m	58.12	ug/l	
15) Acrylonitrile	3.23	53	405505	51.59	ug/l	96
16) Acetone	2.44	43	62732	37.44	ug/l	93
17) Carbon Disulfide	2.54	76	1060516	11.41	ug/l	100
18) Methyl tert-butyl Et	2.87	73	475463	11.31	ug/l	98
19) Methyl Acetate	2.60	43	105677	10.00	ug/l	71
20) Methylene Chloride	2.67	84	279549	10.42	ug/l	98
21) trans-1,2-Dichloroet	2.87	96	292660	12.99	ug/l	98
22) Vinyl Acetate	3.17	43	2128294	81.84	ug/l	100

Analyst Signature: ICP Analyst Name: \_\_\_\_\_ Date: 09/03/04

REASONS FOR MANUAL INTEGRATIONS

✓ Poor resolution of peaks exhibited on chromatogram. Compound #: 2,14  
 Peak integrated by software incorrectly. Compound #: \_\_\_\_\_  
 OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

Data File : K:\1\DATA\MSVOAK\VK090204\VK090227.D

Vial: 9

Acq On : 2 Sep 2004 6:02 pm

Operator: KP

Sample : S4436-10MS

Inst : MSVOA J/K

Misc : 25mL

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 3 13:53 2004

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)

Title : SW846 8260

Last Update : Thu Sep 02 10:57:19 2004

Response via : Initial Calibration

DataAcq Meth : VP

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1-Dichloroethane	3.15	63	632295	15.36	ug/l	98
24) Cyclohexane	4.04	56	1268141	10.34	ug/l	97
25) 2-Butanone	3.62	43	335419	42.12	ug/l	96
26) 2,2-Dichloropropane	3.58	77	197406	6.06	ug/l #	1
27) cis-1,2-Dichloroethane	3.58	96	5450688	224.76	ug/l	88
28) Bromochloromethane	3.75	128	86486	9.26	ug/l	94
29) Chloroform	3.81	83	508242	10.42	ug/l	96
30) 1,1,1-Trichloroethane	3.98	97	438198	11.88	ug/l	93
31) Methylcyclohexane	4.98	63	284452	11.05	ug/l	96
35) 1,1-Dichloropropene	4.10	75	384038	9.22	ug/l	99
36) Carbon Tetrachloride	4.12	117	298178	8.94	ug/l	98
37) Benzene	4.26	78	1255086	9.37	ug/l	100
38) 1,2-Dichloroethane	4.26	62	222873	9.21	ug/l	98
39) Trichloroethene	4.79	130	600048	19.06	ug/l	96
40) Methyl Methacrylate	6.26	69	247215	10.53	ug/l	97
41) 1,2-Dichloropropane	4.98	63	284452	9.51	ug/l	96
42) Dibromomethane	5.09	93	111444	9.25	ug/l	98
44) Bromodichloromethane	5.22	83	374954	9.58	ug/l	98
46) 4-Methyl-2-Pentanone	5.78	43	938181	48.41	ug/l	96
47) Toluene	5.95	92	790728	9.09	ug/l	99
48) t-1,3-Dichloropropene	6.18	75	240224	8.27	ug/l	100
49) cis-1,3-Dichloropropene	5.64	75	351779	8.76	ug/l	100
50) 1,1,2-Trichloroethane	6.32	97	162794	9.58	ug/l	95
51) 1,3-Dichloropropane	6.47	76	334398	10.31	ug/l	99
53) 2-Hexanone	6.56	43	474666	40.02	ug/l	96
54) Dibromochloromethane	6.65	129	200165	9.93	ug/l	97
55) 1,2-Dibromoethane	6.75	107	126676	9.77	ug/l	100
58) Tetrachloroethene	6.46	164	169541	5.49	ug/l	96
59) Chlorobenzene	7.12	112	630657	9.47	ug/l	98
60) 1,1,1,2-Tetrachloroethane	7.18	131	244252	9.79	ug/l	100
61) Ethyl Benzene	7.20	106	316860	9.62	ug/l	100
62) m&p-Xylenes	7.28	106	823676	19.14	ug/l	95
63) o-Xylene	7.55	106	405584	9.43	ug/l	98
64) Styrene	7.56	104	688453	9.76	ug/l	97
65) Bromoform	7.69	173	86423	10.22	ug/l	98
67) Isopropylbenzene	7.79	105	1099350	8.97	ug/l	99

Analyst Signature: ICP Analyst Name: \_\_\_\_\_ Date: 09/03/04

## -----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram. Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(# ) = qualifier out of range (m) = manual integration

## CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090227.D  
 Acq On : 2 Sep 2004 6:02 pm  
 Sample : S4436-10MS  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 3 13:53 2004

Vial: 9  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
68) 1,1,2,2-Tetrachloroe	7.97	83	258091	11.49	ug/l	99
69) 1,2,3-Trichloropropa	7.99	75	226001	9.52	ug/l	91
70) Bromobenzene	7.98	156	219736	9.37	ug/l	97
71) n-propylbenzene	8.04	91	1817205	9.39	ug/l	99
72) 2-Chlorotoluene	8.09	91	1061566	8.26	ug/l	100
73) 1,3,5-Trimethylbenze	8.15	105	862321	8.89	ug/l	99
74) 4-Chlorotoluene	8.16	91	1223788	9.00	ug/l	99
75) tert-Butylbenzene	8.33	119	1108982	10.26	ug/l	89
76) 1,2,4-Trimethylbenze	8.37	105	873954	9.12	ug/l	100
77) sec-Butylbenzene	8.46	105	1206345	8.81	ug/l	99
78) p-Isopropyltoluene	8.54	119	1093787	9.23	ug/l	99
79) 1,3-Dichlorobenzene	8.53	146	415287	9.31	ug/l	99
80) 1,4-Dichlorobenzene	8.58	146	481354	8.92	ug/l	98
81) n-Butylbenzene	8.76	91	1337534	9.12	ug/l	100
82) 1,2-Dichlorobenzene	8.78	146	412456	9.72	ug/l	96
83) 1,2-Dibromo-3-Chloro	9.21	75	29822	10.83	ug/l	92
84) 1,2,4-Trichlorobenze	9.63	180	260627	9.57	ug/l	98
85) Hexachlorobutadiene	9.70	225	160578	8.64	ug/l	98
86) Naphthalene	9.76	128	513765	9.79	ug/l	100
87) 1,2,3-Trichlorobenze	9.88	180	199061	9.04	ug/l	96

Analyst Signature: CP Analyst Name: \_\_\_\_\_ Date: 09/03/04

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound #: \_\_\_\_\_

\_\_\_ Peak integrated by software incorrectly.Compound #: \_\_\_\_\_

\_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration  
 VK090227.D SAK0902W.M Fri Sep 03 13:53:44 2004

LABMANAGER

Page 3

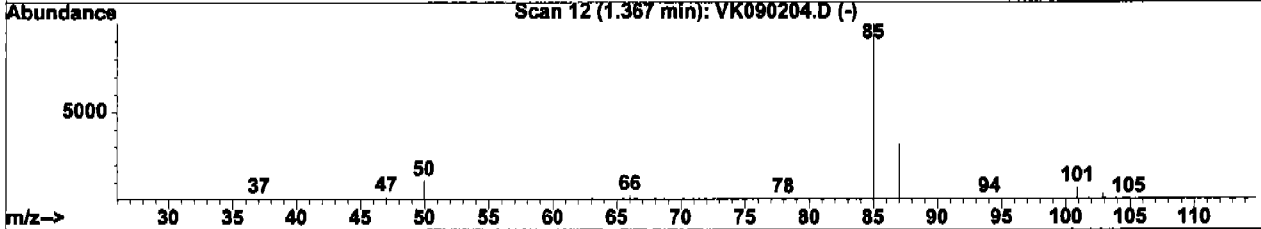
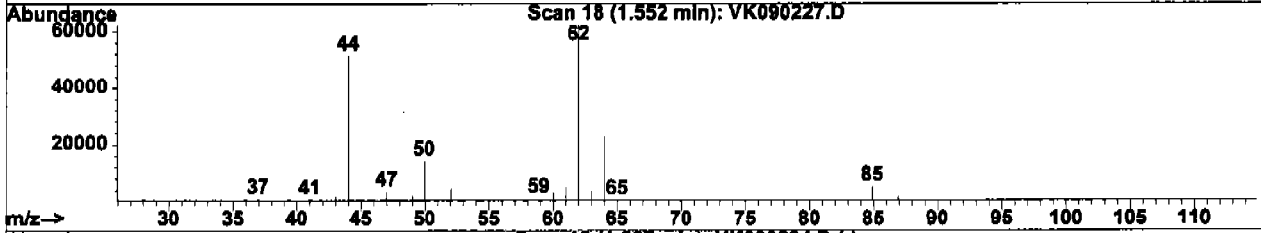
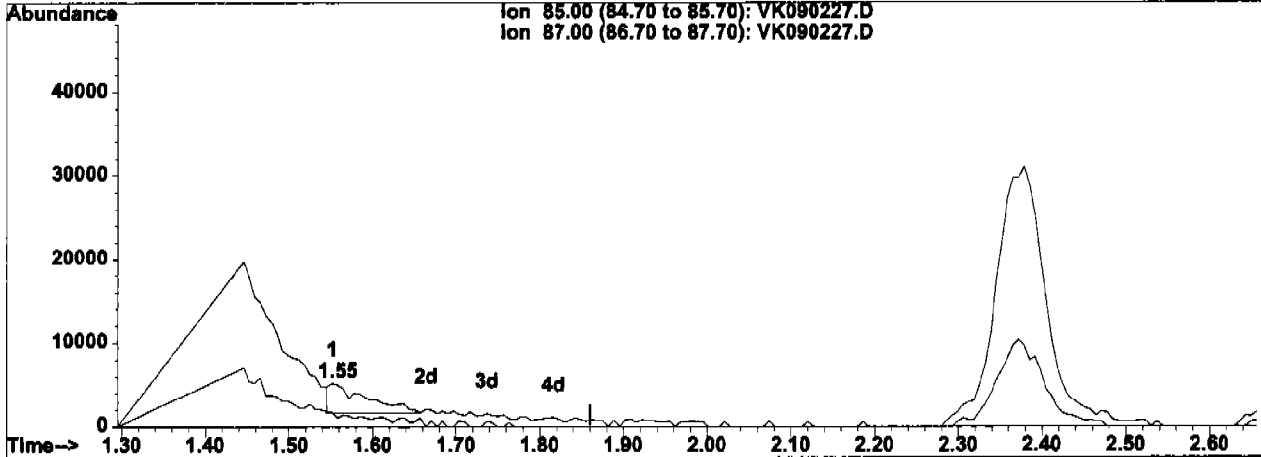


Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090227.D  
 Acq On : 2 Sep 2004 6:02 pm  
 Sample : S4436-10MS  
 Misc : 25mL  
 Quant Time: Sep 3 11:22 2004

Vial: 9  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(2) Dichlorodifluoromethane (T)

1.55min 0.39ug/l

response 11059

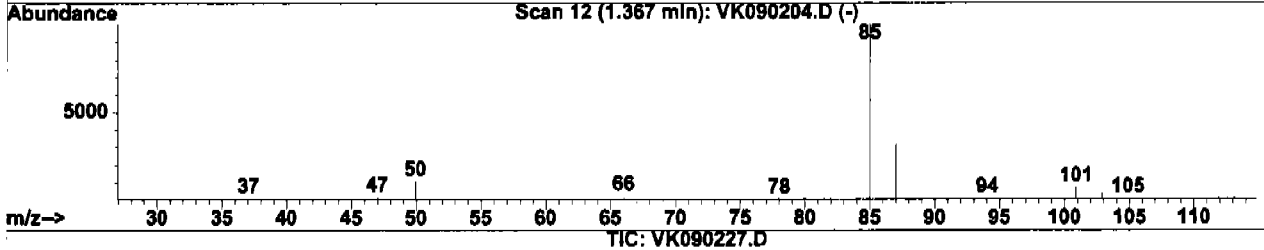
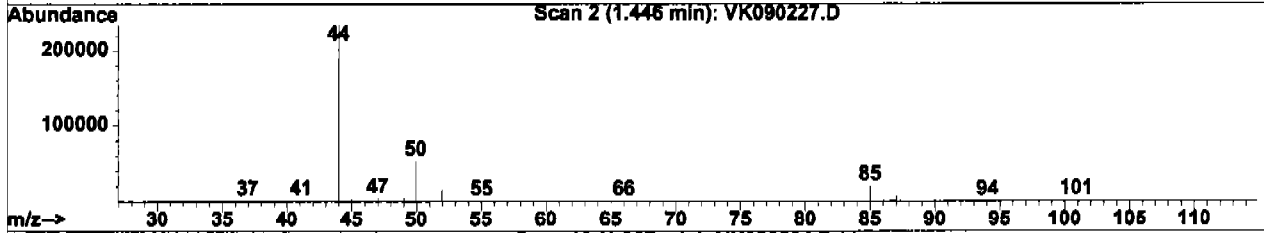
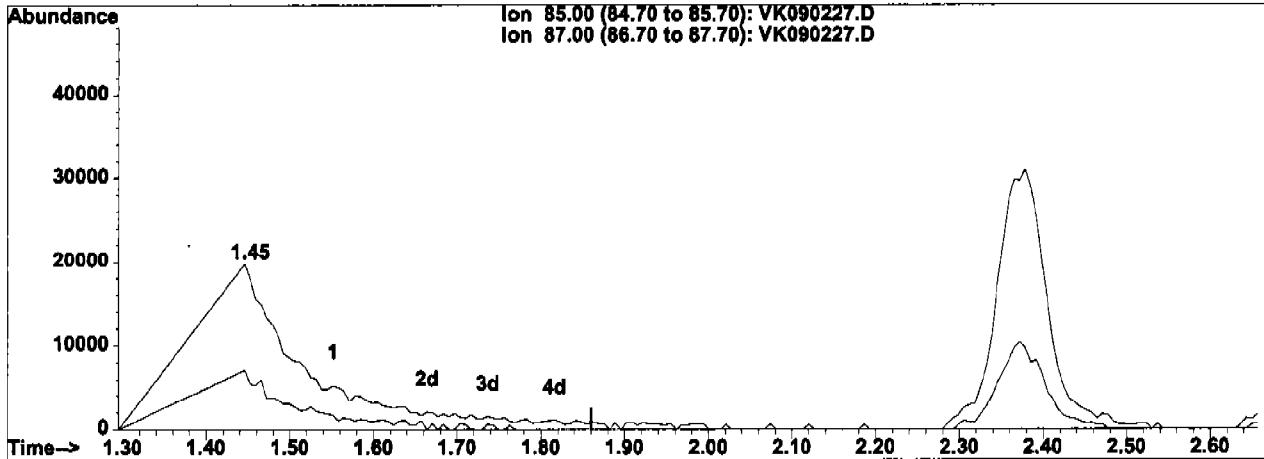
Ion	Exp%	Act%
85.00	100	100
87.00	31.80	18.44
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090227.D  
 Acq On : 2 Sep 2004 6:02 pm  
 Sample : S4436-10MS  
 Misc : 25mL  
 Quant Time: Sep 3 13:51 2004

Vial: 9  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(2) Dichlorodifluoromethane (T)

1.45min 4.85ug/ l m

response 139220

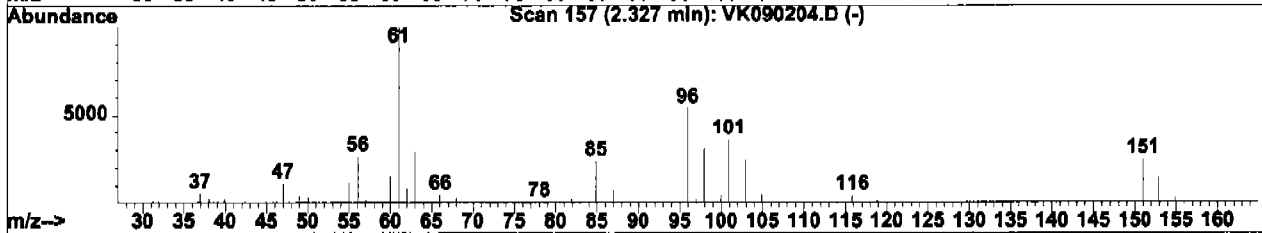
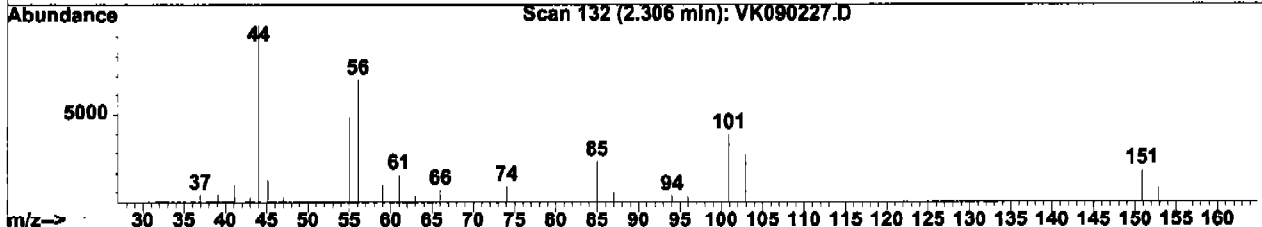
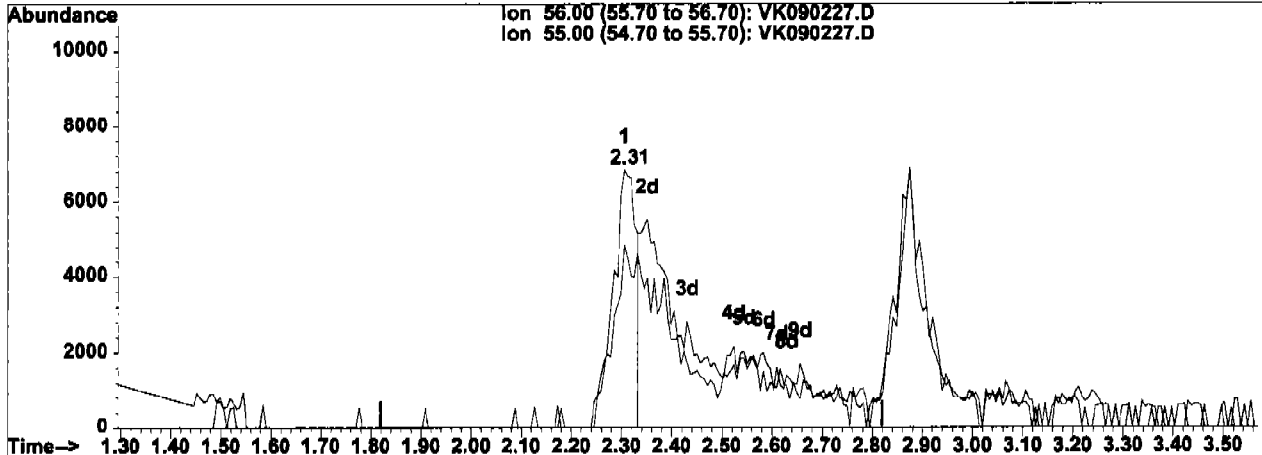
Ion	Exp%	Act%
85.00	100	100
87.00	31.80	36.20
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090227.D  
 Acq On : 2 Sep 2004 6:02 pm  
 Sample : S4436-10MS  
 Misc : 25mL  
 Quant Time: Sep 3 13:51 2004

Vial: 9  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(14) Acrolein (T)

2.31min 24.32ug/l

response 21366

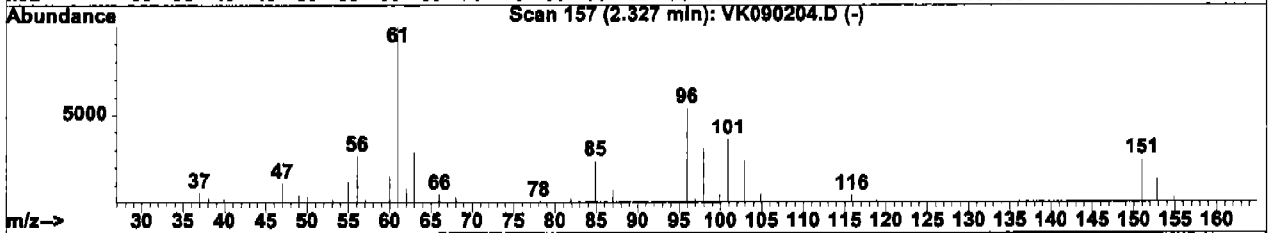
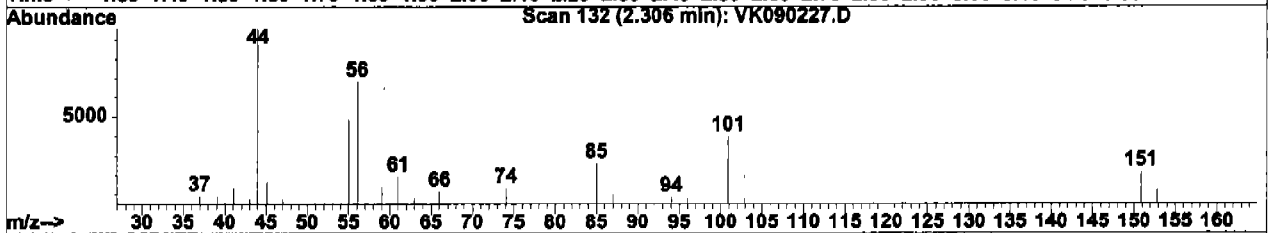
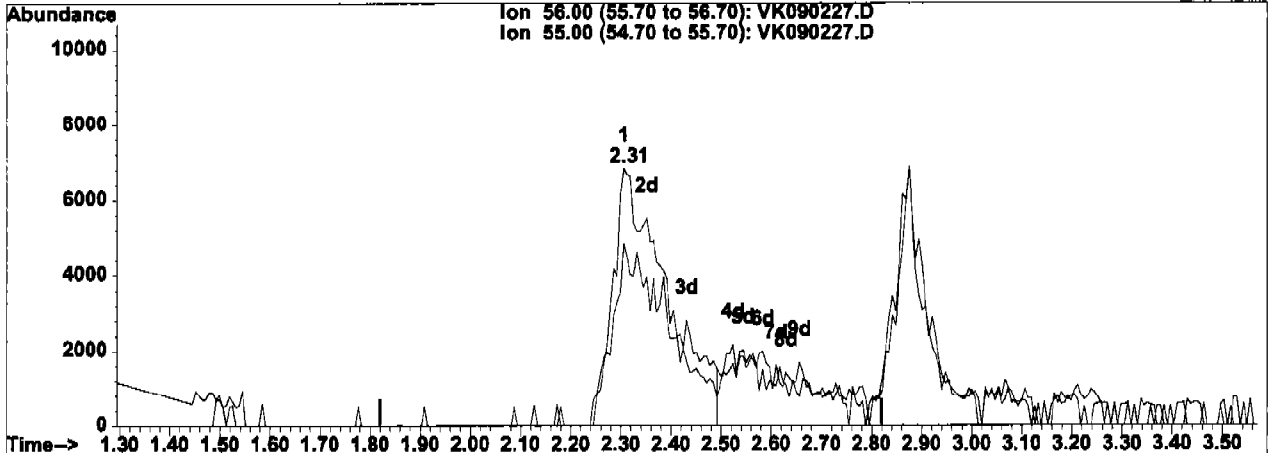
Ion	Exp%	Act%
56.00	100	100
55.00	686.40	66.54#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090227.D  
 Acq On : 2 Sep 2004 6:02 pm  
 Sample : S4436-10MS  
 Misc : 25mL  
 Quant Time: Sep 3 13:52 2004

Vial: 9  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



TIC: VK090227.D

(14) Acrolein (T)		
2.31min	58.12ug/l m	
response	51067	
Ion	Exp%	Act%
56.00	100	100
55.00	686.40	27.84#
0.00	0.00	0.00
0.00	0.00	0.00

**Report of Analysis**

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monitc</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2246MSD</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-11MSD</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090228.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
<b>TARGETS</b>						
74-87-3	Chloromethane	9.5		1.0	0.16	ug/L
75-01-4	Vinyl chloride	110	E	1.0	0.11	ug/L
74-83-9	Bromomethane	9.8		1.0	0.12	ug/L
75-00-3	Chloroethane	12		1.0	0.18	ug/L
75-35-4	1,1-Dichloroethene	12		1.0	0.20	ug/L
67-64-1	Acetone	38		5.0	1.2	ug/L
75-15-0	Carbon disulfide	12		1.0	0.21	ug/L
75-09-2	Methylene Chloride	11		1.0	0.36	ug/L
156-60-5	trans-1,2-Dichloroethene	14		1.0	0.25	ug/L
75-34-3	1,1-Dichloroethane	18		1.0	0.21	ug/L
78-93-3	2-Butanone	43		5.0	0.92	ug/L
56-23-5	Carbon Tetrachloride	9.2		1.0	0.17	ug/L
156-59-2	cis-1,2-Dichloroethene	320	E	1.0	0.27	ug/L
67-66-3	Chloroform	11		1.0	0.23	ug/L
71-55-6	1,1,1-Trichloroethane	12		1.0	0.22	ug/L
71-43-2	Benzene	9.8		1.0	0.20	ug/L
107-06-2	1,2-Dichloroethane	10		1.0	0.21	ug/L
79-01-6	Trichloroethene	21		1.0	0.19	ug/L
78-87-5	1,2-Dichloropropane	10		1.0	0.18	ug/L
75-27-4	Bromodichloromethane	9.5		1.0	0.17	ug/L
108-10-1	4-Methyl-2-Pentanone	50		5.0	0.77	ug/L
108-88-3	Toluene	9.3		1.0	0.19	ug/L
10061-02-6	t-1,3-Dichloropropene	8.5		1.0	0.15	ug/L
10061-01-5	cis-1,3-Dichloropropene	8.9		1.0	0.19	ug/L
79-00-5	1,1,2-Trichloroethane	9.6		1.0	0.20	ug/L
591-78-6	2-Hexanone	41		5.0	0.58	ug/L
124-48-1	Dibromochloromethane	10		1.0	0.21	ug/L
127-18-4	Tetrachloroethene	5.6		1.0	0.20	ug/L
108-90-7	Chlorobenzene	9.4		1.0	0.16	ug/L
100-41-4	Ethyl Benzene	9.4		1.0	0.18	ug/L
136777-61-2	m&p-Xylenes	19		1.0	0.36	ug/L
95-47-6	o-Xylene	9.4		1.0	0.17	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Quarterly Monito</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2246MSD</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-11MSD</b>	<b>Matrix:</b>	<b>WATER</b>
<b>Analytical Method:</b>	<b>8260</b>	<b>% Moisture:</b>	<b>100</b>
<b>Sample Wt/Wol:</b>	<b>25.0 Units: mL</b>	<b>Soil Extract Vol:</b>	<b>uL</b>
<b>Soil Aliquot Vol:</b>	<b>mL</b>		

<b>File ID:</b>	<b>Dilution:</b>	<b>Date Prep</b>	<b>Date Analyzed</b>	<b>Analytical Batch ID</b>
<b>VK090228.D</b>	<b>1</b>		<b>9/2/2004</b>	<b>VK090204</b>

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
100-42-5	Styrene	9.7		1.0	0.17	ug/L
75-25-2	Bromoform	10		1.0	0.37	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	12		1.0	0.13	ug/L

**SURROGATES**

17060-07-0	1,2-Dichloroethane-d4	11.47	115 %	72 - 119		SPK: 10
1868-53-7	Dibromofluoromethane	10.48	105 %	85 - 115		SPK: 10
2037-26-5	Toluene-d8	10.08	101 %	81 - 120		SPK: 10
460-00-4	4-Bromofluorobenzene	9.92	99 %	76 - 119		SPK: 10

**INTERNAL STANDARDS**

363-72-4	Pentafluorobenzene	327971	3.96			
540-36-3	1,4-Difluorobenzene	759489	4.56			
3114-55-4	Chlorobenzene-d5	671460	7.10			
3855-82-1	1,4-Dichlorobenzene-d4	314202	8.56			

U = Not Detected  
 RL = Reporting Limit  
 MDL = Method Detection Limit  
 E = Value Exceeds Calibration Range

J = Estimated Value  
 B = Analyte Found in Associated Method Blank  
 N = Presumptive Evidence of a Compound

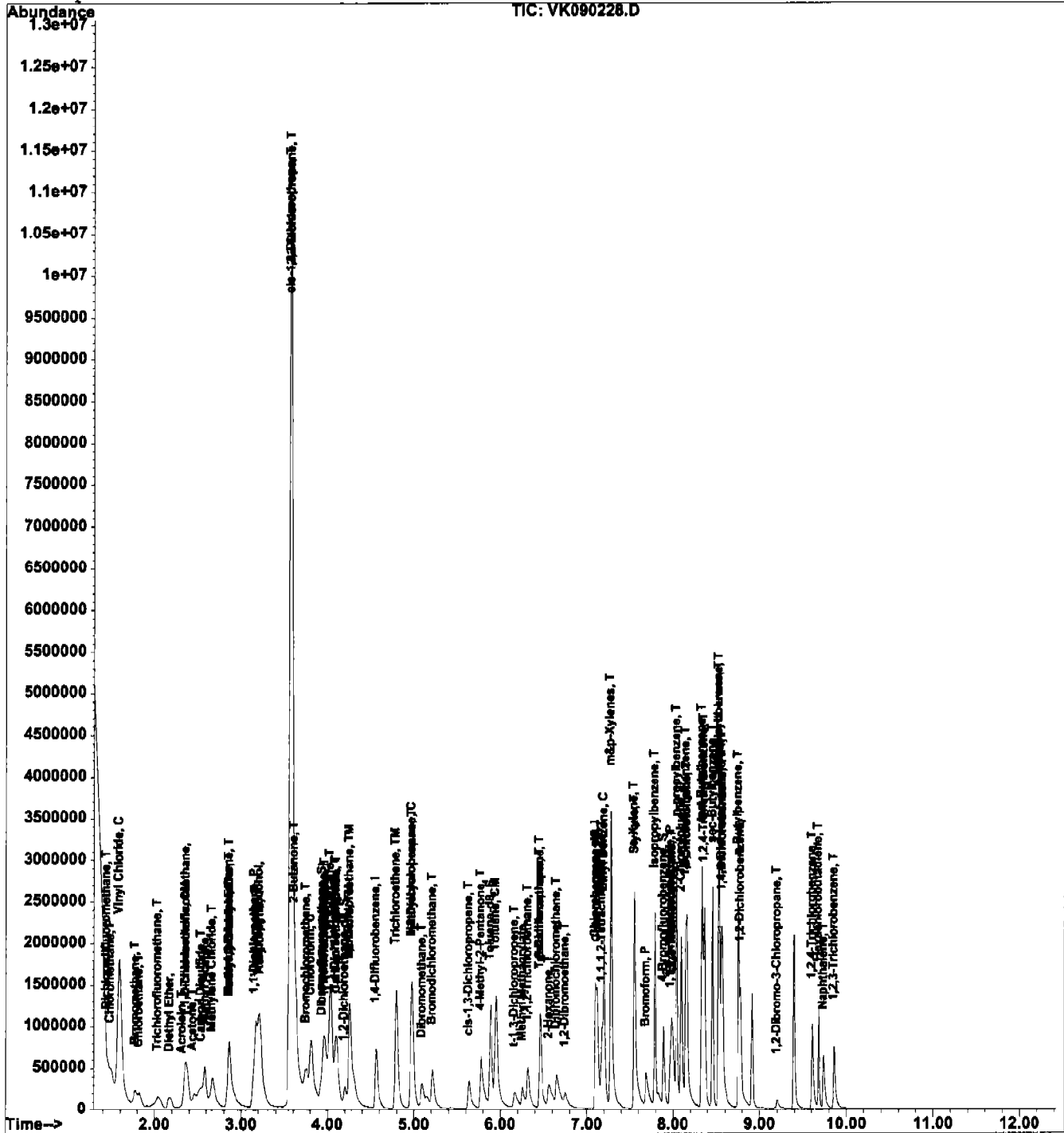
Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090228.D  
Acq On : 2 Sep 2004 6:41 pm  
Sample : S4436-11MSD  
Misc : 25mL  
MS Integration Params: RTEINT.P  
Quant Time: Sep 3 13:58 2004

Vial: 10  
Operator: KP  
Inst : MSVOA J/K  
Multiplr: 1.00

Quant Results File: SAK0902W.RES

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
Title : SW846 8260  
Last Update : Thu Sep 02 10:57:19 2004  
Response via : Initial Calibration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090228.D Vial: 10  
 Acq On : 2 Sep 2004 6:41 pm Operator: KP  
 Sample : S4436-11MSD Inst : MSVOA J/K  
 Misc : 25mL Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 3 13:58 2004 Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.96	168	327971	10.00	ug/l	0.00
33) 1,4-Difluorobenzene	4.56	114	759489	10.00	ug/l	0.00
57) Chlorobenzene-d5	7.10	117	671460	10.00	ug/l	0.00
66) 1,4-Dichlorobenzene-	8.56	152	314202	10.00	ug/l	0.00

System Monitoring Compounds

32) 1,2-Dichloroethane-d	4.20	65	189039m	11.47	ug/l	0.00
Spiked Amount	10.000		Recovery	=	114.70%	
34) Dibromofluoromethane	3.93	113	216071	10.48	ug/l	0.00
Spiked Amount	10.000		Recovery	=	104.80%	
45) Toluene-d8	5.89	98	908334	10.08	ug/l	-0.02
Spiked Amount	10.000		Recovery	=	100.80%	
56) 4-Bromofluorobenzene	7.89	95	364807	9.92	ug/l	-0.05
Spiked Amount	10.000		Recovery	=	99.20%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluorometh	1.45	85	144654m	5.15	ug/l	
3) Chloromethane	1.50	50	412271m	9.47	ug/l	
4) Vinyl Chloride	1.59	62	3737990	110.24	ug/l	96
5) Bromomethane	1.78	94	250959	9.77	ug/l	97
6) Chloroethane	1.82	64	225243	12.12	ug/l	98
8) Trichlorofluorometha	2.04	101	319254	10.14	ug/l	96
9) 1,1,2-Trichlorotrifl	2.37	101	231648	11.05	ug/l	98
10) Tert butyl alcohol	2.86	59	21289	44.15	ug/l	100
11) Diethyl Ether	2.19	74	111425	11.87	ug/l	97
12) Isopropyl Alcohol	3.21	45	1118112	11.93	ug/l	100
13) 1,1-Dichloroethene	2.36	96	249610	12.11	ug/l	98
14) Acrolein	2.32	56	50899m	59.21	ug/l	
15) Acrylonitrile	3.23	53	414682	53.93	ug/l	98
16) Acetone	2.44	43	61683	37.63	ug/l	95
17) Carbon Disulfide	2.54	76	1070269	11.77	ug/l	99
18) Methyl tert-butyl Et	2.87	73	516903	12.56	ug/l	100
19) Methyl Acetate	2.60	43	94440m	9.13	ug/l	
20) Methylene Chloride	2.67	84	292836	11.16	ug/l	96
21) trans-1,2-Dichloroet	2.87	96	311965	14.15	ug/l	98
22) Vinyl Acetate	3.17	43	2148330	84.44	ug/l	100

Analyst Signature: JG Analyst Name: \_\_\_\_\_ Date: 09/03/04

REASONS FOR MANUAL INTEGRATIONS

Poor resolution of peaks exhibited on chromatogram. Compound #: 2,3,14,19,

Peak integrated by software incorrectly. Compound #: \_\_\_\_\_

OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration



CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090228.D  
 Acq On : 2 Sep 2004 6:41 pm  
 Sample : S4436-11MSD  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 3 13:58 2004

Vial: 10  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
23) 1,1-Dichloroethane	3.15	63	706495	17.54	ug/l	98
24) Cyclohexane	4.04	56	1277835	10.65	ug/l	97
25) 2-Butanone	3.62	43	335525	43.07	ug/l #	83
26) 2,2-Dichloropropane	3.59	77	206533	6.48	ug/l #	1
27) cis-1,2-Dichloroethe	3.58	96	7593930	320.08	ug/l	88
28) Bromochloromethane	3.75	128	100676	11.01	ug/l	97
29) Chloroform	3.81	83	537402	11.27	ug/l	100
30) 1,1,1-Trichloroethan	3.98	97	439844	12.19	ug/l #	74
31) Methylcyclohexane	4.98	63	298816	11.86	ug/l	99
35) 1,1-Dichloropropene	4.09	75	389393	9.38	ug/l	99
36) Carbon Tetrachloride	4.11	117	304420	9.16	ug/l	99
37) Benzene	4.26	78	1304306	9.77	ug/l	100
38) 1,2-Dichloroethane	4.26	62	240417	9.96	ug/l	98
39) Trichloroethene	4.79	130	657741	20.95	ug/l	96
40) Methyl Methacrylate	6.26	69	233352m	9.97	ug/l	
41) 1,2-Dichloropropane	4.98	63	298816	10.02	ug/l	99
42) Dibromomethane	5.10	93	118896	9.90	ug/l	97
44) Bromodichloromethane	5.22	83	372294	9.54	ug/l	98
46) 4-Methyl-2-Pentanone	5.78	43	964179	49.89	ug/l	95
47) Toluene	5.95	92	808359	9.32	ug/l	100
48) t-1,3-Dichloropropen	6.18	75	245510	8.48	ug/l	97
49) cis-1,3-Dichloroprop	5.64	75	358053	8.94	ug/l	100
50) 1,1,2-Trichloroethan	6.32	97	161916	9.55	ug/l	91
51) 1,3-Dichloropropane	6.47	76	332156	10.27	ug/l	100
53) 2-Hexanone	6.57	43	483716	40.90	ug/l	90
54) Dibromochloromethane	6.65	129	201220	10.01	ug/l	99
55) 1,2-Dibromoethane	6.76	107	133860	10.36	ug/l	97
58) Tetrachloroethene	6.46	164	176632	5.64	ug/l	97
59) Chlorobenzene	7.12	112	631322	9.36	ug/l	100
60) 1,1,1,2-Tetrachloroe	7.17	131	241226	9.55	ug/l	98
61) Ethyl Benzene	7.20	106	314607	9.44	ug/l	100
62) m&p-Xylenes	7.28	106	817401	18.76	ug/l	98
63) o-Xylene	7.55	106	409573	9.41	ug/l	96
64) Styrene	7.56	104	692920	9.71	ug/l	98
65) Bromoform	7.69	173	89178	10.42	ug/l	99
67) Isopropylbenzene	7.79	105	1101491	9.02	ug/l	100

Analyst Signature: lcp Analyst Name: \_\_\_\_\_ Date: 09/03/04

-----REASONS FOR MANUAL INTEGRATIONS-----  
 Poor resolution of peaks exhibited on chromatogram. Compound #: 40  
 Peak integrated by software incorrectly. Compound #:  
 OTHER: \_\_\_\_\_ Compound #:

(#) = qualifier out of range (m) = manual integration

CHEMTECH GC-MS Quantitation Report (QT Reviewed)

Data File : K:\1\DATA\MSVOAK\VK090204\VK090228.D  
 Acq On : 2 Sep 2004 6:41 pm  
 Sample : S4436-11MSD  
 Misc : 25mL  
 MS Integration Params: RTEINT.P  
 Quant Time: Sep 3 13:58 2004

Vial: 10  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00

Quant Results File: SAK0902W.RES

Quant Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Initial Calibration  
 DataAcq Meth : VP

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
68) 1,1,2,2-Tetrachloroe	7.97	83	257632	11.51	ug/l	99
69) 1,2,3-Trichloropropa	7.99	75	239538	10.13	ug/l	84
70) Bromobenzene	7.98	156	225968	9.66	ug/l	98
71) n-propylbenzene	8.04	91	1842517	9.56	ug/l	99
72) 2-Chlorotoluene	8.09	91	1085025	8.48	ug/l	100
73) 1,3,5-Trimethylbenze	8.15	105	888676	9.20	ug/l	99
74) 4-Chlorotoluene	8.16	91	1244708	9.18	ug/l	100
75) tert-Butylbenzene	8.33	119	1113787	10.34	ug/l	89
76) 1,2,4-Trimethylbenze	8.36	105	877977	9.20	ug/l	99
77) sec-Butylbenzene	8.46	105	1227682	9.00	ug/l	100
78) p-Isopropyltoluene	8.54	119	1083620	9.18	ug/l	99
79) 1,3-Dichlorobenzene	8.53	146	422146	9.50	ug/l	97
80) 1,4-Dichlorobenzene	8.58	146	467933	8.70	ug/l	96
81) n-Butylbenzene	8.76	91	1334083	9.13	ug/l	99
82) 1,2-Dichlorobenzene	8.78	146	412275	9.75	ug/l	97
83) 1,2-Dibromo-3-Chloro	9.21	75	35585	12.97	ug/l	98
84) 1,2,4-Trichlorobenze	9.61	180	268008	9.88	ug/l	100
85) Hexachlorobutadiene	9.68	225	163026	8.80	ug/l	99
86) Naphthalene	9.74	128	537118	10.27	ug/l	100
87) 1,2,3-Trichlorobenze	9.86	180	205646	9.37	ug/l	95

Analyst Signature: lg Analyst Name: \_\_\_\_\_ Date: 09/03/04

-----REASONS FOR MANUAL INTEGRATIONS-----

\_\_\_ Poor resolution of peaks exhibited on chromatogram.Compound #: \_\_\_\_\_  
 \_\_\_ Peak integrated by software incorrectly.Compound #: \_\_\_\_\_  
 \_\_\_ OTHER: \_\_\_\_\_ Compound #: \_\_\_\_\_

(#) = qualifier out of range (m) = manual integration  
 VK090228.D SAK0902W.M Fri Sep 03 13:58:54 2004

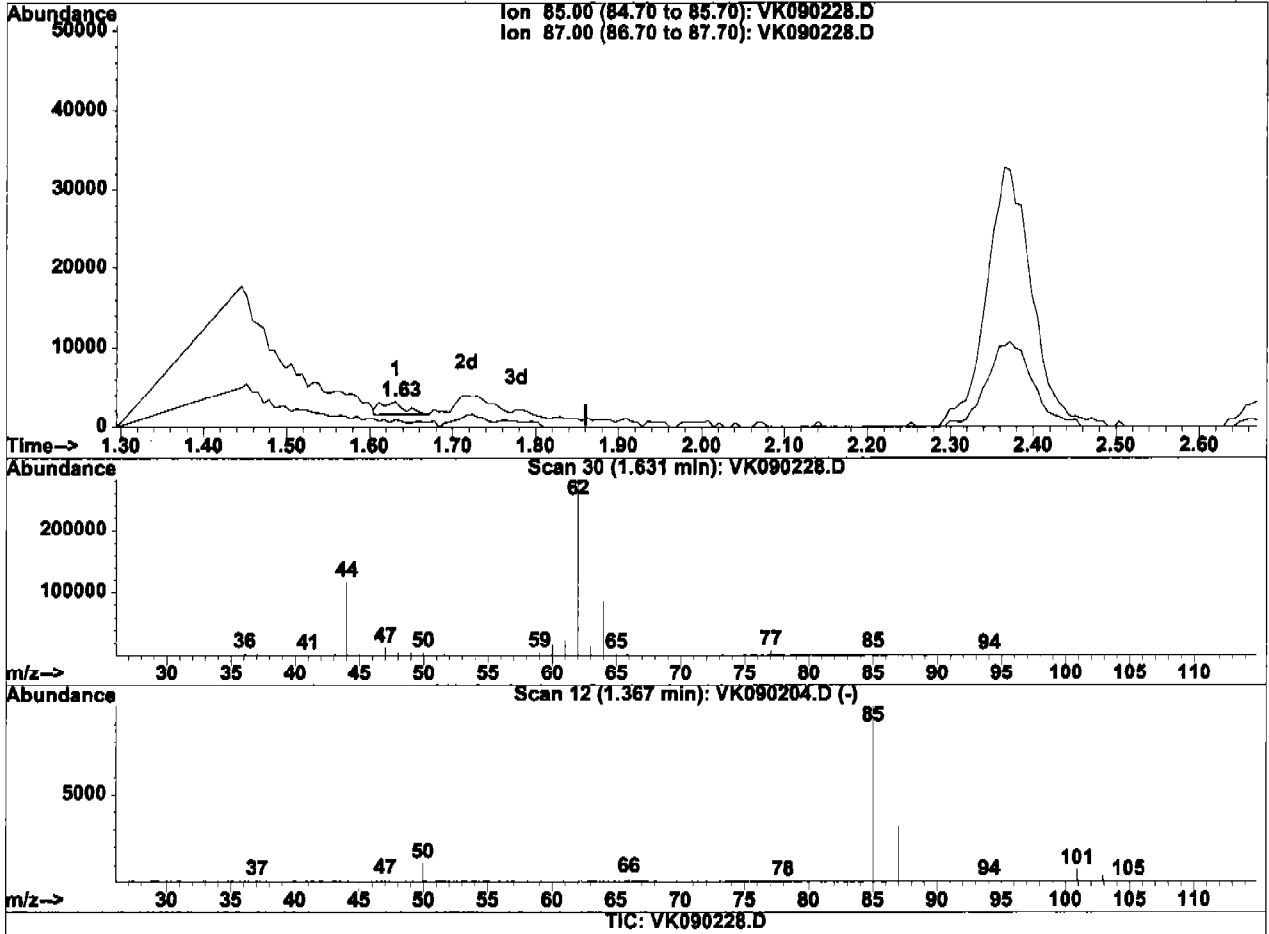
LABMANAGER

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090228.D  
 Acq On : 2 Sep 2004 6:41 pm  
 Sample : S4436-11MSD  
 Misc : 25mL  
 Quant Time: Sep 3 11:23 2004

Vial: 10  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(2) Dichlorodifluoromethane (T)

1.63min 0.11ug/l

response 3092

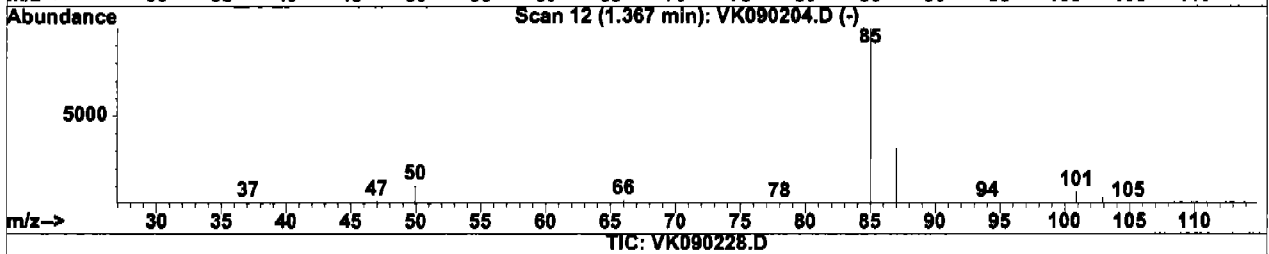
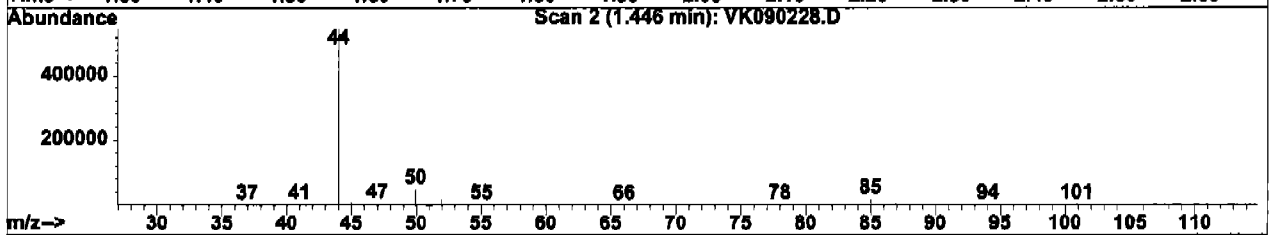
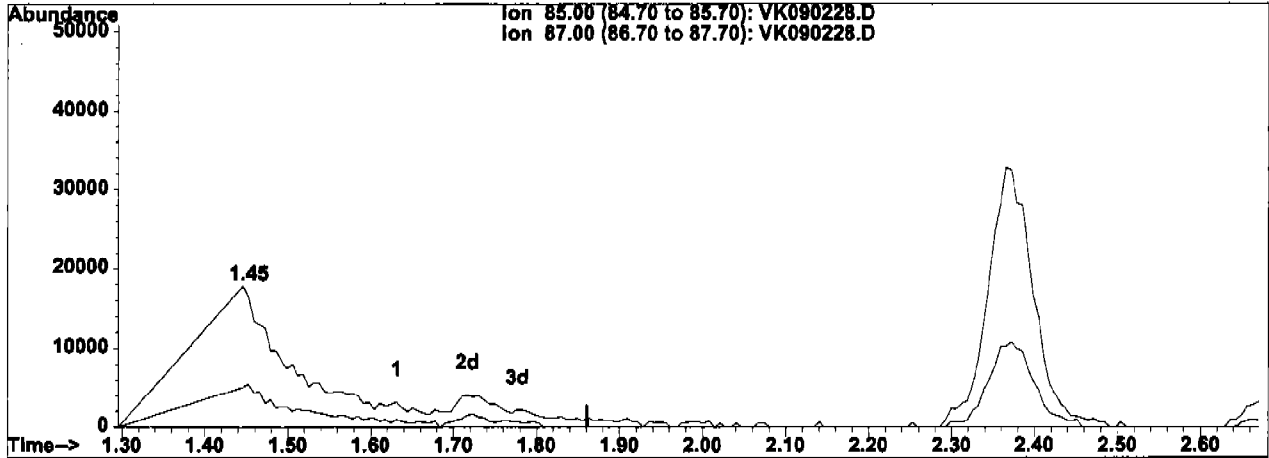
Ion	Exp%	Act%
85.00	100	100
87.00	31.80	26.63
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090228.D  
 Acq On : 2 Sep 2004 6:41 pm  
 Sample : S4436-11MSD  
 Misc : 25mL  
 Quant Time: Sep 3 13:54 2004

Vial: 10  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(2) Dichlorodifluoromethane (T)

1.45min 5.15ug/l m

response 144654

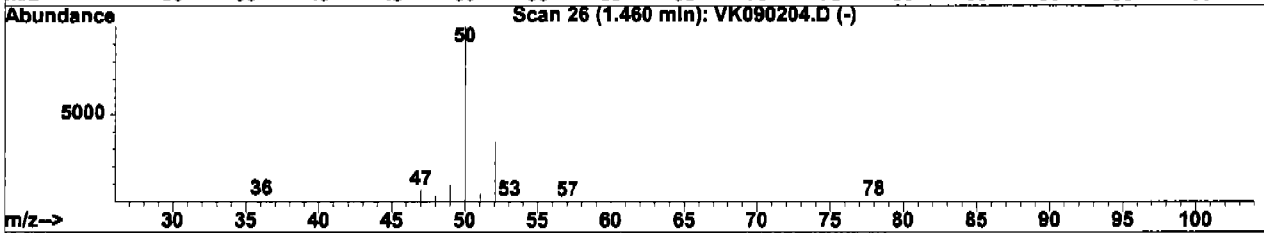
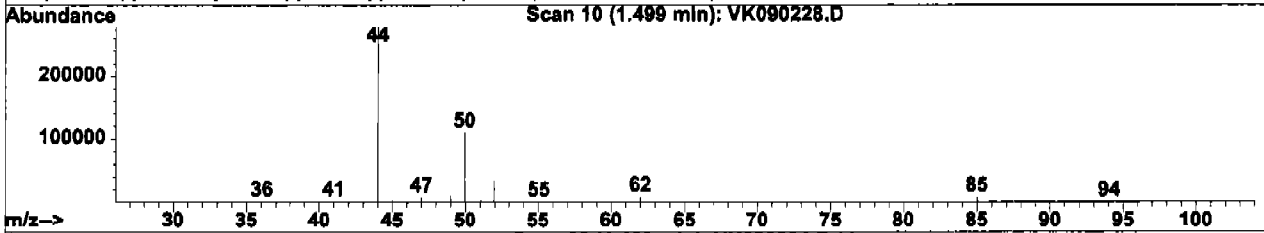
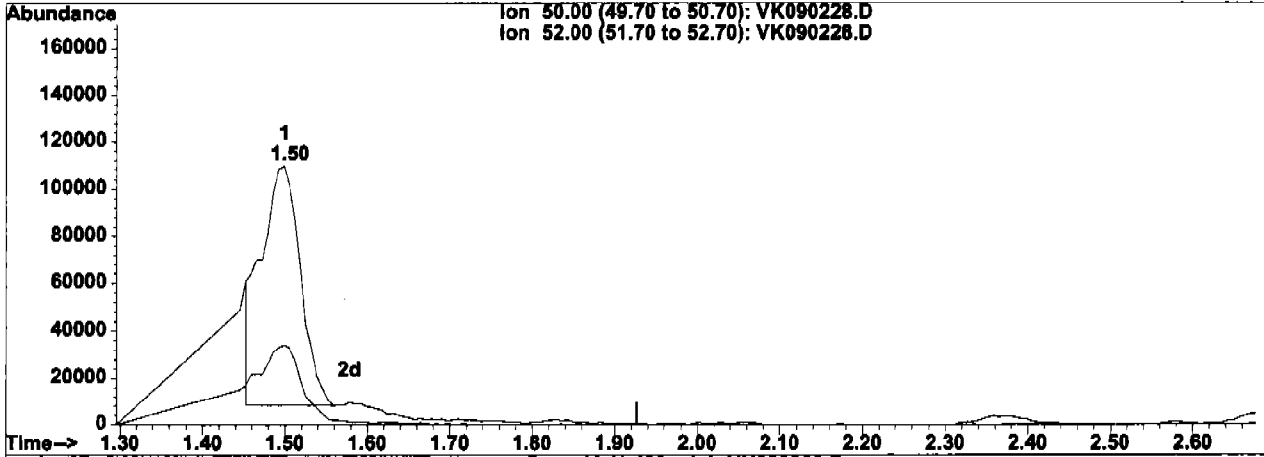
Ion	Exp%	Act%
85.00	100	100
87.00	31.80	28.74
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090228.D  
 Acq On : 2 Sep 2004 6:41 pm  
 Sample : S4436-11MSD  
 Misc : 25mL  
 Quant Time: Sep 3 13:54 2004

Vial: 10  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(3) Chloromethane (P)

1.50min 7.81ug/l

response 340119

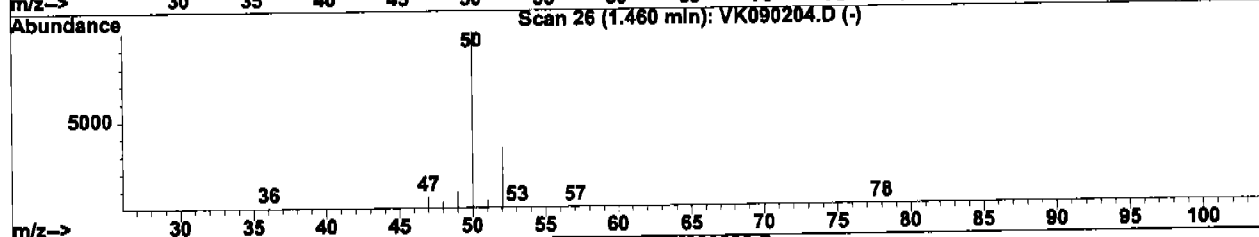
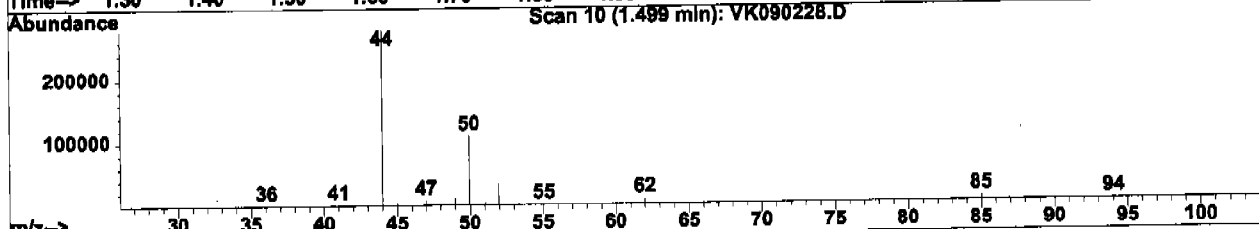
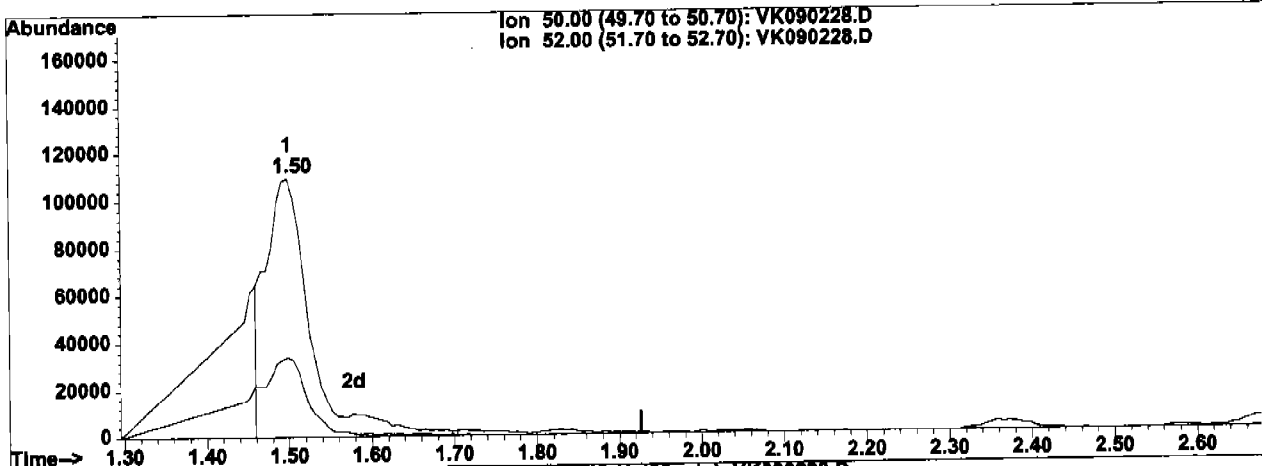
Ion	Exp%	Act%
50.00	100	100
52.00	32.70	31.66
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090228.D  
 Acq On : 2 Sep 2004 6:41 pm  
 Sample : S4436-11MSD  
 Misc : 25mL  
 Quant Time: Sep 3 13:54 2004

Vial: 10  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(3) Chloromethane (P)

1.50min 9.47ug/l m

response 412271

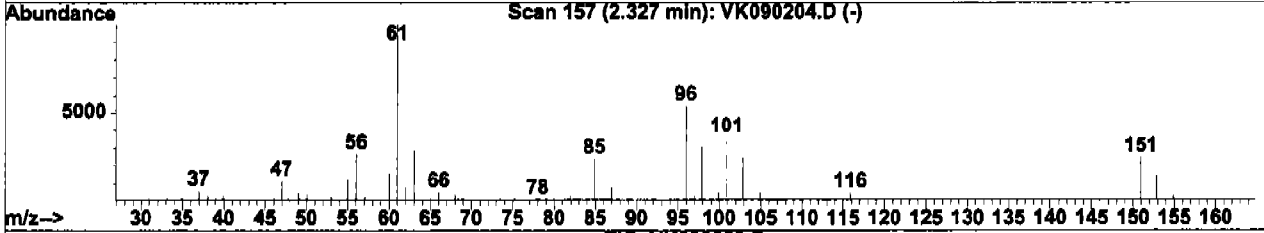
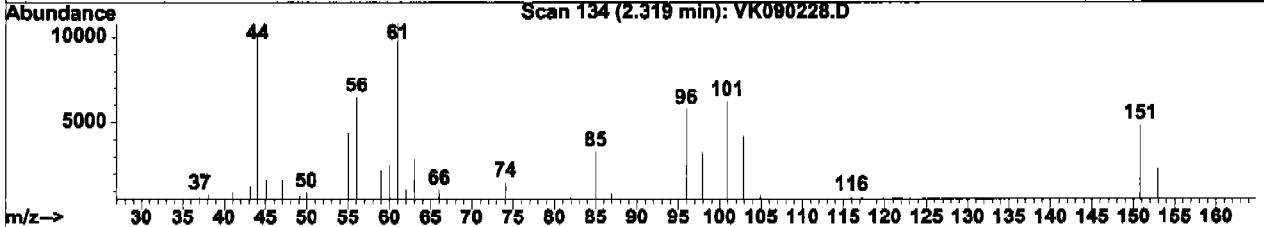
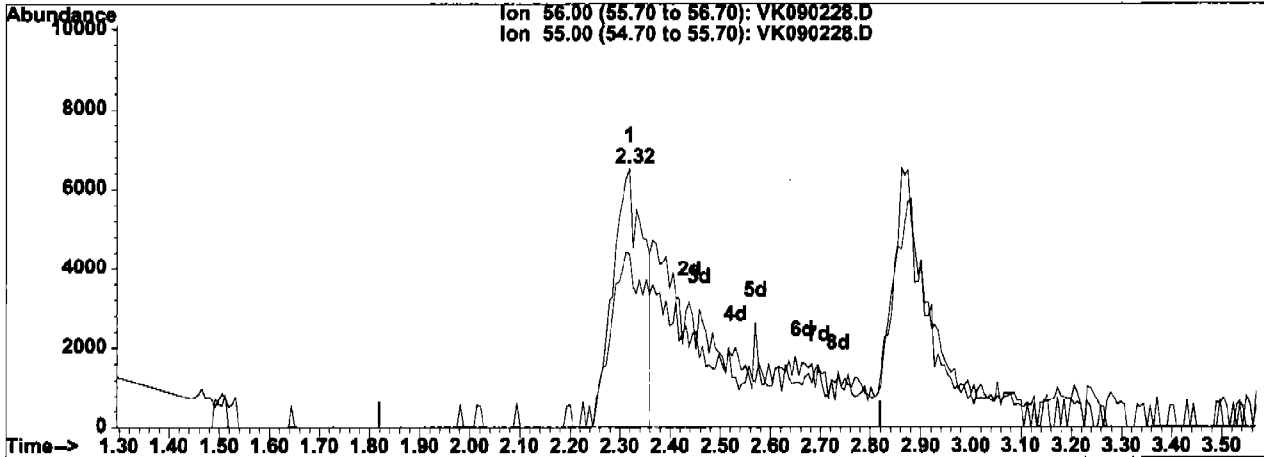
Ion	Exp%	Act%
50.00	100	100
52.00	32.70	31.01
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090228.D  
 Acq On : 2 Sep 2004 6:41 pm  
 Sample : S4436-11MSD  
 Misc : 25mL  
 Quant Time: Sep 3 13:54 2004

Vial: 10  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



TIC: VK090228.D

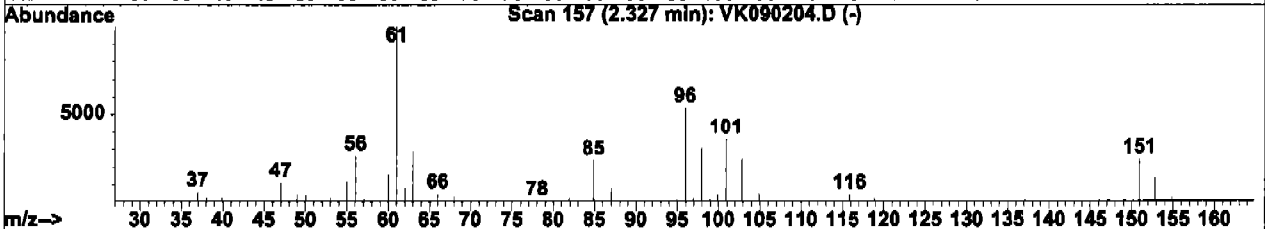
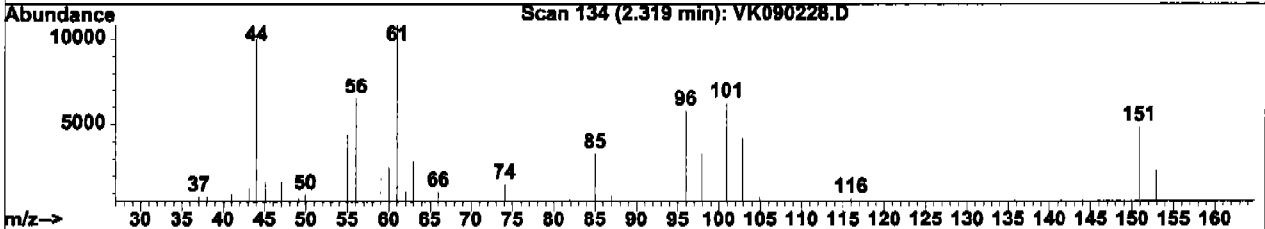
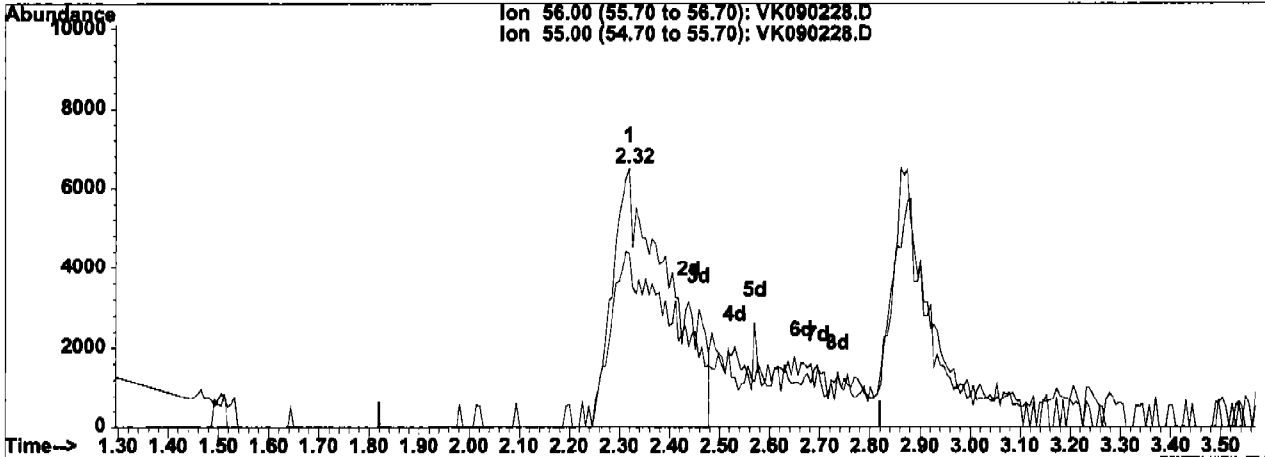
(14) Acrolein (T)		
2.32min	32.10ug/l	
response	27598	
Ion	Exp%	Act%
56.00	100	100
55.00	686.40	53.84#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090228.D  
 Acq On : 2 Sep 2004 6:41 pm  
 Sample : S4436-11MSD  
 Misc : 25mL  
 Quant Time: Sep 3 13:55 2004

Vial: 10  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



TIC: VK090228.D

(14) Acrolein (T)		
2.32min	59.21ug/l m	
response	50899	
Ion	Exp%	Act%
56.00	100	100
55.00	686.40	29.19#
0.00	0.00	0.00
0.00	0.00	0.00

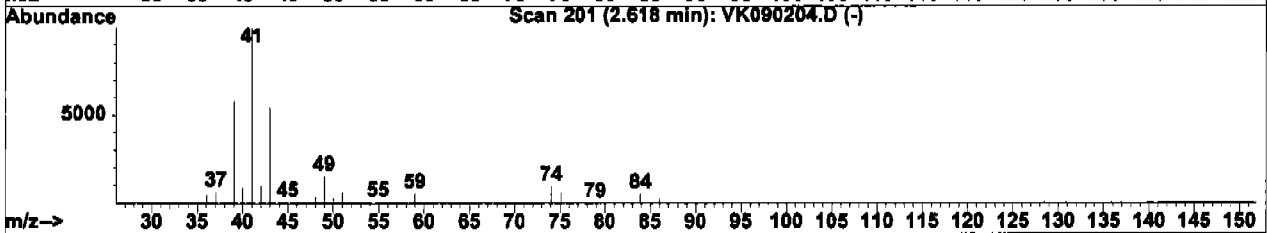
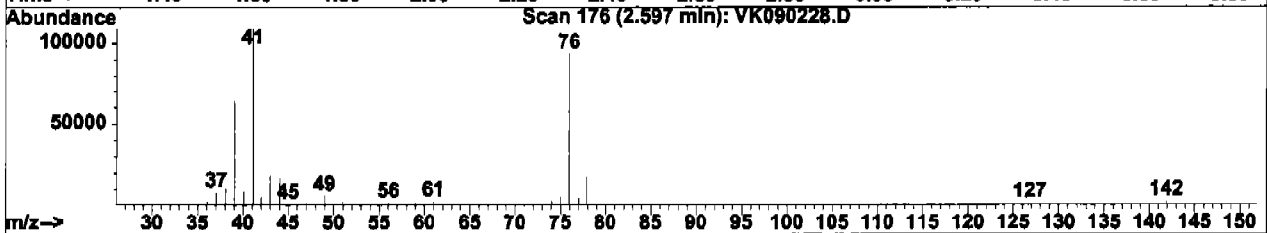
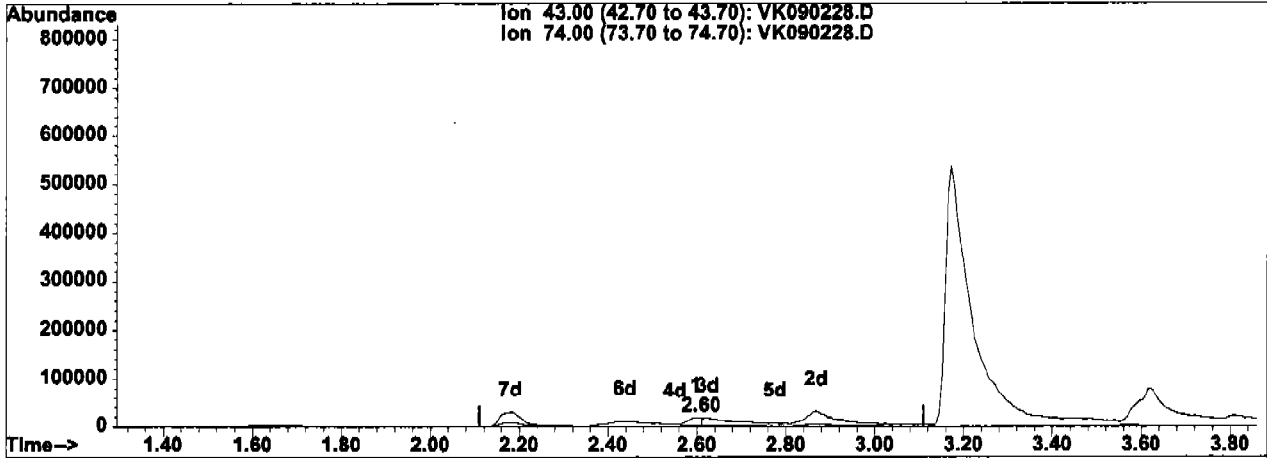


Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090228.D  
 Acq On : 2 Sep 2004 6:41 pm  
 Sample : S4436-11MSD  
 Misc : 25mL  
 Quant Time: Sep 3 13:55 2004

Vial: 10  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(19) Methyl Acetate

2.60min 3.33ug/l

response 34460

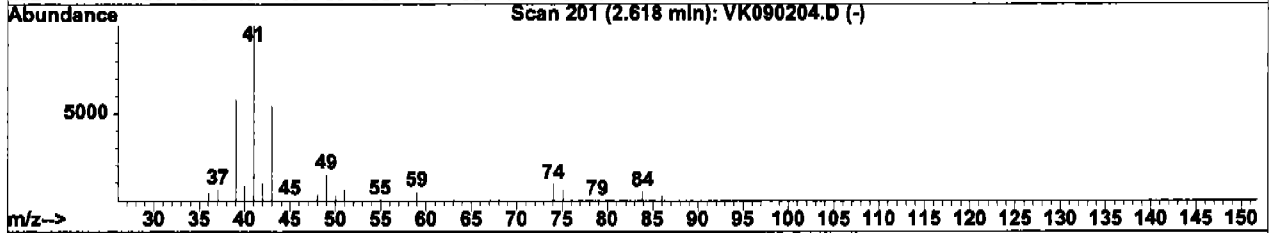
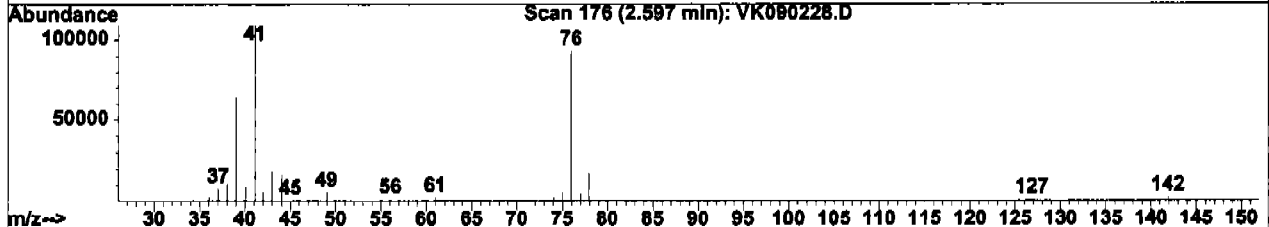
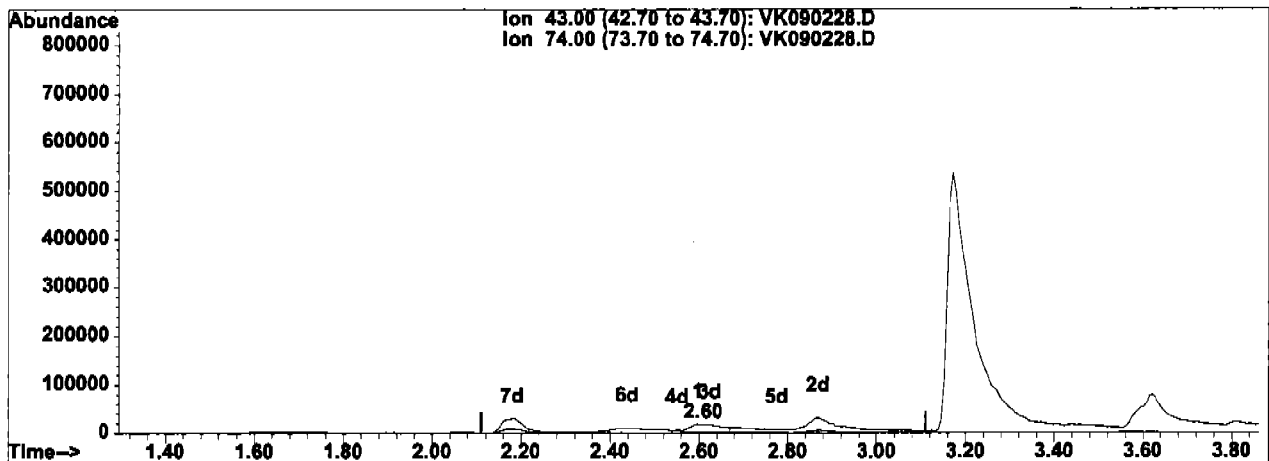
Ion	Exp%	Act%
43.00	100	100
74.00	21.20	25.40
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090228.D  
 Acq On : 2 Sep 2004 6:41 pm  
 Sample : S4436-11MSD  
 Misc : 25mL  
 Quant Time: Sep 3 13:55 2004

Vial: 10  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



TIC: VK090228.D

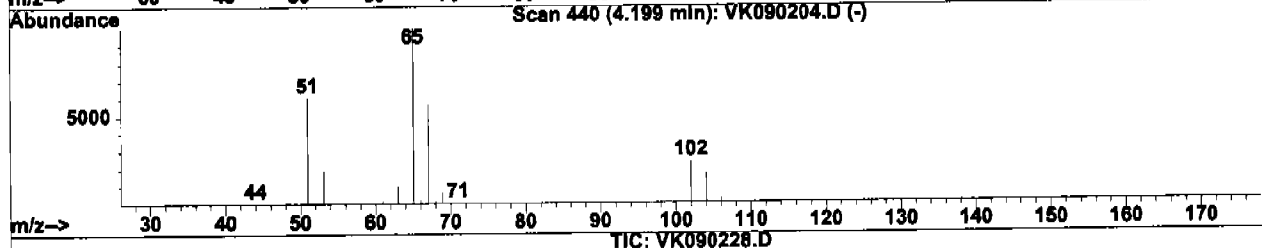
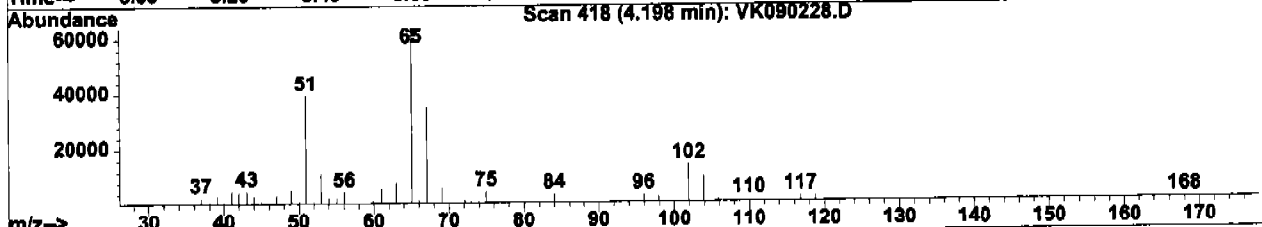
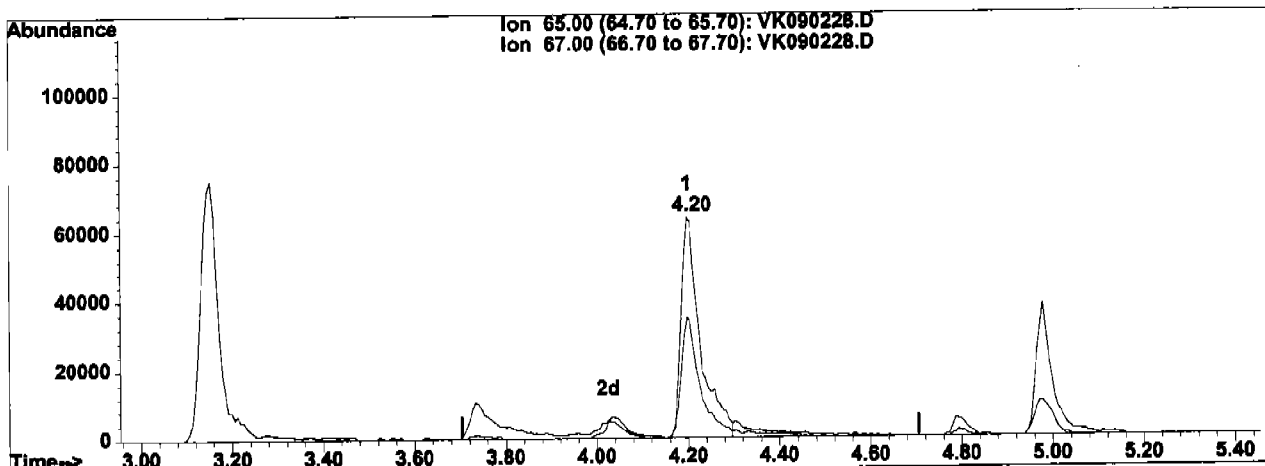
<b>(19) Methyl Acetate</b>		
2.60min	9.13ug/l m	
response	94440	
Ion	Exp%	Act%
43.00	100	100
74.00	21.20	9.27
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090228.D  
 Acq On : 2 Sep 2004 6:41 pm  
 Sample : S4436-11MSD  
 Misc : 25mL  
 Quant Time: Sep 3 13:56 2004

Vial: 10  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(32) 1,2-Dichloroethane-d4 (S)

4.20min 11.47ug/l m

response 189039

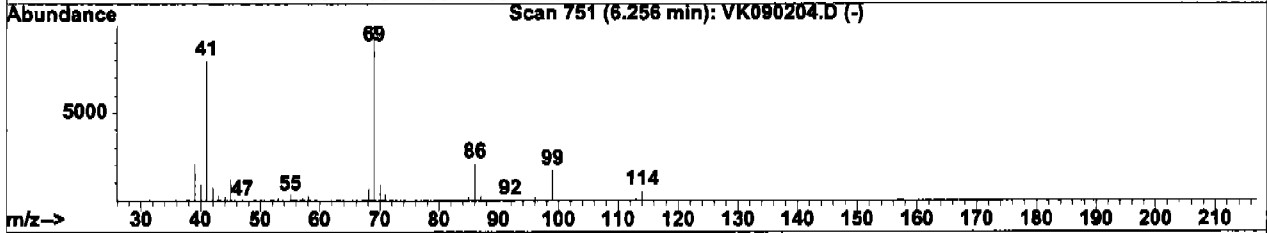
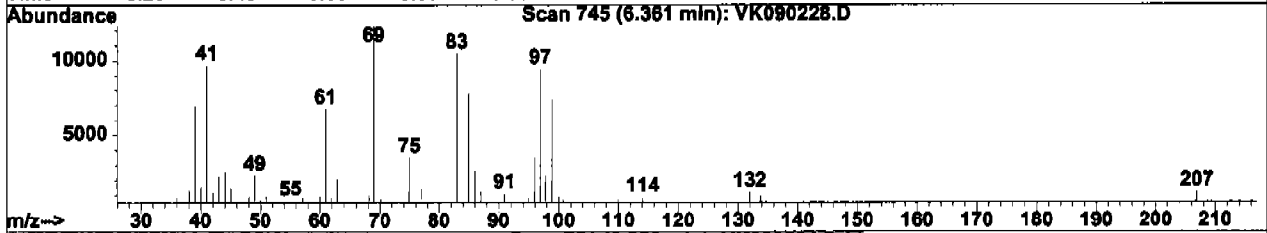
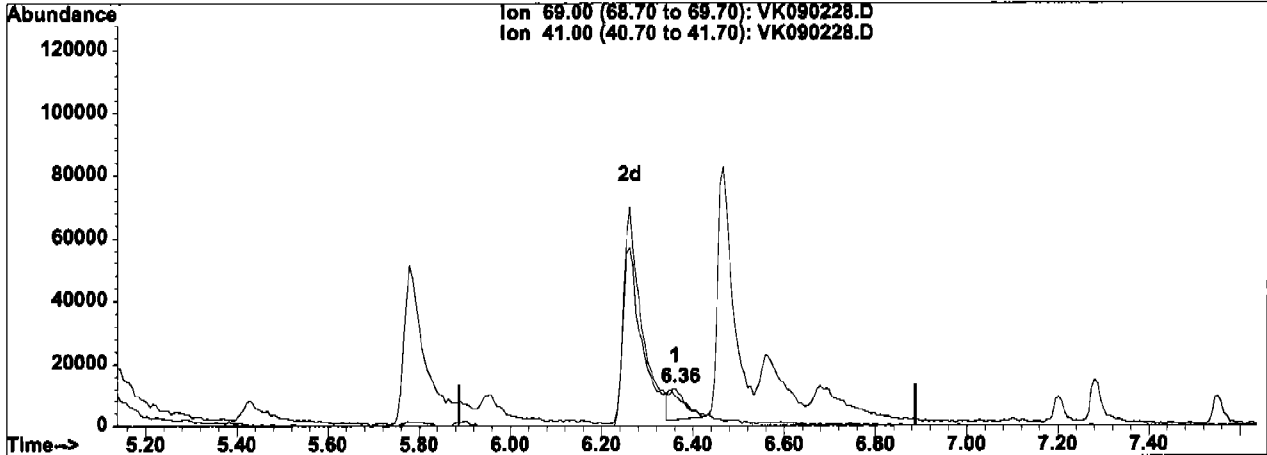
Ion	Exp%	Act%
65.00	100	100
67.00	51.80	53.68
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090228.D  
 Acq On : 2 Sep 2004 6:41 pm  
 Sample : S4436-11MSD  
 Misc : 25mL  
 Quant Time: Sep 3 13:56 2004

Vial: 10  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



TIC: VK090228.D

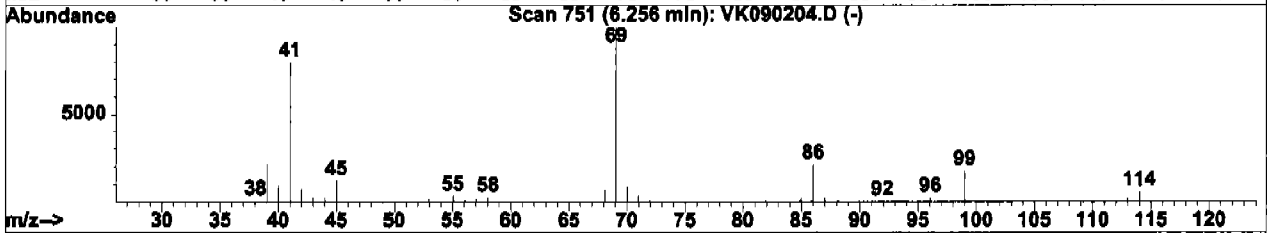
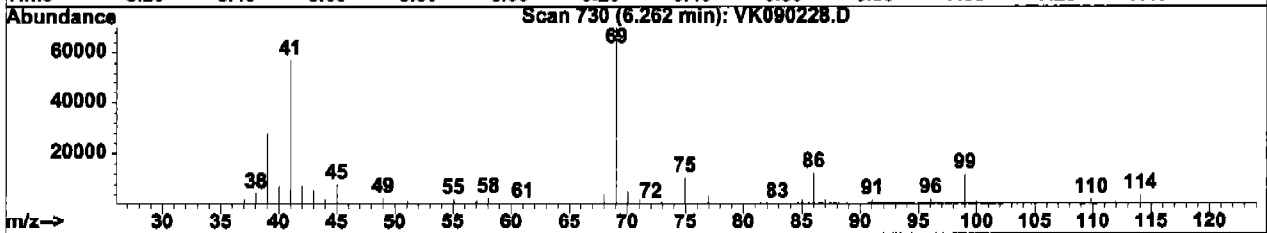
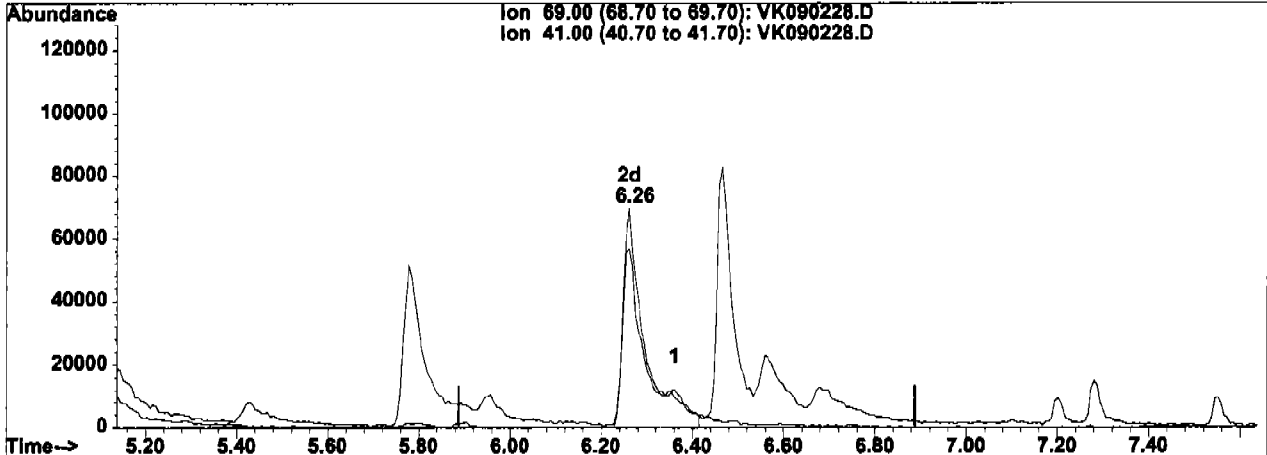
(40) Methyl Methacrylate		
6.36min	1.10ug/l	
response	25837	
Ion	Exp%	Act%
69.00	100	100
41.00	65.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : K:\1\DATA\MSVOAK\VK090204\VK090228.D  
 Acq On : 2 Sep 2004 6:41 pm  
 Sample : S4436-11MSD  
 Misc : 25mL  
 Quant Time: Sep 3 13:57 2004

Vial: 10  
 Operator: KP  
 Inst : MSVOA J/K  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : K:\1\METHODS\VOAK\SAK0902W.M (RTE Integrator)  
 Title : SW846 8260  
 Last Update : Thu Sep 02 10:57:19 2004  
 Response via : Multiple Level Calibration



(40) Methyl Methacrylate

6.26min 9.97ug/l m

response 233352

Ion	Exp%	Act%
69.00	100	100
41.00	65.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

CHEMTECH

VOLATILES  
MISCELLANEOUS  
DATA

## Daily Analysis Runlog For GC/MS #: MSVOA K

Start Date: 09/02/04 End Date: 09/02/04 Analyst: ICP Review By: MS

STD. NAME	STD REF. #:	STD NAME	STD REF. #:
BFB	MSV1- 888	Initial Calibration Stds.	MSV1- 917/965 979/977
CCC	MSV1- N/A	Spike Std.	MSV1- N/A 947/965 974/977
Internal Stds.	MSV1- 956/964	HP Processing Method	SAK0902W.M
Surrogate Stds.	MSV1- 973/964	ICV	976/978

383645  
766206  
638161  
303066

SR #:	Sample ID	Data File Name	Method #:	pH	Run Info.	Comment
1	[REDACTED]	MSK090201			25.00ml	OK 1:01 am 09.02.04
2	[REDACTED]		02	8260/L	25.00ml	OK
3	[REDACTED]		03		25.00ml	OK
4	[REDACTED]		04		25.00ml	OK
5	[REDACTED]		05		25.00ml	OK
6	30 P123 1cc		06		25.00ml	OK
7	[REDACTED]		07		25.00ml	OK
8	[REDACTED]		08		25.00ml	OK
9	MSK0902W1		09		25.00ml	OK
10	[REDACTED]		10		25.00ml	OK
11	MSK0902W1		11		25.00ml	OK
12	[REDACTED] A		12	2.2	25.00ml	OK
13	[REDACTED]		13		25.00ml	OK, RR 25X
14	[REDACTED]		14		25.00ml	OK
15	[REDACTED]		15		25.00ml	OK
16	[REDACTED] A		16		25.00ml	OK
17	[REDACTED]		17		25.00ml	OK
18	MSK0902W2	MSK090218			25.00ml	OK
19						
20						

**Daily Analysis Runlog For GC/MS #: MSVOA K**

Start Date: 09/02/04 End Date: 09/03/04 Analyst: VCP Review By: MA

STD. NAME	STD REF. #:	STD. NAME	STD REF. #:
BFB	MSV1- 888	Initial Calibration Stds.	MSV1- N/A
CCC	MSV1- 907/985 974/997	Spike Std.	MSV1- 907/985 974/997
Internal Stds.	MSV1- 964	HP Processing Method	SALCO 902W.M
Surrogate Stds.	MSV1- 969	ICV	N/A

365266  
733669  
613259  
258961

SR #:	Sample ID	Data File Name	Method #:	pH	Run Info.	Comment
1	BFB	VIC090219			25-0001	OK
2	[REDACTED]	20				OK
3	[REDACTED]	21	82607C			OK
4	VIC090203	22				OK
5	[REDACTED]	23				OK
6	[REDACTED]	24				OK
7	[REDACTED]	25				OK
8	[REDACTED]	26				Surv. high, RR 25
9	[REDACTED]	27				OK
10	[REDACTED]	28				OK
11	[REDACTED]	29				OK, RR 10 x
12	[REDACTED]	30				OK
13	[REDACTED]	31				OK
14	[REDACTED]	32				Surv out, RR 10x, 100x
15	50436-16A	33				Surv out OK, RR STR 2 20x
16	[REDACTED]	34				OK, RR 10x
17	[REDACTED]	35				OK
18	[REDACTED]	36				OK
19	BLANK	VIC090237				OK
20						



## Daily Analysis Runlog For GC/MS #: MSVOA K

Start Date: 09/03/04 End Date: 09/04/04 Analyst: ICP Review By: MD

STD. NAME	STD REF. #:	STD NAME	STD REF. #:
BFB	MSV1- 888	Initial Calibration Stds.	MSV1- N/A
CCC	MSV1- 9471965 9471977	Spike Std.	MSV1- 9471965 9471977
Internal Stds.	MSV1- 964	HP Processing Method	SAK-090200.M
Surrogate Stds.	MSV1- 964	ICV	N/A

350521  
786586  
676665  
323393

SR #:	Sample ID	Data File Name	Method #:	pH	Run Info.	Comment
1	<del>XXXXXXXXXX</del>	NI090333			25-00W1	OK
2	<del>XXXXXXXXXX</del>	39 8260/c			4	OK
3	VB0903W1	35			1	OK
4	<del>XXXXXXXXXX</del>	36			1	OK
5	<del>XXXXXXXXXX</del> B	37		<2	1	OK
6	<del>XXXXXXXXXX</del> B	38			4	OK
7	<del>XXXXXXXXXX</del> B	39			4	OK
8	<del>XXXXXXXXXX</del> B	40			4	OK
9	<del>XXXXXXXXXX</del> B	41			4	OK
10	<del>XXXXXXXXXX</del> B	42			4	OK
11	<del>XXXXXXXXXX</del> B	43			4	OK
12	<del>XXXXXXXXXX</del> B	44			4	OK
13	BS10903W1	NI090345			4	OK
14						
15						
16						
17						ICP 09-07-04
18						
19						
20						

**CHEMTECH**

**SHIPPING AND  
RECEIVING  
DOCUMENTATION**



CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092  
(908) 789-8900 Fax (908) 789-8922  
www.chemtech.net

CHEMTECH JOB NO.: 54436  
CHEMTECH QUOTE NO.:

CLIENT INFORMATION		PROJECT INFORMATION		BILLING INFORMATION										
REPORT TO BE SENT TO:		PROJECT NAME:		BILL TO:										
COMPANY: Parsons		ASK Lowellfill		PO #:										
ADDRESS: 100 Summer St 8th Floor		PROJECT NO.: 74355 LOCATION: Seneca		ADDRESS: SAME										
CITY: Boston STATE: MA ZIP: 02110		PROJECT MANAGER: J. Rossmann		CITY: STATE: ZIP:										
ATTENTION: Jennifer Rossmann		E-MAIL: jennifer.rossmann@parsons.com		ATTENTION: ANALYSIS										
PHONE: 617-457-7900 FAX: 617-457-7979		PHONE: 617-457-7900 FAX: 617-457-7979		PHONE:										
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		PRESERVATIVES										
FAX: _____ DAYS *		RESULTS ONLY <input type="checkbox"/> USEPA CLP		1 2 3 4 5 6 7 8 9										
HARD COPY: _____ DAYS *		RESULTS + QC <input checked="" type="checkbox"/> NYS ASP "B"		A E A E B E A E										
EDD: _____ DAYS *		NJ REDUCED <input type="checkbox"/> NYS ASP "A"		C - H <sub>2</sub> SO <sub>4</sub> D - NaOH										
* TO BE APPROVED BY CHEMTECH		NJ CLP <input type="checkbox"/> EDD		E - ICE F - Other										
** NORMAL TURNAROUND TIME - 14 DAYS		EDD FORMAT: _____		COMMENTS										
CHEMTECH SAMPLE ID	PROJECT IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE	SAMPLE COLLECTION DATE	TIME	1	2	3	4	5	6	7	8	9
1.	ARD 2254	W	W	8/25/04	1535	7	3	3	1					
2.	ARD 2255			8/27/04	1640	7	3	3	1					
3.	ARD 2259			8/28/04	0855	7	3	3	1					
4.	ARD 2256			8/28/04	0955	7	3	3	1					
5.	ARD 2245			8/28/04	1120	7	3	3	1					
6.	ARD 2257			8/28/04	1400	7	3	3	1					
7.	ARD 2252			8/28/04	1510	7	3	3	1	3				
8.	ARD 2258			8/28/04	1610	7	3	3	1					

MEP (Bldg) VPK (Bldg) VPK (Bldg) VPK (Bldg) VPK (Bldg) VPK (Bldg) VPK (Bldg) VPK (Bldg) VPK (Bldg) VPK (Bldg)

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RECEIVED BY SAMPLER: [Signature] DATE/TIME: 8/24/04 1700

RECEIVED BY: 1. [Signature] DATE/TIME: [Blank]

RECEIVED BY: 2. [Signature] DATE/TIME: [Blank]

RECEIVED FOR LAB BY: 3. [Signature] DATE/TIME: 9:19 AM 8/31/04

Conditions of bottles or coolers at receipt:  Compliant  Non-Compliant  Temp. of Cooler 4

MeOH extractions requires an additional 4oz. jar for percent solid.

Comments:

Shipped Via: Client  Hand Delivered  Overnight  Overnight  No.  No.

Chemtech  Picked Up  Overnight  No.

Page 1 of 3

Ver. 9/2002







1 From

Date 8-30-04

Sender's Name Joan Rossman

Phone (417) 457-7900

Company Rossman

Address 100 Semmer St

City Boston

State MA ZIP 02110

Day/Time/Signature

2 Your Internal Billing Reference 743155-06100

3 To

Recipient's Name Kurt

Phone 908 789-8900

Company Chemtech

Address 284 Sheffield St

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address

City Mountainside

State NJ ZIP 07092

Day/Time/Signature

840693935031



*Handwritten notes:*  
8/30/04  
Kurt  
Joan Rossman  
840693935031

**Recipient's Copy**

**4a Express Package Service**  
 FedEx Priority Overnight Next business morning  
 FedEx Standard Overnight Next business afternoon  
 FedEx Express Saver Third business day  
 FedEx 2Day Second business day  
 FedEx 1Day Freight\* Next business day  
 Express Freight Service\* Call for destination

**4b Express Freight Service**  
 Packages up to 150 lbs. Delivery commitment may be later in some areas.  
 FedEx First Overnight Earliest next business morning delivery to select locations  
 FedEx 2Day Freight Third business day  
 FedEx 3Day Freight Third business day

**5 Packaging**  
 FedEx Envelope\*  
 FedEx Pak\* Includes FedEx Small Box, FedEx Large Pak, and FedEx Surety Pak  
 Other

**6 Special Handling**  
 SATURDAY Delivery\* Available only for FedEx Priority in select ZIP codes  
 HOLD Saturday at FedEx Location Available only for FedEx Priority Overnight and FedEx 2Day to select locations  
 HOLD Weekday at FedEx Location Available only for FedEx Priority Overnight and FedEx 2Day to select locations  
 Fragile (Thermostat) Does this shipment contain temperature sensitive goods? (no box must be checked)  
 No  Yes  
 As per attached Shipper's Declaration (not required)  
 Shipper's Declaration (not required)  
 Dry Ice Dry Ice UN 1845  
 Cargo Aircraft Only

**7 Payment Bill for**  
 Sender Account No. in Green  
 Recipient  
 Third Party  
 Credit Card  
 Cash/Check  
 Utility Bill  
 Account No.

Total Packages	1	Total Weight	2.06	Total Declared Value*	00
				Total Charges	Credit Card Auth.

**8 Release Signature** Sign to authorize delivery without company signature.  
 \*Your liability is limited to \$100 unless you declare a higher value. See back for details.

By signing your Airbill, you agree to deliver this shipment with an attaching signature and agree to indemnify and hold us harmless from any resulting claim.  
 Questions? Visit our Web site at [fedex.com](http://fedex.com)  
 or call 1.800.Go.FedEx. 800.463.3333  
 Fed. Reg. 1001-104 (10/31/02-01/30/04) FedEx-Printed in U.S.A. WCSB 10

446

840693935020



1 From 8:30-AM

Date 8/30-AM

Sender's Name Scott Kassmann Phone 617 457-7900

Company Parsons

Address 100 Summer St 8th Floor

City Boston State MA ZIP 02110

2 Your Internal Billing Reference 743155-06100

3 To Recipient's Name Kurt Phone 908 789-8900

Company ChemTech

Address 287 Sheffield St

City Miramonte State NJ ZIP 07092



8406 9393 5020

**Recipient's Copy**

4 Express Package Service  
 FedEx Priority Overnight  
 FedEx Standard Overnight  
 FedEx First Overnight

FedEx 2Day  
 FedEx Express Saver

4b Express Freight Service  
 FedEx 1Day Freight  
 FedEx 2Day Freight  
 FedEx 3Day Freight

5 Packaging  
 FedEx Envelope\*  
 FedEx Pak\*  
 Other

6 Special Handling  
 SATURDAY Delivery  
 HOLD Weekday at FedEx Location  
 HOLD Saturday at FedEx Location

7 Payment Method  
 Recipient  
 Third Party  
 Credit Card  
 Cash/Check

Total Packages	1	Total Weight	71	Total Declared Value*	\$ .00
Total Changes					
Credit Card Auth.					

8 Release Signature

446

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claim. Questions? Visit our Web site at [fedex.com](http://fedex.com) or call 1-800-Get-FedEx® 1-800-463-3339. ® US, 1999-1997 FedEx Corporation. FedEx-PRINTED IN U.S.A. WCSJ-09

**CHEMTECH**

284 Sheffield Street Mountainside NJ 07092  
Tel: 908-789-8900

**END OF ANALYTICAL RESULTS**



**DATA PACKAGE FOR  
METALS**

**PROJECT NAME: Seneca Ash Landfill Quarterly Monitoring**

**PARSONS ENGINEERING  
100 SUMMER STREET  
SUITE 800  
BOSTON, MA 02110  
6174577900**

**CHEMTECH PROJECT NO.  
ATTENTION:**

**S4436  
Jennifer Rossmann**

# CHEMTECH

## CASE NARRATIVE

Parsons Engineering

Project Name: Seneca Ash Landfill Quarterly Monitoring

Project # 713155

Chemtech Project # S4436

**A. Number of Samples and Date of Receipt:**

21 Water samples were received on 8/31/04.

**B. Parameters:**

According to the Chain of Custody document, the following analyses were requested: Gases methane, ethane, ethene, Metals Group3, TCL Volatiles + 10, and Volatiles Method 524.2 + 15. This data package contains results for Metals Group3

**C. Analytical Techniques:**

The analysis of Metals Group3 was based on method 6010

**D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The Blank Spike met requirements for all samples.

The Duplicate analysis met criteria for all samples.

The Matrix Spike analysis met criteria for all samples except for Manganese.

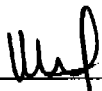
The Matrix Spike Duplicate analysis met criteria for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

The Serial Dilution met the acceptable requirements except for Calcium, Magnesium, Manganese, Potassium and Sodium.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature  Name: Krupa Dubey

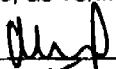
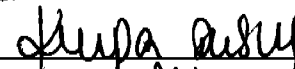
Date: 9/17/04 Title: QA/QC

**COVER PAGE**

**OrderID:** S4436      **ProjectID:** Seneca Ash Landfill Quarter  
**CustomerName:** Parsons Engineering

LAB SAMPLE NO.	CLIENT SAMPLE NO
S4436-01	ARD2254
S4436-02	ARD2255
S4436-03	ARD2259
S4436-04	ARD2256
S4436-05	ARD2245
S4436-06	ARD2257
S4436-07	ARD2252
S4436-08	ARD2248
S4436-09	ARD2253
S4436-10	ARD2246MS
S4436-11	ARD2246MSD
S4436-12	ARD2247
S4436-13	ARD2249
S4436-14	ARD2258
S4436-15	ARD2250
S4436-16	ARD2246
S4436-17	TR0056
S4436-18	ARD0046
S4436-19	ARD2251
S4436-20	TR2150
S4436-21	ARD0049

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature:  Name:   
 Date: 9/17/04 Title: DMOC

# CHEMTECH

284 Sheffield Street Mountainside NJ 07092  
Tel. 908-789-8900 Fax: 908-789-8922

## DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following "Results Qualifiers" are used:

- J If the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
- U If the analyte was analyzed for, but not detected.
- E The reported value is estimated because of the presence of interference
- M Duplicate injection precision not met.
- N Spiked sample recovery not within control limits.
- S The reported value was determined by the Method of Standard Addition (MSA).
- W Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while absorbance is less than 50% of spike absorbance.
- \* Duplicate analysis not within control limits.
- + Correlation coefficient for the MSA is less than 0.995.
- \*\*\* Entering "S", "W" or "+" is mutually exclusive. NO combination of these qualifiers can appear in the same field for an analyte.
- D The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
- M Method qualifiers
  - "P" for ICP instrument
  - "A" for Flame AA
  - "PM" for ICP when Microwave Digestion is used
  - "AM" for flame AA when Microwave Digestion is used
  - "FM" for furnace AA when Microwave Digestion is used
  - ~~"CV" for Manual Cold Vapor AA~~
  - "AV" for automated Cold Vapor AA
  - "CA" for MIDI-Distillation Spectrophotometric
  - "AS" for Semi -Automated Spectrophotometric
  - "C" for Manual Spectrophotometric
  - "T" for Titrimetric
  - "NR" for analyte not required to be analyzed

CHEMTECH

METALS  
SAMPLE  
DATA



### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/27/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2254</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-01</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	120000		ug/L	1740	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	12900		ug/L	254	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	50.6	N	ug/L	0.195	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	1210	J	ug/L	51.0	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	17600		ug/L	189	1	9/9/2004	9/10/2004	EPA SW-846 6010

Comments:

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U = Not Detected  
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value  
B = Analyte Found In Associated Method Blank  
N = Presumptive Evidence of a Compound



### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/27/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2255</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-02</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	99700		ug/L	1740	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	14400		ug/L	254	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	31.1	N	ug/L	0.195	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	2450	J	ug/L	51.0	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	13500		ug/L	189	1	9/9/2004	9/10/2004	EPA SW-846 6010

Comments:

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N = Presumptive Evidence of a Compound



### Report of Analysis

<b>Client:</b>	Parsons Engineering	<b>Date Collected:</b>	8/28/2004
<b>Project:</b>	Seneca Ash Landfill Q	<b>Date Received:</b>	8/31/2004
<b>Client Sample ID:</b>	ARD2259	<b>SDG No.:</b>	S4436
<b>Lab Sample ID:</b>	S4436-03	<b>Matrix:</b>	WATER
		<b>% Solids:</b>	0.00

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	81800		ug/L	1740	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	9350		ug/L	254	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	52.3	N	ug/L	0.195	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	1020 J		ug/L	51.0	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	8660		ug/L	189	1	9/9/2004	9/10/2004	EPA SW-846 6010

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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B = Analyte Found In Associated Method Blank  
N = Presumptive Evidence of a Compound





### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/28/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2256</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-04</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	78300		ug/L	1740	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	10400		ug/L	254	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	51.3	N	ug/L	0.195	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	1320 J		ug/L	51.0	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	8270		ug/L	189	1	9/9/2004	9/10/2004	EPA SW-846 6010

Comments:

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N = Presumptive Evidence of a Compound



### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/28/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2245</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-05</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	92100		ug/L	1740	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	11200		ug/L	254	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	210	N	ug/L	0.195	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	1210 <sup>J</sup>		ug/L	51.0	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	6090		ug/L	189	1	9/9/2004	9/10/2004	EPA SW-846 6010

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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N = Presumptive Evidence of a Compound



### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/28/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2257</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-06</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	104000		ug/L	1740	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	12200		ug/L	254	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	8.720 J	N	ug/L	0.195	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	1160 J		ug/L	51.0	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	5870		ug/L	189	1	9/9/2004	9/10/2004	EPA SW-846 6010

Comments:

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N = Presumptive Evidence of a Compound



### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/28/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2252</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-07</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	62800		ug/L	1740	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	8060		ug/L	254	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	78.8	N	ug/L	0.195	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	1130 J		ug/L	51.0	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	9860		ug/L	189	1	9/9/2004	9/10/2004	EPA SW-846 6010

Comments:

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B = Analyte Found In Associated Method Blank  
N = Presumptive Evidence of a Compound



### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/28/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2248</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-08</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	121000		ug/L	1740	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	16100		ug/L	254	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	172	N	ug/L	0.195	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	1520 J		ug/L	51.0	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	17600		ug/L	189	1	9/9/2004	9/10/2004	EPA SW-846 6010

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

U = Not Detected  
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N = Presumptive Evidence of a Compound



### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2253</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-09</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	412000		ug/L	1740	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	159000		ug/L	254	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	403	N	ug/L	0.195	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	50300		ug/L	51.0	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	185000		ug/L	189	1	9/9/2004	9/10/2004	EPA SW-846 6010

Comments:

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U = Not Detected  
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value  
B = Analyte Found In Associated Method Blank  
N = Presumptive Evidence of a Compound



### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2247</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-12</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	122000		ug/L	1740	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	16800		ug/L	254	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	19.7	N	ug/L	0.195	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	1050 J		ug/L	51.0	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	10000		ug/L	189	1	9/9/2004	9/10/2004	EPA SW-846 6010

Comments: \_\_\_\_\_  
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DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value  
B = Analyte Found In Associated Method Blank  
N = Presumptive Evidence of a Compound



### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2249</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-13</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	95200		ug/L	1740	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	11100		ug/L	254	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	44.4	N	ug/L	0.195	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	1360 J		ug/L	51.0	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	10100		ug/L	189	1	9/9/2004	9/10/2004	EPA SW-846 6010

Comments: \_\_\_\_\_  
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U = Not Detected  
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value  
B = Analyte Found In Associated Method Blank  
N = Presumptive Evidence of a Compound





### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2258</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-14</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	96600		ug/L	1740	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	14500		ug/L	254	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	111	N	ug/L	0.195	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	1550 J		ug/L	51.0	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	13000		ug/L	189	1	9/9/2004	9/10/2004	EPA SW-846 6010

Comments:

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U = Not Detected  
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value  
B = Analyte Found In Associated Method Blank  
N = Presumptive Evidence of a Compound



### Report of Analysis

<b>Client:</b>	Parsons Engineering	<b>Date Collected:</b>	8/29/2004
<b>Project:</b>	Seneca Ash Landfill Q	<b>Date Received:</b>	8/31/2004
<b>Client Sample ID:</b>	ARD2250	<b>SDG No.:</b>	S4436
<b>Lab Sample ID:</b>	S4436-15	<b>Matrix:</b>	WATER
		<b>% Solids:</b>	0.00

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	238000		ug/L	1740	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	37400		ug/L	254	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	899	N	ug/L	0.195	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	4300 J		ug/L	51.0	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	69900		ug/L	189	1	9/9/2004	9/10/2004	EPA SW-846 6010

Comments:

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J = Estimated Value  
B = Analyte Found In Associated Method Blank  
N = Presumptive Evidence of a Compound



### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/29/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2246</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-16</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	462000		ug/L	1740	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	183000		ug/L	254	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	432	N	ug/L	0.195	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	59200		ug/L	51.0	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	229000		ug/L	189	1	9/9/2004	9/10/2004	EPA SW-846 6010

Comments:

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U = Not Detected  
DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value  
B = Analyte Found In Associated Method Blank  
N = Presumptive Evidence of a Compound



### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/30/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD2251</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-19</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	188000		ug/L	1740	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	23400		ug/L	254	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	280	N	ug/L	0.195	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	2100 J		ug/L	51.0	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	44900		ug/L	189	1	9/9/2004	9/10/2004	EPA SW-846 6010

Comments:

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J = Estimated Value  
B = Analyte Found In Associated Method Blank  
N = Presumptive Evidence of a Compound



### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/30/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>TR2150</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-20</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	7130		ug/L	1740	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	8900		ug/L	254	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	13.4 J	N	ug/L	0.195	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	982 J		ug/L	51.0	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	5630		ug/L	189	1	9/9/2004	9/10/2004	EPA SW-846 6010

Comments: \_\_\_\_\_  
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J = Estimated Value  
B = Analyte Found In Associated Method Blank  
N = Presumptive Evidence of a Compound



### Report of Analysis

<b>Client:</b>	<b>Parsons Engineering</b>	<b>Date Collected:</b>	<b>8/30/2004</b>
<b>Project:</b>	<b>Seneca Ash Landfill Q</b>	<b>Date Received:</b>	<b>8/31/2004</b>
<b>Client Sample ID:</b>	<b>ARD0049</b>	<b>SDG No.:</b>	<b>S4436</b>
<b>Lab Sample ID:</b>	<b>S4436-21</b>	<b>Matrix:</b>	<b>WATER</b>
		<b>% Solids:</b>	<b>0.00</b>

CAS No.	Analyte	Conc.	Qualifier	Units	DL	Dilution	Date Prep	Date Anal.	Method
7440-70-2	Calcium	2030	J	ug/L	1740	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-95-4	Magnesium	371	J	ug/L	254	1	9/9/2004	9/10/2004	EPA SW-846 6010
7439-96-5	Manganese	0.630	J N	ug/L	0.195	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-09-7	Potassium	51.0	U	ug/L	51.0	1	9/9/2004	9/10/2004	EPA SW-846 6010
7440-23-5	Sodium	412	J	ug/L	189	1	9/9/2004	9/10/2004	EPA SW-846 6010

Comments: \_\_\_\_\_  
\_\_\_\_\_  
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DL = Method Detection Limit or Instrument Detection Limit

J = Estimated Value  
B = Analyte Found In Associated Method Blank  
N = Presumptive Evidence of a Compound

CHEMTECH

METALS  
CALIBRATION  
DATA

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Parsons Engineering

SDG No.: S4436

Contract: Parsons Engineering Lab Code: CHEMED

Case No.: S4436 SAS No.: S4436

Initial Calibration Source: EPA-ICV

Continuing Calibration Source: EPA-LV

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
<b>ICV01</b>									
	Calcium	10214.55	10180.0	100.3	90.0 - 110.0	P	9/10/2004	08:12	P109104
	Magnesium	6036.98	6003.0	100.6	90.0 - 110.0	P	9/10/2004	08:12	P109104
	Manganese	509.88	495.0	103.0	90.0 - 110.0	P	9/10/2004	08:12	P109104
	Potassium	9684.25	10008.0	96.8	90.0 - 110.0	P	9/10/2004	08:12	P109104
	Sodium	9683.70	10039.0	96.5	90.0 - 110.0	P	9/10/2004	08:12	P109104
<b>CCV01</b>									
	Calcium	26820.51	25000.0	107.3	90.0 - 110.0	P	9/10/2004	08:33	P109104
	Magnesium	26145.44	25000.0	104.6	90.0 - 110.0	P	9/10/2004	08:33	P109104
	Manganese	2641.14	2500.0	105.6	90.0 - 110.0	P	9/10/2004	08:33	P109104
	Potassium	26513.49	25000.0	106.1	90.0 - 110.0	P	9/10/2004	08:33	P109104
	Sodium	26616.00	25000.0	106.5	90.0 - 110.0	P	9/10/2004	08:33	P109104
<b>CCV02</b>									
	Calcium	27211.88	25000.0	108.8	90.0 - 110.0	P	9/10/2004	09:00	P109104
	Magnesium	26606.46	25000.0	106.4	90.0 - 110.0	P	9/10/2004	09:00	P109104
	Manganese	2697.07	2500.0	107.9	90.0 - 110.0	P	9/10/2004	09:00	P109104
	Potassium	26373.80	25000.0	105.5	90.0 - 110.0	P	9/10/2004	09:00	P109104
	Sodium	26243.70	25000.0	105.0	90.0 - 110.0	P	9/10/2004	09:00	P109104
<b>CCV03</b>									
	Calcium	25492.17	25000.0	102.0	90.0 - 110.0	P	9/10/2004	09:35	P109104
	Magnesium	25593.63	25000.0	102.4	90.0 - 110.0	P	9/10/2004	09:35	P109104
	Manganese	2530.40	2500.0	101.2	90.0 - 110.0	P	9/10/2004	09:35	P109104
	Potassium	26167.29	25000.0	104.7	90.0 - 110.0	P	9/10/2004	09:35	P109104
	Sodium	25545.97	25000.0	102.2	90.0 - 110.0	P	9/10/2004	09:35	P109104
<b>CCV04</b>									
	Calcium	25337.48	25000.0	101.3	90.0 - 110.0	P	9/10/2004	10:01	P109104
	Magnesium	25027.22	25000.0	100.1	90.0 - 110.0	P	9/10/2004	10:01	P109104
	Manganese	2497.17	2500.0	99.9	90.0 - 110.0	P	9/10/2004	10:01	P109104
	Potassium	25313.25	25000.0	101.3	90.0 - 110.0	P	9/10/2004	10:01	P109104
	Sodium	25096.87	25000.0	100.4	90.0 - 110.0	P	9/10/2004	10:01	P109104



Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Parsons Engineering SDG No.: S4436  
 Contract: Parsons Engineering Lab Code: CHEMED Case No.: S4436 SAS No.: S4436  
 Initial Calibration Source: EPA-ICV  
 Continuing Calibration Source: EPA-LV

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
<b>CCV05</b>									
	Calcium	24312.23	25000.0	97.2	90.0 - 110.0	P	9/10/2004	10:45	P109104
	Magnesium	24417.11	25000.0	97.7	90.0 - 110.0	P	9/10/2004	10:45	P109104
	Manganese	2405.28	2500.0	96.2	90.0 - 110.0	P	9/10/2004	10:45	P109104
	Potassium	25012.72	25000.0	100.1	90.0 - 110.0	P	9/10/2004	10:45	P109104
	Sodium	24402.44	25000.0	97.6	90.0 - 110.0	P	9/10/2004	10:45	P109104
<b>CCV06</b>									
	Calcium	24863.53	25000.0	99.5	90.0 - 110.0	P	9/10/2004	11:21	P109104
	Magnesium	24439.43	25000.0	97.8	90.0 - 110.0	P	9/10/2004	11:21	P109104
	Manganese	2422.91	2500.0	96.9	90.0 - 110.0	P	9/10/2004	11:21	P109104
	Potassium	25260.83	25000.0	101.0	90.0 - 110.0	P	9/10/2004	11:21	P109104
	Sodium	25088.29	25000.0	100.4	90.0 - 110.0	P	9/10/2004	11:21	P109104
<b>CCV07</b>									
	Calcium	24335.66	25000.0	97.3	90.0 - 110.0	P	9/10/2004	12:05	P109104
	Magnesium	24394.58	25000.0	97.6	90.0 - 110.0	P	9/10/2004	12:05	P109104
	Manganese	2379.98	2500.0	95.2	90.0 - 110.0	P	9/10/2004	12:05	P109104
	Potassium	25552.01	25000.0	102.2	90.0 - 110.0	P	9/10/2004	12:05	P109104
	Sodium	24930.29	25000.0	99.7	90.0 - 110.0	P	9/10/2004	12:05	P109104
<b>CCV08</b>									
	Calcium	24430.46	25000.0	97.7	90.0 - 110.0	P	9/10/2004	12:37	P109104
	Magnesium	24375.28	25000.0	97.5	90.0 - 110.0	P	9/10/2004	12:37	P109104
	Manganese	2397.52	2500.0	95.9	90.0 - 110.0	P	9/10/2004	12:37	P109104
	Potassium	25568.62	25000.0	102.3	90.0 - 110.0	P	9/10/2004	12:37	P109104
	Sodium	25233.31	25000.0	100.9	90.0 - 110.0	P	9/10/2004	12:37	P109104
<b>CCV09</b>									
	Calcium	26072.98	25000.0	104.3	90.0 - 110.0	P	9/10/2004	13:05	P109104
	Magnesium	25177.98	25000.0	100.7	90.0 - 110.0	P	9/10/2004	13:05	P109104
	Manganese	2529.90	2500.0	101.2	90.0 - 110.0	P	9/10/2004	13:05	P109104
	Potassium	25978.49	25000.0	103.9	90.0 - 110.0	P	9/10/2004	13:05	P109104
	Sodium	25996.93	25000.0	104.0	90.0 - 110.0	P	9/10/2004	13:05	P109104

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Parsons Engineering

SDG No.: S4436

Contract: Parsons Engineering

Lab Code: CHEMED

Case No.: S4436

SAS No.: S4436

Initial Calibration Source: EPA-ICV

Continuing Calibration Source: EPA-LV

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
<b>CCV10</b>									
	Calcium	24833.76	25000.0	99.3	90.0 - 110.0	P	9/10/2004	13:33	P109104
	Magnesium	24509.38	25000.0	98.0	90.0 - 110.0	P	9/10/2004	13:33	P109104
	Manganese	2422.90	2500.0	96.9	90.0 - 110.0	P	9/10/2004	13:33	P109104
	Potassium	25756.95	25000.0	103.0	90.0 - 110.0	P	9/10/2004	13:33	P109104
	Sodium	25577.91	25000.0	102.3	90.0 - 110.0	P	9/10/2004	13:33	P109104
<b>CCV11</b>									
	Calcium	25140.55	25000.0	100.6	90.0 - 110.0	P	9/10/2004	14:19	P109104
	Magnesium	24570.16	25000.0	98.3	90.0 - 110.0	P	9/10/2004	14:19	P109104
	Manganese	2444.06	2500.0	97.8	90.0 - 110.0	P	9/10/2004	14:19	P109104
	Potassium	25634.69	25000.0	102.5	90.0 - 110.0	P	9/10/2004	14:19	P109104
	Sodium	25754.90	25000.0	103.0	90.0 - 110.0	P	9/10/2004	14:19	P109104
<b>CCV12</b>									
	Calcium	25362.88	25000.0	101.5	90.0 - 110.0	P	9/10/2004	14:51	P109104
	Magnesium	24580.78	25000.0	98.3	90.0 - 110.0	P	9/10/2004	14:51	P109104
	Manganese	2457.86	2500.0	98.3	90.0 - 110.0	P	9/10/2004	14:51	P109104
	Potassium	25835.39	25000.0	103.3	90.0 - 110.0	P	9/10/2004	14:51	P109104
	Sodium	26019.72	25000.0	104.1	90.0 - 110.0	P	9/10/2004	14:51	P109104
<b>CCV13</b>									
	Calcium	26072.24	25000.0	104.3	90.0 - 110.0	P	9/10/2004	15:15	P109104
	Magnesium	25702.68	25000.0	102.8	90.0 - 110.0	P	9/10/2004	15:15	P109104
	Manganese	2496.00	2500.0	99.8	90.0 - 110.0	P	9/10/2004	15:15	P109104
	Potassium	26334.05	25000.0	105.3	90.0 - 110.0	P	9/10/2004	15:15	P109104
	Sodium	25900.47	25000.0	103.6	90.0 - 110.0	P	9/10/2004	15:15	P109104
<b>CCV14</b>									
	Calcium	25336.07	25000.0	101.3	90.0 - 110.0	P	9/10/2004	15:45	P109104
	Magnesium	25475.39	25000.0	101.9	90.0 - 110.0	P	9/10/2004	15:45	P109104
	Manganese	2489.28	2500.0	99.6	90.0 - 110.0	P	9/10/2004	15:45	P109104
	Potassium	26244.14	25000.0	105.0	90.0 - 110.0	P	9/10/2004	15:45	P109104
	Sodium	25832.99	25000.0	103.3	90.0 - 110.0	P	9/10/2004	15:45	P109104



**Metals**

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**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

Client: Parsons Engineering

SDG No.: S4436

Contract: Parsons Engineering

Lab Code: CHEMED

Case No.: S4436

SAS No.: S4436

Initial Calibration Source: EPA-ICV

Continuing Calibration Source: EPA-LV

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
<b>CCV20</b>									
	Calcium	24123.59	25000.0	96.5	90.0 - 110.0	P	9/10/2004	18:47	P109104
	Magnesium	24287.60	25000.0	97.2	90.0 - 110.0	P	9/10/2004	18:47	P109104
	Manganese	2338.45	2500.0	93.5	90.0 - 110.0	P	9/10/2004	18:47	P109104
	Potassium	25169.57	25000.0	100.7	90.0 - 110.0	P	9/10/2004	18:47	P109104
	Sodium	24250.37	25000.0	97.0	90.0 - 110.0	P	9/10/2004	18:47	P109104
<b>CCV21</b>									
	Calcium	24525.97	25000.0	98.1	90.0 - 110.0	P	9/10/2004	19:15	P109104
	Magnesium	24239.49	25000.0	97.0	90.0 - 110.0	P	9/10/2004	19:15	P109104
	Manganese	2360.30	2500.0	94.4	90.0 - 110.0	P	9/10/2004	19:15	P109104
	Potassium	25103.95	25000.0	100.4	90.0 - 110.0	P	9/10/2004	19:15	P109104
	Sodium	24425.79	25000.0	97.7	90.0 - 110.0	P	9/10/2004	19:15	P109104

Metals

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CRDL STANDARD FOR AA & ICP

Client: Parsons Engineering

SDG No.: S4436

Contract: Parsons Engineering

Lab Code: CHEMED

Case No.:  
S4436

SAS No.: S4436

AA CRDL Standard Source: \_\_\_\_\_

ICP CRDL Standard Source: INOR-VEN

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Advisory Limits (%R)	M	Analysis Date	Analysis Time	Run Number
<b>CRI01</b>									
	Calcium	10160.06	10000.0	101.6	75 - 125	P	9/10/2004	08:18	P109104
	Magnesium	10176.96	10000.0	101.8	75 - 125	P	9/10/2004	08:18	P109104
	Manganese	32.38	30.0	107.9	75 - 125	P	9/10/2004	08:18	P109104
<b>CRI02</b>									
	Calcium	9679.96	10000.0	96.8	75 - 125	P	9/10/2004	16:15	P109104
	Magnesium	10137.99	10000.0	101.4	75 - 125	P	9/10/2004	16:15	P109104
	Manganese	32.56	30.0	108.5	75 - 125	P	9/10/2004	16:15	P109104

## Metals

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## INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Parsons EngineeringSDG No.: S4436Contract: Parsons EngineeringLab Code: CHEMEDCase No.: S4436SAS No.: S4436

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
<b>ICB01</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	08:15	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	08:15	P109104
	Manganese	-0.4	+/-15.0	J	0.2	15.0	P	9/10/2004	08:15	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	08:15	P109104
	Sodium	-223.1	+/-5000.0	J	189.5	5000.0	P	9/10/2004	08:15	P109104
<b>CCB01</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	08:36	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	08:36	P109104
	Manganese	0.2	+/-15.0	U	0.2	15.0	P	9/10/2004	08:36	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	08:36	P109104
	Sodium	189.5	+/-5000.0	U	189.5	5000.0	P	9/10/2004	08:36	P109104
<b>CCB02</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	09:04	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	09:04	P109104
	Manganese	0.8	+/-15.0	J	0.2	15.0	P	9/10/2004	09:04	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	09:04	P109104
	Sodium	-252.8	+/-5000.0	J	189.5	5000.0	P	9/10/2004	09:04	P109104
<b>CCB03</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	09:37	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	09:37	P109104
	Manganese	-0.3	+/-15.0	J	0.2	15.0	P	9/10/2004	09:37	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	09:37	P109104
	Sodium	-293.7	+/-5000.0	J	189.5	5000.0	P	9/10/2004	09:37	P109104
<b>CCB04</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	10:05	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	10:05	P109104
	Manganese	0.4	+/-15.0	J	0.2	15.0	P	9/10/2004	10:05	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	10:05	P109104
	Sodium	-372.2	+/-5000.0	J	189.5	5000.0	P	9/10/2004	10:05	P109104

## Metals

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## INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Parsons EngineeringSDG No.: S4436Contract: Parsons EngineeringLab Code: CHEMEDCase No.: S4436SAS No.: S4436

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
<b>CCB05</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	10:47	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	10:47	P109104
	Manganese	0.2	+/-15.0	U	0.2	15.0	P	9/10/2004	10:47	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	10:47	P109104
	Sodium	-380.1	+/-5000.0	J	189.5	5000.0	P	9/10/2004	10:47	P109104
<b>CCB06</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	11:23	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	11:23	P109104
	Manganese	0.2	+/-15.0	U	0.2	15.0	P	9/10/2004	11:23	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	11:23	P109104
	Sodium	-364.9	+/-5000.0	J	189.5	5000.0	P	9/10/2004	11:23	P109104
<b>CCB07</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	12:08	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	12:08	P109104
	Manganese	0.2	+/-15.0	U	0.2	15.0	P	9/10/2004	12:08	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	12:08	P109104
	Sodium	-463.3	+/-5000.0	J	189.5	5000.0	P	9/10/2004	12:08	P109104
<b>CCB08</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	12:39	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	12:39	P109104
	Manganese	1.7	+/-15.0	J	0.2	15.0	P	9/10/2004	12:39	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	12:39	P109104
	Sodium	-472.0	+/-5000.0	J	189.5	5000.0	P	9/10/2004	12:39	P109104
<b>CCB09</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	13:07	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	13:07	P109104
	Manganese	0.8	+/-15.0	J	0.2	15.0	P	9/10/2004	13:07	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	13:07	P109104
	Sodium	-435.2	+/-5000.0	J	189.5	5000.0	P	9/10/2004	13:07	P109104

## Metals

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## INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Parsons EngineeringSDG No.: S4436Contract: Parsons EngineeringLab Code: CHEMEDCase No.: S4436SAS No.: S4436

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
<b>CCB10</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	13:35	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	13:35	P109104
	Manganese	-0.2	+/-15.0	J	0.2	15.0	P	9/10/2004	13:35	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	13:35	P109104
	Sodium	-553.8	+/-5000.0	J	189.5	5000.0	P	9/10/2004	13:35	P109104
<b>CCB11</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	14:21	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	14:21	P109104
	Manganese	0.6	+/-15.0	J	0.2	15.0	P	9/10/2004	14:21	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	14:21	P109104
	Sodium	-402.3	+/-5000.0	J	189.5	5000.0	P	9/10/2004	14:21	P109104
<b>CCB12</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	14:53	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	14:53	P109104
	Manganese	0.2	+/-15.0	U	0.2	15.0	P	9/10/2004	14:53	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	14:53	P109104
	Sodium	-508.9	+/-5000.0	J	189.5	5000.0	P	9/10/2004	14:53	P109104
<b>CCB13</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	15:18	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	15:18	P109104
	Manganese	0.2	+/-15.0	U	0.2	15.0	P	9/10/2004	15:18	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	15:18	P109104
	Sodium	-464.8	+/-5000.0	J	189.5	5000.0	P	9/10/2004	15:18	P109104
<b>CCB14</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	15:50	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	15:50	P109104
	Manganese	0.4	+/-15.0	J	0.2	15.0	P	9/10/2004	15:50	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	15:50	P109104
	Sodium	-516.0	+/-5000.0	J	189.5	5000.0	P	9/10/2004	15:50	P109104



## Metals

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## INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Parsons EngineeringSDG No.: S4436Contract: Parsons EngineeringLab Code: CHEMEDCase No.: S4436SAS No.: S4436

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
<b>CCB15</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	16:34	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	16:34	P109104
	Manganese	0.3	+/-15.0	J	0.2	15.0	P	9/10/2004	16:34	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	16:34	P109104
	Sodium	189.5	+/-5000.0	U	189.5	5000.0	P	9/10/2004	16:34	P109104
<b>CCB16</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	17:05	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	17:05	P109104
	Manganese	-0.4	+/-15.0	J	0.2	15.0	P	9/10/2004	17:05	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	17:05	P109104
	Sodium	-686.8	+/-5000.0	J	189.5	5000.0	P	9/10/2004	17:05	P109104
<b>CCB17</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	17:31	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	17:31	P109104
	Manganese	-0.6	+/-15.0	J	0.2	15.0	P	9/10/2004	17:31	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	17:31	P109104
	Sodium	-605.1	+/-5000.0	J	189.5	5000.0	P	9/10/2004	17:31	P109104
<b>CCB18</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	17:59	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	17:59	P109104
	Manganese	-0.4	+/-15.0	J	0.2	15.0	P	9/10/2004	17:59	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	17:59	P109104
	Sodium	-683.9	+/-5000.0	J	189.5	5000.0	P	9/10/2004	17:59	P109104
<b>CCB19</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	18:26	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	18:26	P109104
	Manganese	-0.6	+/-15.0	J	0.2	15.0	P	9/10/2004	18:26	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	18:26	P109104
	Sodium	-539.4	+/-5000.0	J	189.5	5000.0	P	9/10/2004	18:26	P109104

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Parsons Engineering

SDG No.: S4436

Contract: Parsons Engineering

Lab Code: CHEMED

Case No.: S4436

SAS No.: S4436

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run
<b>CCB20</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	18:50	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	18:50	P109104
	Manganese	-0.4	+/-15.0	J	0.2	15.0	P	9/10/2004	18:50	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	18:50	P109104
	Sodium	-677.6	+/-5000.0	J	189.5	5000.0	P	9/10/2004	18:50	P109104
<b>CCB21</b>										
	Calcium	1744.7	+/-5000.0	U	1744.7	5000.0	P	9/10/2004	19:17	P109104
	Magnesium	254.2	+/-5000.0	U	254.2	5000.0	P	9/10/2004	19:17	P109104
	Manganese	-0.5	+/-15.0	J	0.2	15.0	P	9/10/2004	19:17	P109104
	Potassium	51.0	+/-5000.0	U	51.0	5000.0	P	9/10/2004	19:17	P109104
	Sodium	-630.8	+/-5000.0	J	189.5	5000.0	P	9/10/2004	19:17	P109104

**Metals**  
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 PREPARATION BLANK SUMMARY

Client: Parsons Engineering

SDG No.: S4436

Instrument: P1

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	MDL ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
<b>PB00982BL</b>	<b>WATER</b>				<b>Batch Number: PB00982</b>			<b>Prep Date: 9/9/2004</b>		
	Calcium	12.850	<5000.000	U	1744.700	5000.000	P	9/10/2004	18:15	P109104
	Magnesium	11.310	<5000.000	U	254.243	5000.000	P	9/10/2004	18:15	P109104
	Manganese	-0.940	<15.000	J	0.195	15.000	P	9/10/2004	18:15	P109104
	Potassium	30.655	<5000.000	U	51.001	5000.000	P	9/10/2004	18:15	P109104
	Sodium	-532.360	<5000.000	J	189.471	5000.000	P	9/10/2004	18:15	P109104

CHEMTECH

METALS  
QC DATA

Metals

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INTERFERENCE CHECK SAMPLE

Client: Parsons Engineering SDG No.: S4436  
 Contract: Parsons Engineering Lab Code: CHEMED Case No.: S4436 SAS No.: S4436  
 ICS Source: EPA Instrument ID: P1

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
<b>ICS-A01</b>								
	Calcium	425000	491900	86.4	80 - 120%	9/10/2004	08:23	P109104
	Magnesium	464000	542000	85.6	80 - 120%	9/10/2004	08:23	P109104
	Manganese	6.2				9/10/2004	08:23	P109104
	Potassium	48.9				9/10/2004	08:23	P109104
	Sodium	-183				9/10/2004	08:23	P109104
<b>ICS-AB01</b>								
	Calcium	417000	489000	85.3	80 - 120%	9/10/2004	08:27	P109104
	Magnesium	457000	540600	84.5	80 - 120%	9/10/2004	08:27	P109104
	Manganese	412	438	94.1	80 - 120%	9/10/2004	08:27	P109104
	Potassium	40.4				9/10/2004	08:27	P109104
	Sodium	-20.2				9/10/2004	08:27	P109104
<b>ICS-A02</b>								
	Calcium	413000	491900	84.0	80 - 120%	9/10/2004	16:20	P109104
	Magnesium	463000	542000	85.4	80 - 120%	9/10/2004	16:20	P109104
	Manganese	9.3				9/10/2004	16:20	P109104
	Potassium	67.4				9/10/2004	16:20	P109104
	Sodium	-80.5				9/10/2004	16:20	P109104
<b>ICS-AB02</b>								
	Calcium	413000	489000	84.5	80 - 120%	9/10/2004	16:22	P109104
	Magnesium	460000	540600	85.1	80 - 120%	9/10/2004	16:22	P109104
	Manganese	412	438	94.1	80 - 120%	9/10/2004	16:22	P109104
	Potassium	54.0				9/10/2004	16:22	P109104
	Sodium	-98.3				9/10/2004	16:22	P109104

Metals

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MATRIX SPIKE SUMMARY

Client: Parsons Engineering Level: LOW SDG No.: S4436

Contract: Parsons Engineering Lab Code: CHEMED Case No.: S4436 SAS No.: S4436

Matrix: WATER Sample ID: S4436-16 Client ID: ARD2246MS

Percent Solids for Sample: 0.00 Spiked ID: S4436-10S Percent Solids for Spike Sample: 0.00

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Calcium	ug/L	80 - 120	486475.4000		461601.3000		5000.00	497.5		P
Magnesium	ug/L	80 - 120	187715.5000		183442.6000		2000.00	213.6		P
Manganese	ug/L	80 - 120	554.4050		432.1450		200.00	61.1	N	P
Potassium	ug/L	80 - 120	70860.2600		59209.2600		10000.00	116.5		P
Sodium	ug/L	80 - 120	234301.1000		228713.9000		3000.00	186.2		P

Metals

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MATRIX SPIKE DUPLICATE SUMMARY

Client: Parsons Engineering Level: LOW SDG No.: S4436

Contract: Parsons Engineering Lab Code: CHEMED Case No.: S4436 SAS No.: S4436

Matrix: WATER Sample ID: S4436-16 Client ID: ARD2246MSD

Percent Solids for Sample: 0.00 Spiked ID: S4436-11SD Percent Solids for Spike Sample: 0.00

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Calcium	ug/L	80 - 120	473238.6000		461601.3000		5000.00	232.7		P
Magnesium	ug/L	80 - 120	184825.4000		183442.6000		2000.00	69.1		P
Manganese	ug/L	80 - 120	539.3000		432.1450		200.00	53.6	N	P
Potassium	ug/L	80 - 120	69121.4000		59209.2600		10000.00	99.1		P
Sodium	ug/L	80 - 120	228990.9000		228713.9000		3000.00	9.2		P

Metals

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POST DIGEST SPIKE SUMMARY

Client: Parsons Engineering SDG No.: S4436  
Contract: Parsons Engineering Lab Code: CHEMED Case No.: S4436 SAS No.: S4436  
Matrix: WATER Level: LOW Client ID: ARD2246A  
Sample ID: S4436-16 Spiked ID: S4436-16A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Manganese	ug/L	75 - 125	548.36		432.14		200.0	58.1		P



Metals

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DUPLICATE SAMPLE SUMMARY

Client: Parsons Engineering Level: LOW SDG No.: S4436  
 Contract: Parsons Engineering Lab Code: CHEMED Case No.: S4436 SAS No.: S4436  
 Matrix: WATER Sample ID: S4436-16 Client ID: ARD2246D  
 Percent Solids for Sample: 0.00 Duplicate ID: S4436-16D Percent Solids for Duplicate: 0.00

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Calcium	ug/L		461601.3000		468148.4000		1.4		P
Magnesium	ug/L		183442.6000		184569.8000		0.6		P
Manganese	ug/L		432.1450		438.6850		1.5		P
Potassium	ug/L		59209.2600		58108.3900		1.9		P
Sodium	ug/L		228713.9000		227913.3000		0.4		P

Metals

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DUPLICATE SAMPLE SUMMARY

Client: Parsons Engineering Level: LOW SDG No.: S4436  
 Contract: Parsons Engineering Lab Code: CHEMED Case No.: S4436 SAS No.: S4436  
 Matrix: WATER Sample ID: S4436-10S Client ID: ARD2246MSD  
 Percent Solids for Sample: 0.00 Duplicate ID: S4436-11SD Percent Solids for Duplicate: 0.00

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Calcium	ug/L		486475.4000		473238.6000		2.8		P
Magnesium	ug/L		187715.5000		184825.4000		1.6		P
Manganese	ug/L		554.4050		539.3000		2.8		P
Potassium	ug/L		70860.2600		69121.4000		2.5		P
Sodium	ug/L		234301.1000		228990.9000		2.3		P

Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client: Parsons Engineering

SDG No.: S4436

Contract: Parsons Engineering

Lab Code: CHEMED

Case No.: S4436

SAS No.: S4436

Aqueous LCS Source: EPA-ICV

Solid LCS Source:

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
<b>PB00982BS</b>								
	Calcium	ug/L	5000.0	4784.94	J	95.7	80.0 - 120.0	P
	Magnesium	ug/L	2000.0	1956.06	J	97.8	80.0 - 120.0	P
	Manganese	ug/L	200.0	199.26		99.6	80.0 - 120.0	P
	Potassium	ug/L	10000.0	9379.27		93.8	80.0 - 120.0	P
	Sodium	ug/L	3000.0	2564.00	J	85.5	80.0 - 120.0	P



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PREPARATION &  
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**INSTRUMENT DETECTION LIMITS**

<b>Client:</b>	Parsons Engineering	<b>Project:</b>	
<b>Instrument ID:</b>	P1	<b>SDG No.:</b>	S4436

<b>Matrix</b>	<b>Parameter</b>	<b>Waveleanth</b>	<b>MDL</b>	<b>CRDL</b>	<b>Units</b>
<b>LIQUID</b>	Manganesc	257.61	0.20	15.0	ug/L
	Magnesium	279.08	254.24	5000.0	ug/L
	Calcium	317.93	1744.70	5000.0	ug/L
	Sodium	330.23	189.47	5000.0	ug/L
	Potassium	766.49	51.00	5000.0	ug/L

**Metals**  
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**ICP INTERELEMENT CORRECTION FACTORS**

Client: Parsons Engineering SDG No.: S4436  
 Contract: Parsons Engineering Lab Code: CHEMED Case No.: S4436 SAS No.: S4436  
 Instrument ID: P1 Date: 1/31/2004  
 Interelement Correction Factors (apparent ppb analyte/ppm interferent )

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:				
		Al	Ca	Fe	Mg	Ag
Aluminum	308.20	0.000000	0.000000	0.000000	0.000000	0.000000
Antimony	206.80	0.000000	0.000000	0.000000	0.000000	0.000000
Arsenic	189.00	0.000000	0.000000	0.000000	0.000000	0.000000
Barium	493.40	0.000000	0.000000	0.000000	0.000000	0.000000
Beryllium	313.00	0.000000	0.000000	0.000000	0.000000	0.000000
Cadmium	226.50	0.000000	0.000000	0.000000	0.000000	0.000000
Calcium	317.90	0.000000	0.000000	0.000000	0.000000	0.000000
Chromium	267.70	0.000000	0.000000	0.003100	0.000000	0.000000
Cobalt	228.60	0.000000	0.000000	0.000000	0.000000	0.000000
Copper	324.70	0.000000	0.000000	0.000000	0.000000	0.000000
Iron	271.40	0.000000	0.000000	0.000000	0.000000	-0.000400
Lead	220.40	0.000000	0.000000	0.000000	0.000000	0.000000
Magnesium	279.00	0.000000	0.000000	0.000000	0.000000	0.000510
Manganese	257.60	0.000000	0.000000	0.000000	0.000000	0.000000
Nickel	231.60	0.000000	0.000000	0.000000	0.000000	0.000000
Potassium	766.50	0.000000	0.000000	0.000000	0.000000	0.000000
Selenium	196.00	0.000000	0.000000	0.000000	0.000000	0.000000
Silver	328.00	0.000000	0.000000	0.000000	0.000000	0.000000
Sodium	588.90	0.000000	0.000000	0.000000	0.000000	0.000000
Thallium	190.90	0.000000	0.000000	0.000000	0.000000	0.000000
Vanadium	292.40	0.000000	0.000000	0.012900	0.000000	0.000000
Zinc	206.20	0.000000	0.000000	0.000000	0.000000	0.000000

**Metals**  
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**ICP INTERELEMENT CORRECTION FACTORS**

Client: Parsons Engineering SDG No.: S4436  
 Contract: Parsons Engineering Lab Code: CHEMED Case No.: S4436 SAS No.: S4436  
 Instrument ID: PI Date: 1/31/2004  
 Interelement Correction Factors (apparent ppb analyte/ppm interferent )

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:				
		As	Ba	Be	Cd	Co
Aluminum	308.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.70	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.70	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.40	0.0000000	0.0000000	0.0000000	0.0001000	0.0000000
Lead	220.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0002000
Potassium	766.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0022000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000



Metals  
- 11 -  
ICP INTERELEMENT CORRECTION FACTORS

Client: Parsons Engineering SDG No.: S4436  
 Contract: Parsons Engineering Lab Code: CHEMED Case No.: S4436 SAS No.: S4436  
 Instrument ID: P1 Date: 1/31/2004  
 Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:				
		Cr	Cu	K	Mn	Na
Aluminum	308.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.70	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.70	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.40	0.0000000	0.0000700	0.0000000	0.0002000	0.0000000
Lead	220.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0002000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

**Metals**  
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**ICP INTERELEMENT CORRECTION FACTORS**

Client: Parsons Engineering SDG No.: S4436  
 Contract: Parsons Engineering Lab Code: CHEMED Case No.: S4436 SAS No.: S4436  
 Instrument ID: P1 Date: 1/31/2004  
 Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:				
		Ni	Pb	Sb	Se	Tl
Aluminum	308.20	0.0000000	0.0005300	0.0000000	0.0000000	0.0000000
Antimony	206.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.70	0.0000000	0.0000000	0.0037800	0.0000000	0.0000000
Cobalt	228.60	0.0002000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.70	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.40	0.0001000	0.0002000	0.0000500	-0.0000600	-0.0000400
Lead	220.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.00	0.0000000	0.0001200	0.0000000	0.0004200	0.0000000
Manganese	257.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000890	0.0000000	0.0000000	0.0000000
Potassium	766.50	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.00	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.0000500	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: Parsons Engineering

SDG No.: S4436

Contract: Parsons Engineering Lab Code: CHEMED

Case No.: S4436 SAS No.: S4436

Instrument ID: P1

Date: 1/31/2004

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For:			
		V	Zn		
Aluminum	308.20	0.0000000	0.0000000		
Antimony	206.80	0.0000000	0.0000000		
Arsenic	189.00	0.0000000	0.0000000		
Barium	493.40	0.0000000	0.0000000		
Beryllium	313.00	0.0000000	0.0000000		
Cadmium	226.50	0.0000000	0.0000000		
Calcium	317.90	0.0000000	0.0000000		
Chromium	267.70	-0.0018200	0.0000000		
Cobalt	228.60	0.0000000	0.0000000		
Copper	324.70	0.0000000	0.0006000		
Iron	271.40	-0.0000400	0.0006000		
Lead	220.40	0.0000000	0.0000000		
Magnesium	279.00	0.0000000	0.0000000		
Manganese	257.60	0.0000000	0.0000000		
Nickel	231.60	0.0000000	0.0000000		
Potassium	766.50	0.0000000	0.0000000		
Selenium	196.00	0.0000000	0.0000000		
Silver	328.00	0.0000000	0.0000000		
Sodium	588.90	0.0000000	0.0000000		
Thallium	190.90	0.0000000	0.0000000		
Vanadium	292.40	0.0000000	0.0000000		
Zinc	206.20	0.0000000	0.0000000		



**Metals**  
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**SAMPLE PREPARATION SUMMARY**

Client: Parsons Engineering

SDG No.: S4436

Contract: Parsons Engineering

Lab Code: CHEMED

Method: P

Case No.: S4436

SAS No.: S4436

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
<b>Batch Number:</b>	PB00982						
PB00982BL	PB00982BL	MB	WATER	9/9/04	100.0	100.0	
PB00982BS	PB00982BS	LCS	WATER	9/9/04	100.0	100.0	
S4436-01	ARD2254	SAM	WATER	9/9/04	100.0	100.0	
S4436-02	ARD2255	SAM	WATER	9/9/04	100.0	100.0	
S4436-03	ARD2259	SAM	WATER	9/9/04	100.0	100.0	
S4436-04	ARD2256	SAM	WATER	9/9/04	100.0	100.0	
S4436-05	ARD2245	SAM	WATER	9/9/04	100.0	100.0	
S4436-06	ARD2257	SAM	WATER	9/9/04	100.0	100.0	
S4436-07	ARD2252	SAM	WATER	9/9/04	100.0	100.0	
S4436-08	ARD2248	SAM	WATER	9/9/04	100.0	100.0	
S4436-09	ARD2253	SAM	WATER	9/9/04	100.0	100.0	
S4436-12	ARD2247	SAM	WATER	9/9/04	100.0	100.0	
S4436-13	ARD2249	SAM	WATER	9/9/04	100.0	100.0	
S4436-14	ARD2258	SAM	WATER	9/9/04	100.0	100.0	
S4436-15	ARD2250	SAM	WATER	9/9/04	100.0	100.0	
S4436-16	ARD2246	SAM	WATER	9/9/04	100.0	100.0	
S4436-16D	ARD2246D	DUP	WATER	9/9/04	100.0	100.0	
S4436-10S	ARD2246MS	MS	WATER	9/9/04	100.0	100.0	
S4436-11SD	ARD2246MSD	MSD	WATER	9/9/04	100.0	100.0	
S4436-19	ARD2251	SAM	WATER	9/9/04	100.0	100.0	
S4436-20	TR2150	SAM	WATER	9/9/04	100.0	100.0	
S4436-21	ARD0049	SAM	WATER	9/9/04	100.0	100.0	

**Metals**  
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**ANALYSIS RUN LOG**

Client: Parsons Engineering Contract: Parsons Engineering  
 Lab Code: CHEMED Case No.: S4436 SAS No.: S4436 SDG No.: S4436  
 Instrument ID Number: P1 Method: P Run Number: P109104  
 Start Date: 9/10/2004 End Date: 9/10/2004

EPA Sample No.	D/F	Time	% R	Analytes																											
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K E	S E	A G	N A	T L	V	Z N	C N				
S0	1.00	0735							X						X	X			X			X									
S1	1.00	0737							X						X	X			X			X									
S2	1.00	0740							X						X	X			X			X									
S	1.00	0754							X						X	X			X			X									
HMS	1.00	0757							X						X	X			X			X									
HS	1.00	0800							X						X	X			X			X									
ICV01	1.00	0812							X						X	X			X			X									
ICB01	1.00	0815							X						X	X			X			X									
CRI01	1.00	0818							X						X	X			X			X									
ICS-A01	1.00	0823							X						X	X			X			X									
ICS-AB01	1.00	0827							X						X	X			X			X									
ZZZZZZ	1.00	0830																													
CCV01	1.00	0833							X						X	X			X			X									
CCB01	1.00	0836							X						X	X			X			X									
ZZZZZZ	1.00	0838																													
ZZZZZZ	1.00	0841																													
ZZZZZZ	1.00	0842																													
ZZZZZZ	1.00	0844																													
ZZZZZZ	1.00	0846																													
ZZZZZZ	1.00	0848																													
ZZZZZZ	1.00	0852																													
ZZZZZZ	1.00	0854																													
ZZZZZZ	5.00	0856																													
ZZZZZZ	1.00	0858																													
CCV02	1.00	0900							X						X	X			X			X									
CCB02	1.00	0904							X						X	X			X			X									
ZZZZZZ	1.00	0908																													
ZZZZZZ	1.00	0910																													
ZZZZZZ	1.00	0918																													
ZZZZZZ	1.00	0920																													
ZZZZZZ	1.00	0922																													
ZZZZZZ	5.00	0925																													
ZZZZZZ	1.00	0927																													
ZZZZZZ	1.00	0929																													
ZZZZZZ	1.00	0930																													
ZZZZZZ	1.00	0933																													

**Metals**  
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**ANALYSIS RUN LOG**

Client: Parsons Engineering Contract: Parsons Engineering  
 Lab Code: CHEMED Case No.: S4436 SAS No.: S4436 SDG No.: S4436  
 Instrument ID Number: P1 Method: P Run Number: P109104  
 Start Date: 9/10/2004 End Date: 9/10/2004

EPA Sample No.	D/F	Time	% R	Analytes																					
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K E	S G	A A	N L	T V	Z N
CCV03	1.00	0935						X					X	X			X		X						
CCB03	1.00	0937						X					X	X			X		X						
ZZZZZZ	1.00	0939																							
ZZZZZZ	1.00	0941																							
ZZZZZZ	1.00	0943																							
ZZZZZZ	1.00	0946																							
ZZZZZZ	1.00	0948																							
ZZZZZZ	1.00	0950																							
ZZZZZZ	1.00	0952																							
ZZZZZZ	1.00	0954																							
ZZZZZZ	1.00	0956																							
ZZZZZZ	1.00	0958																							
CCV04	1.00	1001						X					X	X			X		X						
CCB04	1.00	1005						X					X	X			X		X						
ZZZZZZ	1.00	1008																							
ZZZZZZ	1.00	1010																							
ZZZZZZ	1.00	1012																							
ZZZZZZ	1.00	1014																							
ZZZZZZ	1.00	1017																							
ZZZZZZ	1.00	1029																							
ZZZZZZ	1.00	1037																							
ZZZZZZ	1.00	1039																							
ZZZZZZ	1.00	1041																							
ZZZZZZ	5.00	1043																							
CCV05	1.00	1045						X					X	X			X		X						
CCB05	1.00	1047						X					X	X			X		X						
ZZZZZZ	1.00	1054																							
ZZZZZZ	1.00	1056																							
ZZZZZZ	1.00	1057																							
ZZZZZZ	1.00	1100																							
ZZZZZZ	1.00	1102																							
ZZZZZZ	1.00	1109																							
ZZZZZZ	1.00	1111																							
ZZZZZZ	1.00	1113																							
ZZZZZZ	1.00	1115																							
ZZZZZZ	1.00	1117																							

Metals  
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ANALYSIS RUN LOG

Client: Parsons Engineering Contract: Parsons Engineering  
 Lab Code: CHEMED Case No.: S4436 SAS No.: S4436 SDG No.: S4436  
 Instrument ID Number: P1 Method: P Run Number: P109104  
 Start Date: 9/10/2004 End Date: 9/10/2004

EPA Sample No.	D/F	Time	% R	Analytes																											
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K E	S G	A L	N T	T A	V L	Z N	C N				
CCV06	1.00	1121							X						X	X			X			X									
CCB06	1.00	1123						X							X	X			X			X									
ZZZZZZ	1.00	1125																													
ZZZZZZ	1.00	1130																													
ZZZZZZ	1.00	1134																													
ZZZZZZ	1.00	1137																													
ZZZZZZ	5.00	1139																													
ZZZZZZ	1.00	1141																													
ZZZZZZ	1.00	1143																													
ZZZZZZ	1.00	1147																													
ZZZZZZ	1.00	1152																													
ZZZZZZ	1.00	1157																													
CCV07	1.00	1205						X						X	X			X			X										
CCB07	1.00	1208						X						X	X			X			X										
ZZZZZZ	1.00	1211																													
ZZZZZZ	1.00	1213																													
ZZZZZZ	1.00	1215																													
ZZZZZZ	1.00	1217																													
ZZZZZZ	1.00	1219																													
ZZZZZZ	1.00	1225																													
ZZZZZZ	1.00	1227																													
ZZZZZZ	1.00	1229																													
ZZZZZZ	1.00	1231																													
ZZZZZZ	1.00	1233																													
CCV08	1.00	1237						X						X	X			X			X										
CCB08	1.00	1239						X						X	X			X			X										
ZZZZZZ	1.00	1242																													
ZZZZZZ	1.00	1244																													
ZZZZZZ	1.00	1246																													
ZZZZZZ	1.00	1248																													
ZZZZZZ	1.00	1251																													
ZZZZZZ	1.00	1253																													
ZZZZZZ	1.00	1255																													
ZZZZZZ	1.00	1257																													
ZZZZZZ	1.00	1259																													
ZZZZZZ	1.00	1303																													



**Metals**  
14  
**ANALYSIS RUN LOG**

Client: Parsons Engineering Contract: Parsons Engineering  
 Lab Code: CHEMED Case No.: S4436 SAS No.: S4436 SDG No.: S4436  
 Instrument ID Number: P1 Method: P Run Number: P109104  
 Start Date: 9/10/2004 End Date: 9/10/2004

EPA Sample No.	D/F	Time	% R	Analytes																			
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K E	S G	A L	T V
CCV09	1.00	1305						X					X	X			X		X				
CCB09	1.00	1307					X						X	X			X		X				
ZZZZZZ	5.00	1311																					
ZZZZZZ	1.00	1312																					
ZZZZZZ	1.00	1315																					
ZZZZZZ	1.00	1317																					
ZZZZZZ	1.00	1320																					
ZZZZZZ	1.00	1322																					
ZZZZZZ	1.00	1323																					
ZZZZZZ	1.00	1325																					
ZZZZZZ	5.00	1329																					
ZZZZZZ	1.00	1331																					
CCV10	1.00	1333					X					X	X			X		X					
CCB10	1.00	1335				X						X	X			X		X					
ZZZZZZ	1.00	1337																					
ZZZZZZ	1.00	1340																					
ZZZZZZ	1.00	1342																					
ZZZZZZ	1.00	1345																					
ZZZZZZ	1.00	1347																					
ZZZZZZ	1.00	1406																					
ZZZZZZ	1.00	1408																					
ZZZZZZ	1.00	1411																					
ZZZZZZ	1.00	1413																					
ZZZZZZ	1.00	1415																					
CCV11	1.00	1419					X					X	X			X		X					
CCB11	1.00	1421					X					X	X			X		X					
ZZZZZZ	1.00	1425																					
ZZZZZZ	1.00	1427																					
ZZZZZZ	1.00	1428																					
ZZZZZZ	1.00	1430																					
ZZZZZZ	1.00	1432																					
ZZZZZZ	1.00	1435																					
ZZZZZZ	1.00	1438																					
ZZZZZZ	1.00	1441																					
ZZZZZZ	1.00	1444																					
ZZZZZZ	5.00	1445																					

**Metals**  
14  
**ANALYSIS RUN LOG**

Client: Parsons Engineering Contract: Parsons Engineering  
 Lab Code: CHEMED Case No.: S4436 SAS No.: S4436 SDG No.: S4436  
 Instrument ID Number: P1 Method: P Run Number: P109104  
 Start Date: 9/10/2004 End Date: 9/10/2004

EPA Sample No.	D/E	Time	% R	Analytes																											
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K E	S G	A L	N T	V L	Z N	C N					
CCV12	1.00	1451							X					X	X			X			X										
CCB12	1.00	1453							X					X	X			X			X										
ZZZZZZ	1.00	1455																													
ZZZZZZ	1.00	1457																													
ZZZZZZ	1.00	1459																													
ZZZZZZ	1.00	1501																													
ZZZZZZ	1.00	1503																													
ZZZZZZ	1.00	1505																													
ZZZZZZ	1.00	1507																													
ZZZZZZ	1.00	1509																													
ZZZZZZ	1.00	1511																													
ZZZZZZ	1.00	1513																													
CCV13	1.00	1515							X					X	X			X			X										
CCB13	1.00	1518							X					X	X			X			X										
ZZZZZZ	1.00	1523																													
ZZZZZZ	1.00	1526																													
ZZZZZZ	1.00	1527																													
ZZZZZZ	1.00	1529																													
ZZZZZZ	1.00	1532																													
ZZZZZZ	1.00	1534																													
ZZZZZZ	1.00	1536																													
ZZZZZZ	1.00	1538																													
ZZZZZZ	1.00	1540																													
ZZZZZZ	1.00	1543																													
CCV14	1.00	1545							X					X	X			X			X										
CCB14	1.00	1550							X					X	X			X			X										
ZZZZZZ	1.00	1554																													
ZZZZZZ	1.00	1556																													
ZZZZZZ	1.00	1558																													
ZZZZZZ	1.00	1601																													
ZZZZZZ	1.00	1603																													
ZZZZZZ	1.00	1605																													
ZZZZZZ	1.00	1607																													
CRI02	1.00	1615							X					X	X			X			X										
ICS-A02	1.00	1620							X					X	X			X			X										
ICS-AB02	1.00	1622							X					X	X			X			X										

**Metals**  
14  
**ANALYSIS RUN LOG**

Client: Parsons Engineering Contract: Parsons Engineering  
 Lab Code: CHEMED Case No.: S4436 SAS No.: S4436 SDG No.: S4436  
 Instrument ID Number: P1 Method: P Run Number: P109104  
 Start Date: 9/10/2004 End Date: 9/10/2004

EPA Sample No.	D/F	Time	% R	Analytes																											
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K S	S E	A G	N A	T L	V	Z N	C N				
CCV15	1.00	1628							X					X	X			X		X											
CCB15	1.00	1634							X					X	X			X		X											
ZZZZZZ	10.00	1641																													
ZZZZZZ	10.00	1643																													
ZZZZZZ	10.00	1645																													
ZZZZZZ	10.00	1647																													
ZZZZZZ	10.00	1649																													
ZZZZZZ	10.00	1651																													
ZZZZZZ	1.00	1653																													
ZZZZZZ	1.00	1655																													
ZZZZZZ	1.00	1657																													
ZZZZZZ	1.00	1700																													
CCV16	1.00	1702							X					X	X			X		X											
CCB16	1.00	1705							X					X	X			X		X											
ZZZZZZ	1.00	1707																													
ZZZZZZ	1.00	1709																													
ZZZZZZ	1.00	1711																													
ZZZZZZ	1.00	1713																													
ZZZZZZ	1.00	1715																													
ZZZZZZ	1.00	1717																													
ZZZZZZ	1.00	1719																													
ZZZZZZ	1.00	1722																													
ZZZZZZ	1.00	1724																													
ZZZZZZ	1.00	1726																													
CCV17	1.00	1728							X					X	X			X		X											
CCB17	1.00	1731							X					X	X			X		X											
ZZZZZZ	1.00	1734																													
ZZZZZZ	1.00	1737																													
ZZZZZZ	1.00	1739																													
ZZZZZZ	1.00	1741																													
ZZZZZZ	1.00	1743																													
ZZZZZZ	1.00	1745																													
ZZZZZZ	1.00	1747																													
ZZZZZZ	5.00	1749																													
ZZZZZZ	1.00	1751																													
ZZZZZZ	1.00	1753																													

Metals  
14  
ANALYSIS RUN LOG

Client: Parsons Engineering Contract: Parsons Engineering  
 Lab Code: CHEMED Case No.: S4436 SAS No.: S4436 SDG No.: S4436  
 Instrument ID Number: P1 Method: P Run Number: P109104  
 Start Date: 9/10/2004 End Date: 9/10/2004

EPA Sample No.	D/F	Time	% R	Analytes																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	A L	T L	V	Z N	C N		
CCV18	1.00	1756							X					X	X			X			X								
CCB18	1.00	1759							X					X	X			X			X								
ZZZZZZ	1.00	1802																											
ZZZZZZ	1.00	1804																											
ZZZZZZ	1.00	1806																											
ZZZZZZ	1.00	1808																											
ZZZZZZ	1.00	1810																											
ZZZZZZ	1.00	1812																											
PB00982BL	1.00	1815							X					X	X			X			X								
PB00982BS	1.00	1819							X					X	X			X			X								
ARD2254	1.00	1820							X					X	X			X			X								
ARD2255	1.00	1822							X					X	X			X			X								
CCV19	1.00	1824							X					X	X			X			X								
CCB19	1.00	1826							X					X	X			X			X								
ARD2259	1.00	1828							X					X	X			X			X								
ARD2256	1.00	1830							X					X	X			X			X								
ARD2245	1.00	1832							X					X	X			X			X								
ARD2257	1.00	1834							X					X	X			X			X								
ARD2252	1.00	1836							X					X	X			X			X								
ARD2248	1.00	1838							X					X	X			X			X								
ARD2253	1.00	1840							X					X	X			X			X								
ARD2247	1.00	1841							X					X	X			X			X								
ARD2249	1.00	1843							X					X	X			X			X								
ARD2258	1.00	1845							X					X	X			X			X								
CCV20	1.00	1847							X					X	X			X			X								
CCB20	1.00	1850							X					X	X			X			X								
ARD2250	1.00	1853							X					X	X			X			X								
ARD2246	1.00	1855							X					X	X			X			X								
ARD2246D	1.00	1857							X					X	X			X			X								
ARD2246L	5.00	1859							X					X	X			X			X								
ARD2246MS	1.00	1904							X					X	X			X			X								
ARD2246MSD	1.00	1905							X					X	X			X			X								
ARD2246A	1.00	1908													X														
ARD2251	1.00	1909							X					X	X			X			X								
TR2150	1.00	1911							X					X	X			X			X								
ARD0049	1.00	1913							X					X	X			X			X								

**Metals**  
14  
**ANALYSIS RUN LOG**

Client: Parsons Engineering Contract: Parsons Engineering  
 Lab Code: CHEMED Case No.: S4436 SAS No.: S4436 SDG No.: S4436  
 Instrument ID Number: P1 Method: P Run Number: P109104  
 Start Date: 9/10/2004 End Date: 9/10/2004

EPA Sample No.	D/F	Time	% R.	Analytes																											
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K I	S E	A G	N A	T L	V L	Z N	C N				
CCV21	1.00	1915							X						X	X			X			X									
CCB21	1.00	1917							X						X	X			X			X									

**CHEMTECH**

**METALS**  
**RAW DATA**

Method: 6010B                    Standard: S0  
Run Time: 09/10/04 07:35:48

Elem	As1890	Tl1908	Al3082	Ba4934	Be3130	Cd2265	Ca3179
Avg	-.00647	-.00400	.08040	.00220	.02140	.00240	.00033
SDev	.00255	.00490	.00094	.00009	.00028	.00075	.00009
%RSD	39.365	122.57	1.1726	4.2855	1.3217	31.427	28.284
#1	-.00467	-.00053	.08107	.00213	.02160	.00293	.00027
#2	-.00827	-.00747	.07973	.00227	.02120	.00187	.00040
Elem	Cr2677	Co2296	Cu3247	Fe2714	Mn2576	Mg2790	Ni2316
Avg	.00127	-.00007	.01033	-.00013	.00053	.00060	.00353
SDev	.00047	.00047	.00009	.00019	.00000	.00009	.00066
%RSD	37.216	707.11	.91240	141.42	.00000	15.713	18.678
#1	.00160	-.00040	.01040	.00000	.00053	.00067	.00400
#2	.00093	.00027	.01027	-.00027	.00053	.00053	.00307
Elem	Ag3280	Na3302	V_2924	Zn2138	K_7664	2068-2	2068-1
Avg	-.00027	-.03167	.00020	.00233	-.05607	.00147	.00187
SDev	.00000	.00405	.00009	.00009	.00009	.00057	.00245
%RSD	.00000	12.802	47.140	4.0406	.16816	38.569	131.32
#1	-.00027	-.03453	.00013	.00227	-.05613	.00187	.00013
#2	-.00027	-.02880	.00027	.00240	-.05600	.00107	.00360
Elem	2203-1	2203-2	1960-1	1960-2	Mo2020	B_2496	Ti3349
Avg	.05040	-.00020	-.00273	.01467	.00340	.00793	.00113
SDev	.00434	.00066	.00255	.00132	.00123	.00085	.00028
%RSD	8.6050	329.98	93.131	8.9995	36.049	10.696	24.957
#1	.04733	-.00067	-.00453	.01373	.00253	.00853	.00093
#2	.05347	.00027	-.00093	.01560	.00427	.00733	.00133
Elem	Sn1899	Si2881					
Avg	-.00040	.09087					
SDev	.00811	.00198					
%RSD	2027.0	2.1789					
#1	-.00613	.09227					
#2	.00533	.08947					

OK 9/10/04

Method: 6010B                    Standard: S1  
Run Time: 09/10/04 07:37:54

Elem	As1890	Tl1908	Al3082	Ba4934	Be3130	Cd2265	Ca3179
Avge	1.4632	.65673	.69787	7.5190	.25520	3.6703	.49233
SDev	.0025	.01292	.00113	.0233	.00151	.0080	.00255
%RSD	.16753	1.9668	.16212	.30971	.59110	.21834	.51705
#1	1.4615	.64760	.69707	7.5025	.25413	3.6647	.49053
#2	1.4649	.66587	.69867	7.5355	.25627	3.6760	.49413
Elem	Cr2677	Co2296	Cu3247	Fe2714	Mn2576	Mg2790	Ni2316
Avge	.31867	.48993	.71733	.02880	.82633	.89040	1.5891
SDev	.00245	.00198	.00189	.00000	.00292	.00170	.0055
%RSD	.76924	.40411	.26286	.00000	.35370	.19060	.34412
#1	.31693	.48853	.71600	.02880	.82427	.88920	1.5852
#2	.32040	.49133	.71867	.02880	.82840	.89160	1.5929
Elem	Ag3280	Na3302	V_2924	Zn2138	K_7664	2068-2	2068-1
Avge	.49467	1.0786	.22553	.45687	2.1172	1.5013	2.6347
SDev	.00094	.0122	.00066	.00217	.0049	.0085	.0124
%RSD	.19060	1.1276	.29263	.47464	.23156	.56518	.47236
#1	.49400	1.0700	.22507	.45533	2.1137	1.5073	2.6259
#2	.49533	1.0872	.22600	.45840	2.1207	1.4953	2.6435
Elem	2203-1	2203-2	1960-1	1960-2	Mo2020	B_2496	Ti3349
Avge	4.2757	2.8024	2.0575	1.9159	2.0766	1.0345	3.6591
SDev	.0089	.0396	.0099	.0168	.0042	.0083	.0150
%RSD	.20727	1.4130	.48113	.87595	.20431	.80198	.40968
#1	4.2695	2.7744	2.0505	1.9040	2.0736	1.0287	3.6485
#2	4.2820	2.8304	2.0645	1.9277	2.0796	1.0404	3.6697
Elem	Sn1899	Si2881					
Avge	1.2034	.57127					
SDev	.0010	.00179					
%RSD	.08618	.31357					
#1	1.2027	.57000					
#2	1.2041	.57253					

029/10/04



Method: 6010B                    Standard: S2  
Run Time: 09/10/04 07:40:12

Elem	As1890	Tl1908	Al3082	Ba4934	Be3130	Cd2265	Ca3179
Avge	3.0436	1.4054	1.3867	14.869	.49987	7.5397	1.0179
SDev	.0023	.0144	.0011	.004	.00019	.0048	.0030
%RSD	.07435	1.0264	.08159	.02853	.03772	.06377	.29640
#1	3.0420	1.4156	1.3859	14.866	.50000	7.5431	1.0157
#2	3.0452	1.3952	1.3875	14.872	.49973	7.5363	1.0200
Elem	Cr2677	Co2296	Cu3247	Fe2714	Mn2576	Mg2790	Ni2316
Avge	.65400	1.0149	1.4857	.05873	1.6804	1.8315	3.2739
SDev	.00075	.0008	.0034	.00009	.0023	.0009	.0033
%RSD	.11533	.07432	.22845	.16053	.13466	.05147	.10079
#1	.65347	1.0155	1.4833	.05880	1.6788	1.8308	3.2716
#2	.65453	1.0144	1.4881	.05867	1.6820	1.8321	3.2763
Elem	Ag3280	Na3302	V_2924	Zn2138	K_7664	2068-2	2068-1
Avge	1.0402	2.4783	.46300	.92680	4.8445	3.1254	5.4778
SDev	.0001	.0180	.00009	.00245	.0019	.0135	.0058
%RSD	.00906	.72660	.02036	.26449	.03892	.43137	.10499
#1	1.0401	2.4656	.46307	.92507	4.8459	3.1159	5.4737
#2	1.0403	2.4911	.46293	.92853	4.8432	3.1349	5.4819
Elem	2203-1	2203-2	1960-1	1960-2	Mo2020	B_2496	Ti3349
Avge	8.9902	5.9109	4.3334	3.9859	4.2655	2.1673	7.4575
SDev	.0357	.0052	.0469	.0049	.0131	.0074	.0042
%RSD	.39746	.08773	1.0813	.12300	.30723	.34367	.05689
#1	8.9649	5.9145	4.3003	3.9893	4.2748	2.1620	7.4545
#2	9.0155	5.9072	4.3665	3.9824	4.2563	2.1725	7.4605
Elem	Sn1899	Si2881					
Avge	2.5405	1.0955					
SDev	.0066	.0030					
%RSD	.25978	.27540					
#1	2.5359	1.0933					
#2	2.5452	1.0976					

OK 9/10/04

Method: 6010B Standard: S  
Run Time: 09/10/04 07:54:16

Elem	As1890	Tl1908	Al3082	Ba4934	Be3130	Cd2265	Ca3179
Avge	5.6478	2.6239	2.5571	25.513	.89320	13.788	1.8697
SDev	.0931	.0094	.0349	.293	.01773	.295	.0526
%RSD	1.6476	.35932	1.3642	1.1504	1.9844	2.1362	2.8137
#1	5.5820	2.6172	2.5324	25.306	.88067	13.580	1.8325
#2	5.7136	2.6305	2.5817	25.721	.90573	13.996	1.9069
Elem	Cr2677	Co2296	Cu3247	Fe2714	Mn2576	Mg2790	Ni2316
Avge	1.2081	1.9164	2.8634	.11180	3.0749	3.3989	6.1248
SDev	.0296	.0358	.0169	.00160	.0637	.0495	.1033
%RSD	2.4504	1.8695	.58938	1.4336	2.0727	1.4563	1.6871
#1	1.1872	1.8911	2.8515	.11067	3.0299	3.3639	6.0517
#2	1.2291	1.9417	2.8753	.11293	3.1200	3.4339	6.1979
Elem	Ag3280	Na3302	V_2924	Zn2138	K_7664	2068-2	2068-1
Avge	1.9063	5.0390	.86887	1.6580	9.5111	5.8234	10.509
SDev	.0446	.0553	.01480	.0388	.0236	.0721	.140
%RSD	2.3393	1.0983	1.7036	2.3428	.24782	1.2385	1.3323
#1	1.8748	4.9999	.85840	1.6305	9.4944	5.7724	10.410
#2	1.9379	5.0781	.87933	1.6855	9.5277	5.8744	10.608
Elem	2203-1	2203-2	1960-1	1960-2	Mo2020	B_2496	Ti3349
Avge	17.023	11.184	8.2440	7.4953	7.7025	4.0469	13.813
SDev	.169	.219	.0705	.1516	.1691	.0770	.205
%RSD	.99473	1.9607	.85544	2.0226	2.1959	1.9034	1.4866
#1	16.903	11.029	8.1941	7.3881	7.5829	3.9924	13.668
#2	17.142	11.339	8.2939	7.6025	7.8221	4.1013	13.959
Elem	Sn1899	Si2881					
Avge	4.9387	1.8489					
SDev	.0698	.0493					
%RSD	1.4127	2.6670					
#1	4.8893	1.8140					
#2	4.9880	1.8837					

0491199

Method: 6010B

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
As1890	189.042	S0	.000000	-.000239	.000239
		S1	2.50000	2.49944	.000559
		S2	5.00000	5.18746	-.187462
		S	10.0000	9.61681	.383189

CorCoef: 0.99905

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Tl1908	190.864	S0	.000000	.000089	-.000089
		S1	2.50000	2.45901	.040988
		S2	5.00000	5.24518	-.245178
		S	10.0000	9.77971	.220293

CorCoef: 0.99913

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pb2203	220.353	NONE	.000000	.000000	.000000
		NONE	.000000	.000000	.000000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Se1960	196.026	NONE	.000000	.000000	.000000
		NONE	.000000	.000000	.000000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sb2068	206.838	NONE	.000000	.000000	.000000
		NONE	.000000	.000000	.000000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Al3082	308.215	S0	.000000	.000279	-.000279
		S1	5.00000	4.88450	.115496
		S2	10.0000	10.3330	-.332983
		S	20.0000	19.5910	.409033

CorCoef: 0.99948

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ba4934	493.409	S0	.000000	-.002712	.002712
		S1	5.00000	5.28554	-.285542
		S2	10.0000	10.4565	-.456542
		S	20.0000	17.9450	2.05495

CorCoef: 0.99562

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Be3130	313.042	S0	.000000	-.000027	.000027
		S1	.125000	.129665	-.004665
		S2	.250000	.265384	-.015384
		S	.500000	.483571	.016429

CorCoef: 0.99855

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Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cd2265	226.502	S0	.000000	-.000225	.000225
		S1	1.25000	1.26430	-.014296
		S2	2.50000	2.59825	-.098249
		S	5.00000	4.75232	.247682

CorCoef: 0.99867

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ca3179	317.933	S0	.000000	-.001737	.001737
		S1	12.5000	12.5664	-.066402
		S2	25.0000	25.9911	-.991150
		S	50.0000	47.7521	2.24791

CorCoef: 0.99881

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cr2677	267.716	S0	.000000	-.000071	.000071
		S1	.500000	.503850	-.003850
		S2	1.00000	1.03624	-.036243
		S	2.00000	1.91601	.083986

CorCoef: 0.99898

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Co2296	229.616	S0	.000000	-.000055	.000055
		S1	1.25000	1.24462	.005375
		S2	2.50000	2.57821	-.078210
		S	5.00000	4.86808	.131918

CorCoef: 0.99946

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cu3247	324.753	S0	.000000	.000040	-.000040
		S1	.625000	.613426	.011574
		S2	1.25000	1.28008	-.030082
		S	2.50000	2.47533	.024669

CorCoef: 0.99978

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Fe2714	271.441	S0	.000000	-.000240	.000240
		S1	2.50000	2.53070	-.030696
		S2	5.00000	5.14911	-.149107
		S	10.0000	9.79110	.208899

CorCoef: 0.99959

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mn2576	257.610	S0	.000000	-.000275	.000275
		S1	1.25000	1.27203	-.022028
		S2	2.50000	2.58788	-.087881
		S	5.00000	4.73643	.263574

CorCoef: 0.99868

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mg2790	279.078	S0	.000000	-.001588	.001588
		S1	12.5000	12.5681	-.068087
		S2	25.0000	25.8620	-.861975
		S	50.0000	48.0037	1.99630

CorCoef: 0.99909

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ni2316	231.604	S0	.000000	-.000112	.000112
		S1	1.25000	1.25146	-.001464
		S2	2.50000	2.58145	-.081450
		S	5.00000	4.83184	.168155

CorCoef: 0.99928

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ag3280	328.068	S0	.000000	-.000050	.000050
		S1	.625000	.621554	.003446
		S2	1.25000	1.30671	-.056709
		S	2.50000	2.39452	.105484

CorCoef: 0.99871

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Na3302	330.232	S0	.000000	.006639	-.006639
		S1	12.5000	11.4635	1.03648
		S2	25.0000	25.9074	-.907429
		S	50.0000	52.3310	-2.33104

CorCoef: 0.99946

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
V_2924	292.402	S0	.000000	-.000123	.000123
		S1	1.25000	1.25283	-.002831
		S2	2.50000	2.57325	-.073252
		S	5.00000	4.83005	.169949

CorCoef: 0.99935

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Zn2138	213.856	S0	.000000	-.000364	.000364
		S1	1.25000	1.28635	-.036346
		S2	2.50000	2.61665	-.116652
		S	5.00000	4.68656	.313439

CorCoef: 0.99791

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
K_7664	766.491	S0	.000000	.005111	-.005111
		S1	12.5000	11.6194	.880634
		S2	25.0000	26.1946	-1.19464
		S	50.0000	51.1333	-1.13327

CorCoef: 0.99946

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
2068-2	206.832	S0	.000000	-.000159	.000159
		S1	2.50000	2.49214	.007865
		S2	5.00000	5.19081	-.190810
		S	10.0000	9.67402	.325984

CorCoef: 0.99917

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
2068-1	206.831	S0	.000000	.000063	-.000063
		S1	2.50000	2.46190	.038097
		S2	5.00000	5.12042	-.120420
		S	10.0000	9.82455	.175453

CorCoef: 0.99970

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
2203-1	220.351	S0	.000000	.000152	-.000152
		S1	2.50000	2.44780	.052203
		S2	5.00000	5.17879	-.178785
		S	10.0000	9.83182	.168180

CorCoef: 0.99951

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
2203-2	220.352	S0	.000000	.000093	-.000093
		S1	2.50000	2.45615	.043852
		S2	5.00000	5.18025	-.180250
		S	10.0000	9.80171	.198295

CorCoef: 0.99946

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
1960-1	196.021	S0	.000000	.000112	-.000112
		S1	2.50000	2.45701	.042992
		S2	5.00000	5.17101	-.171009
		S	10.0000	9.83445	.165548

CorCoef: 0.99955

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
1960-2	196.022	S0	.000000	-.000043	.000043
		S1	2.50000	2.47628	.023719
		S2	5.00000	5.17247	-.172468
		S	10.0000	9.74357	.256432

CorCoef: 0.99940

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mo2020	202.030	S0	.000000	-.000545	.000545
		S1	2.50000	2.53671	-.036712
		S2	5.00000	5.21561	-.215608
		S	10.0000	9.42193	.578067

CorCoef: 0.99825

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
B_2496	249.678	S0	.000000	-.000029	.000029
		S1	2.50000	2.47094	.029056
		S2	5.00000	5.19737	-.197375
		S	10.0000	9.72147	.278525

CorCoef: 0.99924

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ti3349	334.941	S0	.000000	-.000431	.000431
		S1	2.50000	2.53089	-.030895
		S2	5.00000	5.15938	-.159377
		S	10.0000	9.55767	.442334

CorCoef: 0.99903

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sn1899	189.989	S0	.000000	.000320	-.000320
		S1	2.50000	2.43433	.065670
		S2	5.00000	5.13793	-.137933
		S	10.0000	9.98681	.013188

CorCoef: 0.99980

Standardization

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Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Si2881	288.158	S0	.000000	-.000621	.000621
		S1	2.50000	2.53315	-.033145
		S2	5.00000	5.29792	-.297925
		S	10.0000	9.27157	.728429

CorCoef: 0.99690

OK 9/10/04

Method: 6010B Sample Name: HMS  
 Run Time: 09/10/04 07:57:31  
 Comment: HMS  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.9167	10.149	10.071	10.022	9.9527	20.060	19.417
SDev	.0146	.019	.041	.019	.0176	.035	.032
%RSD	.14729	.19070	.40983	.19257	.17666	.17512	.16621
#1	9.9064	10.163	10.042	10.008	9.9403	20.035	19.394
#2	9.9270	10.136	10.100	10.035	9.9651	20.085	19.440
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48986	4.9242	49.959	1.9885	5.0129	2.4947	9.9834
SDev	.00108	.0257	.197	.0082	.0002	.0018	.0164
%RSD	.22020	.52205	.39530	.41390	.00482	.07210	.16381
#1	.48909	4.9060	49.820	1.9827	5.0131	2.4960	9.9718
#2	.49062	4.9424	50.099	1.9943	5.0127	2.4935	9.9949
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.8958	48.967	4.9832	2.5066	48.884	4.9601	4.8379
SDev	.0144	.019	.0082	.0099	.264	.0089	.0152
%RSD	.29375	.03808	.16428	.39682	.54074	.17999	.31333
#1	4.8857	48.980	4.9774	2.4996	48.697	4.9538	4.8272
#2	4.9060	48.954	4.9890	2.5136	49.071	4.9664	4.8486
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	46.763	9.9033	10.048	10.023	10.092	10.013	10.025
SDev	.173	.0252	.002	.039	.042	.031	.013
%RSD	.37043	.25436	.02333	.39104	.41924	.31099	.13354
#1	46.641	9.8855	10.047	9.9951	10.062	9.9906	10.015
#2	46.886	9.9211	10.050	10.051	10.122	10.035	10.034
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	9.8150	10.060	9.7428	10.226	9.8581		
SDev	.0233	.006	.0175	.014	.0393		
%RSD	.23747	.06316	.17947	.13422	.39849		
#1	9.7985	10.055	9.7304	10.216	9.8303		
#2	9.8315	10.064	9.7551	10.236	9.8858		

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Analysis Report

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Method: 6010B Sample Name: HMS/100  
 Run Time: 09/10/04 08:00:16  
 Comment: HMS/100  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.13282	.11473	.12294	.13611	.13548	.25642	.28320
SDev	.00577	.00141	.00090	.00183	.00355	.01043	.00100
%RSD	4.3455	1.2258	.73513	1.3446	2.6174	4.0681	.35131
#1	.12874	.11374	.12230	.13482	.13798	.24904	.28250
#2	.13690	.11573	.12358	.13740	.13297	.26380	.28390
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00659	.06635	.69309	.02785	.06682	.03161	.17377
SDev	.00011	.00169	.00241	.00075	.00000	.00016	.00002
%RSD	1.6211	2.5475	.34749	2.6863	.00035	.51749	.00913
#1	.00652	.06515	.69138	.02838	.06682	.03150	.17376
#2	.00667	.06754	.69479	.02732	.06682	.03173	.17378
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06885	.65670	.06361	.03256	.41115	.06629	.06652
SDev	.00044	.00000	.00119	.00012	.07686	.00105	.00026
%RSD	.63296	.00000	1.8719	.36292	18.694	1.5837	.39901
#1	.06916	.65670	.06277	.03265	.35680	.06703	.06670
#2	.06854	.65670	.06445	.03248	.46549	.06555	.06633
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46898	.13488	.13348	.12011	.12196	.13207	.13633
SDev	.00050	.00470	.00124	.00436	.00082	.00304	.00123
%RSD	.10744	3.4825	.92925	3.6333	.67532	2.2987	.90089
#1	.46934	.13820	.13435	.11702	.12254	.12992	.13546
#2	.46863	.13156	.13260	.12319	.12138	.13421	.13720
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.13326	.13925	.13377	.12298	.14671		
SDev	.00242	.00658	.00052	.00724	.00199		
%RSD	1.8183	4.7259	.39017	5.8901	1.3558		
#1	.13497	.14391	.13340	.12811	.14811		
#2	.13155	.13460	.13414	.11786	.14530		

09/10/04

Method: 6010B Sample Name: ICV  
 Run Time: 09/10/04 08:12:42  
 Comment: ICV  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0313	.98034	.97797	1.0424	1.0174	2.4138	.50747
SDev	.0071	.04382	.00030	.0068	.0055	.0210	.00158
%RSD	.68541	4.4702	.03049	.65525	.54073	.86796	.31113
#1	1.0263	.94935	.97776	1.0375	1.0213	2.3990	.50635
#2	1.0363	1.0113	.97818	1.0472	1.0135	2.4287	.50858
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.47588	.51311	10.215	.49641	.51076	.47318	4.7097
SDev	.00454	.00877	.159	.00718	.00335	.00156	.0411
%RSD	.95333	1.7087	1.5562	1.4469	.65609	.32939	.87342
#1	.47267	.50691	10.102	.49133	.50839	.47207	4.6806
#2	.47908	.51931	10.327	.50149	.51313	.47428	4.7388
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50989	6.0370	.49747	.46826	9.6837	.48909	1.0481
SDev	.00610	.0519	.00938	.00582	.2757	.00605	.0109
%RSD	1.1968	.86040	1.8848	1.2424	2.8466	1.2374	1.0410
#1	.50558	6.0003	.49084	.46415	9.4888	.48481	1.0404
#2	.51421	6.0737	.50410	.47238	9.8786	.49337	1.0558
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.6843	1.0276	.99369	.98134	.97419	1.0385	1.0426
SDev	.0145	.0096	.00268	.00022	.00042	.0028	.0090
%RSD	.14971	.93280	.26968	.02287	.04288	.27066	.86111
#1	9.6740	1.0344	.99180	.98150	.97390	1.0365	1.0363
#2	9.6945	1.0209	.99559	.98118	.97449	1.0405	1.0490
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	5.1201	5.0207	4.9868	4.8024	5.3310		
SDev	.0435	.0526	.0421	.0494	.0338		
%RSD	.84959	1.0486	.84516	1.0281	.63428		
#1	5.0894	4.9835	4.9570	4.7675	5.3071		
#2	5.1509	5.0579	5.0166	4.8373	5.3549		

09/10/04

Method: 6010B      Sample Name: ICB  
 Run Time: 09/10/04 08:15:01  
 Comment: ICB  
 Mode: CONC      Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00339	-.00661	-.00003	-.00004	.00213	.02085	-.00327
SDev	.00561	.00176	.00194	.00393	.00193	.00224	.00007
%RSD	165.53	26.579	5551.7	11069.	90.705	10.738	2.0178

#1	-.00058	-.00785	-.00140	.00274	.00076	.02243	-.00332
#2	.00736	-.00537	.00133	-.00282	.00350	.01926	-.00323

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00057	-.00080	-.00174	.00056	.00096	-.00025	.01726
SDev	.00005	.00036	.00241	.00015	.00024	.00016	.02474
%RSD	9.2394	45.138	138.66	26.685	24.912	66.672	143.35

#1	.00060	-.00055	-.00344	.00067	.00113	-.00036	-.00024
#2	.00053	-.00106	-.00003	.00046	.00079	-.00013	.03475

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00038	-.00253	-.00164	-.00046	-.22313	-.00049	-.00093
SDev	.00014	.00000	.00015	.00034	.18388	.00000	.00053
%RSD	38.298	.00000	9.0526	74.690	82.407	.14554	56.780

#1	-.00027	-.00253	-.00174	-.00022	-.09311	-.00049	-.00131
#2	-.00048	-.00253	-.00153	-.00070	-.35315	-.00049	-.00056

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00130	.00172	-.00025	.00026	-.00218	-.00625	.00127
SDev	.00453	.00172	.00926	.00214	.00397	.00371	.00404
%RSD	348.42	100.18	3675.6	829.93	181.84	59.373	319.30

#1	.00190	.00294	-.00680	.00177	-.00498	-.00362	.00413
#2	-.00451	.00050	.00629	-.00125	.00062	-.00887	-.00159

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00054	-.00500	-.00057	.00409	.00711
SDev	.00312	.00045	.00026	.00267	.00447
%RSD	571.78	9.0714	45.838	65.182	62.904

#1	.00166	-.00532	-.00075	.00221	.00395
#2	-.00275	-.00468	-.00038	.00598	.01028

09/10/04

Method: 6010B Sample Name: CRI  
 Run Time: 09/10/04 08:18:40  
 Comment: CRI  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02138	.01670	.00735	.00797	.12927	.41354	.45369
SDev	.00128	.01790	.00046	.00204	.00453	.00225	.00000
%RSD	5.9983	107.21	6.1993	25.557	3.5075	.54349	.00007

#1	.02047	Q.00404	Q.00767	.00941	.12606	.41513	.45369
#2	.02228	Q.02935	.00702	Q.00653	.13247	.41195	.45369

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01117	.00865	10.160	.02160	.10391	.04951	.21997
SDev	.00011	.00051	.087	.00090	.00215	.00009	.03299
%RSD	.93597	5.9369	.85337	4.1534	2.0737	.17182	14.996

#1	.01125	.00901	10.221	.02223	.10543	.04957	.24330
#2	.01110	.00829	10.099	.02097	.10238	.04945	.19665

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03239	10.177	.08187	.02080	9.0537	.10261	.04210
SDev	.00029	.020	.00350	.00025	.0564	.00000	.00028
%RSD	.90104	.19631	4.2715	1.2094	.62326	.00288	.65235

#1	.03259	10.191	.08435	.02098	9.0936	.10261	.04190
#2	.03218	10.163	.07940	.02062	9.0138	.10261	.04229

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.1536	.13091	.12278	.00960	.00422	.00759	.00637
SDev	.0479	.00878	.00397	.00104	.00017	.00191	.00210
%RSD	.52292	6.7056	3.2312	10.793	3.9204	25.223	32.975

#1	9.1197	.12470	.12558	.01033	.00434	.00894	.00785
#2	9.1874	.13712	.11997	.00887	.00411	.00623	.00488

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21036	.19060	.20412	.19011	.24375
SDev	.00185	.00023	.00046	.00076	.00298
%RSD	.87760	.11906	.22373	.40109	1.2240

#1	.21167	.19076	.20380	.19065	.24164
#2	.20906	.19044	.20445	.18957	.24586

09/10/04

Method: 6010B Sample Name: ICSA  
 Run Time: 09/10/04 08:23:51  
 Comment: ICSA  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00493	-.00362	.00017	.00322	.00227	443.07	-.00151
SDev	.00369	.01023	.00691	.00340	.00383	.45	.00007
%RSD	74.914	282.64	4157.9	105.67	168.67	.10133	4.4092
#1	.00754	.00362	.00505	.00081	-.00044	442.75	-.00155
#2	.00232	-.01086	-.00472	.00562	.00498	443.38	-.00146
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00058	.00710	425.27	.01638	.00198	.00726	160.80
SDev	.00005	.00165	1.18	.00030	.00072	.00041	.01
%RSD	9.1584	23.249	.27749	1.8282	36.325	5.6449	.00442
#1	.00062	.00593	426.10	.01617	.00249	.00755	160.81
#2	.00055	.00826	424.44	.01659	.00147	.00697	160.80
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00616	464.21	-.00180	-.01544	-.18323	-.00849	.01501
SDev	.00020	.48	.00060	.00024	.07880	.00052	.00134
%RSD	3.3204	.10318	33.027	1.5540	43.008	6.1788	8.9088
#1	.00630	464.54	-.00138	-.01527	-.12751	-.00886	.01406
#2	.00601	463.87	-.00222	-.01561	-.23895	-.00812	.01595
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04893	-.00582	.01529	-.13396	.06533	-.01584	.01113
SDev	.00302	.00125	.01402	.01139	.00467	.00259	.00380
%RSD	6.1780	21.532	91.719	8.5025	7.1540	16.322	34.176
#1	.04680	-.00494	.00537	-.12590	.06863	-.01767	.00844
#2	.05107	-.00671	.02520	-.14201	.06202	-.01401	.01382
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00838	-.00067	-.00357	.01879	.02575		
SDev	.00496	.00204	.00007	.00477	.00298		
%RSD	59.225	304.53	1.8285	25.367	11.587		
#1	-.01189	-.00211	-.00361	.01542	.02364		
#2	-.00487	.00077	-.00352	.02216	.02786		

6/9/04

Method: 6010B Sample Name: ICSAB  
 Run Time: 09/10/04 08:27:44  
 Comment: ICSAB  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.09227	.07989	.04635	.05055	.54910	440.13	.48859
SDev	.00435	.00841	.00713	.00564	.00799	1.81	.00185
%RSD	4.7111	10.522	15.378	11.160	1.4549	.41227	.37869
#1	.08920	.08584	.05139	.04656	.54345	438.84	.48728
#2	.09535	.07395	.04131	.05454	.55475	441.41	.48990
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.37260	.82526	416.73	.40196	.42873	.50601	158.45
SDev	.00172	.00580	2.23	.00372	.00239	.00152	.70
%RSD	.46163	.70244	.53402	.92565	.55819	.29951	.43925
#1	.37138	.82116	415.15	.39933	.42704	.50494	157.96
#2	.37381	.82936	418.30	.40459	.43042	.50708	158.94
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.41228	456.93	.81830	.19153	-.02019	.40063	.97901
SDev	.00290	2.37	.00869	.00327	.07394	.00266	.00412
%RSD	.70309	.51857	1.0624	1.7084	366.21	.66292	.42080
#1	.41023	455.25	.81215	.18922	-.07247	.39875	.97610
#2	.41433	458.60	.82444	.19384	.03209	.40250	.98192
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04038	.54750	.54909	-.09060	.11282	.02606	.06107
SDev	.01512	.00669	.01059	.00547	.00781	.00341	.00690
%RSD	37.431	1.2215	1.9295	6.0370	6.9261	13.097	11.290
#1	.02969	.54277	.54159	-.08673	.11835	.02365	.05620
#2	.05107	.55223	.55658	-.09447	.10730	.02848	.06595
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.01221	-.00388	-.00417	.00207	.02681		
SDev	.00438	.00113	.00026	.00286	.00050		
%RSD	35.904	29.244	6.2617	137.97	1.8551		
#1	-.01531	-.00468	-.00435	.00005	.02645		
#2	-.00911	-.00308	-.00398	.00409	.02716		

09/10/04

Method: 6010B Sample Name: CCC  
 Run Time: 09/10/04 08:30:50  
 Comment: CCC  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.9411	3.9035	3.7916	3.9589	3.9106	7.6428	7.9135
SDev	.0410	.0661	.0572	.0462	.0358	.0809	.0679
%RSD	1.0391	1.6941	1.5081	1.1682	.91439	1.0584	.85827
#1	3.9121	3.8567	3.7511	3.9262	3.8853	7.5856	7.8655
#2	3.9700	3.9502	3.8320	3.9916	3.9359	7.7000	7.9616
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.19178	1.9523	19.353	.76437	1.8849	.92024	3.8163
SDev	.00292	.0223	.347	.01197	.0239	.00877	.0903
%RSD	1.5243	1.1445	1.7920	1.5656	1.2702	.95324	2.3673
#1	.18972	1.9365	19.108	.75591	1.8679	.91403	3.7524
#2	.19385	1.9681	19.598	.77283	1.9018	.92644	3.8802
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9026	19.181	1.9071	.97120	18.422	1.8701	1.9394
SDev	.0285	.226	.0317	.01483	.183	.0262	.0354
%RSD	1.4965	1.1804	1.6623	1.5267	.99286	1.4030	1.8238
#1	1.8824	19.021	1.8847	.96072	18.293	1.8515	1.9144
#2	1.9227	19.341	1.9295	.98168	18.551	1.8887	1.9644
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	18.851	3.9513	3.8259	3.8119	3.7793	3.9712	3.9509
SDev	.047	.0275	.0523	.0464	.0624	.0328	.0530
%RSD	.24857	.69655	1.3658	1.2168	1.6519	.82654	1.3402
#1	18.818	3.9319	3.7890	3.7791	3.7352	3.9480	3.9135
#2	18.884	3.9708	3.8629	3.8447	3.8234	3.9944	3.9884
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	3.9236	3.8530	3.7961	3.7780	4.1007		
SDev	.0630	.0529	.0463	.0505	.0403		
%RSD	1.6056	1.3723	1.2185	1.3371	.98225		
#1	3.8791	3.8156	3.7634	3.7423	4.0722		
#2	3.9682	3.8904	3.8289	3.8137	4.1291		

09/10/04

Method: 6010B Sample Name: CCV  
 Run Time: 09/10/04 08:33:04  
 Comment: CCV  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.4259	5.4478	5.2968	5.4489	5.3353	10.528	10.720
SDev	.0130	.0605	.0301	.0211	.0246	.036	.007
%RSD	.24017	1.1103	.56803	.38684	.46050	.34372	.06125
#1	5.4167	5.4051	5.2756	5.4340	5.3179	10.502	10.715
#2	5.4352	5.4906	5.3181	5.4638	5.3527	10.554	10.724
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.26952	2.6924	26.821	1.0642	2.6436	1.2808	5.1588
SDev	.00271	.0277	.417	.0169	.0290	.0001	.1068
%RSD	1.0053	1.0290	1.5535	1.5885	1.0960	.01092	2.0702
#1	.26760	2.6728	26.526	1.0523	2.6231	1.2809	5.0833
#2	.27143	2.7120	27.115	1.0762	2.6640	1.2807	5.2343
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.6411	26.145	2.6611	1.3578	26.616	2.6099	2.6937
SDev	.0327	.121	.0289	.0144	.048	.0283	.0391
%RSD	1.2376	.46356	1.0878	1.0576	.17911	1.0860	1.4513
#1	2.6180	26.060	2.6407	1.3476	26.650	2.5898	2.6661
#2	2.6643	26.231	2.6816	1.3679	26.582	2.6299	2.7214
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.514	5.3829	5.2367	5.2990	5.2933	5.4266	5.4583
SDev	.170	.0200	.0338	.0270	.0316	.0052	.0340
%RSD	.64042	.37125	.64456	.50966	.59745	.09544	.62375
#1	26.634	5.3688	5.2128	5.2799	5.2710	5.4303	5.4342
#2	26.393	5.3971	5.2605	5.3181	5.3157	5.4229	5.4823
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	5.4278	5.3991	5.2011	5.2777	Q5.6422		
SDev	.0406	.0404	.0396	.0437	.0214		
%RSD	.74828	.74815	.76142	.82714	.37897		
#1	5.3991	5.3705	5.1731	5.2468	Q5.6270		
#2	5.4565	5.4276	5.2291	5.3086	Q5.6573		

09/10/04



Method: 6010B Sample Name: CCB  
 Run Time: 09/10/04 08:36:04  
 Comment: CCB  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00193	.00083	.00213	-.00521	.00164	.02664	-.00182
SDev	.00176	.00386	.00393	.00092	.00108	.00151	.00027
%RSD	91.504	462.82	184.62	17.706	66.147	5.6502	14.560
#1	-.00318	-.00190	.00490	-.00586	.00087	.02771	-.00163
#2	-.00068	.00357	-.00065	-.00456	.00241	.02558	-.00201
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00038	-.00147	.01700	.00035	.00045	-.00031	.02309
SDev	.00000	.00026	.00482	.00045	.00096	.00008	.01648
%RSD	.60604	17.456	28.341	127.43	211.34	27.315	71.364
#1	.00038	-.00129	.02040	.00067	.00113	-.00025	.03474
#2	.00038	-.00165	.01359	.00003	-.00022	-.00036	.01144
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00017	.02007	-.00011	-.00037	-.07798	-.00049	-.00018
SDev	.00015	.00533	.00186	.00095	.08367	.00105	.00000
%RSD	85.265	26.541	1649.9	255.01	107.30	213.39	2.1652
#1	-.00007	.02384	.00120	.00030	-.01881	.00025	-.00018
#2	-.00027	.01631	-.00143	-.00105	-.13714	-.00123	-.00018
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00297	.00139	-.00106	.00162	.00038	-.00839	-.00542
SDev	.02973	.00251	.00177	.00038	.00570	.00180	.00049
%RSD	999.63	180.64	166.56	23.527	1495.5	21.423	8.9517
#1	.02399	-.00039	.00019	.00189	.00441	-.00966	-.00576
#2	-.01805	.00316	-.00231	.00135	-.00365	-.00712	-.00507
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00087	-.00661	-.00011	-.00399	.00149		
SDev	.00196	.00182	.00013	.00153	.00249		
%RSD	225.15	27.474	120.82	38.189	167.01		
#1	.00052	-.00532	-.00002	-.00507	.00325		
#2	-.00226	-.00789	-.00020	-.00291	-.00027		

09/10/04

Method: 6010B Sample Name: PB  
 Run Time: 09/10/04 08:38:13  
 Comment: PBS  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00034	-.00561	.00367	-.00636	.00243	.01979	-.00248
SDev	.00498	.01017	.00013	.00327	.00158	.00371	.00013
%RSD	1468.3	181.12	3.4913	51.414	64.841	18.767	5.3570

#1	-.00386	.00158	.00376	-.00867	.00355	.01716	-.00238
#2	.00318	Q-.01281	.00358	-.00405	.00132	.02242	-.00257

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00031	-.00164	.01018	.00067	.00062	-.00013	.04059
SDev	.00010	.00055	.00000	.00030	.00120	.00016	.00826
%RSD	33.299	33.894	.00000	44.764	192.33	125.52	20.356

#1	.00038	-.00124	.01018	.00088	.00147	-.00001	.03474
#2	.00023	-.00203	.01018	.00046	-.00022	-.00025	.04643

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00038	.01254	-.00090	-.00028	-.07798	-.00049	-.00094
SDev	.00014	.00000	.00000	.00035	.13037	.00105	.00053
%RSD	38.549	.00000	.01831	124.34	167.19	213.69	56.866

#1	-.00027	.01254	-.00090	-.00003	.01421	.00025	-.00131
#2	-.00048	.01254	-.00090	-.00053	-.17016	-.00123	-.00056

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01936	.00205	-.00000	.00625	.00038	-.01221	-.00524
SDev	.01965	.00188	.00098	.00441	.00239	.00292	.00344
%RSD	101.49	91.598	39293.	70.571	631.01	23.950	65.712

#1	.03326	.00338	.00069	.00313	.00207	-.01428	-.00767
#2	.00547	.00072	-.00069	.00937	-.00131	-.01014	-.00280

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	-.00144	-.00853	-.00029	-.00170	.00254
SDev	.00023	.00182	.00013	.00210	.00100
%RSD	16.000	21.275	44.605	123.22	39.100

#1	-.00128	-.00725	-.00020	-.00318	.00184
#2	-.00161	-.00982	-.00038	-.00022	.00325

DR 9/10/04

Method: 6010B

Sample Name: PB

Operator: DR

Run Time: 09/10/04 08:41:08

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.76313	1.9021	.97614	1.6560	.79031	2.0036	2.3342
SDev	.00680	.0342	.00773	.0022	.00185	.0118	.0181
%RSD	.89133	1.8000	.79235	.13105	.23358	.58838	.77503
#1	.76794	1.9263	.98160	1.6576	.79162	2.0119	2.3470
#2	.75832	1.8779	.97067	1.6545	.78901	1.9953	2.3214
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.18725	.20718	5.2851	.43518	.20523	.31852	3.2840
SDev	.00283	.00429	.0745	.00730	.00164	.00198	.0659
%RSD	1.5102	2.0723	1.4091	1.6768	.79885	.62015	2.0074
#1	.18925	.21021	5.3378	.44034	.20639	.31992	3.3306
#2	.18525	.20414	5.2325	.43002	.20408	.31712	3.2373
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.22249	2.0343	.51664	.07898	2.4857	.31932	.19147
SDev	.00328	.0303	.00869	.00116	.0933	.00364	.00388
%RSD	1.4740	1.4871	1.6827	1.4654	3.7525	1.1397	2.0264
#1	.22481	2.0557	.52279	.07980	2.5517	.32189	.19421
#2	.22017	2.0129	.51049	.07816	2.4198	.31675	.18873
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.3980	.79067	.78640	.98980	.96731	1.6427	1.6609
SDev	.0598	.00284	.00015	.00941	.00690	.0145	.0040
%RSD	.63627	.35972	.01950	.95046	.71322	.88188	.23955
#1	9.4403	.79268	.78630	.99645	.97219	1.6529	1.6581
#2	9.3557	.78866	.78651	.98315	.96244	1.6324	1.6637
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.42466	.27887	.21791	.70687	Q.88193		
SDev	.00950	.00263	.00266	.00019	.01614		
%RSD	2.2376	.94258	1.2203	.02648	1.8304		
#1	.43138	.28073	.21979	.70674	Q.89334		
#2	.41794	.27701	.21603	.70701	Q.87051		

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Analysis Report

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Method: 6010B Sample Name: S4161-01  
 Run Time: 09/10/04 08:42:51  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06719	-.02189	.15977	.01981	.00420	97.668	2.2815
SDev	.00899	.01162	.00215	.00107	.00023	.051	.0005
%RSD	13.385	53.074	1.3456	5.4238	5.4424	.05193	.02338

#1	.07354	-.01368	.15825	.02057	.00436	97.704	2.2811
#2	.06083	-.03011	.16129	.01905	.00404	97.632	2.2818

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00533	.01727	203.00	.15320	.11132	.23974	177.52
SDev	.00000	.00181	.85	.00059	.00072	.00247	.28
%RSD	.02213	10.488	.41880	.38526	.64573	1.0304	.15795

#1	.00533	.01599	202.40	.15362	.11081	.24149	177.72
#2	.00534	.01855	203.60	.15278	.11183	.23800	177.32

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.8151	86.984	.25662	-.01356	2.9785	.30307	.72690
SDev	.0089	.045	.00186	.00179	.1313	.00054	.00323
%RSD	.15219	.05206	.72284	13.191	4.4096	.17703	.44407

#1	5.8088	86.952	.25793	-.01229	3.0714	.30345	.72462
#2	5.8213	87.016	.25531	-.01482	2.8857	.30269	.72919

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.834	-.00097	.01136	.15300	.16074	-.02881	.04228
SDev	.051	.00030	.00009	.00466	.00089	.00227	.00048
%RSD	.21352	30.505	.80356	3.0490	.55626	7.8775	1.1303

#1	23.870	-.00076	.01142	.14971	.16011	-.02720	.04262
#2	23.798	-.00118	.01129	.15630	.16137	-.03041	.04194

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00256	.02340	2.5972	-.14688	14.214
SDev	.00035	.00295	.0029	.00724	.128
%RSD	13.545	12.608	.11303	4.9320	.89910

#1	.00231	.02548	2.5993	-.14175	14.124
#2	.00280	.02131	2.5952	-.15200	14.304

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Analysis Report

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Method: 6010B Sample Name: S4161-02  
 Run Time: 09/10/04 08:44:46  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06167	-.03712	.15941	.02022	.00502	94.767	2.3081
SDev	.00322	.01999	.00014	.00039	.00080	.123	.0023
%RSD	5.2248	53.852	.08963	1.9284	15.909	.12984	.10008
#1	.06395	-.05125	.15951	.01994	.00446	94.854	2.3098
#2	.05939	-.02298	.15931	.02049	.00559	94.680	2.3065
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00551	.01555	202.94	.16128	.10167	.24521	169.35
SDev	.00000	.00166	.48	.00026	.00192	.00048	1.14
%RSD	.02275	10.661	.23853	.16438	1.8845	.19417	.67206
#1	.00551	.01438	203.29	.16147	.10032	.24554	170.15
#2	.00551	.01672	202.60	.16110	.10303	.24487	168.54
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.6478	78.769	.23515	-.01405	2.7412	.28867	.72883
SDev	.0166	.166	.00087	.00110	.1887	.00057	.00478
%RSD	.35725	.21136	.37010	7.8010	6.8854	.19755	.65618
#1	4.6596	78.887	.23577	-.01327	2.8746	.28908	.73222
#2	4.6361	78.651	.23454	-.01482	2.6077	.28827	.72545
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.103	.00118	.00953	.15600	.15891	-.03119	.04408
SDev	.002	.00257	.00274	.00418	.00187	.00129	.00006
%RSD	.00654	217.92	28.714	2.6771	1.1773	4.1290	.13274
#1	23.104	-.00064	.01146	.15895	.15759	-.03210	.04412
#2	23.101	.00299	.00759	.15305	.16024	-.03028	.04404
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00272	.02308	2.0587	-.12005	6.7782		
SDev	.00081	.00204	.0082	.00515	.0169		
%RSD	29.709	8.8499	.39614	4.2873	.24943		
#1	.00329	.02452	2.0644	-.11641	6.7663		
#2	.00215	.02163	2.0529	-.12369	6.7902		

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Analysis Report

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Method: 6010B Sample Name: S4161-03  
 Run Time: 09/10/04 08:46:41  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03616	-.03971	.45450	.01728	.00113	85.377	2.0874
SDev	.00452	.00591	.00392	.00127	.00299	.918	.0234
%RSD	12.509	14.888	.86308	7.3442	264.49	1.0753	1.1206
#1	.03935	-.03553	.45727	.01818	.00325	86.026	2.1039
#2	.03296	-.04390	.45173	.01638	-.00099	84.728	2.0708
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00506	.01110	142.10	.15294	.07442	.14190	161.81
SDev	.00015	.00135	2.98	.00367	.00120	.00005	2.20
%RSD	2.9138	12.132	2.0983	2.4031	1.6080	.03595	1.3608
#1	.00517	.01206	144.21	.15554	.07527	.14193	163.36
#2	.00496	.01015	139.99	.15034	.07358	.14186	160.25
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.1034	75.178	.17310	-.01280	2.4433	.27612	.68414
SDev	.0506	.855	.00383	.00105	.0088	.00429	.01219
%RSD	1.6317	1.1374	2.2102	8.1871	.35837	1.5532	1.7812
#1	3.1392	75.783	.17581	-.01354	2.4495	.27916	.69276
#2	3.0676	74.574	.17040	-.01206	2.4371	.27309	.67553
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.393	.00070	-.00120	.45503	.45204	-.03147	.03982
SDev	.003	.00395	.00108	.00952	.00113	.00438	.00028
%RSD	.01558	564.88	89.983	2.0925	.24943	13.928	.71682
#1	19.395	.00349	-.00044	.46176	.45283	-.02837	.03962
#2	19.391	-.00209	-.00197	.44830	.45124	-.03457	.04002
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00006	.00815	2.3269	-.13461	6.9741		
SDev	.00012	.00091	.0283	.01087	.0751		
%RSD	208.58	11.131	1.2168	8.0721	1.0766		
#1	.00003	.00880	2.3470	-.14229	7.0272		
#2	-.00014	.00751	2.3069	-.12693	6.9210		

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## Analysis Report

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Method: 6010B Sample Name: S4161-04

Operator: DR

Run Time: 09/10/04 08:48:36

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06537	-.04888	.19021	.01866	.00230	96.627	1.7305
SDev	.00276	.00186	.00382	.00414	.00403	.530	.0047
%RSD	4.2226	3.8144	2.0081	22.188	175.20	.54802	.27450

#1	.06342	-.04756	.18751	.01573	-.00055	96.252	1.7271
#2	.06733	-.05020	.19291	.02158	.00515	97.001	1.7338

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00548	.01375	63.742	.15747	.10185	.19838	165.95
SDev	.00004	.00136	1.168	.00366	.00120	.00154	2.55
%RSD	.80329	9.8546	1.8325	2.3274	1.1750	.77838	1.5356

#1	.00544	.01471	62.916	.15488	.10101	.19729	164.14
#2	.00551	.01279	64.568	.16006	.10270	.19947	167.75

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.8742	29.972	.18628	-.01150	2.1200	.28927	.68437
SDev	.0761	.194	.00322	.00075	.3298	.00378	.01256
%RSD	1.5607	.64878	1.7305	6.5426	15.557	1.3061	1.8348

#1	4.8204	29.834	.18400	-.01204	1.8868	.28660	.67549
#2	4.9280	30.109	.18856	-.01097	2.3532	.29194	.69324

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.250	-.00108	.00585	.18995	.18814	-.03069	.04150
SDev	.089	.00550	.00108	.00163	.00491	.00439	.00401
%RSD	.40081	511.07	18.443	.86036	2.6102	14.313	9.6703

#1	22.313	-.00496	.00509	.18879	.18467	-.03380	.03866
#2	22.187	.00281	.00662	.19110	.19161	-.02759	.04433

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00019	.00479	1.7409	-.09188	5.0363
SDev	.00046	.00068	.0150	.00877	.0298
%RSD	243.62	14.227	.86196	9.5439	.59242

#1	-.00014	.00527	1.7303	-.09808	5.0152
#2	.00052	.00430	1.7515	-.08568	5.0574

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Analysis Report

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Method: 6010B Sample Name: S4161-05  
 Run Time: 09/10/04 08:52:19  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07861	-.04422	.43222	.01407	-.00310	94.359	1.8787
SDev	.00002	.00239	.00918	.00208	.00089	.638	.0136
%RSD	.03052	5.4052	2.1227	14.809	28.839	.67658	.72633
#1	.07860	-.04590	.42573	.01260	-.00373	93.908	1.8691
#2	.07863	-.04253	.43871	.01555	-.00247	94.811	1.8884
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00587	.01395	58.690	.16322	.09845	.23048	161.04
SDev	.00020	.00049	.807	.00354	.00263	.00166	1.80
%RSD	3.4455	3.5103	1.3747	2.1675	2.6748	.72181	1.1164
#1	.00572	.01429	58.120	.16072	.09659	.22930	159.77
#2	.00601	.01360	59.261	.16573	.10032	.23165	162.31
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.0626	44.163	.24185	-.01162	2.1888	.29687	.98156
SDev	.0479	.276	.00473	.00138	.1060	.00322	.01281
%RSD	1.1781	.62426	1.9546	11.844	4.8449	1.0859	1.3050
#1	4.0287	43.968	.23850	-.01260	2.1138	.29459	.97251
#2	4.0964	44.358	.24519	-.01065	2.2638	.29915	.99062
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.636	-.01016	.00783	.42026	.43599	-.02961	.03409
SDev	.171	.00146	.00025	.00757	.00998	.00295	.00460
%RSD	.79176	14.406	3.1384	1.8007	2.2883	9.9541	13.485
#1	21.515	-.01119	.00801	.41491	.42894	-.02753	.03084
#2	21.758	-.00912	.00766	.42561	.44305	-.03170	.03734
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00076	.00832	1.6560	-.09013	4.9027		
SDev	.00265	.00204	.0153	.00057	.0636		
%RSD	348.93	24.562	.92583	.63453	1.2983		
#1	-.00112	.00687	1.6452	-.08972	4.8577		
#2	.00264	.00976	1.6669	-.09053	4.9477		

*DR 9/10/04*



Analysis Report

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Method: 6010B Sample Name: S4161-08  
 Run Time: 09/10/04 08:54:13  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.08324	-.04022	.42939	.01680	.00474	94.304	1.8789
SDev	.00178	.01434	.00530	.00011	.00008	.524	.0097
%RSD	2.1412	35.660	1.2346	.64248	1.6458	.55516	.51820
#1	.08450	-.03008	.43314	.01687	.00469	94.675	1.8858
#2	.08198	-.05037	.42564	.01672	.00480	93.934	1.8720
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00606	.01348	58.037	.16064	.09676	.23122	158.91
SDev	.00015	.00025	.605	.00160	.00024	.00123	1.40
%RSD	2.5492	1.8393	1.0416	.99865	.24861	.53160	.88227
#1	.00617	.01330	58.464	.16178	.09659	.23208	159.90
#2	.00595	.01365	57.609	.15951	.09693	.23035	157.92
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.0232	43.961	.23863	-.01290	2.2768	.29307	.97402
SDev	.0368	.192	.00533	.00026	.0866	.00111	.00732
%RSD	.91483	.43627	2.2338	1.9916	3.8030	.37788	.75199
#1	4.0493	44.096	.24239	-.01272	2.2156	.29386	.97920
#2	3.9972	43.825	.23486	-.01308	2.3381	.29229	.96884
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	21.826	-.00007	.01118	.42815	.42781	-.02750	.03711
SDev	.071	.00008	.00008	.00426	.00582	.00072	.00052
%RSD	.32550	106.85	.73138	.99448	1.3609	2.6122	1.4023
#1	21.876	-.00013	.01112	.43116	.43193	-.02801	.03748
#2	21.775	-.00002	.01123	.42514	.42369	-.02699	.03674
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00084	.00703	1.6467	-.09781	4.9231		
SDev	.00161	.00204	.0122	.00572	.0467		
%RSD	191.81	29.046	.74089	5.8469	.94947		
#1	.00198	.00848	1.6553	-.09377	4.9562		
#2	-.00030	.00559	1.6381	-.10186	4.8900		

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Analysis Report

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Method: 6010B Sample Name: S4161-05LX5  
 Run Time: 09/10/04 08:56:09  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01280	-.02706	.10246	-.00206	-.00169	19.982	.40975
SDev	.00175	.00804	.00413	.00384	.00650	.356	.00483
%RSD	13.702	29.728	4.0312	186.17	384.74	1.7803	1.1792
#1	.01156	-.02137	.10538	-.00478	.00291	20.234	.41316
#2	.01404	-.03275	.09954	.00065	-.00629	19.731	.40633
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00176	.00056	13.587	.03628	.02127	.04605	36.878
SDev	.00016	.00022	.472	.00072	.00072	.00006	1.023
%RSD	9.0749	39.042	3.4744	1.9778	3.3759	.13418	2.7730
#1	.00164	.00071	13.920	.03679	.02178	.04609	37.601
#2	.00187	.00040	13.253	.03577	.02076	.04601	36.155
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.92900	10.730	.05477	-.00453	.26805	.06407	.22324
SDev	.02430	.160	.00177	.00145	.16831	.00109	.00424
%RSD	2.6156	1.4895	3.2236	31.967	62.789	1.7025	1.9011
#1	.94618	10.843	.05602	-.00555	.38707	.06484	.22624
#2	.91181	10.617	.05353	-.00350	.14904	.06329	.22023
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.4941	-.00214	-.00399	.10114	.10112	-.01420	.00220
SDev	.0171	.00433	.01085	.00066	.00586	.00197	.00478
%RSD	.49028	202.43	271.81	.65011	5.7993	13.888	217.43
#1	3.4820	.00092	.00368	.10160	.10527	-.01560	-.00118
#2	3.5062	-.00520	-.01166	.10067	.09697	-.01281	.00558
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00161	-.00741	.36171	-.02543	1.1232		
SDev	.00000	.00250	.00711	.00591	.0045		
%RSD	.00000	33.687	1.9660	23.242	.39846		
#1	-.00161	-.00565	.36674	-.02125	1.1263		
#2	-.00161	-.00918	.35669	-.02960	1.1200		

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Analysis Report

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Method: 6010B Sample Name: S4161-07  
 Run Time: 09/10/04 08:58:14  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.4829	3.5662	2.1017	2.9130	.55813	110.25	5.8250
SDev	.0121	.0603	.0290	.0230	.00237	.84	.0322
%RSD	.81293	1.6917	1.3796	.79027	.42469	.75903	.55325
#1	1.4744	3.5236	2.0812	2.8967	.55981	109.65	5.8022
#2	1.4914	3.6089	2.1222	2.9293	.55645	110.84	5.8478
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.35506	.38036	53.706	.91908	.46051	.82849	163.41
SDev	.00161	.00016	.347	.00401	.00096	.00611	.96
%RSD	.45465	.04327	.64576	.43651	.20772	.73766	.59047
#1	.35392	.38024	53.461	.91625	.45983	.82417	162.72
#2	.35620	.38047	53.951	.92192	.46119	.83281	164.09
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.8506	41.035	1.1054	.21118	7.5526	.84178	1.2482
SDev	.0201	.278	.0071	.00076	.0097	.00319	.0085
%RSD	.52155	.67835	.63784	.35996	.12881	.37912	.68400
#1	3.8364	40.838	1.1004	.21172	7.5595	.83953	1.2421
#2	3.8648	41.232	1.1104	.21064	7.5457	.84404	1.2542
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	37.234	.55992	.55134	2.0885	2.1062	2.8736	2.9310
SDev	.118	.00273	.00166	.0323	.0278	.0313	.0190
%RSD	.31665	.48698	.30044	1.5454	1.3190	1.0894	.64913
#1	37.150	.56185	.55251	2.0657	2.0865	2.8515	2.9175
#2	37.317	.55800	.55016	2.1113	2.1258	2.8957	2.9444
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.54398	.48778	2.5482	.69263	10.325		
SDev	.00058	.00567	.0152	.01449	.053		
%RSD	.10605	1.1631	.59654	2.0917	.51533		
#1	.54357	.48377	2.5375	.68239	10.287		
#2	.54439	.49179	2.5590	.70288	10.363		

09/10/04

Method: 6010B Sample Name: CCV  
 Run Time: 09/10/04 09:00:19  
 Comment: CCV  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.3466	5.3576	5.3713	5.3705	5.3185	10.725	10.671
SDev	.0903	.1568	.1458	.0784	.0859	.297	.213
%RSD	1.6893	2.9270	2.7135	1.4604	1.6151	2.7678	1.9987

#1	5.4105	5.4685	5.4744	5.4260	5.3792	10.934	10.822
#2	5.2828	5.2467	5.2683	5.3151	5.2577	10.515	10.520

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.27088	2.6950	27.212	1.0808	2.6861	1.3129	5.4798
SDev	.00654	.0666	.898	.0331	.0668	.0244	.2300
%RSD	2.4134	2.4722	3.3013	3.0645	2.4873	1.8613	4.1974

#1	Q.27550	2.7421	Q27.847	Q1.1042	2.7333	1.3302	Q5.6425
#2	.26626	2.6478	26.577	1.0574	2.6388	1.2956	5.3172

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.6971	26.606	2.6845	1.3513	26.244	2.6690	2.7235
SDev	.0734	.527	.0604	.0387	.629	.0668	.0746
%RSD	2.7209	1.9824	2.2509	2.8635	2.3952	2.5045	2.7393

#1	2.7490	26.979	2.7272	Q1.3786	26.688	2.7162	Q2.7763
#2	2.6452	26.234	2.6418	1.3239	25.799	2.6217	2.6708

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.374	5.3096	5.3329	5.3134	5.3982	5.3386	5.3848
SDev	.488	.0619	.1340	.0711	.1834	.0242	.1057
%RSD	1.8494	1.1659	2.5118	1.3388	3.3980	.45319	1.9622

#1	26.719	5.3534	5.4277	5.3637	5.5279	5.3557	5.4595
#2	26.029	5.2659	5.2382	5.2631	5.2685	5.3215	5.3101

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	5.3934	5.3618	5.3355	5.3417	5.3936
SDev	.1482	.1130	.1250	.1308	.1278
%RSD	2.7472	2.1081	2.3424	2.4492	2.3687

#1	5.4982	5.4417	5.4239	5.4342	5.4839
#2	5.2887	5.2818	5.2472	5.2492	5.3032

ok 9/10/04

Method: 6010B Sample Name: CCB  
 Run Time: 09/10/04 09:04:50  
 Comment: CCB  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00072	-.00559	.00466	.00357	.00621	.03556	.00069
SDev	.00386	.00067	.00534	.00492	.00057	.00662	.00000
%RSD	537.09	11.959	114.72	137.80	9.1558	18.606	.02402
#1	-.00201	-.00607	.00088	.00705	.00661	.04024	.00069
#2	.00345	-.00512	Q.00843	.00009	.00581	.03088	.00069
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00075	-.00046	.01737	.00083	.00009	-.00010	.02298
SDev	.00020	.00006	.00233	.00015	.00164	.00008	.01650
%RSD	26.984	12.913	13.400	17.717	1891.4	86.634	71.793
#1	.00089	-.00042	.01901	.00072	.00125	-.00004	.03465
#2	.00061	-.00050	.01572	.00093	-.00107	-.00016	.01131
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00077	.00680	-.00104	-.00064	-.25281	-.00041	.00023
SDev	.00014	.00131	.00123	.00022	.04663	.00000	.00026
%RSD	18.673	19.333	119.03	34.240	18.445	.09680	111.09
#1	.00087	.00773	-.00191	-.00079	-.28578	-.00041	.00041
#2	.00067	.00587	-.00016	-.00048	-.21984	-.00041	.00005
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00082	.00623	.00296	.00360	.00318	-.00151	.00431
SDev	.00148	.00045	.00262	.00053	.00827	.00227	.00625
%RSD	180.90	7.2871	88.439	14.852	259.86	149.94	144.84
#1	-.00023	.00591	.00481	.00398	-.00267	.00009	.00873
#2	.00187	.00655	.00111	.00322	.00903	-.00312	-.00010
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00456	.01680	.00104	.00185	.03302		
SDev	.00608	.01446	.00026	.00075	.02122		
%RSD	133.20	86.077	25.003	40.392	64.250		
#1	.00886	.02702	.00085	.00132	.04802		
#2	.00027	.00657	.00122	.00238	.01802		

09/10/04

Method: 6010B

Sample Name: PB00931BL

Operator: DR

Run Time: 09/10/04 09:08:17

Comment: PBS

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00257	-.00701	.00479	-.00304	.00325	.03349	-.00087
SDev	.00370	.01130	.00197	.00148	.00404	.00367	.00026
%RSD	143.96	161.38	41.023	48.702	124.41	10.956	29.807
#1	.00519	Q-.01500	Q.00618	-.00200	.00611	.03608	-.00068
#2	-.00005	.00099	.00340	-.00409	.00039	.03090	-.00105
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00082	-.00086	.00585	.00052	-.00008	-.00056	-.00619
SDev	.00020	.00038	.00466	.00029	.00047	.00041	.02475
%RSD	24.682	44.667	79.589	56.525	591.16	72.657	399.64
#1	.00096	-.00113	.00914	.00031	-.00041	-.00085	.01131
#2	.00068	-.00059	.00256	.00072	.00025	-.00027	-.02369
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	-.00064	.00025	-.00049	-.32858	.00032	-.00092
SDev	.00000	.00132	.00188	.00044	.05642	.00000	.00021
%RSD	.75816	206.43	764.90	89.709	17.172	.14110	22.608
#1	-.00014	.00029	-.00109	-.00080	-.36847	.00032	-.00077
#2	-.00014	-.00157	.00158	-.00018	-.28868	.00032	-.00106
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00792	.00303	.00050	.00205	.00416	-.00702	-.00286
SDev	.00198	.00772	.00331	.00411	.00089	.00335	.00389
%RSD	24.970	255.03	668.30	200.29	21.481	47.718	136.27
#1	-.00931	.00848	-.00185	.00496	.00479	-.00939	-.00010
#2	-.00652	-.00243	.00284	-.00085	.00353	-.00465	-.00561
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00098	-.00752	-.00020	.00384	.01215		
SDev	.00044	.00110	.00019	.00580	.00092		
%RSD	44.872	14.560	96.971	151.15	7.5927		
#1	-.00130	-.00830	-.00006	-.00026	.01280		
#2	-.00067	-.00675	-.00034	.00794	.01150		

02 9/10/04

Method: 6010B

Sample Name: PB00931BS

Operator: DR

Run Time: 09/10/04 09:10:34

Comment: LCSS

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.76127	1.8668	.97443	1.6651	.78838	2.0020	2.3220
SDev	.00727	.0236	.00126	.0054	.00003	.0184	.0125
%RSD	.95492	1.2664	.12924	.32235	.00377	.92019	.53977

#1	.75613	1.8835	.97353	1.6689	.78840	1.9890	2.3132
#2	.76641	1.8501	.97532	1.6613	.78836	2.0151	2.3309

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18582	.20881	5.2390	.43333	.20457	.31904	3.2490
SDev	.00313	.00445	.1210	.00992	.00398	.00190	.0824
%RSD	1.6835	2.1298	2.3100	2.2903	1.9472	.59415	2.5360

#1	.18360	.20566	5.1535	.42631	.20176	.31770	3.1907
#2	.18803	.21195	5.3246	.44035	.20739	.32038	3.3072

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.22178	2.0269	.51295	.07825	2.4936	.31895	.18902
SDev	.00428	.0224	.01246	.00150	.2220	.00520	.00392
%RSD	1.9287	1.1032	2.4293	1.9210	8.9023	1.6296	2.0762

#1	.21876	2.0111	.50414	.07719	Q2.3367	.31527	.18624
#2	.22481	2.0427	.52176	.07931	2.6506	.32262	.19179

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.3599	.79035	.78122	.99995	.95968	1.6466	1.6727
SDev	.0326	.00238	.00485	.00962	.00292	.0003	.0082
%RSD	.34846	.30107	.62151	.96242	.30391	.01989	.49085

#1	9.3368	.78867	.78465	.99315	.96175	1.6463	1.6785
#2	9.3830	.79204	.77779	1.0068	.95762	1.6468	1.6669

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.42427	.28259	.21750	.69721	Q.87378
SDev	.00961	.00000	.00247	.00786	.01107
%RSD	2.2657	.00000	1.1331	1.1275	1.2668

#1	.41747	.28259	.21576	.69165	Q.86595
#2	.43107	.28259	.21924	.70277	Q.88160

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Analysis Report

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Method: 6010B Sample Name: S4422-01  
 Run Time: 09/10/04 09:18:11  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00826	-.02333	.01051	-.00317	-.00098	2.7206	.00713
SDev	.00556	.00732	.00036	.00004	.00018	.0411	.00013
%RSD	67.255	31.388	3.4469	1.1784	18.589	1.5115	1.7959
#1	-.00433	-.01815	.01026	-.00320	-.00085	2.7496	.00722
#2	-.01219	-.02850	.01077	-.00315	-.00111	2.6915	.00704
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00112	-.00222	.41397	.01928	.00274	.00365	4.3625
SDev	.00015	.00040	.00931	.00073	.00070	.00008	.1155
%RSD	13.619	18.046	2.2488	3.7683	25.695	2.0721	2.6470
#1	.00102	-.00250	.42055	.01979	.00224	.00359	4.4442
#2	.00123	-.00194	.40739	.01876	.00324	.00370	4.2808
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01756	.20863	.00303	-.00093	.02549	.00895	.02585
SDev	.00057	.00000	.00145	.00017	.14549	.00052	.00066
%RSD	3.2714	.00000	47.780	18.729	570.80	5.8491	2.5410
#1	.01797	.20863	.00405	-.00105	.12837	.00932	.02632
#2	.01716	.20863	.00201	-.00081	-.07739	.00858	.02539
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.16401	-.00026	-.00562	.02123	.00316	-.01456	.00071
SDev	.00791	.00045	.00035	.00176	.00034	.00161	.00075
%RSD	4.8211	171.79	6.1522	8.2843	10.580	11.090	105.48
#1	.15842	.00006	-.00587	.01999	.00340	-.01570	.00124
#2	.16960	-.00057	-.00538	.02248	.00293	-.01342	.00018
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00052	-.01124	.29221	-.00410	1.9379		
SDev	.00066	.00022	.00538	.00318	.0254		
%RSD	128.44	1.9489	1.8422	77.566	1.3090		
#1	-.00005	-.01108	.29602	-.00635	1.9559		
#2	-.00098	-.01139	.28840	-.00185	1.9200		

OK 9/10/04



Analysis Report

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Method: 6010B Sample Name: S4422-03  
 Run Time: 09/10/04 09:20:48  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00510	-.02025	.01374	-.00111	.00623	2.8384	.00621
SDev	.00386	.00499	.00053	.00074	.00016	.0169	.00013
%RSD	75.598	24.655	3.8460	66.678	2.6441	.59525	2.0976
#1	-.00237	-.02377	.01336	-.00059	.00611	2.8265	.00630
#2	-.00783	-.01672	.01411	-.00163	.00634	2.8504	.00612
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00105	-.00195	.40410	.01430	.00257	.00496	4.9283
SDev	.00015	.00030	.00931	.00015	.00047	.00040	.1072
%RSD	14.590	15.579	2.3037	1.0438	18.220	8.1422	2.1758
#1	.00116	-.00174	.39752	.01441	.00224	.00524	4.8525
#2	.00094	-.00217	.41068	.01420	.00290	.00467	5.0041
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01910	.23095	.00404	-.00084	.41854	.01043	.04958
SDev	.00015	.00526	.00101	.00018	.12311	.00052	.00141
%RSD	.76899	2.2781	25.046	21.254	29.414	5.0019	2.8371
#1	.01899	.22723	.00333	-.00071	.33149	.01006	.05058
#2	.01920	.23467	.00476	-.00096	.50559	.01080	.04859
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.17868	.00626	.00296	.03132	.00296	-.01529	.00417
SDev	.00494	.00151	.00253	.00297	.00228	.00076	.00149
%RSD	2.7657	24.103	85.355	9.4906	76.785	4.9898	35.707
#1	.17519	.00519	.00475	.03342	.00135	-.01583	.00523
#2	.18218	.00732	.00117	.02921	.00457	-.01475	.00312
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00044	-.01093	.26355	-.01893	1.8218		
SDev	.00144	.00022	.00324	.00019	.0060		
%RSD	327.92	2.0041	1.2305	.98899	.32911		
#1	.00058	-.01108	.26125	-.01879	1.8176		
#2	-.00145	-.01077	.26584	-.01906	1.8261		

*DR 9/10/04*

Analysis Report

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Method: 6010B Sample Name: S4422-03D  
 Run Time: 09/10/04 09:22:48  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01088	-.00660	.01079	.00107	.00066	2.8722	.00626
SDev	.00339	.00100	.00094	.00146	.00257	.0117	.00006
%RSD	31.196	15.111	8.7631	137.10	390.23	.40905	1.0261

#1	-.01328	-.00590	.01012	.00210	.00248	2.8805	.00621
#2	-.00848	-.00731	.01145	.00003	-.00116	2.8639	.00630

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00098	-.00179	.41068	.01461	.00224	.00479	5.0216
SDev	.00005	.00004	.00000	.00000	.00094	.00016	.0413
%RSD	5.0562	2.2115	.00000	.00777	41.848	3.3643	.82148

#1	.00101	-.00177	.41068	.01461	.00158	.00490	4.9925
#2	.00094	-.00182	.41068	.01461	.00290	.00468	5.0508

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01960	.23467	.00399	-.00063	.33808	.00970	.05078
SDev	.00000	.00263	.00007	.00002	.09886	.00052	.00001
%RSD	.00858	1.1210	1.7960	2.9249	29.241	5.3187	.01607

#1	.01960	.23281	.00394	-.00065	.40799	.01007	.05078
#2	.01961	.23653	.00404	-.00062	.26818	.00934	.05077

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18637	.00112	-.00346	.02484	.00177	-.01200	.00579
SDev	.00099	.00303	.00166	.00219	.00251	.00454	.00446
%RSD	.53032	271.28	48.003	8.8292	142.12	37.854	77.006

#1	.18567	.00326	-.00229	.02640	-.00001	-.01521	.00894
#2	.18707	-.00103	-.00463	.02329	.00354	-.00879	.00264

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00066	-.01031	.26731	-.02567	1.8535
SDev	.00077	.00022	.00091	.00075	.0028
%RSD	117.94	2.1246	.33968	2.9160	.14930

#1	.00011	-.01016	.26666	-.02515	1.8554
#2	.00120	-.01047	.26795	-.02620	1.8515

*OK 9/10/04*

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Method: 6010B

Sample Name: S4422-03LX5

Operator: DR

Run Time: 09/10/04 09:25:15

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00145	-.00791	.00749	-.00324	.00134	.60724	-.00069
SDev	.00170	.00599	.00146	.00080	.00251	.00441	.00013
%RSD	117.03	75.734	19.516	24.588	187.84	.72588	18.632
#1	-.00265	-.01214	.00852	-.00381	-.00044	.61036	-.00060
#2	-.00025	-.00367	.00646	-.00268	.00312	.60413	-.00079
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00093	-.00120	.08813	.00276	.00058	.00043	1.0437
SDev	.00005	.00075	.00000	.00000	.00141	.00025	.0062
%RSD	5.5942	62.788	.00000	.01272	240.90	57.341	.78970
#1	.00096	-.00173	.08813	.00276	.00158	.00026	1.0379
#2	.00089	-.00067	.08813	.00276	-.00041	.00060	1.0495
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00373	.04773	.00033	-.00090	-.16180	.00147	.00955
SDev	.00000	.00395	.00102	.00012	.01119	.00052	.00000
%RSD	.00752	8.2679	309.48	12.973	6.9169	35.281	.01882
#1	.00373	.04494	.00105	-.00098	-.16972	.00110	.00955
#2	.00373	.05052	-.00039	-.00082	-.15389	.00183	.00955
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01794	.00179	-.00277	.01113	.00367	-.00925	-.00204
SDev	.01384	.00303	.00149	.00406	.00422	.00616	.00188
%RSD	77.121	169.23	53.712	36.494	114.96	66.609	92.006
#1	.00816	-.00035	-.00382	.00826	.00665	-.01361	-.00071
#2	.02773	.00393	-.00172	.01401	.00069	-.00489	-.00337
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00059	-.01108	.05236	-.00596	.40350		
SDev	.00144	.00088	.00006	.00356	.00092		
%RSD	241.70	7.9045	.12388	59.718	.22861		
#1	-.00161	-.01170	.05240	-.00344	.40285		
#2	.00042	-.01047	.05231	-.00847	.40415		

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Method: 6010B

Sample Name: S4422-03S

Operator: DR

Run Time: 09/10/04 09:27:18

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.92337	2.1535	1.0947	2.4512	.73392	5.9037	2.4232
SDev	.00864	.0080	.0006	.0002	.00338	.0316	.0160
%RSD	.93567	.37066	.05502	.00855	.46016	.53463	.65860

#1	.91726	2.1592	1.0943	2.4510	.73153	5.9260	2.4345
#2	.92948	2.1479	1.0951	2.4513	.73631	5.8813	2.4119

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.23252	.23262	6.0471	.46047	.21932	.32657	6.7776
SDev	.00066	.00129	.0070	.00059	.00047	.00271	.0247
%RSD	.28459	.55617	.11546	.12706	.21375	.82921	.36486

#1	.23298	.23353	6.0421	.46089	.21965	.32849	6.7601
#2	.23205	.23170	6.0520	.46006	.21899	.32466	6.7951

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.24066	2.5003	.55372	.05060	2.6344	.33195	.21158
SDev	.00029	.0132	.00065	.00010	.0504	.00155	.00096
%RSD	.11904	.52607	.11786	.20152	1.9117	.46779	.45341

#1	.24046	2.5096	.55418	.05067	2.6700	.33085	.21091
#2	.24086	2.4910	.55326	.05052	2.5988	.33305	.21226

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.4364	.73700	.72454	1.0836	1.0985	2.4500	2.4502
SDev	.0904	.00515	.00016	.0033	.0027	.0011	.0002
%RSD	.95837	.69822	.02284	.30046	.24302	.04417	.00923

#1	9.5004	.73336	.72466	1.0859	1.0966	2.4492	2.4504
#2	9.3725	.74064	.72442	1.0813	1.1004	2.4507	2.4501

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.43154	.28662	.33514	.74181	.50754
SDev	.00508	.00175	.00032	.00206	.00507
%RSD	1.1778	.61141	.09676	.27754	.99960

#1	.42794	.28538	.33536	.74327	.50395
#2	.43513	.28785	.33491	.74036	.51112

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Method: 6010B Sample Name: S4422-03SD  
 Run Time: 09/10/04 09:29:06  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.92554	2.1663	1.0878	2.4486	.73407	5.8792	2.4100
SDev	.00926	.0692	.0021	.0028	.00512	.0235	.0069
%RSD	1.0006	3.1932	.19279	.11453	.69789	.39976	.28687
#1	.93209	2.1173	1.0864	2.4506	.73769	5.8626	2.4051
#2	.91899	2.2152	1.0893	2.4467	.73044	5.8958	2.4148
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.23027	.22926	5.9911	.45573	.21783	.32477	6.6960
SDev	.00020	.00060	.0070	.00175	.00117	.00099	.0083
%RSD	.08796	.25980	.11654	.38450	.53812	.30371	.12328
#1	.23041	.22884	5.9960	.45697	.21700	.32407	6.6902
#2	.23013	.22968	5.9862	.45449	.21866	.32547	6.7019
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.23814	2.4780	.55095	.04976	2.6040	.32791	.21181
SDev	.00014	.0053	.00080	.00034	.0056	.00000	.00059
%RSD	.05977	.21232	.14464	.67329	.21489	.00087	.27613
#1	.23824	2.4742	.55039	.05000	2.6001	.32791	.21139
#2	.23804	2.4817	.55152	.04953	2.6080	.32791	.21222
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.4165	.73788	.72322	1.0724	1.0937	2.4362	2.4533
SDev	.0524	.00302	.00933	.0125	.0031	.0097	.0091
%RSD	.55629	.40931	1.2907	1.1620	.28136	.39933	.36937
#1	9.3795	.74002	.72982	1.0636	1.0959	2.4293	2.4597
#2	9.4535	.73575	.71662	1.0812	1.0916	2.4431	2.4469
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.42599	.28352	.33289	.74565	.50330		
SDev	.00144	.00175	.00039	.00075	.01107		
%RSD	.33719	.61809	.11690	.10041	2.1993		
#1	.42498	.28476	.33261	.74512	.49547		
#2	.42701	.28228	.33316	.74618	.51112		

DR 9/10/04

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Method: 6010B      Sample Name: S4422-03A      Operator: DR  
 Run Time: 09/10/04 09:30:53  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.92511	2.1733	1.0924	2.4450	.73560	5.8886	2.4197
SDev	.00062	.0100	.0074	.0094	.00580	.0294	.0056
%RSD	.06707	.45946	.67291	.38614	.78901	.49896	.23230

#1	.92467	2.1804	1.0872	2.4383	.73970	5.8678	2.4158
#2	.92555	2.1662	1.0976	2.4516	.73149	5.9094	2.4237

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.23287	.23327	6.0438	.45996	.21982	.32657	6.7543
SDev	.00086	.00094	.0256	.00190	.00211	.00173	.0082
%RSD	.36966	.40356	.42359	.41258	.95959	.52846	.12205

#1	.23226	.23260	6.0257	.45862	.21832	.32535	6.7485
#2	.23348	.23393	6.0619	.46130	.22131	.32779	6.7601

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.24066	2.4938	.55618	.05067	2.4609	.33231	.21254
SDev	.00085	.0039	.00428	.00045	.1296	.00000	.00052
%RSD	.35523	.15823	.76862	.88522	5.2678	.00114	.24476

#1	.24006	2.4910	.55315	.05098	2.5526	.33231	.21290
#2	.24127	2.4966	.55920	.05035	2.3693	.33232	.21217

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.4196	.73915	.72528	1.0813	1.0962	2.4401	2.4458
SDev	.0272	.00818	.00105	.0117	.0052	.0059	.0112
%RSD	.28855	1.1065	.14434	1.0783	.47437	.24363	.45738

#1	9.4004	.74493	.72602	1.0731	1.0925	2.4359	2.4379
#2	9.4389	.73336	.72454	1.0896	1.0998	2.4443	2.4537

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.43201	.28600	.33523	.74036	.51210
SDev	.00088	.00219	.00123	.00973	.00323
%RSD	.20461	.76592	.36760	1.3146	.63043

#1	.43138	.28754	.33436	.73348	.51438
#2	.43263	.28445	.33610	.74724	.50982

OK 9/10/04

Analysis Report

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Method: 6010B Sample Name: S4422-04  
 Run Time: 09/10/04 09:33:24  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00227	-.01463	.00817	.00043	.00095	2.3462	.00635
SDev	.00447	.00233	.00208	.00297	.00110	.0463	.00019
%RSD	196.68	15.901	25.436	696.48	115.29	1.9721	3.0287

#1	-.00544	-.01628	.00964	-.00167	.00173	2.3789	.00649
#2	.00089	-.01299	.00670	.00252	.00018	2.3135	.00622

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00130	-.00216	.86653	.01184	.00257	.00423	4.4267
SDev	.00010	.00012	.03026	.00043	.00094	.00026	.1402
%RSD	7.8709	5.6526	3.4915	3.6622	36.441	6.0315	3.1677

#1	.00123	-.00225	.88792	.01215	.00324	.00441	4.5258
#2	.00137	-.00208	.84513	.01154	.00191	.00405	4.3275

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02200	.28024	.00400	-.00066	.06308	.00967	.01764
SDev	.00086	.00921	.00181	.00108	.01212	.00052	.00096
%RSD	3.9114	3.2854	45.212	162.53	19.221	5.4178	5.4300

#1	.02261	.28675	.00528	.00010	.05451	.01004	.01832
#2	.02139	.27373	.00272	-.00143	.07165	.00930	.01697

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.15387	.00137	-.00309	.01255	.00399	-.00179	-.00026
SDev	.00346	.00029	.00271	.00134	.00245	.00713	.00089
%RSD	2.2481	21.450	87.640	10.709	61.324	397.16	335.45

#1	.15143	.00158	-.00117	.01350	.00572	-.00683	-.00089
#2	.15632	.00116	-.00500	.01160	.00226	.00324	.00036

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00067	-.00938	.24305	-.01165	1.0081
SDev	.00199	.00022	.00655	.00524	.0203
%RSD	295.77	2.3351	2.6952	45.000	2.0130

#1	-.00208	-.00954	.24768	-.01535	1.0225
#2	.00073	-.00923	.23841	-.00794	.99379

OK 9/10/04

Method: 6010B Sample Name: CCV  
 Run Time: 09/10/04 09:35:39  
 Comment: CCV  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.2448	5.2324	5.1182	5.2817	5.1554	10.256	10.440
SDev	.0280	.0297	.0464	.0460	.0421	.080	.059
%RSD	.53299	.56763	.90584	.87100	.81673	.78429	.56256
#1	5.2251	5.2114	5.0854	5.2491	5.1256	10.199	10.398
#2	5.2646	5.2534	5.1509	5.3142	5.1852	10.313	10.481
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.25843	2.5796	25.492	1.0147	2.5367	1.2657	4.9278
SDev	.00333	.0293	.403	.0155	.0328	.0055	.0903
%RSD	1.2895	1.1362	1.5794	1.5244	1.2938	.43655	1.8332
#1	.25607	2.5589	25.207	1.0037	2.5135	1.2618	4.8640
#2	.26079	2.6003	25.777	1.0256	2.5599	1.2696	4.9917
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.5304	25.594	2.5627	1.2942	25.546	2.5180	2.3294
SDev	.0349	.203	.0246	.0172	.224	.0275	.0330
%RSD	1.3797	.79143	.95843	1.3282	.87621	1.0908	1.4181
#1	2.5057	25.450	2.5454	1.2821	25.388	2.4986	2.3060
#2	2.5551	25.737	2.5801	1.3064	25.704	2.5374	2.3527
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	26.167	5.1952	5.0724	5.1162	5.1167	5.2742	5.2836
SDev	.032	.0353	.0556	.0209	.0591	.0280	.0550
%RSD	.12087	.68036	1.0970	.40819	1.1547	.53061	1.0409
#1	26.145	5.1702	5.0331	5.1014	5.0749	5.2545	5.2447
#2	26.190	5.2202	5.1118	5.1310	5.1585	5.2940	5.3224
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	5.1804	5.1736	5.0616	5.0703	5.3854		
SDev	.0477	.0467	.0510	.0251	.0563		
%RSD	.92140	.90184	1.0084	.49466	1.0448		
#1	5.1466	5.1406	5.0255	5.0525	5.3456		
#2	5.2141	5.2066	5.0977	5.0880	5.4252		

09/10/04



Method: 6010B Sample Name: CCB  
 Run Time: 09/10/04 09:37:37  
 Comment: CCB  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00224	-.00136	-.00050	.00082	-.00141	.03245	-.00160
SDev	.00139	.00001	.00165	.00338	.00314	.00075	.00039
%RSD	61.873	.42920	329.45	412.77	221.90	2.2976	24.277
#1	.00323	-.00137	.00066	.00321	-.00363	.03297	-.00187
#2	.00126	-.00136	-.00166	-.00157	.00080	.03192	-.00132
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00122	-.00152	.00256	.00031	.00158	-.00068	-.00617
SDev	.00005	.00044	.00000	.00000	.00234	.00024	.00825
%RSD	4.1582	28.799	.00000	.07941	148.53	36.024	133.63
#1	.00125	-.00121	.00256	.00031	.00324	-.00085	-.00034
#2	.00118	-.00183	.00256	.00031	-.00008	-.00051	-.01201
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00034	-.00157	.00014	-.00033	-.29370	-.00114	-.00070
SDev	.00000	.00263	.00072	.00046	.02984	.00000	.00052
%RSD	.11049	167.85	503.68	137.47	10.162	.02899	73.635
#1	-.00034	-.00343	-.00037	-.00001	-.31480	-.00114	-.00034
#2	-.00034	.00029	.00066	-.00065	-.27259	-.00114	-.00106
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00792	-.00147	-.00451	-.00131	-.00209	-.00473	.00189
SDev	.00494	.00318	.00305	.00397	.00049	.00184	.00401
%RSD	62.425	216.62	67.715	303.15	23.250	38.893	212.26
#1	-.00442	-.00371	-.00667	.00150	-.00175	-.00343	.00472
#2	-.01141	.00078	-.00235	-.00411	-.00244	-.00603	-.00095
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00308	.00425	-.00038	.00172	.02193		
SDev	.00309	.01030	.00019	.00169	.00277		
%RSD	100.52	242.27	50.657	97.870	12.617		
#1	.00527	.01153	-.00052	.00053	.02389		
#2	.00089	-.00303	-.00025	.00291	.01998		

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Method: 6010B

Sample Name: S4422-05

Operator: DR

Run Time: 09/10/04 09:39:29

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00900	-.02725	.01794	.00152	.00214	2.9002	.00846
SDev	.00049	.00234	.00099	.00021	.00262	.6491	.00502
%RSD	5.4026	8.5918	5.5294	14.096	122.46	22.383	59.329
#1	-.00934	-.02560	.01724	.00167	.00029	2.4412	.00491
#2	-.00865	-.02891	.01864	.00137	.00400	3.3592	.01201
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00123	-.00292	.50284	.01327	.00009	.00644	8.3289
SDev	.00011	.00045	.22342	.00228	.00305	.00233	1.9302
%RSD	8.6284	15.360	44.432	17.159	3560.1	36.254	23.175
#1	.00130	-.00261	.34485	.01166	-.00207	.00479	6.9640
#2	.00115	-.00324	.66082	.01488	.00224	.00809	9.6938
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06175	.27373	.00490	-.00029	.67244	.01020	.04191
SDev	.03271	.18677	.00271	.00141	.15762	.00215	.00165
%RSD	52.965	68.232	55.452	492.04	23.440	21.103	3.9405
#1	.03862	.14166	.00298	.00071	.56099	.00868	.04075
#2	.08488	.40580	.00682	-.00128	.78389	.01172	.04308
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18043	-.00054	.00432	.04161	.00412	-.02580	.01336
SDev	.05485	.00232	.00324	.00091	.00194	.00303	.00119
%RSD	30.402	427.37	75.073	2.1917	47.130	11.752	8.9341
#1	.14164	-.00218	.00203	.04226	.00275	-.02366	.01251
#2	.21922	.00110	.00661	.04097	.00550	-.02795	.01420
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00277	-.00783	.14156	-.00410	1.5162		
SDev	.00044	.00022	.06265	.00580	.0194		
%RSD	15.983	2.7968	44.260	141.44	1.2776		
#1	.00308	-.00799	.09725	.00000	1.5025		
#2	.00245	-.00768	.18586	-.00820	1.5299		

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Method: 6010B Sample Name: S4422-06  
 Run Time: 09/10/04 09:41:17  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00293	.02308	.01492	.00020	.00299	2.7844	.00900
SDev	.00324	.00832	.00159	.00051	.00297	.0595	.00032
%RSD	110.44	36.051	10.677	254.41	99.439	2.1364	3.5665

#1	-.00522	-.01720	.01604	.00016	-.00089	2.8265	.00923
#2	-.00064	-.02896	.01379	-.00056	-.00509	2.7424	.00878

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00105	.00236	.35144	.01071	.00158	.00300	4.2984
SDev	.00036	.00089	.01862	.00029	.00000	.00001	.1897
%RSD	33.927	37.553	5.2978	2.6712	.00730	.37880	4.4136

#1	.00080	-.00299	.36460	.01091	.00158	.00301	4.4325
#2	.00130	-.00173	.33827	.01051	.00158	.00300	4.1642

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01454	.19468	.00426	.00080	.39546	.00930	.03180
SDev	.00058	.00658	.00058	.00059	.02705	.00104	.00236
%RSD	3.9724	3.3782	13.521	74.278	6.8393	11.220	7.4137

#1	.01495	.19933	.00467	-.00122	.37633	.01004	.03347
#2	.01413	.19002	.00385	-.00038	.41458	.00856	.03013

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.17205	.00268	.00679	.03075	.00502	.01426	.00502
SDev	.01433	.00362	.00166	.00443	.00018	.00096	.00125
%RSD	8.3300	134.88	24.491	14.404	3.5301	6.7452	24.901

#1	.18218	-.00012	-.00562	.03388	.00514	-.01494	.00590
#2	.16191	-.00525	-.00797	.02761	.00489	-.01358	.00413

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00081	.00799	.18677	.01270	1.5237
SDev	.00055	.00088	.00662	.00449	.0235
%RSD	68.034	10.970	3.5419	35.357	1.5437

#1	.00120	-.00737	.19145	-.01588	1.5404
#2	.00042	-.00861	.18210	-.00953	1.5071

02 9/10/04

Analysis Report

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Method: 6010B Sample Name: S4422-07  
 Run Time: 09/10/04 09:43:08  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	-.01310	-.03443	.01938	.00236	.00258	2.0606	.00701
SDev	.00309	.00765	.00060	.00340	.00164	.0169	.00006
%RSD	23.570	22.208	3.1023	143.80	63.484	.81984	.92961

#1	-.01528	-.02902	.01895	-.00004	.00374	2.0486	.00706
#2	-.01091	-.03984	.01980	.00476	.00142	2.0725	.00697

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.00099	.00244	1.3125	.00963	.00025	.00412	2.5135
SDev	.00015	.00002	.0372	.00044	.00094	.00008	.0577
%RSD	15.579	.81464	2.8371	4.5284	372.98	1.9241	2.2967

#1	.00110	.00243	1.2862	.00932	.00091	.00417	2.4727
#2	.00088	.00246	1.3388	.00994	-.00041	.00406	2.5544

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.00862	.35465	.00465	-.00080	.96195	.00483	.08195
SDev	.00029	.00131	.00022	.00070	.13990	.00104	.00246
%RSD	3.3317	.37088	4.6960	88.013	14.543	21.482	2.9987

#1	.00842	.35372	.00481	-.00130	.86303	.00410	.08021
#2	.00883	.35558	.00450	-.00030	1.0609	.00557	.08369

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.18917	.00244	-.00034	.04932	.00243	-.02521	.01433
SDev	.00494	.00106	.00279	.00180	.00000	.00119	.00449
%RSD	2.6124	43.640	815.89	3.6426	.17456	4.7287	31.372

#1	.19266	.00319	.00163	.04805	.00242	-.02606	.01115
#2	.18567	.00169	-.00231	.05059	.00243	-.02437	.01751

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avgc	.00144	-.00876	.14674	-.01231	1.4213
SDev	.00099	.00022	.00162	.00056	.0143
%RSD	69.198	2.5002	1.1050	4.5622	1.0059

#1	.00214	-.00892	.14559	-.01270	1.4112
#2	.00073	-.00861	.14788	-.01191	1.4315

DR 9/10/04

Analysis Report

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Method: 6010B Sample Name: S4422-08  
 Run Time: 09/10/04 09:46:25  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01155	-.02571	.02059	-.00131	.00303	2.7631	.01559
SDev	.00062	.01597	.00085	.00109	.00221	.0323	.00019
%RSD	5.3291	62.097	4.1166	83.165	72.927	1.1697	1.2389
#1	-.01199	-.03700	.01999	-.00054	.00147	2.7860	.01573
#2	-.01112	-.01442	.02119	-.00208	.00459	2.7403	.01546
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00087	-.00325	.34979	.01352	.00191	.00562	3.3942
SDev	.00000	.00067	.00698	.00044	.00234	.00017	.0660
%RSD	.00087	20.736	1.9960	3.2238	122.83	3.0164	1.9442
#1	.00087	-.00372	.35473	.01383	.00357	.00574	3.4409
#2	.00087	-.00277	.34485	.01322	.00025	.00550	3.3476
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01430	.18909	.00832	.00007	.60517	.01000	.04205
SDev	.00029	.00131	.00167	.00093	.10539	.00000	.00069
%RSD	2.0110	.69558	20.003	1273.2	17.415	.03434	1.6434
#1	.01450	.18816	.00950	.00073	.67969	.01000	.04254
#2	.01410	.19002	.00715	-.00059	.53065	.01000	.04156
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19546	.00152	.00283	.04630	.00576	-.02157	.00700
SDev	.01285	.00379	.00096	.00045	.00105	.00087	.00120
%RSD	6.5737	248.74	33.855	.97002	18.181	4.0263	17.166
#1	.20454	-.00116	.00351	.04599	.00502	-.02096	.00785
#2	.18637	.00420	.00216	.04662	.00650	-.02219	.00615
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00112	-.00783	.26089	-.01826	1.7654		
SDev	.00210	.00066	.00220	.00037	.0166		
%RSD	186.68	8.3905	.84525	2.0497	.94050		
#1	.00261	-.00830	.26245	-.01853	1.7771		
#2	-.00036	-.00737	.25933	-.01800	1.7537		

DR 9/10/04

Method: 6010B Sample Name: S4422-09  
 Run Time: 09/10/04 09:48:21  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00610	-.00832	.01210	-.00191	.00297	3.2117	.00897
SDev	.00062	.01064	.00407	.00181	.00371	.0264	.00026
%RSD	10.131	127.93	33.600	94.798	124.84	.82306	2.8784

#1	-.00567	-.01584	.01498	-.00319	.00035	3.2304	.00915
#2	-.00654	-.00079	.00923	-.00063	.00560	3.1930	.00879

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00106	-.00289	.38106	.01240	.00257	.00845	3.1785
SDev	.00005	.00028	.00466	.00058	.00000	.00008	.0247
%RSD	4.7927	9.6086	1.2215	4.7050	.01806	.98874	.77853

#1	.00109	-.00270	.38435	.01281	.00257	.00851	3.1960
#2	.00102	-.00309	.37777	.01198	.00257	.00839	3.1610

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01369	.20584	.02918	-.00066	.35984	.00706	.03264
SDev	.00000	.00395	.00232	.00001	.11285	.00000	.00031
%RSD	.00711	1.9170	7.9438	1.6810	31.361	.02905	.94950

#1	.01369	.20863	.03082	-.00065	.43964	.00706	.03242
#2	.01369	.20305	.02754	-.00067	.28005	.00706	.03286

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.15353	.00453	-.00335	.02300	.00466	-.00737	-.00099
SDev	.00988	.00439	.00236	.00243	.00731	.00562	.00552
%RSD	6.4378	96.864	70.287	10.551	156.69	76.298	560.08

#1	.14654	.00143	-.00502	.02128	.00983	-.00339	-.00489
#2	.16051	.00764	-.00169	.02472	-.00050	-.01134	.00292

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.00105	-.00954	.19673	-.00754	1.9986
SDev	.00000	.00219	.00097	.00430	.0171
%RSD	.00000	22.971	.49453	57.070	.85385

#1	.00105	-.01108	.19741	-.00450	2.0107
#2	.00105	-.00799	.19604	-.01059	1.9865

OK 9/10/04

Analysis Report

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Method: 6010B Sample Name: S4422-10  
 Run Time: 09/10/04 09:50:14  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00335	.02158	.01265	.00038	.00108	1.9786	.00429
SDev	.00324	.00400	.00280	.00020	.00265	.0140	.00013
%RSD	96.657	18.516	22.123	51.643	245.20	.70536	3.0053
#1	-.00564	-.02440	.01067	.00024	-.00295	1.9884	.00438
#2	-.00106	-.01875	.01463	.00052	.00079	1.9687	.00120
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00124	.00198	1.0410	.01657	.00224	.00555	5.0450
SDev	.00010	.00097	.0116	.00073	.00000	.00008	.0247
%RSD	8.0794	49.041	1.1179	4.3995	.00710	1.5070	.49036
#1	.00131	-.00129	1.0492	.01709	.00224	.00561	5.0625
#2	.00117	-.00266	1.0327	.01606	.00224	.00549	5.0275
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07552	.30628	.00337	-.00049	.33544	.00531	.02691
SDev	.00157	.00658	.00080	.00024	.13057	.00052	.00013
%RSD	2.0766	2.1472	23.614	47.924	38.925	9.7854	.48797
#1	.07663	.31093	.00394	-.00033	.42777	.00568	.02700
#2	.07441	.30163	.00281	-.00066	.24312	.00495	.02682
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.14199	-.00114	-.00416	.02654	.00372	-.01737	.00744
SDev	.00049	.00258	.00279	.00020	.00430	.00411	.00235
%RSD	.34803	226.16	66.982	.76229	115.60	23.649	31.510
#1	.14164	-.00296	-.00614	.02668	.00068	-.01447	.00579
#2	.14234	.00068	-.00219	.02640	.00676	-.02028	.00910
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00152	-.01031	.09294	-.00344	1.1516		
SDev	.00199	.00022	.00065	.00599	.0120		
%RSD	131.26	2.1246	.69782	174.09	1.0413		
#1	.00292	-.01016	.09340	-.00768	1.1601		
#2	.00011	-.01047	.09248	.00079	1.1432		

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Analysis Report

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Method: 6010B Sample Name: S4542-01  
 Run Time: 09/10/04 09:52:06  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00459	-.02351	.40992	.00553	-.00171	36.338	.55708
SDev	.00385	.01560	.00739	.00190	.00330	.403	.00484
%RSD	83.878	66.373	1.8028	34.290	193.53	1.1093	.86824
#1	.00731	-.03454	.40470	.00687	-.00404	36.053	.55366
#2	.00187	-.01248	.41515	.00419	.00063	36.623	.56050
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00323	.00293	28.270	.10259	.04566	.15493	86.086
SDev	.00010	.00028	.356	.00032	.00188	.00120	.916
%RSD	3.0288	9.4658	1.2596	.31110	4.1086	.77662	1.0637
#1	.00330	.00313	28.018	.10281	.04698	.15407	85.438
#2	.00316	.00273	28.522	.10236	.04433	.15578	86.733
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.5096	17.956	.12190	-.00152	1.3979	.14048	.15899
SDev	.0268	.129	.00027	.00435	.2789	.00152	.00184
%RSD	1.0689	.71786	.22273	285.14	19.949	1.0798	1.1586
#1	2.4906	17.865	.12171	.00155	1.5950	.14155	.15769
#2	2.5286	18.047	.12209	-.00460	1.2007	.13941	.16029
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.4481	-.00306	-.00221	.41812	.40383	-.01728	.01511
SDev	.0173	.00117	.00758	.00173	.01194	.00448	.00508
%RSD	.23223	38.162	343.46	.41333	2.9573	25.904	33.587
#1	7.4359	-.00388	-.00757	.41934	.39539	-.02044	.01870
#2	7.4603	-.00223	.00315	.41690	.41228	-.01411	.01152
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00013	-.01434	1.9541	-.11276	2.1421		
SDev	.00011	.00197	.0173	.00000	.0180		
%RSD	88.027	13.750	.88618	.00000	.83970		
#1	-.00020	-.01294	1.9419	-.11275	2.1294		
#2	-.00005	-.01573	1.9664	-.11276	2.1548		

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Analysis Report

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Method: 6010B Sample Name: S4543-01  
 Run Time: 09/10/04 09:54:07  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02969	-.04763	.64018	.01646	-.00105	83.571	1.4957
SDev	.00108	.00100	.00357	.00153	.00107	.332	.0085
%RSD	3.6289	2.0974	.55818	9.2652	101.49	.39714	.56596
#1	.02893	-.04692	.63765	.01538	-.00030	83.336	1.4897
#2	.03045	-.04833	.64271	.01754	-.00181	83.805	1.5017
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00422	.00871	74.632	.14021	.07599	.52045	146.21
SDev	.00000	.00092	.072	.00087	.00117	.00246	.11
%RSD	.05429	10.581	.09667	.62234	1.5427	.47213	.07333
#1	.00422	.00936	74.683	.14082	.07516	.51871	146.29
#2	.00422	.00806	74.581	.13959	.07682	.52218	146.13
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.3346	45.059	.15016	-.01011	1.5416	.21359	.30298
SDev	.0019	.057	.00036	.00197	.1296	.00104	.00054
%RSD	.05569	.12552	.24270	19.463	8.4091	.48744	.17948
#1	3.3359	45.019	.14990	-.00872	1.6333	.21433	.30336
#2	3.3333	45.099	.15042	-.01150	1.4500	.21286	.30259
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.519	-.00481	.00328	.63530	.64042	-.01081	.02828
SDev	.061	.00347	.00375	.00602	.00235	.00076	.00267
%RSD	.44961	72.135	114.35	.94673	.36767	7.0547	9.4330
#1	13.476	-.00236	.00063	.63105	.63875	-.01027	.02639
#2	13.562	-.00727	.00592	.63955	.64208	-.01134	.03016
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00098	-.00535	2.3917	-.14347	5.4647		
SDev	.00199	.00066	.0064	.00337	.0309		
%RSD	201.93	12.275	.26847	2.3483	.56547		
#1	-.00239	-.00582	2.3872	-.14585	5.4428		
#2	.00042	-.00489	2.3963	-.14108	5.4865		

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Analysis Report

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Method: 6010B Sample Name: S4544-01  
 Run Time: 09/10/04 09:56:05  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00627	-.02895	.04732	.01680	-.00367	60.827	.41019
SDev	.00601	.00766	.00263	.00078	.00111	.222	.00175
%RSD	95.813	26.465	5.5509	4.6599	30.275	.36456	.42660
#1	.01053	-.03436	.04917	.01625	-.00446	60.983	.41143
#2	.00202	-.02353	.04546	.01735	-.00289	60.670	.40896
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00581	.00918	48.000	.07065	.06208	.13373	172.87
SDev	.00010	.00131	.140	.00002	.00070	.00071	.54
%RSD	1.7827	14.241	.29092	.02306	1.1331	.52879	.31016
#1	.00588	.00826	47.901	.07066	.06258	.13423	172.49
#2	.00574	.01010	48.099	.07064	.06159	.13323	173.25
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.7471	30.502	.04557	-.01219	1.3042	.20575	-.16870
SDev	.0053	.012	.00042	.00123	.1091	.00106	.00152
%RSD	.19269	.03881	.93059	10.089	8.3666	.51358	.90247
#1	2.7434	30.493	.04527	-.01132	1.3814	.20500	-.16763
#2	2.7509	30.510	.04587	-.01306	1.2271	.20650	-.16978
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.7420	-.00588	-.00245	.03812	.04981	-.01981	.03328
SDev	.0529	.00406	.00479	.00546	.00135	.00360	.00062
%RSD	1.1151	68.997	195.95	14.317	2.7189	18.155	1.8694
#1	4.7794	-.00875	.00094	.04198	.05077	-.02236	.03372
#2	4.7046	-.00301	-.00583	.03426	.04885	-.01727	.03284
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00138	-.03649	5.0287	-.32796	3.7248		
SDev	.00122	.00175	.0007	.00299	.0148		
%RSD	88.355	4.8028	.01419	.91313	.39623		
#1	-.00052	-.03525	5.0282	-.32584	3.7352		
#2	-.00224	-.03773	5.0292	-.33008	3.7143		

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Analysis Report

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Method: 6010B Sample Name: S4544-02  
 Run Time: 09/10/04 09:58:01  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	-.03366	.04185	.01029	.00132	50.013	.40365
SDev	.00679	.00735	.00027	.00003	.00484	.297	.00206
%RSD	5677.6	21.830	.64816	.29900	365.87	.59462	.51163
#1	.00468	-.03885	.04165	.01031	.00475	50.224	.40511
#2	-.00492	-.02846	.04204	.01027	-.00210	49.803	.40219
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00484	.00531	44.427	.05006	.05363	.13169	136.98
SDev	.00005	.00036	.282	.00001	.00047	.00010	.24
%RSD	1.0469	6.8213	.63386	.01434	.87396	.07346	.17464
#1	.00487	.00505	44.626	.05006	.05396	.13176	137.15
#2	.00480	.00557	44.228	.05007	.05330	.13162	136.81
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.5822	28.473	.03993	-.01100	1.2963	.14498	-.17398
SDev	.0140	.097	.00115	.00137	.0233	.00001	.00162
%RSD	.54114	.34184	2.8914	12.433	1.7987	.00659	.93287
#1	2.5920	28.542	.04075	-.01197	1.3128	.14499	-.17513
#2	2.5723	28.404	.03911	-.01003	1.2798	.14497	-.17283
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.8857	-.00241	.00559	.04317	.03899	-.02266	.02494
SDev	.0316	.00574	.00305	.00034	.00058	.00291	.00150
%RSD	.53737	238.53	54.609	.78995	1.4798	12.842	6.0096
#1	5.9081	.00165	.00775	.04341	.03858	-.02472	.02600
#2	5.8634	-.00646	.00343	.04293	.03939	-.02060	.02388
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00098	-.02967	4.2335	-.25967	2.2044		
SDev	.00066	.00000	.0191	.00487	.0083		
%RSD	67.308	.00000	.45194	1.8741	.37660		
#1	-.00145	-.02967	4.2470	-.26311	2.2102		
#2	-.00052	-.02967	4.2200	-.25623	2.1985		

DR 9/10/04

Method: 6010B Sample Name: CCV  
 Run Time: 09/10/04 10:01:42  
 Comment: CCV  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1190	5.1664	5.0070	5.1398	5.0117	9.8891	10.187
SDev	.0262	.0311	.0073	.0180	.0076	.0230	.044
%RSD	.51275	.60279	.14539	.34993	.15086	.23252	.43572
#1	5.1376	5.1884	5.0122	5.1271	5.0170	9.9053	10.219
#2	5.1004	5.1444	5.0019	5.1525	5.0063	9.8728	10.156
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.25450	2.5453	25.337	1.0026	2.4966	1.2311	4.9284
SDev	.00173	.0215	.189	.0104	.0164	.0036	.0245
%RSD	.68163	.84579	.74400	1.0335	.65717	.29435	.49700
#1	.25573	2.5605	25.471	1.0099	2.5082	1.2336	4.9457
#2	.25328	2.5300	25.204	.99528	2.4850	1.2285	4.9111
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.4972	25.027	2.5215	1.2728	25.097	2.4792	2.3059
SDev	.0170	.109	.0289	.0106	.053	.0171	.0135
%RSD	.67902	.43620	1.1465	.83428	.21183	.68980	.58762
#1	2.5092	25.104	2.5420	1.2803	25.134	2.4913	2.3154
#2	2.4852	24.950	2.5011	1.2653	25.059	2.4671	2.2963
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.313	5.0380	4.9558	4.9596	5.0287	5.1019	5.1571
SDev	.054	.0233	.0239	.0423	.0102	.0365	.0452
%RSD	.21475	.46176	.48211	.85348	.20321	.71597	.87650
#1	25.352	5.0544	4.9389	4.9895	5.0215	5.1277	5.1252
#2	25.275	5.0215	4.9727	4.9297	5.0360	5.0761	5.1891
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	5.1019	5.0732	4.9687	4.9727	5.2726		
SDev	.0210	.0186	.0193	.0391	.0184		
%RSD	.41148	.36700	.38768	.78666	.34990		
#1	5.1168	5.0864	4.9824	5.0004	5.2856		
#2	5.0871	5.0600	4.9551	4.9451	5.2595		

DL 9/10/04

Method: 6010B Sample Name: CCB  
Run Time: 09/10/04 10:05:23  
Comment: CCB  
Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00148	-.00889	.00218	-.00194	.00119	.03090	-.00027
SDev	.00833	.00864	.00106	.00193	.00168	.00294	.00032
%RSD	562.13	97.248	48.761	99.813	141.61	9.5202	118.47

#1	-.00441	Q-.01500	.00143	-.00057	-.00000	.02882	-.00050
#2	.00737	-.00278	.00293	-.00330	.00237	.03298	-.00004

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00111	-.00073	.00914	.00072	.00092	-.00102	.04047
SDev	.00010	.00101	.00000	.00088	.00094	.00008	.00825
%RSD	9.1483	137.73	.00000	121.13	102.45	8.0082	20.376

#1	.00104	-.00144	.00914	.00134	.00025	-.00097	.04630
#2	.00118	-.00002	.00914	.00010	.00158	-.00108	.03464

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00036	.00773	-.00068	-.00031	-.37218	.00033	-.00133
SDev	.00014	.00263	.00130	.00023	.09047	.00000	.00026
%RSD	39.020	34.016	192.68	73.916	24.307	.58968	19.406

#1	.00026	.00587	.00025	-.00015	-.30821	.00033	-.00114
#2	.00046	.00959	-.00160	-.00047	-.43615	.00032	-.00151

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02982	.00270	-.00506	.00167	.00043	-.00190	-.00376
SDev	.00890	.00182	.00140	.00123	.00097	.00108	.00236
%RSD	29.827	67.343	27.608	73.904	227.01	57.055	62.773

#1	.03611	.00142	-.00604	.00080	-.00026	-.00113	-.00209
#2	.02353	.00399	-.00407	.00254	.00112	-.00266	-.00542

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00011	-.00458	.00072	-.00556	.01117		
SDev	.00066	.00000	.00006	.00225	.00046		
%RSD	608.95	.00000	9.0511	40.411	4.1290		

#1	-.00036	-.00458	.00076	-.00397	.01084		
#2	.00058	-.00458	.00067	-.00715	.01150		

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Analysis Report

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Method: 6010B Sample Name: S4545-01  
 Run Time: 09/10/04 10:08:48  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00556	-.04127	.05451	.02070	-.00125	81.674	.63633
SDev	.00165	.00403	.00301	.00165	.00246	1.424	.00732
%RSD	29.614	9.7567	5.5143	7.9565	197.77	1.7432	1.1498
#1	-.00440	-.03842	.05239	.02186	.00050	80.668	.63116
#2	-.00673	-.04412	.05664	.01954	-.00299	82.681	.64151
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00511	.01481	22.086	.07752	.09441	.27369	188.08
SDev	.00005	.00233	.863	.00058	.00141	.00118	4.89
%RSD	.88826	15.737	3.9095	.75301	1.4904	.43237	2.6009
#1	.00514	.01645	21.475	.07710	.09342	.27453	184.62
#2	.00508	.01316	22.696	.07793	.09541	.27286	191.54
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.3752	20.822	.05971	-.00590	1.7098	.24846	.04994
SDev	.0932	.318	.00140	.01772	.5577	.00239	.00323
%RSD	2.7625	1.5287	2.3482	300.26	32.619	.96249	6.4762
#1	3.3093	20.597	.06070	.00663	2.1042	.25015	.05222
#2	3.4411	21.048	.05872	-.01844	1.3154	.24677	.04765
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.2908	-.00496	.00298	.05040	.05436	-.02039	.03951
SDev	.0143	.00312	.00115	.00298	.00302	.00526	.00030
%RSD	.22782	62.976	38.472	5.9061	5.5560	25.793	.75212
#1	6.3009	-.00275	.00380	.04829	.05223	-.01667	.03930
#2	6.2806	-.00716	.00217	.05250	.05650	-.02410	.03972
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00044	-.03525	6.7018	-.42127	1.8398		
SDev	.00122	.00175	.1422	.01217	.0341		
%RSD	277.47	4.9716	2.1213	2.8880	1.8551		
#1	-.00130	-.03649	6.6013	-.41266	1.8156		
#2	.00042	-.03401	6.8023	-.42987	1.8639		

01 9/10/04

Analysis Report

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Method: 6010B Sample Name: S4545-02  
 Run Time: 09/10/04 10:10:37  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01989	-.02085	.07099	.01605	-.00665	106.04	.82041
SDev	.00597	.00524	.00580	.00309	.00222	2.59	.02005
%RSD	30.006	25.114	8.1696	19.272	33.345	2.4432	2.4446
#1	.01567	-.01714	.07509	.01386	-.00508	107.87	.83459
#2	.02411	-.02455	.06689	.01823	-.00822	104.20	.80622
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00594	.01847	103.37	.14892	.13684	.42630	233.90
SDev	.00043	.00161	2.89	.00572	.00750	.00919	3.89
%RSD	7.1685	8.7290	2.7941	3.8415	5.4824	2.1549	1.6610
#1	.00624	.01961	105.41	.15296	.14214	.43280	236.65
#2	.00564	.01733	101.33	.14487	.13153	.41981	231.15
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.3802	24.402	.13129	-.02546	2.1418	.29398	-.71844
SDev	.0798	.548	.00434	.01470	.9634	.01362	.02117
%RSD	2.3609	2.2477	3.3073	57.730	44.983	4.6344	2.9467
#1	3.4366	24.790	.13436	-.01506	2.8230	.30362	-.73341
#2	3.3238	24.014	.12822	-.03585	1.4605	.28435	-.70347
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.8610	-.01522	.00732	.03972	.08430	-.02008	.03228
SDev	.3331	.00054	.00558	.00294	.00737	.00031	.00479
%RSD	3.3778	3.5522	76.170	7.3947	8.7423	1.5319	14.836
#1	10.097	-.01484	.01126	.04180	.08952	-.01987	.02890
#2	9.6255	-.01560	.00338	.03764	.07909	-.02030	.03567
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00083	-.04020	6.9615	-.47990	4.8385		
SDev	.00287	.00219	.1390	.01123	.1296		
%RSD	346.67	5.4484	1.9965	2.3401	2.6785		
#1	.00120	-.03866	7.0598	-.47195	4.9301		
#2	-.00286	-.04175	6.8632	-.48784	4.7469		

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Analysis Report

09/10/04 10:14:20 AM

page 1

Method: 6010B

Sample Name: S4546-01

Operator: DR

Run Time: 09/10/04 10:12:34

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00704	-.03501	.06830	.01490	-.00473	146.83	.99288
SDev	.00199	.00365	.00526	.00314	.00423	.76	.00399
%RSD	28.243	10.427	7.6940	21.036	89.489	.51613	.40163
#1	.00563	-.03759	.06459	.01712	-.00174	147.36	.99570
#2	.00844	-.03243	.07202	.01268	-.00772	146.29	.99006
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00737	.02015	26.782	.10712	.13037	.25884	242.92
SDev	.00005	.00048	.282	.00006	.00023	.00047	1.83
%RSD	.60785	2.3941	1.0515	.05178	.17930	.17952	.75383
#1	.00740	.02049	26.981	.10708	.13054	.25851	244.22
#2	.00734	.01981	26.583	.10716	.13021	.25917	241.63
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.9042	28.481	.12373	-.02438	1.0965	.39346	.16530
SDev	.0266	.147	.00351	.00066	.0634	.00266	.00008
%RSD	.68069	.51724	2.8398	2.6981	5.7839	.67639	.04844
#1	3.9230	28.585	.12622	-.02484	1.0516	.39534	.16536
#2	3.8854	28.376	.12125	-.02391	1.1413	.39158	.16524
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.723	-.01198	.00660	.02968	.08519	-.02137	.03121
SDev	.051	.00233	.00804	.00140	.00858	.00163	.00551
%RSD	.47469	19.440	121.82	4.7118	10.068	7.6314	17.667
#1	10.759	-.01034	.01229	.03066	.07912	-.02252	.03511
#2	10.687	-.01363	.00091	.02869	.09125	-.02021	.02731
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00083	-.04113	9.0977	-.62813	3.2682		
SDev	.00022	.00131	.0488	.00449	.0267		
%RSD	26.667	3.1952	.53681	.71515	.81850		
#1	-.00067	-.04020	9.1322	-.63130	3.2871		
#2	-.00098	-.04206	9.0632	-.62495	3.2493		

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Analysis Report

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Method: 6010B Sample Name: S4546-02  
 Run Time: 09/10/04 10:14:30  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00378	-.03602	.05167	.01706	-.00192	85.392	.62420
SDev	.00015	.00133	.00109	.00373	.00166	.113	.00006
%RSD	3.8807	3.6791	2.1077	21.874	86.865	.13244	.00941
#1	.00388	-.03696	.05244	.01442	-.00074	85.312	.62416
#2	.00368	-.03509	.05090	.01970	-.00309	85.472	.62424
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00574	.01292	23.468	.09259	.07418	.18771	181.39
SDev	.00010	.00056	.095	.00100	.00047	.00053	.59
%RSD	1.8057	4.3251	.40659	1.0843	.63117	.28155	.32742
#1	.00581	.01332	23.401	.09188	.07385	.18734	180.97
#2	.00566	.01253	23.535	.09330	.07451	.18809	181.81
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.7899	21.031	.06266	-.01900	1.3510	.23907	.09464
SDev	.0106	.084	.00354	.00252	.0205	.00106	.00070
%RSD	.37879	.40027	5.6471	13.269	1.5187	.44373	.73637
#1	2.7824	20.971	.06016	-.02078	1.3365	.23832	.09414
#2	2.7973	21.090	.06516	-.01721	1.3655	.23982	.09513
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.8272	-.00372	-.00151	.03701	.05680	-.01978	.03375
SDev	.0119	.00245	.00008	.00058	.00192	.00727	.00211
%RSD	.15152	66.043	5.3627	1.5570	3.3815	36.775	6.2383
#1	7.8189	-.00198	-.00145	.03660	.05815	-.02492	.03227
#2	7.8356	-.00545	-.00157	.03742	.05544	-.01463	.03524
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00083	-.03664	5.5677	-.37494	2.0638		
SDev	.00000	.00022	.0154	.00019	.0097		
%RSD	.00000	.59781	.27724	.04992	.46930		
#1	-.00083	-.03649	5.5568	-.37481	2.0707		
#2	-.00083	-.03680	5.5787	-.37508	2.0570		

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Analysis Report

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page 1

Method: 6010B Sample Name: S4547-01  
 Run Time: 09/10/04 10:17:43  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02116	-.02619	.26172	.00398	.00284	32.662	.24388
SDev	.00108	.01695	.00121	.00133	.00110	.059	.00032
%RSD	5.0836	64.725	.46439	33.424	38.776	.18211	.13139
#1	.02192	-.01421	.26257	.00492	.00362	32.620	.24365
#2	.02039	-.03818	.26086	.00304	.00206	32.704	.24411
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00214	.00248	183.99	.07179	.02544	.15471	45.996
SDev	.00015	.00026	.98	.00116	.00188	.00084	.264
%RSD	7.2647	10.546	.53000	1.6155	7.3731	.54014	.57384
#1	.00225	.00230	183.30	.07097	.02677	.15412	45.810
#2	.00203	.00267	184.68	.07261	.02412	.15530	46.183
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.72255	33.299	.04252	-.00603	1.8489	.13370	L-1.4222
SDev	.00300	.096	.00152	.00147	.2416	.00157	.0075
%RSD	.41556	.28835	3.5664	24.403	13.064	1.1710	.52666
#1	.72043	33.231	.04145	-.00708	1.6781	.13259	L-1.4169
#2	.72468	33.367	.04359	-.00499	2.0198	.13480	L-1.4275
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.6480	.00046	.00442	.26293	.25911	-.01763	.01297
SDev	.0030	.00074	.00479	.00103	.00234	.00042	.00178
%RSD	.06379	161.88	108.46	.39357	.90263	2.3695	13.761
#1	4.6501	-.00007	.00780	.26220	.26076	-.01734	.01423
#2	4.6459	.00098	.00103	.26366	.25745	-.01793	.01170
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00144	.01292	2.0112	-.13327	21.772		
SDev	.00011	.00022	.0071	.00430	.091		
%RSD	7.6887	1.6950	.35472	3.2301	.41732		
#1	.00152	.01277	2.0062	-.13632	21.708		
#2	.00136	.01308	2.0163	-.13023	21.837		

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Analysis Report

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page 1

Method: 6010B Sample Name: S4547-02  
 Run Time: 09/10/04 10:29:12  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01964	-.02550	.34423	.00604	.00290	39.935	.37756
SDev	.00787	.00765	.00199	.00230	.00558	.018	.00046
%RSD	40.042	29.999	.57714	38.138	192.37	.04408	.12082
#1	.01408	-.02009	.34564	.00767	.00684	39.922	.37724
#2	.02520	-.03091	.34283	.00441	-.00104	39.947	.37788
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00247	.00467	243.67	.09910	.03174	.20849	64.597
SDev	.00011	.00127	1.57	.00001	.00000	.00022	.388
%RSD	4.3246	27.224	.64565	.01226	.00132	.10697	.60014
#1	.00240	.00377	244.78	.09909	.03174	.20833	64.871
#2	.00255	.00557	242.56	.09911	.03174	.20864	64.323
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.93769	59.921	.05414	-.00528	2.2499	.16011	L-1.9346
SDev	.00500	.085	.00209	.00040	.0774	.00260	.0122
%RSD	.53350	.14267	3.8672	7.5325	3.4406	1.6262	.63119
#1	.94123	59.982	.05562	-.00500	2.3046	.16195	L-1.9432
#2	.93415	59.861	.05266	-.00556	2.1952	.15827	L-1.9260
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.6394	-.00015	.00580	.34458	.34206	-.01095	.01272
SDev	.0252	.00709	.00254	.00175	.00210	.00257	.00474
%RSD	.44692	4768.5	43.860	.50828	.61515	23.497	37.240
#1	5.6216	.00487	.00760	.34582	.34355	-.01277	.01607
#2	5.6572	-.00516	.00400	.34334	.34058	-.00913	.00937
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00245	.01556	2.1787	-.09291	24.322		
SDev	.00287	.00088	.0061	.00112	.001		
%RSD	117.12	5.6323	.27983	1.2087	.00380		
#1	.00448	.01494	2.1830	-.09211	24.322		
#2	.00042	.01618	2.1744	-.09370	24.321		

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Analysis Report

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page 1

Method: 6010B Sample Name: EXTBLK(9/7/04) Operator: DR  
 Run Time: 09/10/04 10:37:44  
 Comment: FLUID#1  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00146	-.02934	.00203	-.00414	-.00136	.04595	-.00256
SDev	.00447	.02029	.00406	.00269	.00062	.00808	.00006
%RSD	305.48	69.135	199.74	64.929	45.794	17.587	2.5235
#1	-.00463	-.04369	.00490	-.00224	-.00180	.04023	-.00260
#2	.00170	-.01500	-.00084	-.00604	-.00092	.05166	-.00251
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00122	-.00075	.07990	.00021	.00009	-.00132	.04048
SDev	.00005	.00041	.01164	.00015	.00070	.00033	.00825
%RSD	4.1638	54.432	14.563	70.675	812.57	25.041	20.378
#1	.00118	-.00046	.08813	.00031	-.00041	-.00155	.03465
#2	.00125	-.00104	.07167	.00010	.00058	-.00108	.04631
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00024	.00959	.00009	-.00087	159.16	-.00041	.00071
SDev	.00014	.00263	.00007	.00011	.13	.00000	.00040
%RSD	59.234	27.421	78.819	12.555	.08145	.01569	56.587
#1	-.00014	.01145	.00004	-.00079	159.25	-.00041	.00099
#2	-.00034	.00773	.00014	-.00095	159.06	-.00041	.00043
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00012	-.00061	-.00605	.00204	.00003	.00170	-.00875
SDev	.00642	.00076	.00035	.00391	.00414	.00638	.00070
%RSD	5323.6	123.43	5.7707	191.84	13173.	375.75	8.0359
#1	-.00442	-.00115	-.00629	.00480	.00296	.00621	-.00825
#2	.00466	-.00008	-.00580	-.00073	-.00289	-.00281	-.00925
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00153	-.00876	.00017	-.01085	.02487		
SDev	.00122	.00022	.00032	.00187	.00231		
%RSD	79.343	2.5002	195.07	17.248	9.2734		
#1	-.00067	-.00892	.00040	-.00953	.02324		
#2	-.00239	-.00861	-.00006	-.01218	.02650		

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Analysis Report

09/10/04 10:41:24 AM

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Method: 6010B Sample Name: S4552-01  
 Run Time: 09/10/04 10:39:36  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.91718	-.05496	.00648	.00297	.00026	.18203	.16972
SDev	.00756	.00627	.00098	.00242	.00127	.00515	.00116
%RSD	.82433	11.414	15.063	81.642	479.06	2.8275	.68555
#1	.92253	-.05052	.00717	.00125	-.00063	.17839	.16890
#2	.91184	-.05939	.00579	.00468	.00116	.18567	.17054
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00301	-.00152	2.7738	-.00024	.00887	.00219	1.2129
SDev	.00035	.00021	.0093	.00015	.00047	.00025	.0495
%RSD	11.756	13.809	.33561	61.084	5.2852	11.392	4.0812
#1	.00276	-.00137	2.7804	-.00035	.00854	.00236	1.2479
#2	.00326	-.00167	2.7673	-.00014	.00920	.00201	1.1779
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8084	1.6930	.00437	-.00190	126.40	.00001	.05080
SDev	.0168	.0158	.00007	.00013	1.44	.00052	.00061
%RSD	.92984	.93228	1.6347	6.6543	1.1422	9649.8	1.2022
#1	1.8203	1.7042	.00442	-.00181	125.38	-.00036	.05123
#2	1.7965	1.6818	.00432	-.00199	127.42	.00037	.05036
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.82830	.00061	-.00364	.00613	.00466	.01285	-.00367
SDev	.00148	.00015	.00410	.00177	.00235	.00584	.00058
%RSD	.17899	24.334	112.76	28.958	50.428	45.439	15.693
#1	.82934	.00072	-.00654	.00487	.00632	.00872	-.00407
#2	.82725	.00051	-.00074	.00738	.00300	.01698	-.00326
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00208	.00471	-.00002	-.00781	.48242		
SDev	.00265	.00044	.00006	.00393	.01568		
%RSD	127.57	9.2932	376.96	50.341	3.2505		
#1	-.00020	.00502	-.00006	-.00503	.47134		
#2	-.00395	.00440	.00003	-.01059	.49351		

DR 9/10/04

Analysis Report

09/10/04 10:43:18 AM

page 1

Method: 6010B Sample Name: S4552-01D  
 Run Time: 09/10/04 10:41:34  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.93158	-.04304	.00509	.00274	-.00122	.17839	.16999
SDev	.00818	.00134	.00160	.00235	.00050	.00000	.00013
%RSD	.87795	3.1186	31.396	85.777	41.371	.00187	.07607
#1	.93737	-.04209	.00622	.00108	-.00157	.17839	.16990
#2	.92580	-.04399	.00396	.00440	-.00086	.17839	.17008
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00276	-.00157	2.8018	.00058	.00904	.00265	1.2537
SDev	.00000	.00104	.0023	.00073	.00070	.00008	.0082
%RSD	.00013	65.785	.08306	125.07	7.7809	3.0923	.65778
#1	.00276	-.00084	2.8002	.00110	.00854	.00259	1.2596
#2	.00276	-.00231	2.8035	.00007	.00953	.00271	1.2479
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8341	1.7125	.00868	-.00134	126.75	-.00036	.05133
SDev	.0033	.0013	.00094	.00022	.09	.00000	.00055
%RSD	.17866	.07680	10.860	16.470	.07358	.46373	1.0724
#1	1.8318	1.7135	.00801	-.00149	126.82	-.00036	.05172
#2	1.8364	1.7116	.00934	-.00118	126.69	-.00036	.05094
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.83878	.00039	-.00765	.00586	.00270	.00635	-.00066
SDev	.00642	.00136	.00122	.00171	.00154	.00400	.00153
%RSD	.76592	345.76	15.964	29.164	57.016	62.956	230.07
#1	.84332	-.00057	-.00679	.00707	.00379	.00352	-.00174
#2	.83424	.00136	-.00851	.00465	.00161	.00918	.00042
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00333	.00332	-.00034	-.01072	.47786		
SDev	.00177	.00110	.00026	.00094	.00185		
%RSD	53.108	32.988	76.701	8.7302	.38607		
#1	-.00208	.00409	-.00015	-.01006	.47916		
#2	-.00458	.00255	-.00052	-.01138	.47655		

09/10/04

Analysis Report

09/10/04 10:45:29 AM

Method: 6010B  
Run Time: 09/10/04 10:43:29  
Comment:  
Mode: CONC

Sample Name: S4552-01LX5  
Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.18554	-.01214	.00228	-.00350	.00027	.05946	.03262
SDev	.00756	.01032	.00124	.00229	.00188	.00074	.00019
%RSD	4.0751	85.010	54.442	65.519	702.61	1.2464	.59447
#1	.19088	-.01944	.00316	-.00512	.00160	.05999	.03276
#2	.18019	-.00484	.00141	-.00188	-.00106	.05894	.03248
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00147	-.00111	.59829	-.00011	.00324	-.00014	.26213
SDev	.00000	.00022	.00466	.00029	.00047	.00016	.00826
%RSD	.07771	19.985	.77800	266.78	14.488	118.09	3.1498
#1	.00147	-.00095	.60158	.00010	.00357	-.00002	.25629
#2	.00147	-.00127	.59499	-.00032	.00290	-.00025	.26797
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.38152	.34906	.00127	-.00088	20.159	-.00003	.00907
SDev	.00342	.00658	.00015	.00067	.215	.00052	.00046
%RSD	.89623	1.8840	11.462	75.995	1.0641	1596.1	5.0641
#1	.38394	.35372	.00137	-.00041	20.311	.00033	.00939
#2	.37910	.34441	.00116	-.00136	20.008	-.00040	.00875
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.13326	.00013	-.00265	.00070	.00108	-.00479	-.00455
SDev	.01087	.00181	.00201	.00407	.00389	.00173	.00271
%RSD	8.1587	1440.6	75.771	581.10	361.47	36.117	59.621
#1	.14095	.00141	-.00123	-.00217	.00383	-.00602	-.00647
#2	.12557	-.00116	-.00407	.00357	-.00168	-.00357	-.00263
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00161	-.00907	-.00052	-.00278	.10542		
SDev	.00044	.00066	.00013	.00206	.00461		
%RSD	27.452	7.2444	24.865	74.095	4.3750		
#1	-.00130	-.00861	-.00061	-.00423	.10868		
#2	-.00192	-.00954	-.00043	-.00132	.10216		

DR 9/10/04

Method: 6010B Sample Name: CCV  
 Run Time: 09/10/04 10:45:31  
 Comment: CCV  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.9915	5.0847	4.8539	5.0493	4.9228	9.6787	9.9955
SDev	.0142	.0619	.0162	.0216	.0116	.0132	.0248
%RSD	.28447	1.2172	.33476	.42873	.23596	.13618	.24822
#1	4.9815	5.1285	4.8424	5.0340	4.9145	9.6880	10.013
#2	5.0015	5.0409	4.8654	5.0646	4.9310	9.6693	9.9780
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.24620	2.4638	24.312	.96299	2.4092	1.2095	4.6963
SDev	.00020	.0079	.102	.00277	.0030	.0024	.0082
%RSD	.07996	.32146	.42119	.28799	.12654	.19665	.17476
#1	.24606	2.4582	24.240	.96102	2.4071	1.2111	4.6905
#2	.24634	2.4694	24.385	.96495	2.4114	1.2078	4.7021
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.4053	24.417	2.4522	1.2334	24.402	2.3957	2.4716
SDev	.0073	.009	.0030	.0012	.412	.0026	.0150
%RSD	.30215	.03771	.12116	.10072	1.6893	.10826	.60529
#1	2.4001	24.424	2.4543	1.2343	24.694	2.3938	2.4610
#2	2.4104	24.411	2.4501	1.2325	24.111	2.3975	2.4821
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.013	4.9794	4.8061	4.8176	4.8700	5.0357	5.0543
SDev	.189	.0153	.0043	.0062	.0213	.0291	.0470
%RSD	.75472	.30672	.08926	.12923	.43641	.57744	.92936
#1	25.146	4.9686	4.8031	4.8132	4.8550	5.0562	5.0210
#2	24.879	4.9902	4.8092	4.8221	4.8850	5.0151	5.0875
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	4.9497	4.9375	4.8234	4.8139	5.1979		
SDev	.0169	.0164	.0062	.0241	.0060		
%RSD	.34154	.33273	.12908	.50157	.11535		
#1	4.9377	4.9259	4.8190	4.7968	5.2021		
#2	4.9616	4.9491	4.8276	4.8310	5.1937		

09/11/04



Analysis Report

QC Standard

09/10/04 10:53:54 AM

page 1

Method: 6010B

Sample Name: CCB

Operator: DR

Run Time: 09/10/04 10:47:35

Comment: CCB

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00059	-.00069	.00203	-.00078	.00330	.02830	-.00123
SDev	.00448	.00498	.00022	.00427	.00036	.00368	.00013
%RSD	755.15	726.29	10.993	548.28	10.957	13.023	10.477
#1	.00257	.00284	.00188	.00224	.00305	.02569	-.00114
#2	-.00376	-.00421	.00219	-.00380	.00356	.03090	-.00132
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00118	-.00121	.01243	.00000	.00025	-.00074	-.00035
SDev	.00010	.00031	.00000	.00044	.00188	.00016	.01650
%RSD	8.4899	25.656	.00000	27247.	742.24	22.300	4671.8
#1	.00111	-.00099	.01243	.00031	-.00107	-.00085	.01132
#2	.00125	-.00143	.01243	-.00031	.00158	-.00062	-.01202
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00401	-.00155	-.00009	-.38009	-.00004	-.00141
SDev	.00000	.00263	.00109	.00033	.02705	.00052	.00000
%RSD	1.1472	65.550	70.278	370.93	7.1159	1207.7	.22766
#1	.00006	.00587	-.00232	-.00032	-.36097	-.00041	-.00141
#2	.00006	.00215	-.00078	.00014	-.39921	.00032	-.00141
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00571	.00313	.00043	-.00404	.00307	.00131	-.00352
SDev	.00049	.00212	.00532	.00096	.00081	.00389	.00460
%RSD	8.6522	67.503	1231.9	23.660	26.480	296.59	130.55
#1	.00536	.00463	-.00333	-.00336	.00249	.00406	-.00027
#2	.00606	.00164	.00420	-.00471	.00364	-.00144	-.00677
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00169	-.00907	-.00006	-.00265	.01378		
SDev	.00033	.00066	.00013	.00112	.00046		
%RSD	19.636	7.2444	205.68	42.437	3.3470		
#1	-.00192	-.00861	-.00015	-.00344	.01345		
#2	-.00145	-.00954	.00003	-.00185	.01411		

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Analysis Report

09/10/04 10:55:56 AM

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Method: 6010B Sample Name: S4552-01S Operator: DR  
 Run Time: 09/10/04 10:54:08  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.6664	2.0385	.96128	2.1274	.78705	2.2752	2.2141
SDev	.0040	.0083	.01180	.0027	.00773	.0132	.0109
%RSD	.24105	.40867	1.2279	.12548	.98150	.58184	.49025
#1	1.6692	2.0326	.96962	2.1293	.79251	2.2845	2.2218
#2	1.6635	2.0444	.95293	2.1255	.78159	2.2658	2.2064
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18607	.18758	7.4130	.35734	.19281	.29120	3.8040
SDev	.00131	.00031	.0675	.00292	.00141	.00074	.0247
%RSD	.70574	.16494	.91046	.81684	.72943	.25452	.64978
#1	.18700	.18780	7.4607	.35940	.19380	.29172	3.8215
#2	.18514	.18736	7.3652	.35528	.19181	.29068	3.7865
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8295	3.6703	.47600	.04933	125.59	.26722	.27747
SDev	.0107	.0210	.00196	.00045	.31	.00156	.00099
%RSD	.58416	.57338	.41090	.90439	.25026	.58348	.35650
#1	1.8371	3.6852	.47738	.04901	125.81	.26833	.27817
#2	1.8220	3.6554	.47462	.04964	125.37	.26612	.27677
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.115	.78965	.77864	.94821	.96540	2.1222	2.1281
SDev	.067	.00831	.00655	.01627	.00958	.0040	.0020
%RSD	.44465	1.0524	.84148	1.7154	.99190	.18831	.09431
#1	15.163	.79553	.78327	.95972	.97217	2.1250	2.1296
#2	15.068	.78377	.77400	.93671	.95863	2.1194	2.1267
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.38786	.28104	.18815	.65883	1.1634		
SDev	.00121	.00307	.00117	.00524	.0009		
%RSD	.31336	1.0912	.62048	.79546	.07929		
#1	.38872	.28321	.18898	.65513	1.1627		
#2	.38700	.27887	.18733	.66254	1.1640		

09/10/04

Analysis Report

09/10/04 10:57:50 AM

page 1

Method: 6010B Sample Name: S4552-01SD  
 Run Time: 09/10/04 10:56:04  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.6719	2.0435	.94394	2.1126	.77987	2.2611	2.2127
SDev	.0008	.0053	.00195	.0072	.00096	.0022	.0008
%RSD	.04659	.26090	.20661	.33983	.12341	.09775	.03505
#1	1.6725	2.0397	.94256	2.1177	.78055	2.2627	2.2121
#2	1.6714	2.0473	.94532	2.1075	.77919	2.2595	2.2132
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18511	.18677	7.3471	.35352	.19148	.28963	3.7457
SDev	.00065	.00160	.0628	.00423	.00141	.00016	.0247
%RSD	.35377	.85570	.85526	1.1973	.73526	.05647	.65979
#1	.18558	.18790	7.3916	.35652	.19049	.28951	3.7632
#2	.18465	.18564	7.3027	.35053	.19248	.28974	3.7282
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8190	3.6461	.47031	.04915	126.48	.26429	.27368
SDev	.0084	.0105	.00551	.00001	.50	.00156	.00332
%RSD	.46220	.28860	1.1708	.01390	.39376	.59088	1.2144
#1	1.8250	3.6536	.47421	.04915	126.13	.26539	.27603
#2	1.8131	3.6387	.46642	.04914	126.83	.26318	.27133
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.127	.78517	.76604	.93142	.94778	2.1140	2.1101
SDev	.054	.00044	.00202	.00406	.00495	.0185	.0015
%RSD	.35608	.05562	.26311	.43563	.52224	.87423	.07283
#1	15.089	.78548	.76746	.93429	.94428	2.1270	2.1112
#2	15.165	.78487	.76461	.92855	.95128	2.1009	2.1091
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.38990	.28259	.18659	.66029	1.1797		
SDev	.00232	.00219	.00065	.00842	.0028		
%RSD	.59511	.77515	.34760	1.2756	.23458		
#1	.39154	.28104	.18705	.65433	1.1777		
#2	.38825	.28414	.18613	.66624	1.1816		

09/10/04

Analysis Report

09/10/04 10:59:40 AM

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Method: 6010B      Sample Name: S4552-01A      Operator: DR  
 Run Time: 09/10/04 10:57:55  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.63757	.91304	.57297	1.0717	.39585	.93665	1.1091
SDev	1.5487	2.0233	.44870	1.2898	.41468	1.8561	1.5406
%RSD	242.91	221.60	78.312	120.35	104.76	198.17	138.90
#1	1.7327	2.3438	.89025	1.9837	.68908	2.2491	2.1985
#2	-.45753	-.51767	.25568	.15969	.10263	-.37584	.01977
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08883	.10158	3.6444	.19646	.13035	.15913	2.3947
SDev	.13419	.11774	5.1504	.21584	.08271	.18125	1.6220
%RSD	151.06	115.91	141.32	109.86	63.455	113.91	67.733
#1	.18372	.18483	7.2862	.34909	.18883	.28729	3.5416
#2	-.00605	.01832	.00256	.04384	.07186	.03096	1.2478
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.92302	1.8018	.26991	.02607	68.317	.13145	.18595
SDev	1.2687	2.5767	.28198	.03250	81.261	.18629	.11922
%RSD	137.45	143.00	104.47	124.64	118.95	141.72	64.117
#1	1.8201	3.6238	.46929	.04905	125.78	.26317	.27025
#2	.02590	-.02017	.07052	.00309	10.857	-.00028	.10164
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.4170	.37998	.42444	.82920	.44264	.72837	1.2413
SDev	10.679	.38527	.47358	.03972	.69255	1.3865	1.2415
%RSD	143.98	101.39	111.58	4.7901	156.46	190.36	100.01
#1	14.968	.65241	.75931	.80111	.93235	1.7088	2.1191
#2	-.13441	.10755	.08957	.85729	-.04706	-.25206	.36346
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.19582	.13761	.09070	.20739	.44394		
SDev	.27612	.19495	.12965	.87988	.96393		
%RSD	141.00	141.67	142.95	424.26	217.13		
#1	.39107	.27546	.18237	.82956	1.1255		
#2	.00058	-.00024	-.00098	-.41478	-.23766		

OK 9/10/04

Method: 6010B

Sample Name: PB00992BL

Operator: DR

Run Time: 09/10/04 11:00:05

Comment: PBW

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00573	Q.01433	.00097	-.00060	.00165	.03244	-.00233
SDev	.00170	.01692	.00156	.00008	.00353	.00074	.00013
%RSD	29.616	118.08	161.01	13.337	214.68	2.2706	5.5536
#1	.00453	Q.02629	.00207	-.00054	.00414	.03192	-.00224
#2	.00694	.00237	-.00013	-.00066	-.00085	.03297	-.00242
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00143	-.00088	-.00073	-.00051	.00058	-.00161	.00549
SDev	.00015	.00009	.00000	.00058	.00047	.00057	.00824
%RSD	10.690	10.527	.00000	113.42	80.256	35.771	150.08
#1	.00154	-.00095	-.00073	-.00093	.00092	-.00201	-.00034
#2	.00132	-.00081	-.00073	-.00010	.00025	-.00120	.01132
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00024	-.00529	-.00124	-.00081	-.47242	-.00078	-.00159
SDev	.00014	.00263	.00036	.00023	.02332	.00052	.00078
%RSD	59.104	49.752	29.237	28.501	4.9355	66.929	48.914
#1	-.00034	-.00715	-.00098	-.00097	-.48890	-.00114	-.00104
#2	-.00014	-.00343	-.00150	-.00064	-.45593	-.00041	-.00214
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.03098	.00142	-.00111	-.00230	.00060	-.00083	-.00219
SDev	.03163	.00242	.00575	.00653	.00560	.00065	.00059
%RSD	102.09	170.16	516.49	283.94	930.25	78.449	26.770
#1	-.05334	.00314	.00296	-.00691	.00456	-.00129	-.00177
#2	-.00862	-.00029	-.00518	.00232	-.00336	-.00037	-.00260
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00239	-.01093	-.00084	-.00463	.01769		
SDev	.00243	.00197	.00006	.00880	.00323		
%RSD	101.65	18.037	7.6963	189.94	18.248		
#1	-.00067	-.00954	-.00080	.00159	.01998		
#2	-.00411	-.01232	-.00089	-.01085	.01541		

09/10/04

Method: 6010B

Sample Name: PB00992BS

Operator: DR

Run Time: 09/10/04 11:02:18

Comment: LCSW

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.74989	1.8873	.94311	1.6416	.77280	1.9645	2.2977
SDev	.00140	.0285	.01534	.0189	.01152	.0096	.0092
%RSD	.18630	1.5107	1.6270	1.1507	1.4906	.48836	.39928
#1	.74890	1.8671	.93226	1.6283	.76465	1.9577	2.2913
#2	.75088	1.9074	.95396	1.6550	.78094	1.9713	2.3042
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18033	.20095	5.0136	.41568	.19711	.31246	3.0684
SDev	.00181	.00374	.0815	.00482	.00234	.00066	.0247
%RSD	1.0059	1.8590	1.6247	1.1587	1.1893	.21112	.80429
#1	.17905	.19831	4.9560	.41228	.19546	.31200	3.0509
#2	.18161	.20360	5.0712	.41909	.19877	.31293	3.0858
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.21049	1.9739	.49774	.07602	3.0980	.30573	.23199
SDev	.00228	.0105	.00152	.00114	.0196	.00415	.00309
%RSD	1.0835	.53308	.30561	1.4989	.63220	1.3577	1.3307
#1	.20888	1.9664	.49666	.07521	3.0841	.30280	.22981
#2	.21211	1.9813	.49881	.07682	3.1118	.30867	.23417
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.4127	.78101	.75314	.95535	.93501	1.6154	1.6529
SDev	.0222	.01360	.00735	.01097	.01753	.0013	.0277
%RSD	.23626	1.7413	.97622	1.1484	1.8746	.08033	1.6742
#1	9.4284	.77140	.74794	.94760	.92261	1.6145	1.6334
#2	9.3969	.79063	.75834	.96311	.94740	1.6164	1.6725
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.41169	.26694	.20902	.66294	Q.89302		
SDev	.00265	.00460	.00188	.00992	.00692		
%RSD	.64412	1.7232	.89985	1.4964	.77470		
#1	.40982	.26369	.20769	.65592	Q.89791		
#2	.41357	.27020	.21035	.66995	Q.88813		

DR 9/10/04

Method: 6010B

Sample Name: PB00661BL

Operator: DR

Run Time: 09/10/04 11:09:22

Comment: PBS

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00048	.00800	.00477	-.00269	.00091	.04491	-.00233
SDev	.00340	.01858	.00316	.00246	.00143	.00954	.00000
%RSD	702.18	232.33	66.294	91.273	156.70	21.255	.00709
#1	.00192	Q.02113	.00253	-.00095	-.00010	.03816	-.00233
#2	-.00288	-.00514	Q.00700	-.00443	.00193	.05165	-.00233
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00186	-.00179	-.00073	.00000	-.00024	-.00126	-.00035
SDev	.00035	.00032	.00000	.00044	.00023	.00008	.01650
%RSD	19.051	17.742	.00000	26055.	96.053	6.4276	4733.1
#1	.00161	-.00201	-.00073	.00031	-.00008	-.00132	.01132
#2	.00211	-.00157	-.00073	-.00031	-.00041	-.00120	-.01201
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00034	-.00436	-.00180	-.00089	-.39394	-.00041	-.00232
SDev	.00000	.00132	.00261	.00011	.07088	.00000	.00077
%RSD	.19739	30.185	144.68	11.886	17.993	.35623	33.281
#1	-.00034	-.00529	-.00365	-.00096	-.44406	-.00041	-.00177
#2	-.00034	-.00343	.00004	-.00081	-.34382	-.00041	-.00287
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00757	.00174	-.00395	.00485	.00273	-.00396	-.00385
SDev	.00642	.00136	.00157	.00059	.00503	.00335	.00201
%RSD	84.900	78.245	39.757	12.196	184.51	84.614	52.086
#1	-.01211	.00078	-.00506	.00526	-.00083	-.00159	-.00243
#2	-.00302	.00271	-.00284	.00443	.00629	-.00633	-.00527
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00216	-.01170	-.00098	.00212	.02095		
SDev	.00033	.00044	.00000	.00150	.00138		
%RSD	15.368	3.7431	.00000	70.689	6.6032		
#1	-.00239	-.01139	-.00098	.00318	.01998		
#2	-.00192	-.01201	-.00098	.00106	.02193		

DR 9/10/04

Method: 6010B

Sample Name: PB00991BS

Operator: DR

Run Time: 09/10/04 11:11:22

Comment: LCSS

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.76725	1.9128	.96065	1.6667	.79240	1.9900	2.3395
SDev	.00184	.0255	.00516	.0015	.00855	.0044	.0104
%RSD	.23977	1.3344	.53672	.08708	1.0790	.22364	.44463
#1	.76855	1.8948	.95700	1.6677	.79845	1.9868	2.3321
#2	.76595	1.9309	.96429	1.6657	.78636	1.9931	2.3468
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.18405	.20494	5.1403	.42167	.19827	.30974	3.0508
SDev	.00181	.00118	.0884	.00657	.00258	.00025	.0659
%RSD	.98615	.57643	1.7205	1.5574	1.3009	.08129	2.1609
#1	.18276	.20410	5.0778	.41703	.19645	.30956	3.0042
#2	.18533	.20577	5.2028	.42631	.20010	.30991	3.0974
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.21301	1.9813	.50532	.07784	3.0505	.30904	.23619
SDev	.00271	.0105	.00080	.00195	.1259	.00364	.00178
%RSD	1.2721	.53108	.15800	2.5029	4.1274	1.1772	.75597
#1	.21109	1.9739	.50589	.07647	3.1395	.30646	.23492
#2	.21493	1.9888	.50476	.07922	2.9615	.31161	.23745
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.4742	.80464	.76469	.96697	.95549	1.6348	1.6808
SDev	.0193	.01531	.00499	.00492	.00528	.0135	.0089
%RSD	.20343	1.9029	.65305	.50865	.55203	.82664	.53085
#1	9.4605	.81547	.76116	.96349	.95176	1.6252	1.6871
#2	9.4878	.79381	.76822	.97045	.95922	1.6443	1.6745
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.42427	.27453	.20948	.67630	Q.94813		
SDev	.00475	.00307	.00227	.00898	.00369		
%RSD	1.1198	1.1170	1.0837	1.3284	.38915		
#1	.42091	.27237	.20787	.68265	Q.94552		
#2	.42763	.27670	.21108	.66995	Q.95074		

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Analysis Report

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Method: 6010B Sample Name: S4167-01  
 Run Time: 09/10/04 11:13:50  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00375	-.01956	.15497	.00628	.00077	106.30	.26096
SDev	.00402	.00663	.00435	.00082	.00660	.56	.00148
%RSD	107.05	33.905	2.8054	13.120	856.02	.52774	.56715
#1	-.00659	-.01487	.15190	.00686	.00544	105.90	.25992
#2	-.00091	-.02426	.15805	.00570	-.00390	106.70	.26201
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00535	.00436	10.849	.04835	.04716	.06766	101.30
SDev	.00005	.00119	.086	.00046	.00070	.00012	.60
%RSD	.94488	27.300	.79371	.94332	1.4930	.17536	.59446
#1	.00532	.00520	10.788	.04867	.04667	.06757	100.87
#2	.00539	.00352	10.910	.04802	.04766	.06774	101.72
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.2251	16.346	.04008	-.00648	1.0767	.13696	.42128
SDev	.0090	.064	.00371	.00222	.1585	.00002	.00321
%RSD	.73467	.39429	9.2501	34.224	14.726	.01698	.76096
#1	1.2188	16.300	.04270	-.00491	1.1888	.13695	.41901
#2	1.2315	16.392	.03746	-.00805	.96459	.13698	.42355
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.1651	-.00136	.00184	.14055	.15988	-.01430	.01475
SDev	.0128	.00593	.00794	.00656	.00338	.00505	.00128
%RSD	.30848	434.76	430.58	4.6675	2.1168	35.311	8.7143
#1	4.1560	.00283	.00746	.13591	.15748	-.01073	.01384
#2	4.1742	-.00556	-.00377	.14519	.16227	-.01786	.01566
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00044	-.01790	4.5534	-.31208	13.807		
SDev	.00144	.00044	.0278	.00599	.104		
%RSD	327.92	2.4475	.60963	1.9192	.75493		
#1	.00058	-.01821	4.5338	-.31631	13.734		
#2	-.00145	-.01759	4.5730	-.30784	13.881		

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Analysis Report

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Method: 6010B Sample Name: S4167-02  
 Run Time: 09/10/04 11:15:39  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01383	-.03017	.30069	.01397	.00469	92.012	.45596
SDev	.00432	.02290	.00375	.00046	.00552	.387	.00213
%RSD	31.239	75.898	1.2462	3.2609	117.67	.42054	.46647
#1	.01689	-.01398	.29804	.01429	.00859	92.286	.45747
#2	.01078	-.04637	.30334	.01364	.00079	91.738	.45446
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00367	.00258	10.959	.03329	.02578	.02469	73.283
SDev	.00015	.00117	.140	.00220	.00188	.00079	.528
%RSD	4.0120	45.522	1.2742	6.6256	7.2755	3.2014	.72046
#1	.00357	.00175	11.058	.03173	.02445	.02413	73.656
#2	.00378	.00341	10.861	.03485	.02711	.02525	72.909
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.94543	5.5109	.02568	-.01088	.42579	.15192	.29546
SDev	.00800	.1144	.00081	.00711	.20425	.00205	.00400
%RSD	.84623	2.0765	3.1449	65.329	47.969	1.3516	1.3538
#1	.95109	5.4300	.02511	-.01591	.28137	.15047	.29829
#2	.93977	5.5918	.02625	-.00585	.57022	.15337	.29264
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.5443	.00395	.00298	.28643	.30561	-.00875	.02351
SDev	.0623	.00558	.00540	.00186	.00469	.00257	.00196
%RSD	4.0321	141.44	181.16	.64841	1.5348	29.321	8.3532
#1	1.5003	.00789	.00680	.28512	.30230	-.01057	.02490
#2	1.5883	-.00000	-.00084	.28774	.30893	-.00694	.02212
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00144	-.01573	4.1315	-.27184	13.419		
SDev	.00210	.00131	.0288	.01273	.082		
%RSD	146.09	8.3546	.69700	4.6819	.60835		
#1	.00292	-.01480	4.1518	-.26284	13.477		
#2	-.00005	-.01666	4.1111	-.28084	13.361		

09/10/04

Analysis Report

09/10/04 11:21:32 AM

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Method: 6010B Sample Name: S4167-03  
 Run Time: 09/10/04 11:17:30  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00079	-.01377	.07433	.01336	.00291	109.52	.19645
SDev	.00200	.00628	.00235	.00287	.00029	.25	.00064
%RSD	252.34	45.643	3.1622	21.526	9.9570	.22732	.32440
#1	-.00062	-.01821	.07267	.01133	.00270	109.69	.19691
#2	.00220	-.00932	.07600	.01539	.00311	109.34	.19600
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00391	.00357	6.4272	.04412	.02478	.02907	87.205
SDev	.00005	.00024	.1117	.00085	.00188	.00003	.883
%RSD	1.1460	6.6984	1.7381	1.9244	7.5679	.09640	1.0121
#1	.00395	.00340	6.5062	.04472	.02611	.02905	87.830
#2	.00388	.00374	6.3482	.04352	.02346	.02909	86.581
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.38993	4.1102	.02392	-.00433	.53065	.17263	.23569
SDev	.00502	.0039	.00013	.00277	.03171	.00263	.00316
%RSD	1.2880	.09600	.53216	63.868	5.9757	1.5206	1.3426
#1	.39348	4.1130	.02401	-.00238	.55307	.17448	.23793
#2	.38638	4.1074	.02383	-.00629	.50823	.17077	.23345
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.1652	.00460	-.00369	.05837	.08001	-.00187	.01916
SDev	.0094	.00026	.00138	.00056	.00310	.00860	.00002
%RSD	.80586	5.5504	37.452	.96175	3.8778	458.84	.10154
#1	1.1585	.00478	-.00466	.05797	.07781	-.00795	.01915
#2	1.1718	.00442	-.00271	.05876	.08220	.00420	.01918
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00042	-.01852	4.7031	-.33100	17.253		
SDev	.00000	.00131	.0252	.00655	.053		
%RSD	.00000	7.0968	.53644	1.9791	.30475		
#1	.00042	-.01759	4.7210	-.32637	17.290		
#2	.00042	-.01945	4.6853	-.33564	17.216		

09/10/04

Method: 6010B  
 Run Time: 09/10/04 11:21:48  
 Comment: CCV  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1347	5.2013	4.9732	5.1764	5.0232	9.7894	10.206
SDev	.0034	.0603	.0477	.0197	.0315	.0479	.018
%RSD	.06647	1.1589	.95989	.38144	.62665	.48935	.17790
#1	5.1371	5.2439	5.0069	5.1903	5.0455	9.8232	10.219
#2	5.1323	5.1587	4.9394	5.1624	5.0010	9.7555	10.193
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.25153	2.5228	24.864	.97424	2.4240	1.2026	4.7370
SDev	.00073	.0139	.226	.01080	.0145	.0012	.0493
%RSD	.29156	.55160	.90795	1.1086	.59964	.09656	1.0409
#1	.25205	2.5326	25.023	.98187	2.4342	1.2034	4.7719
#2	.25101	2.5129	24.704	.96660	2.4137	1.2017	4.7022
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.4229	24.439	2.4932	1.2688	25.088	2.3986	2.5099
SDev	.0143	.083	.0097	.0077	.248	.0119	.0175
%RSD	.58814	.33906	.38940	.60649	.98884	.49725	.69757
#1	2.4330	24.498	2.5001	1.2742	25.264	2.4071	2.5222
#2	2.4128	24.381	2.4863	1.2634	24.913	2.3902	2.4975
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.261	5.0880	4.8902	4.9019	5.0067	5.1421	5.1916
SDev	.018	.0280	.0385	.0288	.0572	.0303	.0145
%RSD	.07043	.54936	.78815	.58677	1.1427	.58850	.27917
#1	25.273	5.1078	4.9174	4.9223	5.0472	5.1635	5.2019
#2	25.248	5.0683	4.8629	4.8816	4.9663	5.1207	5.1814
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	5.1180	5.0628	4.8188	4.8452	Q5.5534		
SDev	.0028	.0061	.0187	.0253	.0078		
%RSD	.05398	.12114	.38761	.52152	.14119		
#1	5.1199	5.0672	4.8320	4.8630	Q5.5589		
#2	5.1160	5.0585	4.8056	4.8273	Q5.5478		

09/10/04

Analysis Report

QC Standard

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Method: 6010B

Sample Name: CCB

Operator: DR

Run Time: 09/10/04 11:23:49

Comment: CCB

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00159	.00518	.00091	-.00154	.00329	.08074	-.00110
SDev	.00293	.00531	.00321	.00326	.00203	.00294	.00032
%RSD	184.21	102.50	354.38	211.42	61.911	3.6464	29.498
#1	.00366	.00143	-.00136	.00076	.00473	.07866	-.00087
#2	-.00048	.00893	.00318	-.00385	.00185	.08282	-.00132
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00211	-.00040	.00420	.00083	.00158	-.00120	.04631
SDev	.00000	.00016	.00233	.00015	.00047	.00033	.00001
%RSD	.10790	39.361	55.377	17.647	29.693	27.394	.02982
#1	.00211	-.00029	.00585	.00072	.00191	-.00143	.04632
#2	.00211	-.00051	.00256	.00093	.00125	-.00097	.04630
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	-.00529	-.00216	-.00015	-.36492	-.00041	-.00142
SDev	.00000	.00526	.00022	.00000	.00933	.00104	.00052
%RSD	.04756	99.503	10.051	.00417	2.5557	255.44	36.510
#1	-.00014	-.00901	-.00201	-.00015	-.35833	-.00114	-.00105
#2	-.00014	-.00157	-.00232	-.00015	-.37152	.00033	-.00178
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00372	.00302	.00062	.00036	-.00082	-.00388	-.00217
SDev	.00494	.00227	.00156	.00444	.00260	.00130	.00553
%RSD	132.73	75.121	254.28	1233.4	316.56	33.412	254.76
#1	-.00023	.00463	.00172	-.00278	-.00266	-.00480	.00174
#2	-.00722	.00142	-.00049	.00350	.00102	-.00296	-.00608
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00581	.00286	.00099	-.00079	.03400		
SDev	.00873	.01008	.00032	.00112	.00876		
%RSD	150.18	352.87	32.699	141.54	25.774		
#1	.01198	.00998	.00122	.00000	.04020		
#2	-.00036	-.00427	.00076	-.00159	.02780		

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Analysis Report

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Method: 6010B Sample Name: S4167-04  
 Run Time: 09/10/04 11:25:51  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02335	-.01672	.18350	.00403	.00216	54.587	.43846
SDev	.00015	.00391	.00608	.00274	.00725	.452	.00212
%RSD	.62060	23.376	3.3135	67.944	335.41	.82862	.48421
#1	.02346	-.01948	.18780	.00209	-.00296	54.267	.43695
#2	.02325	-.01395	.17920	.00596	.00729	54.907	.43996
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00477	.00579	31.497	.09231	.03555	.10731	87.882
SDev	.00010	.00100	.410	.00012	.00164	.00044	.916
%RSD	2.1743	17.265	1.3005	.12817	4.6153	.40876	1.0419
#1	.00484	.00650	31.208	.09223	.03672	.10762	87.235
#2	.00469	.00509	31.787	.09239	.03439	.10700	88.530
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.8010	14.608	.05700	-.00625	.65199	.15993	.39608
SDev	.0406	.118	.00147	.00198	.01492	.00107	.00742
%RSD	1.0693	.81037	2.5745	31.709	2.2887	.67036	1.8735
#1	3.7723	14.524	.05804	-.00485	.66255	.15917	.39084
#2	3.8298	14.691	.05596	-.00765	.64144	.16069	.40133
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.5051	.00075	.00179	.18283	.18164	-.01779	.01312
SDev	.0015	.00903	.00367	.00742	.00541	.00731	.00775
%RSD	.03291	1211.4	204.83	4.0609	2.9781	41.109	59.095
#1	4.5062	-.00564	-.00080	.18808	.18547	-.01262	.00764
#2	4.5041	.00713	.00439	.17758	.17782	-.02296	.01860
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00378	.00673	2.7239	-.18185	6.3644		
SDev	.00033	.00241	.0261	.00150	.0314		
%RSD	8.7670	35.815	.95958	.82342	.49278		
#1	.00402	.00843	2.7054	-.18079	6.3423		
#2	.00355	.00502	2.7423	-.18291	6.3866		

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Analysis Report

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Method: 6010B Sample Name: S4167-05  
 Run Time: 09/10/04 11:30:45  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02831	-.02565	.19018	.00735	.00299	51.080	.45833
SDev	.00910	.00459	.00017	.00647	.00021	.230	.00316
%RSD	32.128	17.899	.09111	88.038	7.1561	.44995	.68951
#1	.02188	-.02240	.19031	.01193	.00314	51.242	.46056
#2	.03474	-.02889	.19006	.00278	.00283	50.917	.45609
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00505	.00598	28.443	.08171	.03440	.10687	83.490
SDev	.00015	.00055	.186	.00101	.00000	.00028	.577
%RSD	3.0054	9.1016	.65460	1.2296	.00113	.26287	.69162
#1	.00516	.00637	28.574	.08242	.03439	.10707	83.898
#2	.00495	.00560	28.311	.08100	.03440	.10667	83.082
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.5254	14.000	.05253	-.00971	.38952	.14363	.37714
SDev	.0274	.059	.00194	.00009	.10819	.00003	.00073
%RSD	.60503	.42276	3.7025	.95728	27.774	.01736	.19419
#1	4.5447	14.042	.05390	-.00978	.31302	.14365	.37662
#2	4.5060	13.959	.05115	-.00964	.46602	.14361	.37766
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.4470	-.00006	.00589	.19016	.18820	-.01430	.01637
SDev	.0272	.00064	.00192	.00398	.00225	.01548	.00198
%RSD	.78851	986.67	32.576	2.0906	1.1926	108.22	12.075
#1	3.4662	-.00052	.00725	.18735	.18978	-.00336	.01776
#2	3.4278	.00039	.00453	.19297	.18661	-.02525	.01497
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00386	-.00365	2.3555	-.15908	9.5220		
SDev	.00044	.00175	.0123	.00150	.0775		
%RSD	11.453	48.011	.52317	.94124	.81373		
#1	.00417	-.00241	2.3642	-.15802	9.5768		
#2	.00355	-.00489	2.3467	-.16014	9.4672		

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Analysis Report

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Method: 6010B  
 Run Time: 09/10/04 11:34:51  
 Comment:  
 Mode: CONC

Sample Name: S4167-06

Operator: DR

Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00115	-.01120	.05602	.00601	-.00209	42.360	.35425
SDev	.00525	.00133	.00091	.00049	.00200	.029	.00000
%RSD	456.53	11.877	1.6166	8.0606	95.931	.06760	.00042
#1	.00486	-.01214	.05666	.00567	-.00067	42.339	.35425
#2	-.00256	-.01026	.05538	.00636	-.00350	42.380	.35424
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00611	.00454	26.412	.05368	.03539	.05662	88.693
SDev	.00005	.00157	.019	.00132	.00047	.00001	.148
%RSD	.82960	34.557	.07048	2.4559	1.3254	.01524	.16742
#1	.00614	.00565	26.399	.05462	.03573	.05661	88.588
#2	.00607	.00343	26.425	.05275	.03506	.05663	88.798
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8414	17.816	.03003	-.01135	1.1176	.12110	.36090
SDev	.0019	.013	.00101	.00129	.1492	.00000	.00074
%RSD	.10091	.07382	3.3677	11.361	13.352	.00292	.20468
#1	1.8401	17.807	.02932	-.01044	1.2231	.12109	.36037
#2	1.8427	17.826	.03075	-.01226	1.0121	.12110	.36142
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.6878	-.00311	-.00325	.06074	.05167	-.01508	.01475
SDev	.0119	.00379	.00157	.00176	.00048	.00172	.00159
%RSD	.32161	121.80	48.392	2.8951	.92885	11.413	10.756
#1	3.6962	-.00043	-.00436	.06198	.05201	-.01386	.01363
#2	3.6794	-.00578	-.00213	.05949	.05133	-.01630	.01587
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00597	-.01248	4.1307	-.26033	6.8827		
SDev	.00254	.00110	.0063	.00655	.0318		
%RSD	42.578	8.7769	.15231	2.5164	.46238		
#1	.00417	-.01325	4.1262	-.25570	6.9052		
#2	.00777	-.01170	4.1351	-.26496	6.8602		

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Method: 6010B Sample Name: S4167-06D

Operator: DR

Run Time: 09/10/04 11:37:57

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00039	-.01519	.05615	.00841	.00031	42.327	.35369
SDev	.00231	.00098	.00085	.00308	.00399	.023	.00013
%RSD	598.21	6.4344	1.5089	36.696	1293.3	.05379	.03745
#1	.00125	-.01450	.05555	.01059	.00313	42.344	.35360
#2	.00202	-.01588	.05674	.00622	-.00251	42.311	.35379
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00600	.00457	26.425	.05285	.03639	.05657	88.886
SDev	.00000	.00032	.223	.00101	.00000	.00023	.322
%RSD	.01953	6.9085	.84549	1.9152	.00116	.40123	.36192
#1	.00600	.00435	26.583	.05357	.03639	.05641	89.113
#2	.00600	.00479	26.267	.05214	.03639	.05673	88.659
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8441	17.834	.02844	-.01286	1.1143	.12074	.36067
SDev	.0110	.017	.00211	.00059	.0793	.00053	.00455
%RSD	.59566	.09588	7.4107	4.5944	7.1144	.44092	1.2607
#1	1.8518	17.846	.02695	-.01244	1.1703	.12111	.36388
#2	1.8363	17.822	.02993	-.01328	1.0582	.12036	.35745
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.6888	-.00044	-.00140	.05977	.05224	-.01438	.01798
SDev	.0054	.00119	.00960	.00024	.00129	.00596	.00165
%RSD	.14736	270.99	687.41	.39407	2.4769	41.435	9.1695
#1	3.6850	.00040	.00539	.05961	.05132	-.01017	.01915
#2	3.6927	-.00128	-.00818	.05994	.05315	-.01860	.01682
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00644	-.01248	4.1326	-.25834	6.8677		
SDev	.00055	.00022	.0093	.00112	.0217		
%RSD	8.5821	1.7554	.22443	.43469	.31564		
#1	.00683	-.01232	4.1392	-.25914	6.8830		
#2	.00605	-.01263	4.1261	-.25755	6.8523		

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Analysis Report

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Method: 6010B Sample Name: S4167-06LX5 Operator: DR  
 Run Time: 09/10/04 11:39:53  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00498	.00815	.02151	.01513	.00378	8.9353	.09424
SDev	.00525	.00795	.00123	.00711	.00175	.1711	.00142
%RSD	105.50	97.500	5.7274	46.994	46.278	1.9149	1.5038

#1	.00869	.01377	.02064	.01010	.00254	9.0563	.09524
#2	.00126	.00253	.02238	.02016	.00501	8.8143	.09324

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00495	.00102	6.0043	.01572	.00970	.01235	19.738
SDev	.00005	.00021	.1885	.00042	.00211	.00022	.429
%RSD	1.0221	20.755	3.1396	2.7052	21.752	1.7751	2.1732

#1	.00499	.00087	6.1376	.01602	.01119	.01220	20.041
#2	.00491	.00117	5.8710	.01541	.00821	.01251	19.435

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.41071	4.1307	.00933	-.00411	-.06816	.02749	.07956
SDev	.01056	.0644	.00035	.00207	.10259	.00002	.00220
%RSD	2.5714	1.5603	3.7911	50.336	150.52	.06522	2.7669

#1	.41818	4.1763	.00958	-.00558	-.14070	.02751	.08112
#2	.40324	4.0851	.00908	-.00265	.00439	.02748	.07800

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.68223	.00401	.00010	.02220	.01917	.01050	.01574
SDev	.00939	.00214	.00096	.00102	.00134	.00592	.00785
%RSD	1.3763	53.347	974.66	4.5922	6.9813	56.403	49.830

#1	.68887	.00250	-.00058	.02148	.01822	.00631	.01020
#2	.67559	.00553	.00078	.02293	.02011	.01469	.02129

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.01097	-.00411	.90216	-.05453	1.5922
SDev	.00099	.00066	.01965	.00524	.0410
%RSD	9.0659	15.971	2.1783	9.6113	2.5780

#1	.01027	-.00365	.91606	-.05082	1.6213
#2	.01167	-.00458	.88826	-.05823	1.5632

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Analysis Report

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Method: 6010B Sample Name: S4167-07  
 Run Time: 09/10/04 11:41:46  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.61480	1.6036	.81280	1.3390	.51013	40.855	2.2356
SDev	.00141	.0620	.01761	.0074	.00184	.422	.0199
%RSD	.22981	3.8658	2.1666	.55100	.36052	1.0335	.88965
#1	.61380	1.5597	.80035	1.3338	.50882	40.557	2.2216
#2	.61580	1.6474	.82525	1.3442	.51143	41.154	2.2497
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.14607	.16475	29.205	.36438	.18801	.30080	74.837
SDev	.00207	.00429	.538	.00741	.00211	.00294	1.163
%RSD	1.4158	2.6063	1.8408	2.0336	1.1219	.97888	1.5541
#1	.14461	.16171	28.825	.35914	.18652	.29872	74.014
#2	.14753	.16779	29.585	.36962	.18950	.30288	75.659
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9128	18.189	.41807	.05497	3.7212	.33523	.49920
SDev	.0298	.188	.00461	.00028	.1287	.00368	.00922
%RSD	1.5593	1.0341	1.1037	.51380	3.4587	1.0988	1.8464
#1	1.8917	18.056	.41480	.05517	3.6302	.33262	.49268
#2	1.9339	18.322	.42133	.05477	3.8122	.33783	.50572
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.904	.51986	.48743	.81312	.81054	1.3061	1.3537
SDev	.021	.00326	.01206	.00315	.02525	.0006	.0115
%RSD	.16468	.62785	2.4743	.38761	3.1156	.04527	.84935
#1	12.889	.52216	.47890	.81089	.79268	1.3066	1.3456
#2	12.919	.51755	.49596	.81535	.82840	1.3057	1.3619
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.34442	.21227	3.6949	.31856	9.0459		
SDev	.00276	.00175	.0496	.01217	.0867		
%RSD	.80200	.82556	1.3428	3.8190	.95854		
#1	.34247	.21103	3.6598	.30996	8.9845		
#2	.34638	.21351	3.7300	.32717	9.1072		

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## Analysis Report

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Method: 6010B Sample Name: S4167-08

Operator: DR

Run Time: 09/10/04 11:43:29

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.62475	1.5967	.82517	1.3525	.51335	41.418	2.2561
SDev	.01450	.0146	.00331	.0056	.00453	.027	.0004
%RSD	2.3208	.91386	.40107	.41475	.88178	.06563	.01711
#1	.63500	1.5864	.82751	1.3565	.51015	41.399	2.2558
#2	.61450	1.6070	.82283	1.3485	.51655	41.438	2.2563
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.14850	.16624	29.843	.37137	.18917	.30186	76.044
SDev	.00035	.00110	.109	.00160	.00094	.00032	.165
%RSD	.23716	.66273	.36652	.43106	.49592	.10533	.21693
#1	.14825	.16702	29.766	.37023	.18851	.30209	75.927
#2	.14874	.16546	29.921	.37250	.18983	.30164	76.161
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9456	18.391	.42706	.05518	3.7825	.33932	.50889
SDev	.0029	.011	.00131	.00041	.0718	.00104	.00047
%RSD	.14682	.05721	.30617	.74593	1.8986	.30791	.09307
#1	1.9435	18.399	.42798	.05489	3.8333	.33858	.50855
#2	1.9476	18.384	.42614	.05547	3.7318	.34005	.50922
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.956	.51645	.50393	.82653	.82209	1.3152	1.3693
SDev	.003	.00543	.00271	.00491	.00251	.0052	.0058
%RSD	.02288	1.0520	.53787	.59450	.30515	.39382	.42534
#1	12.958	.51261	.50201	.83000	.82387	1.3189	1.3735
#2	12.954	.52029	.50584	.82305	.82032	1.3115	1.3652
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.35052	.21444	3.7475	.31631	9.1453		
SDev	.00188	.00263	.0042	.00262	.0226		
%RSD	.53588	1.2258	.11249	.82841	.24711		
#1	.34919	.21629	3.7445	.31446	9.1293		
#2	.35185	.21258	3.7505	.31817	9.1613		

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Analysis Report

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Method: 6010B Sample Name: S4167-06A  
 Run Time: 09/10/04 11:47:14  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.63743	1.6213	.82797	1.3596	.51849	41.756	2.2728
SDev	.00247	.0176	.00094	.0074	.00679	.022	.0004
%RSD	.38673	1.0847	.11330	.54343	1.3098	.05280	.01696
#1	.63917	1.6337	.82731	1.3649	.52329	41.741	2.2725
#2	.63569	1.6089	.82863	1.3544	.51369	41.772	2.2731
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.15096	.16955	30.385	.37742	.19282	.30303	77.193
SDev	.00000	.00125	.088	.00087	.00047	.00075	.206
%RSD	.00228	.73581	.29106	.23038	.24291	.24799	.26713
#1	.15096	.16867	30.322	.37681	.19248	.30250	77.047
#2	.15095	.17043	30.447	.37804	.19315	.30357	77.339
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9744	18.548	.43549	.05608	3.8083	.34413	.51586
SDev	.0034	.013	.00282	.00036	.0429	.00156	.00150
%RSD	.17360	.07092	.64795	.64322	1.1265	.45411	.29004
#1	1.9720	18.538	.43350	.05634	3.8386	.34303	.51480
#2	1.9768	18.557	.43749	.05583	3.7779	.34524	.51692
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	13.015	.52643	.49939	.83228	.82372	1.3221	1.3767
SDev	.020	.00849	.00339	.00032	.00114	.0026	.0099
%RSD	.15568	1.6123	.67949	.03819	.13852	.19538	.72125
#1	13.030	.53243	.50179	.83250	.82292	1.3240	1.3837
#2	13.001	.52043	.49699	.83205	.82453	1.3203	1.3697
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.35747	.21738	3.7857	.32756	9.2826		
SDev	.00066	.00241	.0043	.00468	.0111		
%RSD	.18546	1.1084	.11307	1.4285	.11924		
#1	.35700	.21568	3.7826	.32425	9.2905		
#2	.35794	.21908	3.7887	.33087	9.2748		

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Analysis Report

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Method: 6010B Sample Name: S4167-09  
 Run Time: 09/10/04 11:52:24  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00229	-.01731	.08951	.00813	.00182	65.873	.46138
SDev	.00094	.00073	.00143	.00037	.00428	.776	.00509
%RSD	41.072	4.2175	1.5997	4.5767	235.24	1.1783	1.1041
#1	.00295	-.01783	.09052	.00787	.00484	66.422	.46498
#2	.00162	-.01680	.08849	.00839	-.00121	65.324	.45778
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00679	.00476	26.865	.05918	.03473	.03267	70.711
SDev	.00015	.00011	.510	.00216	.00328	.00056	1.031
%RSD	2.1508	2.3506	1.8972	3.6472	9.4511	1.7032	1.4582
#1	.00690	.00468	27.225	.06071	.03705	.03306	71.440
#2	.00669	.00484	26.504	.05766	.03241	.03227	69.982
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.1814	15.813	.02778	-.01139	.99294	.10099	.50012
SDev	.0351	.200	.00005	.00124	.02705	.00263	.00690
%RSD	1.6088	1.2643	.18660	10.858	2.7239	2.6076	1.3797
#1	2.2062	15.955	.02782	-.01052	1.0121	.10285	.50500
#2	2.1565	15.672	.02774	-.01226	.97382	.09912	.49524
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.7352	-.00009	.00244	.09299	.08557	-.01615	.01846
SDev	.0425	.00614	.00054	.00343	.00043	.00211	.00050
%RSD	1.5538	6862.0	22.105	3.6927	.50527	13.094	2.6972
#1	2.7051	.00426	.00282	.09541	.08588	-.01765	.01881
#2	2.7652	-.00443	.00206	.09056	.08527	-.01465	.01810
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00120	-.00845	3.9006	-.26576	7.0105		
SDev	.00309	.00066	.0525	.00524	.0992		
%RSD	257.24	7.7754	1.3452	1.9720	1.4145		
#1	.00339	-.00799	3.9377	-.26946	7.0806		
#2	-.00098	-.00892	3.8635	-.26205	6.9404		

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Analysis Report

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Method: 6010B Sample Name: S4167-10  
 Run Time: 09/10/04 11:57:53  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03520	-.02175	.15054	.00919	.00083	69.643	.46980
SDev	.00524	.00129	.00180	.00252	.00130	.202	.00045
%RSD	14.898	5.9446	1.1981	27.427	156.25	.28981	.09554
#1	.03150	-.02083	.14927	.00741	.00175	69.500	.46949
#2	.03891	-.02266	.15182	.01097	-.00009	69.786	.47012
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00658	.01015	21.730	.13456	.07996	.76459	142.00
SDev	.00012	.00154	.002	.00264	.00258	.00232	.34
%RSD	1.8331	15.219	.01071	1.9592	3.2240	.30310	.23827
#1	.00649	.01124	21.729	.13643	.08178	.76295	141.76
#2	.00667	.00906	21.732	.13270	.07814	.76623	142.24
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.6215	26.141	.18365	-.00547	.52340	.14936	.57225
SDev	.0009	.033	.00573	.01351	.02332	.00879	.00303
%RSD	.01879	.12579	3.1206	246.99	4.4548	5.8857	.52922
#1	4.6209	26.165	.18770	.00408	.53988	.15558	.57011
#2	4.6221	26.118	.17960	-.01503	.50691	.14315	.57440
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.792	-.00116	.00161	.14281	.15221	-.01825	.02109
SDev	.104	.00349	.00309	.00239	.00151	.00283	.00236
%RSD	.88424	301.43	192.24	1.6741	.99241	15.510	11.216
#1	11.866	.00131	-.00058	.14112	.15114	-.02025	.01941
#2	11.719	-.00362	.00379	.14450	.15327	-.01625	.02276
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00277	-.00582	.64566	-.03057	11.614		
SDev	.00111	.00044	.00675	.00505	.010		
%RSD	39.957	7.5295	1.0447	16.530	.08340		
#1	.00355	-.00613	.65043	-.03415	11.607		
#2	.00198	-.00551	.64089	-.02700	11.621		

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Method: 6010B

Sample Name: CCV

Operator: DR

Run Time: 09/10/04 12:05:22

Comment: CCV

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.0977	5.1962	4.9057	5.1468	4.9962	9.7825	10.209
SDev	.0361	.0219	.0238	.0043	.0196	.0542	.036
%RSD	.70906	.42068	.48531	.08329	.39263	.55367	.35365
#1	5.1232	5.2117	4.9225	5.1438	5.0101	9.8208	10.234
#2	5.0721	5.1808	4.8888	5.1498	4.9823	9.7442	10.183
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24736	2.4755	24.336	.95525	2.3887	1.1993	4.6066
SDev	.00067	.0081	.110	.00184	.0076	.0028	.0263
%RSD	.27184	.32677	.45072	.19307	.31971	.23504	.57051
#1	.24783	2.4812	24.413	.95655	2.3941	1.2013	4.6252
#2	.24688	2.4698	24.258	.95394	2.3833	1.1973	4.5880
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3800	24.395	2.4440	1.2588	24.930	2.3574	2.4696
SDev	.0054	.065	.0098	.0056	.061	.0055	.0070
%RSD	.22730	.26847	.40305	.44352	.24340	.23182	.28308
#1	2.3838	24.441	2.4509	1.2627	24.887	2.3613	2.4746
#2	2.3762	24.348	2.4370	1.2548	24.973	2.3535	2.4647
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.552	5.0759	4.8335	4.8671	4.9229	5.1241	5.1564
SDev	.139	.0244	.0100	.0040	.0337	.0017	.0057
%RSD	.54562	.48143	.20610	.08258	.68429	.03237	.11134
#1	25.651	5.0931	4.8405	4.8700	4.9467	5.1229	5.1524
#2	25.453	5.0586	4.8264	4.8643	4.8991	5.1252	5.1605
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	5.0406	5.0193	4.7676	4.7804	Q5.5314		
SDev	.0054	.0099	.0132	.0185	.0312		
%RSD	.10802	.19745	.27691	.38661	.56422		
#1	5.0445	5.0263	4.7770	4.7935	Q5.5534		
#2	5.0368	5.0123	4.7583	4.7674	Q5.5093		

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Method: 6010B Sample Name: CCB  
 Run Time: 09/10/04 12:08:49  
 Comment: CCB  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00003	.00469	.00237	-.00156	.00068	.07734	-.00069
SDev	.00158	.00135	.00134	.00387	.00103	.00533	.00020
%RSD	5033.1	28.728	56.439	248.53	151.04	6.8964	28.802
#1	-.00109	.00564	.00142	.00118	.00142	.08112	-.00082
#2	.00115	.00374	.00332	-.00429	-.00005	.07357	-.00055
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00282	-.00140	.00465	-.00072	-.00059	-.00203	.00545
SDev	.00005	.00134	.00000	.00077	.00049	.00000	.00379
%RSD	1.8686	95.555	.00000	107.19	83.486	.04054	161.32
#1	.00278	-.00235	.00465	-.00126	-.00024	-.00203	.01166
#2	.00285	-.00045	.00465	-.00017	-.00094	-.00203	-.00077
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00011	.00107	-.00130	-.00095	-.46334	-.00138	-.00199
SDev	.00000	.00000	.00068	.00058	.01801	.00000	.00000
%RSD	.32836	.00000	52.131	60.435	3.8879	.07628	.08832
#1	.00011	.00107	-.00082	-.00136	-.45060	-.00138	-.00199
#2	.00011	.00107	-.00178	-.00055	-.47608	-.00137	-.00199
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01153	.00121	-.00357	.00410	-.00049	.00183	-.00504
SDev	.00849	.00232	.00155	.00537	.00067	.00111	.00635
%RSD	73.662	192.33	43.416	131.03	137.30	60.518	125.91
#1	-.01754	.00285	-.00466	.00030	-.00001	.00104	-.00055
#2	-.00553	-.00043	-.00247	.00789	-.00097	.00261	-.00954
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00003	-.00680	.00006	.00177	.02899		
SDev	.00306	.00270	.00034	.00374	.00588		
%RSD	11561.	39.773	563.40	210.79	20.286		
#1	.00219	-.00488	-.00018	.00441	.03314		
#2	-.00214	-.00871	.00030	-.00087	.02483		

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Analysis Report

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Method: 6010B Sample Name: S4167-11  
 Run Time: 09/10/04 12:11:44  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02727	-.02686	.17315	.00738	.00392	54.442	.44728
SDev	.00318	.01763	.00386	.00731	.00026	.621	.00346
%RSD	11.649	65.617	2.2294	99.116	6.6645	1.1414	.77434
#1	.02502	-.01440	.17042	.01255	.00411	54.002	.44483
#2	.02951	-.03933	.17588	.00221	.00374	54.881	.44973
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00599	.00938	52.986	.11144	.07255	.60545	115.47
SDev	.00013	.00289	1.258	.00129	.00345	.00072	2.21
%RSD	2.2380	30.785	2.3737	1.1619	4.7557	.11926	1.9099
#1	.00609	.01143	52.097	.11235	.07499	.60596	113.91
#2	.00590	.00734	53.875	.11052	.07011	.60494	117.03
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.5309	24.852	.21339	.00246	1.2744	.11233	.52392
SDev	.0800	.085	.00191	.01995	.7386	.01083	.00871
%RSD	1.7662	.34038	.89556	809.81	57.956	9.6456	1.6633
#1	4.4744	24.792	.21204	.01657	1.7967	.11999	.51775
#2	4.5875	24.912	.21475	-.01164	.75213	.10467	.53008
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.1842	.00300	.00257	.16773	.17376	-.01699	.01775
SDev	.0979	.00072	.00067	.00282	.00452	.00488	.00853
%RSD	1.1967	24.165	25.934	1.6796	2.6027	28.697	48.069
#1	8.2535	.00351	.00210	.16573	.17056	-.01354	.02378
#2	8.1150	.00248	.00304	.16972	.17695	-.02044	.01172
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00644	-.00329	.49348	-.01769	9.3741		
SDev	.00034	.00000	.00633	.00256	.0896		
%RSD	5.2815	.00000	1.2825	14.447	.95536		
#1	.00668	-.00329	.48901	-.01950	9.3108		
#2	.00620	-.00329	.49796	-.01588	9.4375		

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Analysis Report

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Method: 6010B Sample Name: S4167-12  
 Run Time: 09/10/04 12:13:37  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03995	-.02521	.21065	.01235	-.00008	83.626	.51806
SDev	.00443	.00638	.00344	.00107	.00248	.129	.00019
%RSD	11.076	25.313	1.6333	8.6337	3196.0	.15383	.03625
#1	.03682	-.02070	.21308	.01160	-.00183	83.535	.51793
#2	.04308	-.02972	.20821	.01311	.00168	83.717	.51819
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00721	.01212	23.305	.15359	.09695	.88804	171.49
SDev	.00014	.00055	.090	.00203	.00296	.00208	.95
%RSD	1.9922	4.5280	.38697	1.3199	3.0498	.23373	.55337
#1	.00731	.01251	23.241	.15502	.09904	.88951	170.82
#2	.00711	.01173	23.369	.15215	.09485	.88657	172.16
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.9403	32.610	.21100	-.00366	.54095	.16871	.62862
SDev	.0145	.026	.00228	.01619	.01801	.00652	.00165
%RSD	.29276	.07950	1.0782	442.44	3.3301	3.8637	.26218
#1	4.9300	32.628	.21261	.00779	.52821	.17331	.62746
#2	4.9505	32.591	.20939	-.01510	.55369	.16410	.62979
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.847	-.00171	-.00000	.19451	.21651	-.02678	.03009
SDev	.137	.00151	.00443	.00820	.00106	.00183	.00251
%RSD	1.0697	87.969	112420.	4.2160	.49152	6.8281	8.3476
#1	12.944	-.00278	-.00313	.20030	.21726	-.02549	.02831
#2	12.749	-.00065	.00313	.18871	.21575	-.02807	.03186
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00452	-.00425	.66306	-.02756	14.779		
SDev	.00147	.00225	.00184	.00315	.021		
%RSD	32.637	53.030	.27711	11.413	.14078		
#1	.00556	-.00584	.66176	-.02979	14.765		
#2	.00348	-.00265	.66436	-.02534	14.794		

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Analysis Report

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Method: 6010B Sample Name: S4167-13  
 Run Time: 09/10/04 12:15:25  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05857	-.02261	.46398	.01389	.00234	93.935	.65167
SDev	.00267	.00543	.01061	.00061	.00182	.430	.00197
%RSD	4.5656	23.989	2.2862	4.3962	77.667	.45738	.30192
#1	.06046	-.01878	.45648	.01432	.00105	93.631	.65027
#2	.05668	-.02645	.47148	.01346	.00362	94.239	.65306
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00624	.01269	13.371	.09978	.06316	.17020	133.79
SDev	.00020	.00012	.046	.00214	.00099	.00157	.54
%RSD	3.1434	.94203	.34637	2.1409	1.5605	.92091	.40707
#1	.00610	.01261	13.338	.09827	.06247	.16910	133.40
#2	.00638	.01277	13.403	.10129	.06386	.17131	134.17
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.3166	14.647	.10216	-.01860	.30295	.15243	.93258
SDev	.0161	.209	.00006	.00976	.23893	.00658	.00226
%RSD	.30280	1.4252	.06295	52.478	78.866	4.3157	.24241
#1	5.3052	14.500	.10212	-.02550	.13400	.14778	.93098
#2	5.3280	14.795	.10221	-.01170	.47190	.15708	.93418
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.1765	-.00039	.00460	.45223	.46765	-.01239	.02521
SDev	.1909	.00352	.00160	.01276	.00953	.00440	.00128
%RSD	2.6599	900.81	34.787	2.8213	2.0386	35.475	5.0759
#1	7.0415	-.00288	.00574	.44321	.46091	-.00928	.02430
#2	7.3115	.00210	.00347	.46125	.47439	-.01550	.02611
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00516	-.01954	1.3865	-.06649	11.602		
SDev	.00125	.00360	.0067	.00590	.038		
%RSD	24.182	18.446	.48099	8.8711	.32748		
#1	.00428	-.01699	1.3818	-.07066	11.575		
#2	.00604	-.02208	1.3913	-.06232	11.629		

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Method: 6010B Sample Name: S4167-14  
 Run Time: 09/10/04 12:17:14  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04333	-.02916	.13092	.01310	-.00184	73.577	.36303
SDev	.00600	.00672	.00065	.00176	.00031	.491	.00197
%RSD	13.838	23.054	.49677	13.447	16.827	.66765	.54195
#1	.03909	-.03392	.13138	.01185	-.00162	73.924	.36442
#2	.04757	-.02441	.13046	.01434	-.00206	73.230	.36163
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00466	.00505	15.613	.06074	.03303	.08860	100.93
SDev	.00005	.00184	.141	.00248	.00222	.00039	.55
%RSD	1.0012	36.481	.90548	4.0793	6.7151	.44499	.54844
#1	.00463	.00374	15.713	.05899	.03146	.08832	101.32
#2	.00470	.00635	15.513	.06249	.03460	.08888	100.54
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2136
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9036	9.2446	.05916	-.01210	.57112	.14139	.39110
SDev	.0072	.0368	.00014	.00742	.20290	.00271	.00094
%RSD	.38004	.39849	.23550	61.318	35.526	1.9185	.24106
#1	1.9087	9.2186	.05926	-.01735	.42765	.13947	.39176
#2	1.8985	9.2707	.05906	-.00685	.71459	.14331	.39043
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.1045	-.00254	-.00364	.12752	.13042	-.01105	.02335
SDev	.0220	.00203	.00499	.00087	.00054	.00307	.00111
%RSD	.53567	79.936	137.18	.67884	.41627	27.730	4.7515
#1	4.0890	-.00397	-.00011	.12814	.13080	-.01322	.02257
#2	4.1201	-.00110	-.00717	.12691	.13004	-.00889	.02414
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00556	-.01062	1.3822	-.10013	13.072		
SDev	.00249	.00135	.0064	.00944	.083		
%RSD	44.876	12.728	.46280	9.4248	.63666		
#1	.00733	-.01157	1.3867	-.09346	13.131		
#2	.00380	-.00966	1.3777	-.10681	13.013		

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Method: 6010B Sample Name: S4167-15  
 Run Time: 09/10/04 12:19:01  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10485	-.02616	.17451	.01274	.00389	94.993	1.0240
SDev	.00237	.00680	.00021	.00328	.00445	.036	.0017
%RSD	2.2573	25.996	.12261	25.752	114.26	.03779	.16771
#1	.10318	-.02135	.17436	.01507	.00703	95.018	1.0253
#2	.10652	-.03097	.17466	.01042	.00075	94.968	1.0228
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00646	.01121	9.5185	.09964	.07500	.15750	164.04
SDev	.00002	.00181	.0634	.00479	.00246	.00209	.75
%RSD	.35257	16.182	.66579	4.8071	3.2847	1.3253	.45535
#1	.00644	.01249	9.4737	.10302	.07675	.15898	163.51
#2	.00648	.00993	9.5633	.09625	.07326	.15603	164.57
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.6911	22.538	.14090	-.00237	.52486	.15325	.44640
SDev	.0400	.248	.00280	.01838	.34227	.01035	.00105
%RSD	.41274	1.1018	1.9853	775.12	65.212	6.7561	.23645
#1	9.6628	22.714	.14288	.01063	.76688	.16057	.44565
#2	9.7194	22.363	.13893	-.01537	.28284	.14593	.44714
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.8666	.00116	.00615	.16404	.17763	-.01281	.02380
SDev	.1174	.00327	.00680	.00315	.00176	.00323	.00668
%RSD	1.7102	281.69	110.50	1.9236	.98788	25.255	28.051
#1	6.9496	.00347	.01096	.16627	.17639	-.01509	.02852
#2	6.7836	-.00115	.00135	.16181	.17887	-.01052	.01908
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00003	-.02861	.75708	-.04063	8.7015		
SDev	.00261	.00068	.00034	.00197	.0158		
%RSD	9848.3	2.3614	.04494	4.8390	.18193		
#1	-.00182	-.02909	.75684	-.03924	8.6903		
#2	.00187	-.02814	.75732	-.04202	8.7127		

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Method: 6010B Sample Name: S4167-16  
 Run Time: 09/10/04 12:25:22  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07859	-.03841	.32463	.01891	.00090	79.214	.79195
SDev	.00144	.01043	.00580	.00187	.00326	.632	.00419
%RSD	1.8362	27.156	1.7857	9.8939	361.44	.79813	.52917
#1	.07757	-.04579	.32054	.01759	.00321	78.767	.78899
#2	.07961	-.03104	.32873	.02024	-.00140	79.661	.79492
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00516	.00724	6.6971	.07976	.04122	.09308	130.24
SDev	.00004	.00042	.1146	.00256	.00148	.00096	1.82
%RSD	.80686	5.7975	1.7106	3.2093	3.5865	1.0339	1.3963
#1	.00513	.00694	6.6161	.07795	.04017	.09240	128.96
#2	.00519	.00753	6.7781	.08157	.04226	.09376	131.53
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.6822	9.3942	.06421	-.01236	.17021	.15032	.38411
SDev	.0315	.1992	.00162	.00487	.09292	.00499	.00843
%RSD	1.1735	2.1205	2.5198	39.366	54.590	3.3208	2.1942
#1	2.6599	9.2533	.06307	-.01580	.10451	.14679	.37815
#2	2.7045	9.5350	.06536	-.00892	.23591	.15385	.39007
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.3095	-.00167	.00285	.32506	.32222	-.00689	.02999
SDev	.0450	.00768	.00559	.00715	.00512	.00510	.00535
%RSD	1.3589	460.07	195.82	2.2002	1.5891	74.059	17.842
#1	3.2777	.00376	-.00110	.32000	.31860	-.00328	.02621
#2	3.3413	-.00710	.00680	.33012	.32584	-.01049	.03378
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00749	-.02208	.95221	-.06691	12.385		
SDev	.00113	.00135	.01034	.00885	.102		
%RSD	15.153	6.1191	1.0863	13.224	.82537		
#1	.00668	-.02113	.94490	-.06065	12.313		
#2	.00829	-.02304	.95952	-.07316	12.457		

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Analysis Report

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Method: 6010B Sample Name: S4167-17  
 Run Time: 09/10/04 12:27:13  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06867	-.03171	.26692	.01480	.00068	75.875	.79116
SDev	.00206	.00674	.00213	.00388	.00490	.079	.00033
%RSD	2.9953	21.244	.79666	26.212	720.34	.10440	.04211
#1	.07013	-.02694	.26842	.01206	.00415	75.931	.79092
#2	.06722	-.03647	.26541	.01754	-.00279	75.819	.79140
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00472	.00522	8.2138	.07786	.03494	.08469	121.15
SDev	.00016	.00055	.0414	.00045	.00000	.00049	.44
%RSD	3.3442	10.428	.50448	.57585	.00108	.57269	.36259
#1	.00461	.00484	8.2431	.07818	.03494	.08435	121.46
#2	.00484	.00561	8.1845	.07754	.03494	.08504	120.84
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.1296	9.4598	.06179	-.00944	.42765	.14725	.37993
SDev	.0086	.0109	.00189	.00178	.17445	.00002	.00069
%RSD	.40301	.11538	3.0568	18.870	40.794	.01249	.18184
#1	2.1356	9.4675	.06045	-.01070	.55101	.14726	.38042
#2	2.1235	9.4521	.06312	-.00818	.30429	.14724	.37944
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.4947	-.00460	.00805	.26237	.26699	-.01048	.02563
SDev	.0090	.00617	.00237	.00208	.00423	.00433	.00798
%RSD	.25739	134.04	29.415	.79392	1.5836	41.346	31.144
#1	3.4883	-.00024	.00973	.26090	.26998	-.00742	.01998
#2	3.5010	-.00896	.00638	.26384	.26400	-.01355	.03127
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00700	-.02065	.87546	-.06218	9.4157		
SDev	.00091	.00113	.00048	.00177	.0000		
%RSD	12.955	5.4532	.05441	2.8458	.00000		
#1	.00636	-.01986	.87580	-.06343	9.4157		
#2	.00765	-.02145	.87512	-.06093	9.4157		

at 9/10/04



## Analysis Report

Method: 6010B

Sample Name: S4167-18

Operator: DR

Run Time: 09/10/04 12:29:05

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06827	-.03513	.38054	.01078	.00281	88.273	.73350
SDev	.00206	.00096	.00585	.00350	.00323	.457	.00314
%RSD	3.0205	2.7251	1.5372	32.509	114.84	.51765	.42861
#1	.06681	-.03581	.37641	.00830	.00509	87.950	.73127
#2	.06973	-.03445	.38468	.01326	.00053	88.596	.73572
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00702	.00885	8.9842	.10088	.06804	.12088	144.31
SDev	.00015	.00027	.0877	.00142	.00197	.00052	1.28
%RSD	2.1304	3.0002	.97668	1.4099	2.8982	.43088	.88889
#1	.00713	.00867	8.9222	.10189	.06943	.12124	143.41
#2	.00692	.00904	9.0463	.09988	.06664	.12051	145.22
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.7684	16.597	.11897	-.00678	.54967	.15092	.63760
SDev	.0429	.044	.00261	.00630	.20100	.00377	.00526
%RSD	.74326	.26306	2.1908	92.815	36.568	2.5004	.82427
#1	5.7381	16.628	.11712	-.00233	.69180	.15359	.63388
#2	5.7987	16.566	.12081	-.01124	.40754	.14825	.64132
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.8595	-.00103	.00730	.37799	.37962	-.01093	.01982
SDev	.0924	.00501	.00034	.00588	.00583	.00238	.00407
%RSD	1.1762	485.97	4.6914	1.5561	1.5367	21.771	20.512
#1	7.9249	.00251	.00706	.37383	.37550	-.01262	.01695
#2	7.7941	-.00457	.00754	.38215	.38375	-.00925	.02270
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00372	-.02431	1.1236	-.06649	12.391		
SDev	.00261	.00045	.0081	.00826	.052		
%RSD	70.207	1.8527	.72076	12.420	.41613		
#1	.00556	-.02463	1.1178	-.06065	12.355		
#2	.00187	-.02400	1.1293	-.07233	12.428		

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Analysis Report

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Method: 6010B Sample Name: S4167-19  
 Run Time: 09/10/04 12:31:45  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08557	-.03695	.37865	.01818	-.00224	81.159	.38281
SDev	.00395	.01380	.00575	.00237	.00074	.081	.00059
%RSD	4.6171	37.337	1.5182	13.025	33.000	.10038	.15514
#1	.08278	-.02719	.38272	.01650	-.00277	81.217	.38323
#2	.08837	-.04670	.37459	.01985	-.00172	81.102	.38239
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00460	.00626	3.8326	.08677	.04418	.07202	135.92
SDev	.00006	.00162	.0171	.00199	.00320	.00095	.20
%RSD	1.2489	25.930	.44518	2.2975	7.2515	1.3212	.14864
#1	.00464	.00512	3.8447	.08536	.04191	.07135	135.78
#2	.00456	.00741	3.8205	.08818	.04644	.07270	136.06
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.5016	10.330	.07644	-.01106	.27345	.16871	.39314
SDev	.0074	.104	.00045	.00369	.28633	.00220	.00298
%RSD	.16338	1.0038	.58501	33.393	104.71	1.3016	.75882
#1	4.5068	10.257	.07612	-.01368	.07098	.16715	.39525
#2	4.4964	10.403	.07675	-.00845	.47592	.17026	.39103
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.1935	-.00406	-.00181	.36715	.38219	-.01372	.03230
SDev	.0340	.00370	.00518	.00373	.00675	.00167	.00271
%RSD	.47236	91.053	286.56	1.0169	1.7673	12.197	8.4022
#1	7.1694	-.00667	.00186	.36979	.38697	-.01490	.03039
#2	7.2175	-.00145	-.00547	.36451	.37742	-.01254	.03422
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00420	-.00409	.72393	-.03521	11.663		
SDev	.00147	.00203	.00000	.00098	.068		
%RSD	35.132	49.587	.00000	2.7921	.58173		
#1	.00315	-.00265	.72393	-.03590	11.711		
#2	.00524	-.00552	.72393	-.03451	11.615		

09/10/04

Method: 6010B

Sample Name: PB00987BL

Operator: DR

Run Time: 09/10/04 12:33:49

Comment: PBS

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00383	.00970	.00141	-.00394	.00091	.11613	-.00227
SDev	.00758	.00034	.00045	.00114	.00011	.01752	.00007
%RSD	197.90	3.4930	31.696	28.910	12.242	15.089	2.8929

#1	-.00153	.00946	.00110	-.00474	.00098	.12852	-.00222
#2	.00918	.00994	.00173	-.00313	.00083	.10374	-.00231

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00281	-.00167	.00121	.00015	-.00059	-.00209	.08619
SDev	.00005	.00053	.00000	.00015	.00000	.00025	.01757
%RSD	1.9131	31.438	.00000	103.18	.03317	12.211	20.379

#1	.00278	-.00204	.00121	.00004	-.00059	-.00227	.09861
#2	.00285	-.00130	.00121	.00026	-.00059	-.00191	.07377

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00266	.00300	-.00353	-.00084	-.53642	-.00021	-.00221
SDev	.00060	.00273	.00098	.00024	.05309	.00055	.00028
%RSD	22.622	90.919	27.682	28.654	9.8980	257.73	12.474

#1	.00309	.00493	-.00422	-.00067	-.49888	.00017	-.00240
#2	.00223	.00107	-.00284	-.00101	-.57396	-.00060	-.00201

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00835	.00131	-.00311	.00216	-.00096	-.00177	-.00662
SDev	.00600	.00217	.00401	.00102	.00016	.00089	.00215
%RSD	71.795	165.32	128.81	47.041	17.119	50.118	32.452

#1	-.01259	.00284	-.00594	.00144	-.00107	-.00114	-.00814
#2	-.00411	-.00022	-.00028	.00288	-.00084	-.00239	-.00510

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00238	-.01412	-.00090	.00149	.03378
SDev	.00057	.00045	.00007	.00295	.00452
%RSD	23.833	3.1899	7.5445	197.38	13.389

#1	-.00198	-.01444	-.00085	-.00059	.03058
#2	-.00278	-.01380	-.00095	.00358	.03698

OK 9/10/04

Method: 6010B Sample Name: CCV  
 Run Time: 09/10/04 12:37:41  
 Comment: CCV  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.1277	5.1697	4.9096	5.1472	5.0188	9.8036	10.227
SDev	.0354	.0028	.0044	.0080	.0056	.0306	.042
%RSD	.68962	.05347	.08968	.15640	.11080	.31216	.41350
#1	5.1527	5.1678	4.9127	5.1415	5.0227	9.8253	10.256
#2	5.1027	5.1717	4.9065	5.1528	5.0148	9.7820	10.197
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24901	2.4887	24.430	.96079	2.3967	1.1992	4.6437
SDev	.00155	.0139	.122	.00507	.0052	.0072	.0086
%RSD	.62318	.55860	.49885	.52813	.21579	.60443	.18537
#1	.25011	2.4985	24.517	.96438	2.4004	1.2043	4.6498
#2	.24792	2.4789	24.344	.95721	2.3931	1.1941	4.6376
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3975	24.375	2.4554	1.2611	25.233	2.3655	2.4770
SDev	.0116	.087	.0141	.0081	.542	.0126	.0137
%RSD	.48253	.35824	.57576	.64443	2.1492	.53133	.55379
#1	2.4057	24.437	2.4654	1.2668	25.617	2.3744	2.4867
#2	2.3893	24.314	2.4454	1.2553	24.850	2.3566	2.4673
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.569	5.1175	4.8178	4.8767	4.9240	5.1262	5.1559
SDev	.166	.0103	.0040	.0006	.0063	.0115	.0065
%RSD	.64885	.20219	.08358	.01152	.12836	.22438	.12546
#1	25.686	5.1248	4.8149	4.8771	4.9285	5.1180	5.1513
#2	25.451	5.1102	4.8206	4.8763	4.9196	5.1343	5.1605
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	5.0756	5.0459	4.7707	4.7921	Q5.5918		
SDev	.0077	.0151	.0208	.0425	.0299		
%RSD	.15197	.29907	.43507	.88619	.53385		
#1	5.0810	5.0566	4.7854	4.8221	Q5.6129		
#2	5.0701	5.0352	4.7560	4.7621	Q5.5707		

09/10/04

Method: 6010B Sample Name: CCB  
 Run Time: 09/10/04 12:39:56  
 Comment: CCB  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00019	-.00318	.00322	-.00190	.00311	.08974	.00043
SDev	.00316	.00775	.00004	.00786	.00210	.00152	.00243
%RSD	1664.0	244.13	1.2972	414.70	67.542	1.6934	565.40
#1	.00204	.00231	.00325	.00366	.00460	.09082	.00215
#2	-.00242	-.00866	.00319	-.00746	.00163	.08867	-.00129
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00308	-.00046	.00810	.00026	.00063	-.00197	.04271
SDev	.00011	.00039	.00487	.00092	.00025	.00009	.00878
%RSD	3.4608	84.125	60.184	355.22	39.048	4.3532	20.559
#1	.00315	-.00074	.01155	.00091	.00080	-.00203	.03651
#2	.00300	-.00019	.00465	-.00039	.00046	-.00191	.04892
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00170	.00397	-.00156	-.00069	-.47206	-.00099	-.00201
SDev	.00075	.00409	.00286	.00046	.04361	.00054	.00054
%RSD	44.117	103.20	182.66	66.507	9.2390	55.256	26.872
#1	.00223	.00686	.00046	-.00037	-.44122	-.00137	-.00162
#2	.00117	.00107	-.00359	-.00102	-.50290	-.00060	-.00239
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00270	.00241	.00133	-.00050	.00308	-.00380	-.00274
SDev	.00700	.00402	.00173	.00190	.00101	.00155	.01102
%RSD	259.23	167.08	130.29	382.16	32.774	40.697	401.46
#1	.00225	.00525	.00010	-.00184	.00380	-.00271	.00505
#2	-.00765	-.00044	.00256	.00085	.00237	-.00489	-.01053
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00901	.00069	.00030	.00414	.03346		
SDev	.00941	.00968	.00122	.00983	.00769		
%RSD	104.50	1403.8	406.96	237.70	22.978		
#1	.01567	.00754	.00117	.01109	.03890		
#2	.00235	-.00616	-.00057	-.00282	.02803		

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Method: 6010B

Sample Name: PB00987BS

Operator: DR

Run Time: 09/10/04 12:42:26

Comment: LCSW

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.75774	1.8951	.94904	1.6341	.78428	2.0543	2.3333
SDev	.01089	.0169	.00940	.0045	.00281	.0069	.0028
%RSD	1.4375	.88916	.99091	.27730	.35804	.33415	.12121
#1	.75004	1.8832	.94239	1.6309	.78229	2.0495	2.3313
#2	.76544	1.9071	.95569	1.6373	.78626	2.0592	2.3353
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.17958	.20103	5.0029	.41144	.19342	.30647	2.9512
SDev	.00047	.00216	.0195	.00138	.00099	.00102	.0176
%RSD	.26319	1.0733	.38977	.33664	.50973	.33358	.59580
#1	.17925	.19950	4.9891	.41046	.19272	.30575	2.9636
#2	.17991	.20256	5.0167	.41242	.19412	.30719	2.9388
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20979	1.9663	.49438	.07679	3.0450	.30259	.18254
SDev	.00075	.0096	.00120	.00057	.0171	.00055	.00007
%RSD	.35768	.48572	.24330	.74529	.56047	.18105	.04113
#1	.20926	1.9596	.49523	.07639	3.0329	.30221	.18248
#2	.21032	1.9731	.49353	.07720	3.0571	.30298	.18259
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.5407	.79583	.75794	.96498	.93909	1.6053	1.6468
SDev	.0055	.00216	.00410	.00313	.01566	.0057	.0041
%RSD	.05761	.27162	.54129	.32396	1.6676	.35804	.24687
#1	9.5446	.79430	.75504	.96719	.92801	1.6012	1.6439
#2	9.5368	.79736	.76084	.96277	.95016	1.6093	1.6497
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.42015	.27080	.20558	.66144	Q.95266		
SDev	.00011	.00022	.00068	.00275	.00679		
%RSD	.02699	.08317	.33103	.41614	.71218		
#1	.42023	.27096	.20510	.66339	Q.94786		
#2	.42007	.27064	.20606	.65949	Q.95746		

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Analysis Report

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Method: 6010B Sample Name: S4550-01  
 Run Time: 09/10/04 12:44:32  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.1907	.00832	.27773	.00549	.00242	48.546	4.0048
SDev	.0041	.00636	.00486	.00211	.00337	.016	.0059
%RSD	.06626	76.373	1.7491	38.479	139.40	.03296	.14612
#1	6.1878	.01282	.28116	.00699	.00003	48.558	4.0090
#2	6.1936	.00383	.27429	.00400	.00480	48.535	4.0007
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05382	.01427	21.299	.08835	.16174	1.4007	141.91
SDev	.00011	.00035	.046	.00015	.00099	.0002	.10
%RSD	.19563	2.4220	.21744	.17086	.60941	.01171	.06811
#1	.05389	.01403	21.332	.08846	.16243	1.4006	141.98
#2	.05374	.01452	21.266	.08824	.16104	1.4008	141.84
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.9252	20.255	.35962	-.02217	8.5968	.08400	2.1287
SDev	.0171	.023	.00030	.00066	.1375	.00000	.0045
%RSD	.24740	.11452	.08310	2.9863	1.5992	.00493	.21172
#1	6.9373	20.271	.35984	-.02264	8.6940	.08401	2.1319
#2	6.9131	20.238	.35941	-.02170	8.4995	.08400	2.1255
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	14.114	-.00097	.00601	.27342	.27768	-.02540	.01912
SDev	.056	.00542	.00073	.00126	.00665	.00508	.00063
%RSD	.40008	557.25	12.125	.46184	2.3957	20.015	3.2950
#1	14.074	-.00481	.00653	.27431	.28238	-.02181	.01956
#2	14.154	.00286	.00550	.27252	.27297	-.02900	.01867
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00139	-.00154	1.0432	-.08234	4.0320		
SDev	.00068	.00023	.0005	.00629	.0041		
%RSD	48.962	14.628	.04566	7.6411	.10095		
#1	.00091	-.00170	1.0435	-.08679	4.0291		
#2	.00187	-.00138	1.0429	-.07789	4.0349		

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Analysis Report

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Method: 6010B Sample Name: S4550-02

Operator: DR

Run Time: 09/10/04 12:46:28

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.4588	-.00931	.28157	.01308	-.00141	36.808	.70101
SDev	.0518	.01274	.00563	.00345	.00135	.401	.00574
%RSD	.94913	136.89	2.0011	26.416	95.200	1.0902	.81946

#1	5.4221	-.00030	.27759	.01552	-.00237	36.524	.69694
#2	5.4954	-.01832	.28556	.01063	-.00046	37.091	.70507

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04839	.02108	16.919	.09336	.14798	.13169	268.51
SDev	.00065	.00223	.327	.00049	.00271	.00111	4.28
%RSD	1.3544	10.563	1.9304	.52400	1.8316	.84181	1.5935

#1	.04793	.02265	16.688	.09301	.14990	.13247	265.48
#2	.04886	.01951	17.150	.09370	.14607	.13091	271.53

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.5469	15.868	.28887	-.00831	4.6594	.11379	1.2110
SDev	.0564	.216	.00091	.01994	.2598	.01075	.0224
%RSD	1.5892	1.3586	.31597	239.89	5.5756	9.4465	1.8515

#1	3.5071	15.715	.28952	.00579	4.8431	.12139	1.1952
#2	3.5868	16.020	.28823	-.02241	4.4757	.10619	1.2269

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.802	-.00459	.00174	.28116	.27958	-.02186	.02872
SDev	.092	.00145	.00695	.00207	.00742	.00200	.00618
%RSD	.71822	31.691	399.81	.73477	2.6526	9.1584	21.513

#1	12.737	-.00356	-.00318	.27970	.27433	-.02327	.03309
#2	12.867	-.00561	.00665	.28263	.28482	-.02044	.02435

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00262	-.03148	1.8089	-.11431	8.3577
SDev	.00000	.00068	.0227	.00039	.0796
%RSD	.00000	2.1463	1.2528	.34399	.95249

#1	-.00262	-.03196	1.7929	-.11459	8.3014
#2	-.00262	-.03100	1.8249	-.11403	8.4140

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Analysis Report

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Method: 6010B Sample Name: S4550-03

Operator: DR

Run Time: 09/10/04 12:48:41

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.615	-.01456	.38658	.02548	-.00103	61.936	.86365
SDev	.225	.00405	.01237	.00295	.00308	1.246	.01357
%RSD	1.3525	27.838	3.1992	11.590	297.90	2.0123	1.5709
#1	16.774	-.01169	.39532	.02757	-.00321	62.818	.87324
#2	16.456	-.01742	.37783	.02340	.00114	61.055	.85405
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08636	.04095	15.396	.06543	.25253	.11189	484.86
SDev	.00179	.00299	.483	.00720	.01404	.00554	11.18
%RSD	2.0714	7.2939	3.1347	11.002	5.5614	4.9488	2.3048
#1	.08762	.04306	15.737	.07052	.26246	.11580	492.76
#2	.08509	.03884	15.054	.06034	.24260	.10797	476.96
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.4178	15.162	.30730	-.01695	8.7758	.13320	1.5959
SDev	.1596	.347	.00993	.03874	.7225	.02449	.0385
%RSD	2.4863	2.2858	3.2308	228.59	8.2325	18.383	2.4110
#1	6.5306	15.407	.31432	.01045	9.2866	.15052	1.6231
#2	6.3050	14.917	.30028	-.04434	8.2649	.11589	1.5687
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.661	-.00928	.01229	.34585	.40481	-.03182	.05229
SDev	.243	.00600	.00278	.00564	.01587	.00913	.00898
%RSD	1.7814	64.656	22.657	1.6317	3.9194	28.682	17.180
#1	13.833	-.01352	.01426	.34984	.41603	-.03827	.05865
#2	13.489	-.00504	.01032	.34186	.39359	-.02536	.04594
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00348	-.09137	.52818	-.01352	3.2730		
SDev	.00045	.00293	.01334	.00531	.0624		
%RSD	13.055	3.2048	2.5253	39.262	1.9071		
#1	.00315	-.08929	.53761	-.00977	3.3172		
#2	.00380	-.09344	.51875	-.01727	3.2289		

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Analysis Report

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Method: 6010B Sample Name: S4550-04  
 Run Time: 09/10/04 12:51:31  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.3883	-.02273	.38538	.03358	-.00831	33.449	.41001
SDev	.0066	.00021	.00366	.00268	.00103	.445	.00418
%RSD	.47288	.91344	.95050	7.9921	12.351	1.3299	1.0197
#1	1.3836	-.02288	.38279	.03548	-.00758	33.135	.40706
#2	1.3929	-.02259	.38797	.03168	-.00903	33.764	.41297
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06199	.03936	14.086	.02151	.07811	.10781	513.00
SDev	.00094	.00103	.278	.00013	.00345	.00133	9.40
%RSD	1.5217	2.6030	1.9727	.59784	4.4154	1.2366	1.8325
#1	.06132	.03864	13.889	.02160	.07567	.10686	506.35
#2	.06265	.04009	14.282	.02142	.08055	.10875	519.65
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.6877	10.197	.29095	-.05160	6.0230	.12768	1.2610
SDev	.0835	.115	.00493	.00278	.1119	.00201	.0202
%RSD	1.7806	1.1240	1.6929	5.3870	1.8575	1.5773	1.6033
#1	4.6287	10.116	.28746	-.04964	5.9439	.12626	1.2467
#2	4.7467	10.278	.29443	-.05357	6.1021	.12911	1.2753
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.2980	-.01818	.00826	.37235	.38989	-.02940	.06323
SDev	.0839	.00341	.00375	.00574	.00263	.00163	.00484
%RSD	1.0117	18.752	45.354	1.5415	.67359	5.5595	7.6548
#1	8.2386	-.01577	.00561	.36829	.38803	-.03056	.06665
#2	8.3574	-.02059	.01091	.37641	.39174	-.02824	.05981
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00767	-.10761	.57707	-.02450	13.564		
SDev	.00011	.00383	.00912	.00904	.187		
%RSD	1.4782	3.5582	1.5802	36.909	1.3773		
#1	-.00759	-.11032	.57062	-.01811	13.432		
#2	-.00775	-.10490	.58352	-.03090	13.696		

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Method: 6010B Sample Name: S4550-05  
 Run Time: 09/10/04 12:53:22  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.5883	-.01524	.28984	.01290	.00112	49.413	2.6743
SDev	.0205	.00854	.00966	.00256	.00340	.503	.0219
%RSD	.57268	56.065	3.3314	19.847	304.58	1.0171	.82011
#1	3.6029	-.02128	.29667	.01472	-.00129	49.768	2.6898
#2	3.5738	-.00920	.28301	.01109	.00352	49.057	2.6588
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08593	.01602	22.967	.10224	.17529	.93214	197.56
SDev	.00098	.00224	.544	.00071	.00049	.00191	3.35
%RSD	1.1375	13.957	2.3666	.69752	.28204	.20439	1.6944
#1	.08662	.01444	23.352	.10173	.17494	.93349	199.93
#2	.08524	.01760	22.583	.10274	.17564	.93079	195.19
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.0029	31.194	.56089	-.04461	6.7518	.07506	2.4806
SDev	.1011	.363	.00775	.02688	.2683	.01352	.0535
%RSD	1.6843	1.1635	1.3824	60.257	3.9741	18.011	2.1561
#1	6.0744	31.451	.56637	-.06362	6.5620	.06550	2.5184
#2	5.9314	30.938	.55541	-.02560	6.9415	.08462	2.4428
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.152	-.00184	.00383	.27531	.29509	-.01949	.02728
SDev	.066	.00465	.00090	.00343	.01619	.00281	.00244
%RSD	.54691	252.99	23.434	1.2469	5.4865	14.429	8.9307
#1	12.199	-.00513	.00320	.27289	.30654	-.01750	.02900
#2	12.105	.00145	.00447	.27774	.28365	-.02147	.02555
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00374	-.02607	.82590	-.05703	4.9458		
SDev	.00408	.00293	.01109	.00511	.0488		
%RSD	109.09	11.233	1.3431	8.9627	.98771		
#1	-.00086	-.02400	.83374	-.05342	4.9803		
#2	-.00663	-.02814	.81805	-.06065	4.9112		

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Method: 6010B      Sample Name: S4550-05D      Operator: DR  
 Run Time: 09/10/04 12:55:18  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.5808	-.02236	.28568	.01175	.00166	48.981	2.6609
SDev	.0112	.00846	.00394	.00085	.00481	.251	.0159
%RSD	.31314	37.812	1.3789	7.1989	289.95	.51162	.59791
#1	3.5888	-.02834	.28290	.01235	-.00174	49.159	2.6721
#2	3.5729	-.01638	.28847	.01115	.00506	48.804	2.6496
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.08583	.01656	22.772	.10391	.17529	.92796	196.23
SDev	.00042	.00044	.049	.00106	.00345	.00668	.55
%RSD	.49204	2.6387	.21407	1.0206	1.9681	.72021	.28207
#1	.08613	.01626	22.807	.10466	.17773	.93269	196.62
#2	.08554	.01687	22.738	.10316	.17285	.92324	195.84
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.9662	30.957	.55624	-.02441	7.1379	.08427	2.4606
SDev	.0152	.079	.00014	.00013	.1849	.00052	.0071
%RSD	.25471	.25563	.02503	.51284	2.5902	.61939	.28926
#1	5.9770	31.013	.55634	-.02433	7.2687	.08390	2.4656
#2	5.9555	30.901	.55614	-.02450	7.0072	.08464	2.4555
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.044	-.00243	.00666	.27781	.28761	-.02190	.02695
SDev	.121	.00576	.00292	.00369	.00407	.00069	.00092
%RSD	1.0082	236.41	43.839	1.3275	1.4132	3.1520	3.4279
#1	12.130	-.00651	.00459	.27520	.28474	-.02141	.02761
#2	11.959	.00164	.00872	.28042	.29049	-.02238	.02630
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00318	-.02447	.82079	-.05773	4.9579		
SDev	.00238	.00158	.00415	.00138	.0443		
%RSD	74.864	6.4421	.50575	2.3840	.89405		
#1	-.00487	-.02336	.82373	-.05676	4.9893		
#2	-.00150	-.02559	.81786	-.05870	4.9266		

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Method: 6010B

Sample Name: S4550-06

Operator: DR

Run Time: 09/10/04 12:57:17

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3608	1.8289	1.0130	1.4994	.51857	29.253	3.5226
SDev	.0065	.0043	.0090	.0113	.00025	.235	.0168
%RSD	.27445	.23491	.89216	.75150	.04879	.80200	.47782
#1	2.3563	1.8259	1.0066	1.4914	.51839	29.087	3.5107
#2	2.3654	1.8320	1.0194	1.5073	.51874	29.419	3.5345
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.22316	.19774	26.745	.43040	.28537	1.0733	52.639
SDev	.00126	.00096	.197	.00260	.00296	.0072	.404
%RSD	.56567	.48730	.73820	.60483	1.0359	.66945	.76775
#1	.22227	.19706	26.606	.42856	.28328	1.0683	52.353
#2	.22405	.19842	26.885	.43224	.28747	1.0784	52.924
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.1346	19.146	.73448	.08350	9.3597	.31002	1.5166
SDev	.0325	.123	.00375	.00051	.1432	.00057	.0141
%RSD	.63238	.64137	.51083	.61516	1.5296	.18288	.92988
#1	5.1116	19.059	.73182	.08314	9.2585	.30962	1.5066
#2	5.1575	19.233	.73713	.08387	9.4609	.31042	1.5265
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.216	.52634	.49979	1.0195	1.0078	1.4670	1.5139
SDev	.095	.00312	.00702	.0025	.0148	.0062	.0138
%RSD	.55147	.59361	1.4042	.24298	1.4672	.42274	.91135
#1	17.149	.52855	.49483	1.0212	.99732	1.4626	1.5042
#2	17.283	.52413	.50476	1.0177	1.0182	1.4714	1.5237
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.40491	.25026	.67783	.56037	20.570		
SDev	.00170	.00135	.00422	.00885	.071		
%RSD	.42020	.54001	.62246	1.5789	.34522		
#1	.40371	.25121	.67485	.55411	20.520		
#2	.40611	.24930	.68081	.56663	20.621		

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Method: 6010B Sample Name: S4550-07  
 Run Time: 09/10/04 12:59:10  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3705	1.8608	1.0198	1.5004	.52286	29.532	3.5486
SDev	.0169	.0145	.0033	.0016	.00064	.117	.0145
%RSD	.71269	.77747	.32454	.10787	.12304	.39461	.40953
#1	2.3824	1.8710	1.0222	1.5016	.52240	29.614	3.5589
#2	2.3585	1.8505	1.0175	1.4993	.52331	29.449	3.5383
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.22502	.19725	27.052	.43299	.28781	1.0810	53.341
SDev	.00095	.00084	.061	.00323	.00049	.0035	.114
%RSD	.42115	.42523	.22525	.74538	.17113	.32391	.21410
#1	.22569	.19666	27.095	.43527	.28816	1.0835	53.421
#2	.22435	.19785	27.009	.43071	.28746	1.0786	53.260
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.1877	19.310	.74855	.08552	9.4589	.31121	1.5347
SDev	.0114	.025	.00158	.00042	.3973	.00001	.0005
%RSD	.22021	.12718	.21066	.48989	4.1999	.00336	.03083
#1	5.1958	19.328	.74967	.08522	9.7398	.31122	1.5351
#2	5.1797	19.293	.74744	.08581	9.1780	.31120	1.5344
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.392	.52859	.50818	1.0205	1.0175	1.4641	1.5168
SDev	.110	.00110	.00027	.0024	.0062	.0002	.0023
%RSD	.63211	.20828	.05378	.23772	.60671	.01524	.15264
#1	17.469	.52781	.50837	1.0188	1.0218	1.4642	1.5184
#2	17.314	.52937	.50798	1.0222	1.0131	1.4639	1.5152
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.41004	.25408	.68577	.56398	20.703		
SDev	.00329	.00180	.00279	.00334	.081		
%RSD	.80222	.70917	.40686	.59263	.39327		
#1	.41237	.25535	.68774	.56635	20.760		
#2	.40772	.25281	.68380	.56162	20.645		

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## Analysis Report

Method: 6010B  
 Run Time: 09/10/04 13:03:45  
 Comment:  
 Mode: CONC

Sample Name: S4161-05A

Operator: DR

Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.4501	3.5442	2.0495	2.7970	.54804	107.49	5.8000
SDev	.0010	.0215	.0358	.0287	.00959	1.46	.0617
%RSD	.07225	.60571	1.7447	1.0272	1.7507	1.3557	1.0631
#1	1.4508	3.5290	2.0242	2.7767	.54125	106.46	5.7564
#2	1.4494	3.5593	2.0748	2.8173	.55482	108.52	5.8436
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.33842	.36628	50.937	.87197	.43412	.80290	147.39
SDev	.00624	.00416	1.129	.01761	.00838	.00843	2.71
%RSD	1.8434	1.1349	2.2156	2.0194	1.9294	1.0506	1.8418
#1	.33400	.36334	50.139	.85952	.42819	.79694	145.47
#2	.34283	.36922	51.735	.88442	.44004	.80887	149.31
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.6476	39.496	1.0632	.20327	7.4363	.80151	1.1896
SDev	.0674	.553	.0135	.00293	.1308	.01215	.0176
%RSD	1.8484	1.3991	1.2680	1.4410	1.7595	1.5163	1.4762
#1	3.5999	39.106	1.0537	.20120	7.3437	.79291	1.1772
#2	3.6952	39.887	1.0727	.20534	7.5288	.81010	1.2020
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	37.469	.55505	.53080	2.0390	2.0526	2.7455	2.8210
SDev	.132	.01326	.00226	.0288	.0397	.0049	.0408
%RSD	.35341	2.3886	.42520	1.4112	1.9326	.17805	1.4454
#1	37.375	.54567	.52920	2.0187	2.0246	2.7420	2.7922
#2	37.562	.56442	.53239	2.0594	2.0807	2.7489	2.8499
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.53829	.46686	2.4305	.65866	10.856		
SDev	.00907	.01036	.0397	.01376	.152		
%RSD	1.6858	2.2193	1.6352	2.0895	1.3999		
#1	.53188	.45953	2.4024	.64893	10.749		
#2	.54471	.47418	2.4586	.66839	10.964		

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Method: 6010B Sample Name: CCV  
 Run Time: 09/10/04 13:05:44  
 Comment: CCV  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.2829	5.4690	5.1573	5.2861	5.1943	10.170	10.531
SDev	.1352	.1237	.1909	.0880	.1096	.309	.224
%RSD	2.5588	2.2627	3.7012	1.6652	2.1107	3.0376	2.1276
#1	5.3785	Q5.5565	5.2922	5.3483	5.2718	10.389	10.689
#2	5.1873	5.3815	5.0223	5.2238	5.1168	9.9519	10.373
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.26065	2.6097	26.073	1.0181	2.5127	1.2258	4.8906
SDev	.00869	.0843	1.314	.0464	.0815	.0227	.2710
%RSD	3.3348	3.2296	5.0388	4.5610	3.2453	1.8479	5.5414
#1	.26679	2.6693	27.002	1.0509	2.5704	1.2418	5.0823
#2	.25450	2.5501	25.144	.98526	2.4551	1.2098	4.6990
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.5299	25.178	2.5713	1.3320	25.997	2.4753	2.6208
SDev	.1047	.666	.1012	.0562	.486	.0935	.1072
%RSD	4.1399	2.6445	3.9362	4.2160	1.8709	3.7761	4.0922
#1	2.6040	25.649	2.6429	1.3717	26.341	2.5414	2.6966
#2	2.4559	24.707	2.4997	1.2923	25.653	2.4092	2.5449
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.978	5.2710	5.0375	5.0547	5.2063	5.2207	5.3170
SDev	.293	.0877	.1536	.1076	.2322	.0530	.1054
%RSD	1.1272	1.6636	3.0489	2.1292	4.4593	1.0159	1.9814
#1	26.186	5.3330	5.1461	5.1308	5.3704	5.2582	5.3915
#2	25.771	5.2090	4.9289	4.9786	5.0421	5.1832	5.2425
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	5.3050	5.2571	4.9663	4.9920	Q5.8662		
SDev	.1549	.1394	.1588	.1435	.1393		
%RSD	2.9207	2.6521	3.1968	2.8751	2.3748		
#1	5.4145	5.3557	5.0786	5.0935	Q5.9647		
#2	5.1954	5.1585	4.8541	4.8905	Q5.7677		

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Analysis Report

QC Standard

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Method: 6010B

Sample Name: CCB

Operator: DR

Run Time: 09/10/04 13:07:45

Comment: CCB

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00561	.00851	.00374	.00014	.00480	.07952	-.00027
SDev	.00442	.00472	.00069	.00076	.00134	.00229	.00013
%RSD	78.734	55.464	18.580	524.32	27.818	2.8812	49.245
#1	.00874	Q.01184	.00324	.00068	.00386	.08114	-.00017
#2	.00249	.00517	.00423	-.00039	.00575	.07790	-.00036
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00315	-.00215	.00810	.00070	.00098	-.00203	.03649
SDev	.00010	.00010	.00000	.00061	.00025	.00017	.00001
%RSD	3.3046	4.5605	.00000	88.511	25.199	8.4022	.02457
#1	.00322	-.00222	.00810	.00113	.00115	-.00215	.03648
#2	.00308	-.00208	.00810	.00026	.00080	-.00191	.03650
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00085	.00783	-.00087	-.00053	-.43519	-.00021	-.00143
SDev	.00015	.00136	.00008	.00000	.01043	.00055	.00027
%RSD	17.640	17.436	8.6125	.01522	2.3965	256.85	18.864
#1	.00096	.00879	-.00093	-.00053	-.42781	.00017	-.00124
#2	.00075	.00686	-.00082	-.00053	-.44256	-.00060	-.00162
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00189	.00503	.00114	.00271	.00225	.00589	-.00452
SDev	.00550	.00155	.00091	.00095	.00152	.00133	.00180
%RSD	290.10	30.804	79.487	35.027	67.405	22.515	39.707
#1	-.00199	.00393	.00050	.00338	.00118	.00495	-.00325
#2	.00578	.00613	.00178	.00204	.00332	.00683	-.00579
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00067	-.00664	-.00028	-.00004	.03154		
SDev	.00057	.00248	.00041	.00039	.00498		
%RSD	84.884	37.334	147.70	1119.7	15.773		
#1	.00107	-.00488	.00001	.00024	.03506		
#2	.00027	-.00839	-.00057	-.00031	.02803		

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Method: 6010B      Sample Name: S4550-05LX5      Operator: DR  
 Run Time: 09/10/04 13:11:03  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.75321	.00353	.06568	-.00002	.00048	9.6088	.54792
SDev	.00173	.00640	.00203	.00211	.00390	.0244	.00204
%RSD	.23005	181.43	3.0882	12262.	814.58	.25377	.37190
#1	.75199	.00805	.06712	-.00151	.00323	9.6261	.54936
#2	.75444	-.00100	.06425	.00148	-.00228	9.5916	.54648
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02176	.00199	4.7133	.02244	.03807	.17796	40.374
SDev	.00016	.00011	.0049	.00138	.00148	.00103	.097
%RSD	.72014	5.5778	.10343	6.1581	3.8852	.57846	.23935
#1	.02187	.00207	4.7168	.02341	.03912	.17869	40.442
#2	.02165	.00192	4.7099	.02146	.03702	.17724	40.306
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.2574	6.7758	.11397	-.00494	.96198	.01688	.51927
SDev	.0029	.0191	.00271	.00085	.08438	.00055	.00213
%RSD	.22734	.28191	2.3770	17.294	8.7718	3.2718	.40999
#1	1.2594	6.7893	.11206	-.00434	1.0216	.01728	.52077
#2	1.2554	6.7623	.11589	-.00555	.90231	.01649	.51776
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8538	.00107	-.00391	.06117	.06594	-.00386	.00030
SDev	.0110	.00448	.00274	.00355	.00127	.00497	.00068
%RSD	.59303	417.91	69.942	5.8045	1.9237	128.67	224.97
#1	1.8615	.00424	-.00198	.06368	.06683	-.00738	-.00018
#2	1.8460	-.00209	-.00585	.05866	.06504	-.00035	.00079
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00053	-.01540	.16588	-.01894	1.0352		
SDev	.00136	.00090	.00020	.00315	.0050		
%RSD	254.44	5.8518	.12308	16.607	.48065		
#1	.00043	-.01476	.16603	-.02117	1.0387		
#2	-.00150	-.01603	.16574	-.01672	1.0317		

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Method: 6010B      Sample Name: S4550-05A      Operator: DR  
 Run Time: 09/10/04 13:12:55  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.3100	1.7906	.98197	1.4763	.51009	28.674	3.4624
SDev	.0161	.0113	.01267	.0109	.00756	.286	.0274
%RSD	.69743	.63007	1.2904	.73664	1.4816	.99616	.79000
#1	2.2986	1.7826	.97301	1.4686	.50475	28.472	3.4430
#2	2.3214	1.7986	.99093	1.4840	.51544	28.876	3.4817
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.21573	.18967	25.621	.41479	.27475	1.0600	50.992
SDev	.00274	.00341	.422	.00414	.00369	.0073	.553
%RSD	1.2690	1.8001	1.6458	.99746	1.3449	.68677	1.0854
#1	.21379	.18725	25.323	.41186	.27214	1.0549	50.601
#2	.21766	.19208	25.920	.41771	.27736	1.0652	51.384
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.9515	18.789	.72100	.08269	9.4904	.30259	1.4563
SDev	.0660	.150	.00676	.00083	.3129	.00003	.0212
%RSD	1.3326	.79877	.93714	1.0034	3.2968	.00981	1.4583
#1	4.9048	18.683	.71623	.08328	9.7117	.30257	1.4413
#2	4.9981	18.895	.72578	.08211	9.2692	.30261	1.4713
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	17.249	.51948	.48809	.98495	.97848	1.4487	1.4884
SDev	.111	.00615	.01039	.00977	.01412	.0066	.0195
%RSD	.64601	1.1830	2.1278	.99170	1.4432	.45749	1.3083
#1	17.328	.51513	.48075	.97805	.96850	1.4534	1.4746
#2	17.170	.52382	.49544	.99186	.98847	1.4440	1.5022
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.40018	.24548	.66084	.53118	20.042		
SDev	.00930	.00405	.00742	.00806	.168		
%RSD	2.3243	1.6515	1.1225	1.5176	.83952		
#1	.39360	.24261	.65560	.52548	19.923		
#2	.40675	.24835	.66609	.53688	20.161		

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Method: 6010B

Sample Name: PB00888BL

Operator: DR

Run Time: 09/10/04 13:15:10

Comment: PBS

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00142	.00208	.00126	-.00376	-.00178	.08596	-.00194
SDev	.00331	.00573	.00133	.00009	.00294	.00381	.00000
%RSD	233.90	275.91	105.83	2.2709	164.82	4.4302	.00000

#1	-.00376	.00613	.00032	-.00370	-.00386	.08327	-.00194
#2	.00093	-.00198	.00219	-.00382	.00029	.08865	-.00194

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00323	-.00099	.00293	.00059	-.00059	-.00233	.01166
SDev	.00000	.00036	.00244	.00015	.00000	.00026	.00000
%RSD	.00002	36.335	83.207	26.194	.06368	10.970	.00412

#1	.00323	-.00073	.00465	.00048	-.00059	-.00215	.01166
#2	.00323	-.00124	.00121	.00070	-.00059	-.00251	.01166

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00021	-.00279	.00019	-.00095	-.46737	-.00137	-.00199
SDev	.00015	.00273	.00188	.00081	.01612	.00000	.00054
%RSD	71.091	97.901	985.14	85.462	3.4487	.02040	27.120

#1	-.00032	-.00086	-.00114	-.00038	-.45597	-.00137	-.00161
#2	-.00011	-.00472	.00152	-.00153	-.47876	-.00137	-.00237

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00694	-.00066	-.00724	-.00176	.00076	-.00497	-.00496
SDev	.00600	.00340	.00200	.00011	.00194	.00122	.00048
%RSD	86.419	517.89	27.687	6.2518	254.63	24.447	9.6638

#1	-.00270	-.00306	-.00866	-.00184	-.00061	-.00411	-.00530
#2	-.01118	.00175	-.00582	-.00168	.00213	-.00583	-.00462

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00142	-.01412	-.00105	-.00448	.03026
SDev	.00261	.00045	.00000	.00118	.00045
%RSD	184.08	3.1899	.00000	26.309	1.4945

#1	.00043	-.01444	-.00105	-.00365	.03058
#2	-.00326	-.01380	-.00105	-.00532	.02994

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Method: 6010B

Sample Name: PB00888BS

Operator: DR

Run Time: 09/10/04 13:17:37

Comment: LCSS

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.78098	1.9752	.97472	1.6794	.79788	2.0873	2.3770
SDev	.01310	.0088	.00743	.0125	.00250	.0076	.0087
%RSD	1.6768	.44460	.76278	.74725	.31292	.36611	.36798
#1	.79024	1.9814	.96946	1.6705	.79611	2.0819	2.3708
#2	.77172	1.9690	.97998	1.6883	.79965	2.0927	2.3832
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.18652	.20685	5.2063	.42678	.20126	.30979	3.0256
SDev	.00105	.00323	.0439	.00246	.00222	.00060	.0000
%RSD	.56260	1.5621	.84271	.57672	1.1019	.19301	.00095
#1	.18578	.20457	5.1752	.42504	.19969	.30937	3.0256
#2	.18726	.20914	5.2373	.42852	.20283	.31022	3.0256
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.21638	1.9943	.51150	.07880	3.0389	.31112	.18771
SDev	.00225	.0164	.00090	.00012	.1716	.00164	.00036
%RSD	1.0416	.82098	.17642	.14591	5.6470	.52798	.19309
#1	.21478	1.9827	.51086	.07871	2.9176	.30996	.18746
#2	.21797	2.0059	.51214	.07888	3.1603	.31228	.18797
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.5750	.80835	.77371	.98676	.96672	1.6493	1.6926
SDev	.0110	.00015	.00721	.00095	.01162	.0096	.0140
%RSD	.11481	.01799	.93142	.09585	1.2019	.58312	.82788
#1	9.5672	.80825	.76861	.98743	.95850	1.6425	1.6827
#2	9.5827	.80845	.77880	.98609	.97493	1.6561	1.7025
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.43386	.27463	.21001	.68285	Q.99807		
SDev	.00136	.00203	.00082	.00472	.00226		
%RSD	.31373	.73814	.38886	.69101	.22659		
#1	.43290	.27606	.20943	.67951	Q.99967		
#2	.43483	.27319	.21059	.68619	Q.99648		

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Method: 6010B Sample Name: S4259-01  
 Run Time: 09/10/04 13:20:10  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00199	-.02465	.02617	.00350	.00141	34.788	.05313
SDev	.00994	.01451	.00040	.00726	.00048	.004	.00020
%RSD	500.47	58.841	1.5238	207.19	33.840	.01099	.36901
#1	-.00902	-.01440	.02645	.00864	.00107	34.785	.05327
#2	.00504	-.03491	.02589	-.00163	.00175	34.791	.05299
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00426	-.00021	6.6730	.02987	.02188	.02453	49.686
SDev	.00000	.00040	.0122	.00031	.00222	.00008	.123
%RSD	.02796	186.37	.18263	1.0421	10.134	.32280	.24757
#1	.00426	.00007	6.6816	.02965	.02032	.02447	49.773
#2	.00426	-.00050	6.6644	.03009	.02345	.02458	49.599
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.62332	4.8028	.01547	-.00511	.36396	.06901	.10679
SDev	.00136	.0014	.00023	.00018	.03698	.00054	.00105
%RSD	.21775	.02841	1.4743	3.4752	10.160	.78495	.98342
#1	.62428	4.8018	.01531	-.00524	.39011	.06863	.10753
#2	.62236	4.8037	.01563	-.00498	.33781	.06939	.10604
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.2778	.00145	-.00187	.03418	.02017	-.02000	.01354
SDev	.0010	.00140	.00136	.00103	.00008	.00664	.00771
%RSD	.07821	96.193	72.887	3.0172	.41163	33.198	56.955
#1	1.2785	.00046	-.00091	.03491	.02023	-.01531	.01899
#2	1.2771	.00244	-.00283	.03345	.02012	-.02470	.00809
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00115	-.02001	2.2083	-.14295	4.3972		
SDev	.00102	.00068	.0035	.00197	.0068		
%RSD	88.818	3.3761	.15716	1.3754	.15429		
#1	.00187	-.01954	2.2107	-.14434	4.4020		
#2	.00043	-.02049	2.2058	-.14156	4.3924		

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Method: 6010B Sample Name: S4259-02  
 Run Time: 09/10/04 13:22:00  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00687	-.02206	.02495	.00693	.00327	38.777	.05558
SDev	.00458	.00337	.00102	.00232	.00033	.123	.00013
%RSD	66.661	15.264	4.0751	33.467	10.216	.31628	.22814
#1	-.00363	-.02444	.02424	.00858	.00304	38.864	.05567
#2	-.01011	-.01968	.02567	.00529	.00351	38.690	.05549
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00407	-.00013	6.4455	.03046	.02154	.02177	51.897
SDev	.00006	.00017	.0658	.00029	.00025	.00028	.474
%RSD	1.4135	131.96	1.0210	.96215	1.1428	1.3047	.91412
#1	.00403	-.00001	6.4920	.03066	.02136	.02197	52.233
#2	.00411	-.00024	6.3989	.03025	.02171	.02157	51.562
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.66686	4.8858	.01452	-.00406	.31301	.07335	.09817
SDev	.00543	.0205	.00151	.00126	.06921	.00220	.00204
%RSD	.81398	.41889	10.423	30.970	22.112	3.0045	2.0826
#1	.67070	4.9002	.01345	-.00317	.36195	.07491	.09962
#2	.66302	4.8713	.01559	-.00494	.26407	.07179	.09673
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.1736	.00265	.00131	.03021	.02033	-.01613	.01665
SDev	.0065	.00142	.00184	.00396	.00045	.00157	.00269
%RSD	.55353	53.427	139.94	13.100	2.2177	9.7550	16.176
#1	1.1690	.00165	.00261	.02741	.02065	-.01502	.01856
#2	1.1782	.00365	.00001	.03300	.02001	-.01725	.01475
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00029	-.02065	2.1646	-.14810	3.8244		
SDev	.00011	.00068	.0102	.00531	.0109		
%RSD	38.537	3.2719	.47157	3.5845	.28385		
#1	-.00021	-.02017	2.1719	-.15185	3.8321		
#2	-.00037	-.02113	2.1574	-.14434	3.8168		

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Method: 6010B Sample Name: S4259-03  
 Run Time: 09/10/04 13:23:52  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00971	-.01314	.02717	.00579	.00533	35.434	.05520
SDev	.00032	.00607	.00144	.00251	.00119	.040	.00006
%RSD	3.2638	46.199	5.2921	43.285	22.293	.11179	.11723
#1	-.00994	-.01744	.02818	.00402	.00449	35.406	.05516
#2	-.00949	-.00885	.02615	.00757	.00617	35.462	.05525
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00404	-.00087	6.5454	.02874	.01997	.02041	47.424
SDev	.00011	.00018	.0219	.00015	.00099	.00043	.105
%RSD	2.6653	21.182	.33515	.52352	4.9363	2.1156	.22228
#1	.00412	-.00074	6.5299	.02864	.02066	.02011	47.350
#2	.00396	-.00100	6.5609	.02885	.01927	.02072	47.499
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.64501	4.8337	.01647	-.00540	.36530	.06853	.10983
SDev	.00091	.0041	.00023	.00086	.10714	.00110	.00105
%RSD	.14041	.08468	1.3825	15.924	29.329	1.6001	.96056
#1	.64437	4.8366	.01663	-.00601	.28954	.06776	.10909
#2	.64565	4.8308	.01631	-.00479	.44106	.06931	.11058
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.2895	.00616	.00045	.04138	.01807	-.01600	.01488
SDev	.0035	.00046	.00265	.00619	.00094	.00697	.00028
%RSD	.27127	7.4342	594.13	14.964	5.1788	43.559	1.8776
#1	1.2870	.00584	-.00143	.04576	.01741	-.02093	.01468
#2	1.2919	.00649	.00232	.03700	.01873	-.01107	.01507
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00011	-.02001	2.2093	-.13962	4.4254		
SDev	.00068	.00023	.0061	.00472	.0068		
%RSD	637.86	1.1254	.27722	3.3797	.15331		
#1	-.00037	-.02017	2.2050	-.14295	4.4302		
#2	.00059	-.01986	2.2136	-.13628	4.4206		

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Analysis Report

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Method: 6010B Sample Name: S4259-03D  
 Run Time: 09/10/04 13:25:58  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00324	-.00361	.02365	.00478	.00073	35.409	.05507
SDev	.00411	.01552	.00178	.00067	.00096	.067	.00013
%RSD	126.54	429.99	7.5223	14.063	132.04	.18929	.23518
#1	-.00615	-.01458	.02491	.00430	.00005	35.362	.05498
#2	-.00034	.00736	.02239	.00525	.00140	35.456	.05516
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00404	-.00034	6.4489	.02832	.01892	.01984	46.959
SDev	.00011	.00029	.0024	.00016	.00049	.00016	.202
%RSD	2.6030	84.534	.03780	.56466	2.6080	.79942	.43032
#1	.00397	-.00054	6.4506	.02843	.01927	.01996	46.816
#2	.00412	-.00014	6.4472	.02821	.01857	.01973	47.101
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.63936	4.8259	.01520	-.00544	.35390	.06697	.10861
SDev	.00076	.0314	.00323	.00044	.06637	.00001	.00077
%RSD	.11877	.65026	21.241	8.0649	18.753	.01164	.70587
#1	.63882	4.8037	.01292	-.00575	.30697	.06696	.10807
#2	.63989	4.8481	.01749	-.00513	.40083	.06697	.10916
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.2919	-.00147	.00192	.03275	.01711	-.01157	.01114
SDev	.0050	.00107	.00073	.00289	.00411	.00485	.00343
%RSD	.38678	73.114	37.995	8.8140	24.007	41.931	30.782
#1	1.2884	-.00223	.00140	.03071	.02002	-.00814	.00872
#2	1.2955	-.00071	.00243	.03479	.01421	-.01500	.01357
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00070	-.01970	2.1948	-.13850	4.4139		
SDev	.00113	.00068	.0066	.00079	.0104		
%RSD	163.12	3.4307	.30076	.56781	.23569		
#1	.00011	-.02017	2.1901	-.13906	4.4065		
#2	-.00150	-.01922	2.1995	-.13795	4.4212		

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Method: 6010B Sample Name: S4259-03LX5  
 Run Time: 09/10/04 13:29:28  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00343	-.00120	.00571	-.00224	.00084	7.2282	.00945
SDev	.00063	.00371	.00137	.00232	.00190	.0838	.00006
%RSD	18.414	308.44	23.940	103.57	224.85	1.1590	.68502
#1	-.00298	.00142	.00474	-.00060	.00219	7.2874	.00949
#2	-.00388	-.00383	.00667	-.00388	-.00050	7.1689	.00940
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00334	-.00146	1.3869	.00595	.00516	.00224	9.8769
SDev	.00000	.00070	.0244	.00047	.00025	.00009	.1054
%RSD	.03570	47.703	1.7574	7.8145	4.7691	4.0768	1.0675
#1	.00334	-.00097	1.4042	.00562	.00499	.00231	9.9515
#2	.00334	-.00195	1.3697	.00627	.00533	.00218	9.8023
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.13267	1.0575	.00132	-.00151	-.22199	.01332	.02036
SDev	.00181	.0068	.00196	.00039	.04077	.00054	.00105
%RSD	1.3622	.64511	147.96	26.214	18.365	4.0747	5.1669
#1	.13395	1.0623	-.00006	-.00123	-.19316	.01293	.02110
#2	.13139	1.0527	.00271	-.00179	-.25082	.01370	.01962
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20153	.00266	-.00599	.00498	.00407	-.00561	-.00235
SDev	.01399	.00448	.00328	.00398	.00006	.00376	.00160
%RSD	6.9426	168.65	54.766	79.896	1.5593	67.088	67.824
#1	.19164	.00583	-.00832	.00217	.00403	-.00295	-.00123
#2	.21143	-.00051	-.00367	.00779	.00412	-.00827	-.00348
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00102	-.01460	.44734	-.03966	.97473		
SDev	.00181	.00023	.00517	.00020	.02352		
%RSD	178.59	1.5428	1.1562	.49578	2.4130		
#1	.00027	-.01444	.45099	-.03952	.99136		
#2	-.00230	-.01476	.44368	-.03980	.95810		

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Method: 6010B Sample Name: S4259-17  
 Run Time: 09/10/04 13:31:26  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.68264	1.7395	.86371	1.4743	.64418	33.733	2.1279
SDev	.00109	.0121	.00516	.0106	.00251	.176	.0053
%RSD	.16030	.69732	.59785	.71773	.38904	.52169	.24699
#1	.68341	1.7480	.86006	1.4668	.64240	33.608	2.1242
#2	.68187	1.7309	.86737	1.4818	.64595	33.857	2.1316
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.15855	.18394	11.502	.39639	.19482	.30627	61.864
SDev	.00110	.00152	.124	.00291	.00148	.00089	.553
%RSD	.69125	.82702	1.0807	.73304	.75945	.28884	.89460
#1	.15777	.18286	11.414	.39434	.19587	.30564	61.472
#2	.15932	.18502	11.590	.39845	.19378	.30690	62.255
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.76952	6.6474	.45848	.03470	3.0363	.35319	.29317
SDev	.00558	.0205	.00533	.00033	.1583	.00440	.00284
%RSD	.72531	.30788	1.1621	.96375	5.2148	1.2446	.96786
#1	.76557	6.6330	.45471	.03494	3.1482	.35008	.29117
#2	.77346	6.6619	.46225	.03446	2.9243	.35630	.29518
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.243	.65160	.62611	.86586	.86084	1.4445	1.4876
SDev	.010	.00189	.01132	.00024	.00762	.0054	.0131
%RSD	.08889	.29086	1.8083	.02816	.88519	.37716	.88361
#1	11.236	.65294	.61810	.86569	.85545	1.4406	1.4783
#2	11.251	.65026	.63412	.86604	.86623	1.4483	1.4969
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.37796	.23019	2.5141	.44025	6.3639		
SDev	.00442	.00496	.0153	.00452	.0235		
%RSD	1.1704	2.1526	.60903	1.0271	.36959		
#1	.37483	.22669	2.5035	.44345	6.3473		
#2	.38109	.23369	2.5250	.43706	6.3805		

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Method: 6010B Sample Name: CCV  
 Run Time: 09/10/04 13:33:29  
 Comment: CCV  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.1583	5.2914	4.9992	5.2181	5.0849	9.8611	10.324
SDev	.0291	.0264	.0523	.0013	.0344	.0904	.079
%RSD	.56346	.49849	1.0453	.02548	.67634	.91658	.76946
#1	5.1789	5.3100	5.0362	5.2171	5.1092	9.9250	10.381
#2	5.1378	5.2727	4.9623	5.2190	5.0606	9.7972	10.268
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25201	2.5215	24.834	.97254	2.4215	1.2022	4.6309
SDev	.00276	.0287	.448	.01430	.0372	.0070	.0610
%RSD	1.0957	1.1386	1.8060	1.4703	1.5364	.58353	1.3167
#1	.25396	2.5418	25.151	.98265	2.4478	1.2071	4.6741
#2	.25006	2.5012	24.517	.96243	2.3952	1.1972	4.5878
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4229	24.509	2.4906	1.2804	25.578	2.3914	2.5057
SDev	.0355	.263	.0360	.0217	.465	.0372	.0349
%RSD	1.4636	1.0744	1.4462	1.6968	1.8163	1.5539	1.3945
#1	2.4480	24.696	2.5161	1.2957	25.906	2.4177	2.5305
#2	2.3978	24.323	2.4652	1.2650	25.249	2.3651	2.4810
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.757	5.1619	4.9275	4.9321	5.0308	5.1682	5.2413
SDev	.185	.0329	.0374	.0520	.0524	.0278	.0160
%RSD	.71977	.63731	.75869	1.0543	1.0412	.53884	.30601
#1	25.888	5.1852	4.9539	4.9688	5.0678	5.1879	5.2299
#2	25.626	5.1386	4.9011	4.8953	4.9937	5.1485	5.2526
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	5.1424	5.0957	4.7989	4.8159	Q5.7437		
SDev	.0482	.0392	.0506	.0568	.0529		
%RSD	.93745	.76909	1.0550	1.1799	.92136		
#1	5.1765	5.1234	4.8347	4.8561	Q5.7812		
#2	5.1083	5.0680	4.7631	4.7757	Q5.7063		

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Method: 6010B Sample Name: CCB  
 Run Time: 09/10/04 13:35:38  
 Comment: CCB  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00186	.00446	.00381	-.00124	.00393	.07305	-.00110
SDev	.00110	.00236	.00071	.00249	.00122	.00229	.00013
%RSD	59.314	53.054	18.549	200.41	31.064	3.1309	11.911
#1	-.00108	.00278	.00431	.00052	.00307	.07467	-.00101
#2	-.00264	.00613	.00331	-.00301	.00479	.07144	-.00120
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00326	-.00173	.00293	.00091	.00220	-.00221	.04893
SDev	.00005	.00036	.00244	.00000	.00148	.00009	.00001
%RSD	1.5765	20.704	83.207	.01194	67.254	3.9032	.01440
#1	.00323	-.00199	.00465	.00091	.00324	-.00215	.04893
#2	.00330	-.00148	.00121	.00091	.00115	-.00227	.04892
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00021	-.00182	-.00273	-.00036	-.55385	-.00098	-.00257
SDev	.00015	.00409	.00120	.00046	.04172	.00055	.00027
%RSD	71.555	224.59	44.001	129.12	7.5323	55.472	10.471
#1	-.00010	-.00472	-.00188	-.00003	-.58335	-.00137	-.00238
#2	-.00032	.00107	-.00359	-.00069	-.52435	-.00060	-.00276
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00235	.00569	-.00279	.00042	.00350	.00120	-.00427
SDev	.01049	.00031	.00428	.00364	.00076	.00221	.00264
%RSD	447.43	5.4429	153.48	856.17	21.658	183.75	61.776
#1	.00507	.00590	-.00582	.00300	.00296	.00277	-.00240
#2	-.00977	.00547	.00024	-.00215	.00403	-.00036	-.00613
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00893	.00053	-.00013	-.00156	.03250		
SDev	.00907	.00901	.00007	.00334	.00090		
%RSD	101.62	1697.8	51.521	213.65	2.7831		
#1	.01535	.00690	-.00008	.00080	-.03314		
#2	.00251	-.00584	-.00018	-.00393	.03186		

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Method: 6010B Sample Name: S4259-18  
 Run Time: 09/10/04 13:37:29  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.69851	1.7437	.86863	1.4764	.64725	33.798	2.1379
SDev	.00711	.0317	.01595	.0187	.00864	.296	.0114
%RSD	1.0186	1.8193	1.8359	1.2696	1.3345	.87640	.53485
#1	.69348	1.7213	.85736	1.4632	.64115	33.589	2.1298
#2	.70354	1.7662	.87991	1.4897	.65336	34.008	2.1459
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.16135	.18634	11.745	.40572	.19865	.30802	62.795
SDev	.00155	.00041	.214	.00259	.00049	.00165	.870
%RSD	.95815	.22192	1.8262	.63865	.24855	.53657	1.3853
#1	.16025	.18605	11.594	.40388	.19900	.30918	62.180
#2	.16244	.18663	11.897	.40755	.19830	.30685	63.411
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.78305	6.7709	.47261	.04464	3.2542	.36560	.30134
SDev	.00815	.0505	.00457	.01250	.6751	.00870	.00439
%RSD	1.0407	.74558	.96693	28.009	20.745	2.3789	1.4555
#1	.77729	6.8066	.46937	.05348	3.7315	.37175	.29823
#2	.78881	6.7352	.47584	.03580	2.7768	.35945	.30444
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.269	.65830	.62193	.88036	.86098	1.4498	1.4882
SDev	.217	.00552	.01489	.00795	.01994	.0103	.0333
%RSD	1.9290	.83799	2.3942	.90277	2.3160	.71346	2.2354
#1	11.422	.65440	.61140	.87474	.84688	1.4571	1.4646
#2	11.115	.66220	.63246	.88598	.87508	1.4424	1.5117
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.38045	.23608	2.5355	.44665	6.4307		
SDev	.00658	.00203	.0261	.01593	.0620		
%RSD	1.7293	.85864	1.0307	3.5655	.96359		
#1	.37580	.23465	2.5170	.43539	6.3869		
#2	.38510	.23752	2.5539	.45791	6.4745		

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Method: 6010B Sample Name: S4259-03A  
 Run Time: 09/10/04 13:40:13  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.69741	1.7793	.88128	1.4934	.65461	34.160	2.1580
SDev	.00772	.0091	.00153	.0026	.00123	.005	.0026
%RSD	1.1074	.51215	.17365	.17682	.18867	.01334	.11906
#1	.70287	1.7728	.88236	1.4953	.65548	34.163	2.1598
#2	.69195	1.7857	.88020	1.4915	.65374	34.157	2.1562
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.16288	.18794	11.944	.40929	.19987	.30823	63.317
SDev	.00063	.00198	.090	.00337	.00025	.00108	.448
%RSD	.38637	1.0549	.75509	.82363	.12342	.35080	.70763
#1	.16244	.18934	11.880	.40691	.20005	.30899	63.000
#2	.16333	.18654	12.007	.41168	.19970	.30746	63.634
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.79104	6.7545	.47089	.03575	3.0698	.36176	.30445
SDev	.00378	.0027	.00127	.00026	.1033	.00112	.00098
%RSD	.47716	.04039	.26958	.74063	3.3665	.30854	.32089
#1	.78837	6.7565	.47000	.03594	2.9967	.36097	.30376
#2	.79371	6.7526	.47179	.03557	3.1429	.36255	.30514
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	11.224	.66603	.62854	.87894	.88065	1.4601	1.5084
SDev	.084	.00081	.00209	.00131	.00295	.0068	.0006
%RSD	.75239	.12143	.33232	.14897	.33475	.46770	.03643
#1	11.284	.66660	.63002	.87801	.88273	1.4649	1.5088
#2	11.164	.66545	.62707	.87986	.87857	1.4553	1.5080
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.38718	.23911	2.5616	.44637	6.5337		
SDev	.00113	.00090	.0085	.00492	.0167		
%RSD	.29296	.37679	.33208	1.1012	.25614		
#1	.38638	.23975	2.5556	.44290	6.5219		
#2	.38799	.23847	2.5676	.44985	6.5456		

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Method: 6010B Sample Name: S4259-04  
 Run Time: 09/10/04 13:42:11  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01437	-.01274	.14208	.00846	.00117	40.249	.10543
SDev	.00173	.01316	.00227	.00320	.00011	.024	.00033
%RSD	12.055	103.29	1.5990	37.775	9.2970	.06058	.30889

#1	.01315	-.00343	.14047	.01072	.00109	40.266	.10566
#2	.01560	-.02204	.14369	.00620	.00124	40.232	.10520

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00476	.00203	4.0050	.02771	.01404	.04150	56.457
SDev	.00010	.00030	.0122	.00030	.00099	.00019	.316
%RSD	2.1885	14.559	.30430	1.0759	7.0233	.45786	.56021

#1	.00483	.00224	4.0136	.02792	.01474	.04164	56.681
#2	.00468	.00182	3.9963	.02750	.01335	.04137	56.234

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.73844	3.8679	.01826	-.00434	.32977	.08240	.21990
SDev	.00182	.0027	.00286	.00026	.11188	.00056	.00047
%RSD	.24588	.07055	15.686	5.9354	33.926	.67864	.21366

#1	.73972	3.8698	.01623	-.00416	.25066	.08280	.22023
#2	.73715	3.8660	.02028	-.00452	.40888	.08201	.21957

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.3577	.00156	-.00282	.14500	.13862	-.00714	.01455
SDev	.0060	.00358	.00684	.00683	.00001	.00532	.00228
%RSD	.44167	229.20	242.10	4.7132	.00425	74.621	15.639

#1	1.3619	-.00097	.00201	.14017	.13863	-.00337	.01616
#2	1.3534	.00409	-.00766	.14984	.13862	-.01090	.01294

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00356	-.01412	1.1675	-.07539	7.3432
SDev	.00193	.00045	.0024	.00275	.0109
%RSD	54.233	3.1899	.20400	3.6512	.14783

#1	.00492	-.01380	1.1692	-.07344	7.3509
#2	.00219	-.01444	1.1659	-.07733	7.3355

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Method: 6010B  
 Run Time: 09/10/04 13:45:20  
 Comment:  
 Mode: CONC

Sample Name: S4259-05

Operator: DR

Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00587	-.02113	.07931	.00617	.00032	51.724	.11427
SDev	.00126	.00403	.00326	.00151	.00045	.183	.00033
%RSD	21.454	19.097	4.1044	24.441	138.97	.35343	.28954
#1	.00676	-.01827	.07701	.00510	.00001	51.853	.11450
#2	.00498	-.02398	.08161	.00723	.00064	51.595	.11404
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00491	.00216	3.4707	.03202	.01927	.04106	65.024
SDev	.00016	.00104	.0171	.00061	.00148	.00050	.202
%RSD	3.1950	47.894	.49161	1.9036	7.6740	1.2182	.31077
#1	.00502	.00143	3.4586	.03158	.02031	.04141	64.881
#2	.00480	.00290	3.4827	.03245	.01822	.04070	65.167
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.72465	4.5201	.02335	-.00343	.35323	.09820	.26920
SDev	.00106	.0082	.00082	.00235	.01991	.00054	.00023
%RSD	.14627	.18112	3.5252	68.407	5.6367	.54670	.08393
#1	.72390	4.5259	.02277	-.00177	.36731	.09858	.26904
#2	.72540	4.5143	.02393	-.00509	.33915	.09782	.26936
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.3983	-.00053	-.00119	.08252	.07571	-.01615	.01561
SDev	.0095	.00153	.00173	.00262	.00357	.00466	.00008
%RSD	.67899	291.94	146.22	3.1709	4.7207	28.818	.48970
#1	1.4050	-.00161	.00004	.08067	.07318	-.01944	.01555
#2	1.3916	.00056	-.00241	.08437	.07824	-.01286	.01566
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00203	-.01890	1.3482	-.07789	6.4829		
SDev	.00181	.00090	.0005	.00197	.0199		
%RSD	89.330	4.7670	.03533	2.5242	.30699		
#1	.00075	-.01954	1.3479	-.07928	6.4969		
#2	.00331	-.01826	1.3485	-.07650	6.4688		

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Method: 6010B Sample Name: S4259-06

Operator: DR

Run Time: 09/10/04 13:47:46

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03748	-.01060	.13525	.01210	-.00131	72.640	.49767
SDev	.00426	.02327	.00053	.00215	.00460	.049	.00053
%RSD	11.366	219.47	.38993	17.764	351.56	.06814	.10601
#1	.04049	-.02706	.13562	.01058	-.00456	72.605	.49804
#2	.03447	.00585	.13488	.01362	.00194	72.675	.49729
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00655	.00685	30.904	.10284	.04957	.12078	122.82
SDev	.00005	.00065	.058	.00016	.00148	.00042	.15
%RSD	.80969	9.4868	.18929	.15386	2.9817	.34614	.12161
#1	.00661	.00731	30.863	.10295	.05061	.12108	122.72
#2	.00669	.00639	30.945	.10273	.04852	.12049	122.93
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.5083	17.908	.13269	-.00995	.40821	.11840	.49252
SDev	.0026	.020	.00309	.00156	.05783	.00054	.00212
%RSD	.10208	.11428	2.3258	15.683	14.168	.45638	.43052
#1	2.5065	17.894	.13487	-.00884	.44910	.11878	.49102
#2	2.5101	17.923	.13051	-.01105	.36731	.11802	.49402
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.7278	-.00412	.00112	.13487	.13334	-.01469	.02368
SDev	.0020	.00340	.00701	.00425	.00119	.00397	.00521
%RSD	.03490	82.427	625.20	3.1524	.89283	27.048	21.988
#1	5.7292	-.00652	-.00384	.13787	.13250	-.01188	.02000
#2	5.7264	-.00172	.00608	.13186	.13418	-.01749	.02736
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00043	-.01603	.46687	-.03521	8.2646		
SDev	.00068	.00180	.00027	.00374	.0023		
%RSD	159.19	11.239	.05830	10.610	.02737		
#1	.00091	-.01731	.46668	-.03785	8.2662		
#2	-.00005	-.01476	.46706	-.03257	8.2630		

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Method: 6010B  
 Run Time: 09/10/04 14:06:31  
 Comment:  
 Mode: CONC

Sample Name: S4259-07

Operator: DR

Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03985	-.02425	.14182	.01378	.00270	83.018	.63511
SDev	.00191	.00536	.00530	.00134	.00679	.096	.00210
%RSD	4.7889	22.115	3.7354	9.7013	251.20	.11567	.33003
#1	.04120	-.02046	.13807	.01284	.00751	83.086	.63660
#2	.03850	-.02804	.14556	.01473	-.00210	82.950	.63363
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00705	.00755	43.400	.11205	.04852	.13128	124.05
SDev	.00004	.00153	.317	.00367	.00197	.00039	.84
%RSD	.59203	20.237	.73011	3.2720	4.0613	.29913	.67987
#1	.00708	.00863	43.624	.11464	.04991	.13156	124.64
#2	.00702	.00647	43.176	.10945	.04713	.13100	123.45
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.6975	17.861	.13325	-.00744	.86275	.13855	.52479
SDev	.0203	.057	.00404	.00467	.17351	.00496	.00192
%RSD	.75324	.32084	3.0348	62.721	20.111	3.5763	.36516
#1	2.7118	17.902	.13611	-.00414	.98544	.14205	.52614
#2	2.6831	17.821	.13039	-.01074	.74007	.13504	.52343
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.3729	.00049	.00394	.13695	.14205	-.01672	.02721
SDev	.0520	.00876	.00285	.00074	.00831	.00128	.00136
%RSD	.62068	1798.6	72.336	.54189	5.8521	7.6812	5.0094
#1	8.4097	.00668	.00596	.13748	.13617	-.01763	.02625
#2	8.3362	-.00571	.00193	.13643	.14793	-.01582	.02818
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00171	-.00186	.44459	-.03702	8.9820		
SDev	.00068	.00293	.00347	.00551	.0317		
%RSD	39.780	157.57	.78064	14.872	.35250		
#1	.00123	.00021	.44705	-.04091	9.0044		
#2	.00219	-.00393	.44214	-.03312	8.9596		

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Method: 6010B  
 Run Time: 09/10/04 14:08:20  
 Comment:  
 Mode: CONC

Sample Name: S4259-08

Operator: DR

Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03468	-.02702	.16807	.01446	.00385	68.180	.79705
SDev	.00426	.00403	.00238	.00023	.00089	.227	.00171
%RSD	12.299	14.914	1.4163	1.6038	23.253	.33295	.21411
#1	.03166	-.02987	.16639	.01429	.00321	68.019	.79584
#2	.03770	-.02417	.16976	.01462	.00448	68.340	.79825
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00549	.00543	14.630	.08243	.04557	.06432	113.90
SDev	.00005	.00007	.034	.00045	.00222	.00096	.33
%RSD	.89211	1.2298	.23324	.54735	4.8649	1.4909	.29310
#1	.00546	.00548	14.606	.08211	.04400	.06364	113.66
#2	.00553	.00538	14.655	.08275	.04714	.06499	114.13
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.4587	12.330	.07065	-.01149	.10182	.13577	.38151
SDev	.0081	.091	.00413	.00293	.50250	.00165	.00125
%RSD	.23497	.74141	5.8443	25.523	493.50	1.2170	.32833
#1	3.4530	12.265	.06773	-.01357	-.25350	.13460	.38062
#2	3.4645	12.395	.07357	-.00942	.45715	.13694	.38239
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.5486	.00253	.00328	.16982	.16500	-.01257	.02615
SDev	.0934	.00126	.00520	.00274	.00494	.00764	.00347
%RSD	1.6841	49.671	158.43	1.6151	2.9928	60.813	13.267
#1	5.4826	.00342	-.00039	.17176	.16151	-.01798	.02860
#2	5.6147	.00164	.00696	.16788	.16849	-.00717	.02370
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00053	-.01970	.45691	-.03104	9.7938		
SDev	.00068	.00023	.00211	.00098	.0154		
%RSD	127.22	1.1436	.46171	3.1673	.15702		
#1	-.00005	-.01954	.45542	-.03173	9.7829		
#2	-.00102	-.01986	.45840	-.03034	9.8046		

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Method: 6010B

Sample Name: S4259-0809

Operator: DR

Run Time: 09/10/04 14:11:44

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03094	-.03413	.16716	.00813	.00147	66.526	.79027
SDev	.00189	.01621	.00070	.00168	.00112	.117	.00085
%RSD	6.1256	47.482	.41963	20.709	76.532	.17631	.10817
#1	.02960	-.04559	.16666	.00694	.00226	66.609	.79087
#2	.03228	-.02267	.16765	.00932	.00067	66.443	.78966
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00540	.00487	12.442	.07956	.04505	.06536	108.29
SDev	.00000	.00082	.039	.00077	.00098	.00017	.02
%RSD	.02228	16.844	.31346	.96744	2.1874	.25827	.01624
#1	.00540	.00429	12.469	.07901	.04574	.06525	108.31
#2	.00540	.00544	12.414	.08010	.04435	.06548	108.28
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.6732	12.689	.07422	-.00969	.33513	.12782	.36657
SDev	.0071	.012	.00150	.00024	.01138	.00055	.00192
%RSD	.19227	.09678	2.0258	2.4416	3.3949	.42777	.52339
#1	3.6782	12.698	.07529	-.00952	.34318	.12743	.36522
#2	3.6683	12.680	.07316	-.00986	.32709	.12820	.36793
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.7296	.00194	-.00269	.16708	.16510	-.01698	.01887
SDev	.0075	.00310	.00283	.00402	.00292	.00309	.00407
%RSD	.13082	159.22	105.14	2.4071	1.7675	18.214	21.563
#1	5.7243	.00413	-.00469	.16992	.16303	-.01480	.01599
#2	5.7349	-.00024	-.00069	.16423	.16716	-.01917	.02174
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00134	-.02033	.38853	-.02200	8.6756		
SDev	.00023	.00203	.00068	.00433	.0145		
%RSD	16.967	9.9695	.17515	19.660	.16684		
#1	-.00150	-.02177	.38901	-.02506	8.6859		
#2	-.00118	-.01890	.38805	-.01894	8.6654		

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Method: 6010B

Sample Name: S4259-09/0

Operator: DR

Run Time: 09/10/04 14:13:48

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02136	-.02974	.14231	.01205	.00558	93.931	.62191
SDev	.00016	.01314	.00093	.00006	.00087	.162	.00151
%RSD	.75148	44.183	.65002	.50089	15.637	.17274	.24307
#1	.02148	-.02045	.14166	.01201	.00620	94.046	.62298
#2	.02125	-.03904	.14296	.01209	.00496	93.817	.62085
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00873	.00805	32.414	.09707	.05933	.11819	118.78
SDev	.00015	.00021	.034	.00107	.00098	.00086	.09
%RSD	1.7542	2.6499	.10527	1.1063	1.6601	.72607	.07394
#1	.00884	.00790	32.438	.09783	.06003	.11880	118.84
#2	.00862	.00820	32.390	.09631	.05863	.11759	118.72
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.2179	16.677	.09470	-.00950	.92577	.18812	.42871
SDev	.0020	.040	.00368	.00468	.14696	.00219	.00084
%RSD	.06081	.23725	3.8892	49.298	15.874	1.1640	.19477
#1	3.2192	16.705	.09730	-.00619	1.0297	.18967	.42812
#2	3.2165	16.649	.09209	-.01281	.82186	.18657	.42930
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.665	.00343	.00668	.13196	.14538	-.01061	.02156
SDev	.161	.00108	.00047	.00192	.00248	.00719	.00368
%RSD	1.3837	31.302	7.0098	1.4527	1.7096	67.748	17.067
#1	11.779	.00419	.00701	.13332	.14362	-.00553	.01896
#2	11.551	.00267	.00635	.13061	.14713	-.01570	.02417
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00187	-.00520	1.6938	-.11390	8.2435		
SDev	.00000	.00225	.0042	.00098	.0213		
%RSD	.00000	43.290	.24909	.86311	.25789		
#1	.00187	-.00680	1.6968	-.11459	8.2586		
#2	.00187	-.00361	1.6909	-.11320	8.2285		

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Analysis Report

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Method: 6010B Sample Name: S4259-11  
 Run Time: 09/10/04 14:15:38  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01582	-.01651	.10977	.00896	.00032	78.125	.45758
SDev	.00331	.00811	.00132	.00024	.00034	.133	.00158
%RSD	20.924	49.100	1.1985	2.7312	105.29	.17061	.34414
#1	.01348	-.02225	.10884	.00879	.00056	78.219	.45869
#2	.01817	-.01078	.11070	.00913	.00008	78.031	.45647
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00759	.00471	22.099	.07706	.05777	.10677	104.10
SDev	.00005	.00025	.124	.00016	.00025	.00023	.36
%RSD	.69322	5.3981	.56252	.21366	.42734	.21911	.34603
#1	.00763	.00489	22.186	.07695	.05794	.10660	104.35
#2	.00755	.00453	22.011	.07718	.05759	.10693	103.85
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.3125	13.110	.08053	-.01113	.53894	.16433	.34010
SDev	.0113	.015	.00219	.00042	.12705	.00001	.00097
%RSD	.48795	.11448	2.7170	3.8126	23.574	.00859	.28421
#1	2.3204	13.120	.07898	-.01143	.44910	.16434	.34078
#2	2.3045	13.099	.08208	-.01083	.62878	.16432	.33942
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.9309	-.00342	.00461	.10868	.10821	-.02018	.02171
SDev	.0635	.00017	.00137	.00009	.00216	.00212	.00142
%RSD	.91564	5.0388	29.652	.07957	1.9932	10.491	6.5593
#1	6.8860	-.00354	.00558	.10874	.10669	-.01869	.02070
#2	6.9758	-.00329	.00364	.10862	.10974	-.02168	.02272
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00019	-.01667	1.4930	-.09999	4.9605		
SDev	.00374	.00135	.0044	.00098	.0235		
%RSD	2002.7	8.1069	.29626	.98311	.47415		
#1	.00283	-.01763	1.4952	-.09930	4.9771		
#2	-.00246	-.01571	1.4899	-.10069	4.9438		

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## Analysis Report

QC Standard

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Method: 6010B

Sample Name: CCV

Operator: DR

Run Time: 09/10/04 14:19:46

Comment: CCV

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1972	5.3194	5.0219	5.2051	5.1192	9.9275	10.378
SDev	.0231	.0832	.0256	.0199	.0010	.0634	.051
%RSD	.44359	1.5639	.50999	.38170	.01950	.63817	.48855
#1	5.2135	5.3782	5.0401	5.1911	5.1184	9.9723	10.414
#2	5.1809	5.2605	5.0038	5.2192	5.1199	9.8827	10.343
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.25437	2.5442	25.141	.98178	2.4397	1.2037	4.6991
SDev	.00114	.0066	.195	.00677	.0123	.0054	.0174
%RSD	.44778	.26028	.77562	.68928	.50496	.44680	.37109
#1	.25517	2.5489	25.278	.98657	2.4485	1.2075	4.7114
#2	.25356	2.5396	25.003	.97700	2.4310	1.1999	4.6868
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.4441	24.570	2.5096	1.2968	25.755	2.4030	2.5364
SDev	.0131	.076	.0058	.0073	.129	.0088	.0072
%RSD	.53485	.31097	.23072	.56424	.50066	.36413	.28519
#1	2.4533	24.624	2.5137	1.3020	25.846	2.4092	2.5415
#2	2.4348	24.516	2.5055	1.2916	25.664	2.3968	2.5313
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.635	5.2113	4.9314	4.9399	5.0609	5.1504	5.2309
SDev	.173	.0073	.0116	.0131	.0318	.0234	.0181
%RSD	.67641	.14004	.23564	.26607	.62905	.45515	.34570
#1	25.757	5.2061	4.9396	4.9492	5.0834	5.1338	5.2181
#2	25.512	5.2165	4.9232	4.9306	5.0384	5.1670	5.2437
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	5.2117	5.1429	4.8169	4.8620	Q5.8531		
SDev	.0287	.0063	.0207	.0285	.0267		
%RSD	.55064	.12263	.42948	.58635	.45593		
#1	5.2320	5.1473	4.8315	4.8822	Q5.8720		
#2	5.1914	5.1384	4.8023	4.8419	Q5.8342		

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Analysis Report

QC Standard

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Method: 6010B

Sample Name: CCB

Operator: DR

Run Time: 09/10/04 14:21:50

Comment: CCB

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00059	.00875	-.00008	-.00235	-.00013	.08329	-.00078
SDev	.00142	.01585	.00105	.00127	.00069	.00001	.00020
%RSD	240.26	181.23	1332.2	54.195	525.78	.00707	25.334
#1	-.00041	Q.01995	-.00082	-.00145	-.00062	.08328	-.00092
#2	.00160	-.00246	.00066	-.00325	.00036	.08329	-.00064
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00330	-.00175	.00810	.00037	.00063	-.00221	.01785
SDev	.00011	.00065	.00000	.00015	.00123	.00026	.00878
%RSD	3.1927	37.181	.00000	41.591	195.63	11.632	49.219
#1	.00322	-.00221	.00810	.00026	-.00024	-.00239	.01164
#2	.00337	-.00129	.00810	.00048	.00150	-.00203	.02406
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00064	.00300	-.00183	-.00054	-.40233	.00017	-.00257
SDev	.00015	.00273	.00143	.00024	.10240	.00000	.00081
%RSD	23.476	90.919	78.071	43.892	25.451	.36737	31.467
#1	.00074	.00107	-.00284	-.00071	-.32993	.00017	-.00314
#2	.00053	.00493	-.00082	-.00037	-.47474	.00017	-.00200
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00941	-.00044	-.00272	-.00242	-.00091	-.00239	-.00402
SDev	.00450	.00124	.00456	.00139	.00227	.00243	.00084
%RSD	47.782	282.95	167.42	57.510	250.69	101.53	20.754
#1	-.00623	.00044	-.00594	-.00144	-.00251	-.00068	-.00343
#2	-.01259	-.00131	.00050	-.00341	.00070	-.00411	-.00461
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00134	-.00807	-.00004	-.00268	.02771		
SDev	.00181	.00045	.00007	.00570	.00226		
%RSD	135.74	5.5823	189.85	213.02	8.1626		
#1	-.00005	-.00775	-.00008	.00136	.02611		
#2	-.00262	-.00839	.00001	-.00671	.02931		

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Analysis Report

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Method: 6010B Sample Name: S4259-12  
 Run Time: 09/10/04 14:25:12  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02927	-.04904	.13045	.01227	.00061	136.64	1.0196
SDev	.00802	.00879	.00181	.00406	.00454	1.55	.0069
%RSD	27.401	17.931	1.3864	33.094	750.28	1.1376	.68046
#1	.03494	-.04282	.13173	.00940	-.00261	135.55	1.0146
#2	.02360	-.05526	.12917	.01515	.00382	137.74	1.0245
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01130	.01591	35.151	.13764	.08459	.14706	165.68
SDev	.00009	.00396	.858	.00179	.00172	.00219	3.33
%RSD	.78588	24.900	2.4409	1.3010	2.0384	1.4876	2.0099
#1	.01136	.01872	34.544	.13891	.08581	.14861	163.32
#2	.01123	.01311	35.757	.13638	.08337	.14551	168.03
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.9371	26.512	.13199	-.00330	.94186	.25725	.56880
SDev	.0700	.179	.00323	.01747	.56413	.00751	.01258
%RSD	1.7780	.67416	2.4433	529.62	59.895	2.9212	2.2109
#1	3.8876	26.386	.13427	.00905	1.3408	.26256	.55991
#2	3.9866	26.639	.12971	-.01565	.54296	.25194	.57770
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	17.302	-.00464	.00792	.11801	.13425	-.01631	.02475
SDev	.152	.00510	.00342	.00258	.00400	.00083	.00567
%RSD	.87800	109.81	43.172	2.1846	2.9784	5.1117	22.928
#1	17.409	-.00825	.00550	.11619	.13708	-.01690	.02073
#2	17.194	-.00104	.01033	.11984	.13143	-.01572	.02876
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00275	-.00807	2.1370	-.15171	10.022		
SDev	.00306	.00045	.0278	.01003	.105		
%RSD	111.22	5.5823	1.3025	6.6094	1.0516		
#1	.00059	-.00775	2.1173	-.14462	9.9473		
#2	.00492	-.00839	2.1567	-.15880	10.096		

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Method: 6010B Sample Name: S4259-13  
 Run Time: 09/10/04 14:27:01  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01915	-.01657	.19160	.01028	.00332	86.671	.82234
SDev	.00142	.01885	.00181	.00161	.00605	.021	.00013
%RSD	7.4115	113.72	.94654	15.709	182.53	.02469	.01632
#1	.01814	-.02990	.19288	.00914	-.00096	86.656	.82224
#2	.02015	-.00325	.19032	.01142	.00760	86.687	.82243
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00571	.00469	26.080	.13265	.06665	.18104	114.49
SDev	.00002	.00302	.017	.00078	.00148	.00058	.26
%RSD	.29444	64.491	.06543	.58472	2.2177	.32130	.23031
#1	.00572	.00255	26.092	.13210	.06560	.18063	114.68
#2	.00569	.00682	26.068	.13320	.06769	.18145	114.31
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4478	36.060	.10090	-.02023	.41692	.25983	.53999
SDev	.0022	.026	.00241	.01498	.04361	.00764	.00023
%RSD	.09164	.07189	2.3902	74.017	10.461	2.9387	.04180
#1	2.4462	36.078	.09919	-.03082	.44776	.25443	.54015
#2	2.4494	36.041	.10260	-.00964	.38608	.26523	.53983
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.085	.00067	.00542	.19141	.18940	-.01555	.02138
SDev	.020	.00883	.00050	.00079	.00218	.00385	.00050
%RSD	.09952	1321.1	9.2206	.41276	1.1527	24.775	2.3291
#1	20.071	-.00557	.00507	.19197	.19094	-.01827	.02103
#2	20.099	.00691	.00577	.19085	.18785	-.01283	.02173
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00155	-.01858	5.3059	-.37318	5.5608		
SDev	.00091	.00090	.0042	.01219	.0059		
%RSD	58.528	4.8487	.07952	3.2665	.10574		
#1	.00219	-.01922	5.3029	-.36456	5.5566		
#2	.00091	-.01794	5.3089	-.38179	5.5649		

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Analysis Report

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Method: 6010B Sample Name: S4259-14  
 Run Time: 09/10/04 14:28:55  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01699	-.06724	.27515	.00428	.00384	62.654	1.1569
SDev	.00032	.01594	.00155	.00187	.00039	.018	.0020
%RSD	1.8887	23.700	.56227	43.636	10.130	.02794	.17647
#1	.01722	-.07851	.27625	.00560	.00412	62.642	1.1555
#2	.01676	-.05597	.27406	.00296	.00357	62.666	1.1584
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00589	.00723	33.532	.09059	.05933	.25831	95.638
SDev	.00000	.00066	.105	.00138	.00197	.00032	.290
%RSD	.02090	9.1234	.31256	1.5188	3.3222	.12479	.30313
#1	.00589	.00770	33.607	.09156	.06072	.25809	95.843
#2	.00590	.00677	33.458	.08962	.05794	.25854	95.433
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.068	26.635	.10383	-.01247	.79772	.17367	.50664
SDev	.033	.065	.00150	.00035	.04361	.00056	.00063
%RSD	.23292	.24589	1.4429	2.7738	5.4673	.32255	.12482
#1	14.091	26.681	.10489	-.01223	.76688	.17406	.50709
#2	14.045	26.588	.10277	-.01272	.82856	.17327	.50620
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.561	.00232	.00370	.27590	.27258	-.02414	.01667
SDev	.037	.00277	.00437	.00315	.00075	.00995	.00777
%RSD	.29438	119.34	118.20	1.1401	.27480	41.199	46.584
#1	12.535	.00427	.00061	.27812	.27311	-.03118	.02216
#2	12.588	.00036	.00679	.27367	.27205	-.01711	.01118
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00564	-.01221	3.3411	-.22303	4.9310		
SDev	.00147	.00135	.0089	.00275	.0063		
%RSD	26.141	11.068	.26682	1.2342	.12842		
#1	.00460	-.01125	3.3474	-.22108	4.9266		
#2	.00668	-.01317	3.3348	-.22498	4.9355		

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## Analysis Report

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Method: 6010B Sample Name: S4259-15

Operator: DR

Run Time: 09/10/04 14:30:45

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05420	-.03552	.30394	.00879	.00446	76.065	.67573
SDev	.00821	.01277	.00434	.00343	.00316	.087	.00164
%RSD	15.143	35.955	1.4270	39.067	70.873	.11414	.24334
#1	.06000	-.04455	.30700	.00636	.00669	76.126	.67689
#2	.04839	-.02649	.30087	.01122	.00222	76.003	.67457
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00537	.00736	13.750	.08028	.04923	.17516	113.01
SDev	.00011	.00058	.037	.00015	.00099	.00026	.02
%RSD	2.0057	7.9348	.26591	.19256	2.0033	.14572	.01553
#1	.00545	.00695	13.724	.08039	.04992	.17534	113.00
#2	.00529	.00777	13.776	.08017	.04853	.17498	113.03
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.7477	12.912	.08280	-.00749	.46251	.14152	.80630
SDev	.0144	.079	.00248	.00186	.20479	.00109	.00033
%RSD	.21378	.61289	2.9968	24.800	44.279	.77198	.04042
#1	6.7375	12.856	.08104	-.00618	.31770	.14075	.80653
#2	6.7579	12.968	.08455	-.00880	.60732	.14229	.80607
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.2586	.00269	.00480	.29947	.30396	-.01432	.01853
SDev	.0570	.00356	.00236	.00455	.00423	.00143	.00443
%RSD	1.3377	132.27	49.229	1.5179	1.3926	10.003	23.929
#1	4.2183	.00521	.00647	.30269	.30696	-.01533	.01539
#2	4.2989	.00017	.00313	.29626	.30097	-.01331	.02166
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00652	-.01317	1.2817	-.06663	8.3600		
SDev	.00045	.00180	.0006	.00334	.0005		
%RSD	6.9554	13.686	.04779	5.0165	.00541		
#1	.00620	-.01189	1.2813	-.06426	8.3603		
#2	.00684	-.01444	1.2821	-.06899	8.3596		

DR 9/10/04

Analysis Report

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Method: 6010B Sample Name: S4259-16  
 Run Time: 09/10/04 14:32:56  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05236	-.04107	.27503	.01837	.00101	80.182	.39984
SDev	.00474	.00198	.00230	.00241	.00727	.094	.00098
%RSD	9.0576	4.8232	.83790	13.127	720.93	.11686	.24520
#1	.05571	-.03967	.27340	.02008	-.00413	80.248	.40053
#2	.04901	-.04247	.27666	.01667	.00615	80.116	.39914
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00546	.00617	8.8326	.08240	.03651	.09822	107.55
SDev	.00006	.00004	.0682	.00106	.00123	.00004	.61
%RSD	1.0306	.68024	.77269	1.2844	3.3750	.03628	.56362
#1	.00542	.00620	8.8808	.08315	.03564	.09825	107.98
#2	.00550	.00614	8.7843	.08166	.03738	.09820	107.13
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.0641	11.375	.07083	-.00907	.26943	.14942	.45918
SDev	.0244	.048	.00044	.00044	.09671	.00166	.00330
%RSD	.59953	.41982	.61985	4.8107	35.894	1.1139	.71840
#1	4.0813	11.409	.07115	-.00938	.33781	.15059	.46151
#2	4.0469	11.341	.07052	-.00876	.20105	.14824	.45685
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.3494	.00055	-.00128	.26943	.27562	-.00117	.02633
SDev	.0035	.00885	.00409	.00207	.00242	.00080	.00322
%RSD	.08043	1613.3	320.69	.76866	.87837	68.539	12.216
#1	4.3469	-.00571	-.00417	.26797	.27391	-.00060	.02860
#2	4.3519	.00681	.00162	.27090	.27733	-.00173	.02406
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00829	-.01173	.77017	-.06635	10.362		
SDev	.00068	.00113	.00265	.00609	.060		
%RSD	8.2118	9.5986	.34460	9.1860	.57620		
#1	.00877	-.01094	.77205	-.06204	10.404		
#2	.00781	-.01253	.76830	-.07066	10.320		

09/10/04

Method: 6010B

Sample Name: PB00986BL

Operator: DR

Run Time: 09/10/04 14:35:38

Comment: PBS

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00250	-.00383	-.00390	-.00305	.00798	.01432	-.00298
SDev	.00080	.00210	.00014	.00413	.00311	.00654	.00000
%RSD	31.863	54.786	3.6588	135.30	38.909	45.705	.00000

#1	-.00194	-.00235	-.00380	-.00013	.00579	.00969	-.00298
#2	-.00307	-.00531	-.00400	-.00597	.01018	.01894	-.00298

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	-.00243	-.00180	-.00038	-.00169	-.00475	-.02215
SDev	.00005	.00063	.00000	.00042	.00000	.00000	.00001
%RSD	61.535	25.821	.00000	110.47	.00170	.00001	.05145

#1	.00004	-.00287	-.00180	-.00008	-.00169	-.00475	-.02214
#2	.00011	-.00198	-.00180	-.00068	-.00169	-.00475	-.02216

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00051	.00119	-.00153	-.00085	-.25383	-.00017	-.00783
SDev	.00000	.00391	.00014	.00023	.02325	.00098	.00026
%RSD	.00009	327.62	9.3306	27.144	9.1605	585.98	3.2685

#1	-.00051	.00395	-.00164	-.00068	-.23739	-.00086	-.00801
#2	-.00051	-.00157	-.00143	-.00101	-.27027	.00053	-.00765

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02077	.00651	.00772	-.01376	-.00098	.00304	-.00789
SDev	.00449	.00015	.00963	.00424	.00233	.00874	.00182
%RSD	21.639	2.3561	124.80	30.820	238.71	287.67	23.105

#1	.02395	.00662	.00091	-.01676	.00067	.00922	-.00660
#2	.01759	.00641	.01453	-.01076	-.00262	-.00314	-.00918

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00974	-.00462	-.00052	-.00260	.00318
SDev	.00111	.00247	.00012	.00654	.00615
%RSD	11.436	53.445	23.853	251.80	193.30

#1	-.00896	-.00636	-.00043	.00203	-.00117
#2	-.01053	-.00287	-.00060	-.00722	.00753

09/10/04

Method: 6010B

Sample Name: PB00986BS

Operator: DR

Run Time: 09/10/04 14:38:57

Comment: LCSS

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.75403	1.8423	.94029	1.7616	.78223	1.9983	2.2779
SDev	.00367	.0049	.00557	.0148	.00195	.0102	.0089
%RSD	.48683	.26501	.59240	.83828	.24967	.50986	.39043
#1	.75143	1.8389	.93635	1.7511	.78085	1.9911	2.2716
#2	.75663	1.8458	.94423	1.7720	.78361	2.0055	2.2842
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.18093	.19878	4.9769	.41028	.19455	.31071	3.1382
SDev	.00111	.00185	.0208	.00225	.00023	.00229	.0078
%RSD	.61425	.93006	.41704	.54761	.11638	.73551	.24933
#1	.18014	.19747	4.9622	.40869	.19439	.30910	3.1437
#2	.18171	.20008	4.9916	.41187	.19471	.31233	3.1326
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.21044	1.9952	.49907	.07470	2.8832	.30489	.22863
SDev	.00150	.0143	.00315	.00023	.0940	.00247	.00127
%RSD	.71246	.71778	.63122	.31325	3.2596	.80934	.55714
#1	.20938	1.9851	.49684	.07487	2.9496	.30315	.22773
#2	.21150	2.0054	.50130	.07454	2.8167	.30664	.22953
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.4232	.78389	.77571	.95189	.93249	1.7493	1.7661
SDev	.0190	.00511	.00437	.01108	.00282	.0185	.0129
%RSD	.20140	.65188	.56344	1.1644	.30217	1.0598	.72948
#1	9.4097	.78027	.77880	.94405	.93050	1.7362	1.7570
#2	9.4366	.78750	.77262	.95973	.93449	1.7624	1.7752
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.39828	.27801	.20804	.67205	Q.85437		
SDev	.00045	.00135	.00166	.00963	.00205		
%RSD	.11192	.48435	.79964	1.4324	.23982		
#1	.39860	.27896	.20687	.66524	Q.85292		
#2	.39797	.27706	.20922	.67885	Q.85582		

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Analysis Report

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Method: 6010B Sample Name: S4477-07  
 Run Time: 09/10/04 14:41:51  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04961	-.02346	.45181	.01707	.00125	83.321	.36018
SDev	.00333	.00907	.00049	.00153	.00656	.541	.00115
%RSD	6.7208	38.674	.10919	8.9674	524.78	.64921	.32036
#1	.05197	-.01705	.45146	.01815	-.00339	82.938	.35936
#2	.04725	-.02988	.45216	.01599	.00589	83.703	.36099
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00354	.01234	53.826	.13889	.07389	.20131	159.39
SDev	.00015	.00030	.231	.00032	.00023	.00111	1.46
%RSD	4.2136	2.4486	.42846	.23364	.30656	.55266	.91835
#1	.00365	.01212	53.663	.13912	.07373	.20052	158.35
#2	.00343	.01255	53.989	.13866	.07405	.20210	160.42
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.4218	41.464	.16107	-.01056	14.746	.18869	.50515
SDev	.0215	.305	.00262	.00039	.109	.00142	.00091
%RSD	.48551	.73473	1.6264	3.6565	.74244	.75271	.17961
#1	4.4066	41.249	.15922	-.01028	14.669	.18970	.50451
#2	4.4370	41.680	.16292	-.01083	14.823	.18769	.50579
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.697	-.00264	.00584	.43504	.45798	-.00512	.02635
SDev	.085	.00722	.00524	.00990	.00568	.00205	.00127
%RSD	.43356	273.40	89.710	2.2751	1.2405	39.970	4.8318
#1	19.637	-.00774	.00213	.44204	.45396	-.00367	.02725
#2	19.758	.00246	.00954	.42804	.46199	-.00657	.02545
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00683	.09694	2.2297	-.11728	12.612		
SDev	.00167	.00022	.0132	.00381	.031		
%RSD	24.477	.23150	.59412	3.2521	.24370		
#1	-.00801	.09710	2.2203	-.11998	12.633		
#2	-.00565	.09678	2.2390	-.11459	12.590		

*DR*

Analysis Report

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Method: 6010B  
 Run Time: 09/10/04 14:44:02  
 Comment:  
 Mode: CONC

Sample Name: S4477-07D

Operator: DR

Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05246	-.02766	.45850	.01998	.00029	83.998	.36047
SDev	.00414	.00315	.00527	.00160	.00191	.078	.00019
%RSD	7.8941	11.383	1.1497	7.9877	660.21	.09248	.05349
#1	.05539	-.02543	.46223	.02111	.00164	83.943	.36033
#2	.04953	-.02988	.45477	.01885	-.00106	84.053	.36060
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00328	.01122	54.362	.14048	.07245	.20428	162.45
SDev	.00010	.00029	.012	.00126	.00045	.00009	.19
%RSD	3.0621	2.5803	.02121	.89561	.62637	.04443	.11982
#1	.00335	.01142	54.354	.13959	.07213	.20421	162.31
#2	.00321	.01101	54.371	.14137	.07277	.20434	162.59
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.4697	41.935	.16460	-.01075	14.699	.19230	.51395
SDev	.0041	.056	.00143	.00009	.109	.00048	.00108
%RSD	.09171	.13350	.86752	.79581	.73823	.25100	.20960
#1	4.4668	41.895	.16359	-.01081	14.622	.19265	.51471
#2	4.4726	41.974	.16561	-.01068	14.775	.19196	.51318
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.747	-.00236	.00239	.43157	.46974	-.00312	.02971
SDev	.010	.00169	.00912	.00008	.00794	.00497	.00487
%RSD	.05311	71.659	381.02	.01923	1.6912	159.29	16.404
#1	19.740	-.00356	.00884	.43151	.47536	-.00663	.03316
#2	19.755	-.00116	-.00405	.43163	.46412	.00039	.02626
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00588	.09980	2.2538	-.12666	12.495		
SDev	.00189	.00157	.0044	.01526	.034		
%RSD	32.199	1.5741	.19684	12.045	.27468		
#1	-.00454	.09869	2.2506	-.11587	12.519		
#2	-.00722	.10091	2.2569	-.13745	12.470		

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Analysis Report

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Method: 6010B  
 Run Time: 09/10/04 14:45:53  
 Comment:  
 Mode: CONC

Sample Name: S4477-07LX5

Operator: DR

Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01246	-.00367	.09877	.00008	.00238	17.253	.07354
SDev	.00256	.01187	.00910	.00272	.00194	.245	.00084
%RSD	20.536	323.58	9.2163	3389.9	81.530	1.4224	1.1360
#1	.01426	.00472	.10521	-.00184	.00375	17.427	.07413
#2	.01065	-.01206	.09233	.00200	.00101	17.080	.07295
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00031	-.00138	12.211	.02940	.01436	.03702	36.593
SDev	.00020	.00123	.279	.00087	.00091	.00026	.849
%RSD	63.924	89.442	2.2853	2.9525	6.3275	.71253	2.3192
#1	.00017	-.00225	12.408	.02878	.01500	.03684	37.193
#2	.00046	-.00051	12.014	.03001	.01371	.03721	35.993
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0145	9.7016	.03590	-.00560	2.3330	.03968	.10666
SDev	.0184	.0573	.00145	.00434	.0891	.00095	.00411
%RSD	1.8180	.59047	4.0354	77.468	3.8205	2.4022	3.8553
#1	1.0276	9.7421	.03488	-.00866	2.3961	.03900	.10957
#2	1.0015	9.6611	.03693	-.00253	2.2700	.04035	.10375
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.1789	.00194	.00005	.08074	.10577	-.00404	.00044
SDev	.0420	.00291	.00001	.00321	.01204	.00255	.00294
%RSD	1.3197	149.91	11.439	3.9788	11.387	63.192	668.45
#1	3.1493	.00400	.00004	.08302	.11429	-.00585	-.00164
#2	3.2086	-.00012	.00005	.07847	.09725	-.00224	.00252
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00809	.01585	.48840	-.03021	2.7657		
SDev	.00011	.00359	.00764	.00381	.0108		
%RSD	1.3775	22.652	1.5643	12.626	.38895		
#1	-.00801	.01839	.49380	-.03291	2.7733		
#2	-.00817	.01331	.48300	-.02751	2.7581		

OK 9/10/04

Method: 6010B

Sample Name: CCV

Operator: DR

Run Time: 09/10/04 14:51:27

Comment: CCV

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.2462	5.3708	5.0449	5.2321	5.1406	9.9384	10.459
SDev	.0412	.0419	.0480	.0084	.0324	.1003	.094
%RSD	.78570	.78033	.95124	.16063	.62996	1.0088	.90167
#1	5.2753	5.4004	5.0788	5.2380	5.1635	10.009	10.526
#2	5.2170	5.3411	5.0110	5.2261	5.1177	9.8675	10.392
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.25695	2.5762	25.363	.99081	2.4523	1.2033	4.6368
SDev	.00328	.0363	.412	.01553	.0291	.0091	.0346
%RSD	1.2781	1.4072	1.6241	1.5674	1.1855	.75245	.74608
#1	.25928	2.6019	25.654	1.0018	2.4728	1.2097	4.6613
#2	.25463	2.5506	25.072	.97983	2.4317	1.1969	4.6124
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.4579	24.581	2.5272	1.3058	26.020	2.4111	2.5478
SDev	.0335	.239	.0330	.0171	.185	.0388	.0358
%RSD	1.3632	.97137	1.3062	1.3072	.71055	1.6092	1.4037
#1	2.4816	24.750	2.5506	1.3179	26.150	2.4386	2.5731
#2	2.4342	24.412	2.5039	1.2937	25.889	2.3837	2.5225
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.835	5.2326	4.9530	4.9573	5.0866	5.1624	5.2652
SDev	.167	.0293	.0385	.0469	.0485	.0135	.0059
%RSD	.64795	.56064	.77705	.94692	.95372	.26104	.11151
#1	25.954	5.2533	4.9802	4.9905	5.1209	5.1720	5.2694
#2	25.717	5.2119	4.9258	4.9242	5.0523	5.1529	5.2611
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	5.2544	5.1867	4.8316	4.8803	Q5.9612		
SDev	.0648	.0403	.0573	.0633	.0466		
%RSD	1.2327	.77732	1.1859	1.2972	.78151		
#1	5.3002	5.2152	4.8722	4.9250	Q5.9942		
#2	5.2086	5.1582	4.7911	4.8355	Q5.9283		

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Analysis Report

QC Standard

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Method: 6010B  
 Run Time: 09/10/04 14:53:28  
 Comment: CCB  
 Mode: CONC

Sample Name: CCB  
 Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00260	.00469	.00276	-.00117	.00163	.06928	-.00092
SDev	.00553	.00674	.00447	.00037	.00374	.00304	.00053
%RSD	212.41	143.48	161.95	31.366	229.63	4.3856	57.311
#1	.00651	.00946	Q.00592	-.00091	.00427	.06713	-.00055
#2	-.00131	-.00007	-.00040	-.00143	-.00101	.07143	-.00129
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00345	-.00159	.00465	.00080	.00098	-.00203	.02407
SDev	.00000	.00036	.00000	.00046	.00271	.00017	.00001
%RSD	.03479	22.571	.00000	57.398	277.26	8.3261	.02328
#1	.00345	-.00134	.00465	.00113	.00290	-.00215	.02407
#2	.00345	-.00184	.00465	.00048	-.00094	-.00191	.02406
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00010	.00107	-.00050	-.00078	-.50893	-.00021	-.00352
SDev	.00030	.00000	.00316	.00012	.09197	.00055	.00108
%RSD	286.93	.00000	630.82	14.879	18.071	255.57	30.627
#1	.00011	.00107	-.00273	-.00086	-.44390	-.00060	-.00276
#2	-.00032	.00107	.00173	-.00070	-.57396	.00017	-.00428
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01401	.00394	-.00620	.00169	.00129	-.00263	-.00224
SDev	.00100	.00278	.00565	.00465	.00438	.00254	.00072
%RSD	7.1357	70.705	91.027	274.82	338.66	96.723	32.055
#1	-.01471	.00590	-.00221	.00498	.00439	-.00083	-.00275
#2	-.01330	.00197	-.01019	-.00160	-.00180	-.00443	-.00173
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00941	-.00027	-.00032	.00080	.03058		
SDev	.01021	.00833	.00034	.00315	.00000		
%RSD	108.48	3137.0	104.84	393.70	.00000		
#1	.01663	.00563	-.00008	-.00143	.03058		
#2	.00219	-.00616	-.00057	.00302	.03058		

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Analysis Report

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Method: 6010B  
 Run Time: 09/10/04 14:55:27  
 Comment:  
 Mode: CONC

Sample Name: S4777-07S

Operator: DR

Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.79701	1.8806	1.4965	1.7815	.32054	88.799	2.5181
SDev	.00782	.0118	.0075	.0032	.00336	.010	.0013
%RSD	.98072	.62973	.50264	.17993	1.0484	.01149	.05157
#1	.79149	1.8722	1.4911	1.7793	.31817	88.792	2.5172
#2	.80254	1.8889	1.5018	1.7838	.32292	88.806	2.5191
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.17943	.20066	69.157	.52304	.26051	.52156	155.97
SDev	.00025	.00060	.385	.00253	.00227	.00055	.02
%RSD	.13783	.29877	.55691	.48333	.87155	.10579	.01500
#1	.17926	.20024	68.884	.52125	.25890	.52195	155.99
#2	.17961	.20109	69.429	.52483	.26211	.52117	155.96
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.3606	46.347	.64758	.09239	17.618	.47881	.72601
SDev	.0087	.081	.00014	.00033	.009	.00296	.00458
%RSD	.20014	.17416	.02203	.35677	.04949	.61825	.63056
#1	4.3544	46.290	.64768	.09215	17.624	.47671	.72277
#2	4.3668	46.404	.64748	.09262	17.612	.48090	.72924
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	30.319	.31675	.32494	1.4731	1.5059	1.7675	1.7868
SDev	.096	.00666	.00325	.0026	.0100	.0112	.0008
%RSD	.31791	2.1028	1.0002	.17700	.66240	.63448	.04437
#1	30.387	.31204	.32724	1.4713	1.4989	1.7595	1.7873
#2	30.251	.32146	.32264	1.4750	1.5130	1.7754	1.7862
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.38828	.34688	2.0382	.50984	8.7748		
SDev	.00256	.00045	.0008	.00835	.0487		
%RSD	.66013	.12939	.03931	1.6387	.55457		
#1	.38646	.34720	2.0377	.51575	8.7403		
#2	.39009	.34656	2.0388	.50393	8.8092		

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Analysis Report

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Method: 6010B Sample Name: S4777-07SD  
 Run Time: 09/10/04 14:57:20  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.80953	1.9069	1.4994	1.7892	.31823	89.180	2.5339
SDev	.01085	.0178	.0029	.0058	.00967	.285	.0101
%RSD	1.3407	.93381	.19240	.32153	3.0382	.31915	.39688
#1	.80185	1.8943	1.5015	1.7933	.32506	88.979	2.5268
#2	.81720	1.9195	1.4974	1.7852	.31139	89.381	2.5410
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18051	.20248	69.636	.52434	.26275	.52160	155.76
SDev	.00076	.00048	.367	.00321	.00227	.00082	.58
%RSD	.42300	.23688	.52658	.61277	.86402	.15747	.36989
#1	.17997	.20214	69.377	.52206	.26436	.52102	155.35
#2	.18105	.20282	69.895	.52661	.26115	.52218	156.17
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.3768	46.543	.65371	.09171	17.777	.47880	.72780
SDev	.0164	.168	.00080	.00140	.039	.00096	.00494
%RSD	.37442	.36085	.12223	1.5260	.21799	.19980	.67887
#1	4.3652	46.425	.65428	.09072	17.805	.47948	.72431
#2	4.3884	46.662	.65315	.09270	17.750	.47812	.73129
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	30.408	.31522	.32105	1.4651	1.5143	1.7718	1.7962
SDev	.078	.01260	.00379	.0018	.0033	.0263	.0045
%RSD	.25786	3.9984	1.1801	.11947	.21858	1.4848	.25103
#1	30.352	.32413	.32373	1.4663	1.5167	1.7904	1.7930
#2	30.463	.30631	.31837	1.4638	1.5120	1.7532	1.7994
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.39096	.35228	2.0440	.50868	8.9432		
SDev	.00412	.00045	.0097	.00563	.0522		
%RSD	1.0547	.12741	.47326	1.1069	.58423		
#1	.38804	.35259	2.0371	.50470	8.9062		
#2	.39387	.35196	2.0508	.51266	8.9801		

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Method: 6010B Sample Name: S4777-07A  
 Run Time: 09/10/04 14:59:11  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.80795	1.9239	1.4983	1.7895	.31905	89.426	2.5473
SDev	.01371	.0259	.0021	.0105	.00111	.221	.0032
%RSD	1.6972	1.3437	.13906	.58712	.34665	.24683	.12749
#1	.79825	1.9057	1.4968	1.7970	.31983	89.270	2.5450
#2	.81765	1.9422	1.4997	1.7821	.31827	89.583	2.5496
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.18137	.20324	69.892	.52693	.26323	.52092	155.49
SDev	.00005	.00069	.065	.00155	.00023	.00046	.16
%RSD	.02859	.33821	.09239	.29411	.08585	.08887	.10515
#1	.18133	.20373	69.846	.52583	.26339	.52059	155.60
#2	.18141	.20275	69.938	.52802	.26307	.52124	155.37
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.3899	46.646	.65564	.09345	17.897	.47914	.72672
SDev	.0003	.026	.00522	.00050	.178	.00050	.00106
%RSD	.00637	.05582	.79663	.53597	.99610	.10362	.14540
#1	4.3901	46.627	.65933	.09310	17.771	.47949	.72597
#2	4.3897	46.664	.65195	.09381	18.023	.47879	.72747
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	30.568	.31566	.32263	1.4728	1.5087	1.7649	1.8000
SDev	.113	.00294	.00258	.0028	.0044	.0100	.0107
%RSD	.36923	.93280	.79860	.19262	.29155	.56931	.59642
#1	30.488	.31774	.32081	1.4748	1.5056	1.7720	1.8076
#2	30.648	.31358	.32445	1.4708	1.5118	1.7578	1.7924
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.39844	.35894	2.0466	.51022	9.0602		
SDev	.00290	.00224	.0012	.00345	.0128		
%RSD	.72720	.62523	.05719	.67636	.14134		
#1	.40049	.36053	2.0458	.51266	9.0511		
#2	.39639	.35735	2.0474	.50778	9.0692		

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Method: 6010B Sample Name: S4480-02  
 Run Time: 09/10/04 15:01:09  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00199	.00475	.04727	.00863	.00126	26.405	.27276
SDev	.00271	.00070	.00110	.00397	.00016	.012	.00019
%RSD	136.15	14.801	2.3279	45.974	13.067	.04675	.07084
#1	.00391	.00425	.04805	.01144	.00138	26.414	.27290
#2	.00007	.00525	.04649	.00583	.00115	26.396	.27263
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00144	-.00038	74.352	.04051	.01901	.04997	36.807
SDev	.00000	.00131	.394	.00028	.00113	.00030	.156
%RSD	.07445	343.91	.53040	.68207	5.9690	.61087	.42307
#1	.00144	-.00131	74.631	.04070	.01981	.04975	36.918
#2	.00144	.00055	74.073	.04031	.01821	.05018	36.697
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50788	47.338	.04734	-.00435	.69911	.05190	.28591
SDev	.00314	.044	.00229	.00108	.04360	.00049	.00098
%RSD	.61881	.09351	4.8328	24.831	6.2362	.93643	.34306
#1	.51010	47.369	.04896	-.00511	.72994	.05156	.28660
#2	.50566	47.307	.04572	-.00359	.66829	.05225	.28522
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.7569	-.00195	.00450	.04297	.04741	.00011	.01109
SDev	.0355	.00001	.00051	.00460	.00394	.00436	.00813
%RSD	1.2862	.45250	11.410	10.694	8.3177	4064.2	73.284
#1	2.7318	-.00196	.00486	.03972	.05020	-.00298	.01684
#2	2.7820	-.00195	.00413	.04622	.04463	.00319	.00534
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00841	.00681	.47716	-.03239	6.3244		
SDev	.00078	.00337	.00136	.00363	.0307		
%RSD	9.2808	49.456	.28408	11.214	.48595		
#1	-.00785	.00919	.47812	-.02982	6.3462		
#2	-.00896	.00443	.47620	-.03496	6.3027		

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Analysis Report

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Method: 6010B Sample Name: S4480-03  
 Run Time: 09/10/04 15:03:04  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01138	-.00751	.05800	.00353	.00497	50.670	.34312
SDev	.00032	.00489	.00259	.00003	.00073	.107	.00032
%RSD	2.7918	65.144	4.4600	.95349	14.770	.21206	.09406
#1	.01161	-.00405	.05983	.00356	.00445	50.594	.34289
#2	.01116	-.01097	.05617	.00351	.00549	50.746	.34334
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00205	.00723	448.02	.07089	.04822	.11248	79.869
SDev	.00010	.00060	1.22	.00043	.00113	.00023	.187
%RSD	4.8410	8.3085	.27334	.60198	2.3541	.20084	.23397
#1	.00212	.00766	447.16	.07119	.04902	.11264	79.737
#2	.00198	.00681	448.89	.07058	.04742	.11232	80.001
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.7911	161.99	.10338	-.00912	1.8617	.09793	.31270
SDev	.0048	.32	.00058	.00187	.2984	.00098	.00097
%RSD	.17128	.19450	.55764	20.511	16.029	.99950	.30975
#1	2.7877	161.77	.10379	-.00780	2.0727	.09862	.31202
#2	2.7945	162.21	.10297	-.01044	1.6507	.09724	.31339
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.026	.00126	.00920	.04400	.06299	-.00403	.00561
SDev	.035	.00123	.00026	.00540	.00118	.00283	.00150
%RSD	.25281	97.548	2.8649	12.275	1.8763	70.104	26.752
#1	14.051	.00039	.00939	.04782	.06382	-.00203	.00455
#2	14.001	.00214	.00902	.04018	.06215	-.00603	.00667
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00896	.02823	1.1339	-.07991	10.457		
SDev	.00178	.00359	.0031	.00654	.014		
%RSD	19.907	12.720	.27713	8.1823	.13716		
#1	-.01022	.03077	1.1316	-.07529	10.447		
#2	-.00770	.02569	1.1361	-.08454	10.467		

09/10/04

## Analysis Report

Method: 6010B

Sample Name: S4480-07

Operator: DR

Run Time: 09/10/04 15:05:08

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02393	-.00522	.04439	.00057	.00016	34.596	.19438
SDev	.00255	.02379	.00231	.00145	.00231	.099	.00084
%RSD	10.648	455.92	5.2011	256.31	1444.5	.28542	.43229
#1	.02213	-.02204	.04602	-.00046	-.00148	34.666	.19497
#2	.02573	.01160	.04276	.00159	.00180	34.526	.19378
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00119	.00384	H899.55	.04645	.02607	.11145	53.670
SDev	.00000	.00062	5.46	.00043	.00023	.00037	.366
%RSD	.08842	16.037	.60685	.93034	.87305	.33400	.68182
#1	.00119	.00427	H903.41	.04615	.02591	.11119	53.929
#2	.00119	.00340	H895.69	.04676	.02623	.11172	53.411
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.6159	151.66	.08072	-.01018	2.1816	.06513	.21294
SDev	.0165	.48	.00271	.00030	.2025	.00048	.00167
%RSD	.63135	.31676	3.3613	2.9777	9.2816	.73530	.78338
#1	2.6276	152.00	.08264	-.01040	2.3248	.06479	.21176
#2	2.6042	151.32	.07880	-.00997	2.0384	.06547	.21412
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	13.043	-.00106	-.00059	.03190	.04863	-.01213	.00510
SDev	.025	.00188	.00318	.00728	.00710	.00176	.00130
%RSD	.19528	176.75	535.67	22.838	14.597	14.486	25.442
#1	13.061	-.00239	-.00285	.02675	.05365	-.01337	.00419
#2	13.025	.00027	.00166	.03705	.04361	-.01088	.00602
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00911	.03601	.45311	-.05474	7.0488		
SDev	.00045	.00112	.00136	.00182	.0020		
%RSD	4.8907	3.1165	.29915	3.3180	.02907		
#1	-.00880	.03680	.45407	-.05346	7.0503		
#2	-.00943	.03521	.45215	-.05602	7.0474		

DR g/10/04

## Analysis Report

Method: 6010B Sample Name: S4480-11  
 Run Time: 09/10/04 15:07:48  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00042	-.00835	.02335	.00249	.00341	10.860	.05784
SDev	.00367	.01188	.00006	.00124	.00287	.004	.00006
%RSD	869.51	142.40	.23845	50.010	84.163	.03338	.11183
#1	.00301	-.01675	.02339	.00161	.00543	10.863	.05788
#2	-.00217	.00006	.02331	.00337	.00138	10.858	.05779
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00070	-.00264	260.98	.01801	.01179	.06276	18.866
SDev	.00000	.00034	.95	.00000	.00000	.00023	.023
%RSD	.15487	12.875	.36584	.00335	.00364	.37448	.12384
#1	.00070	-.00240	261.66	.01801	.01179	.06260	18.883
#2	.00070	-.00288	260.30	.01801	.01179	.06293	18.850
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.1341	97.670	.02532	-.00381	1.4678	.02815	.18826
SDev	.0019	.197	.00215	.00024	.0455	.00049	.00027
%RSD	.16845	.20128	8.4796	6.2820	3.1024	1.7473	.14200
#1	1.1354	97.809	.02684	-.00364	1.5000	.02780	.18807
#2	1.1327	97.531	.02380	-.00398	1.4356	.02850	.18845
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.9018	.00419	-.00136	.02323	.02142	-.00315	.00360
SDev	.0065	.00232	.00395	.00112	.00064	.00425	.00040
%RSD	.16640	55.561	291.44	4.8265	3.0030	134.83	11.064
#1	3.9064	.00583	.00144	.02243	.02187	-.00616	.00389
#2	3.8972	.00254	-.00415	.02402	.02096	-.00015	.00332
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00967	.00792	.36053	-.02931	4.7039		
SDev	.00145	.00045	.00006	.00400	.0451		
%RSD	14.988	5.6690	.01709	13.633	.95829		
#1	-.00864	.00823	.36048	-.03214	4.7358		
#2	-.01069	.00760	.36057	-.02648	4.6720		

Analysis Report

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Method: 6010B Sample Name: S4482-02  
 Run Time: 09/10/04 15:09:45  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03560	-.00070	.05074	-.00122	-.00095	30.488	.14234
SDev	.00495	.00688	.00297	.00471	.00168	.235	.00071
%RSD	13.898	985.38	5.8522	386.78	176.70	.76927	.49751
#1	.03210	-.00556	.04864	.00211	-.00214	30.322	.14184
#2	.03910	.00417	.05284	-.00455	.00024	30.654	.14284
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00130	.00467	H778.49	.04028	.02494	.10559	60.921
SDev	.00010	.00066	10.61	.00016	.00091	.00004	.592
%RSD	7.8391	14.230	1.3627	.39272	3.6367	.03414	.97128
#1	.00137	.00420	H770.99	.04039	.02430	.10556	60.502
#2	.00122	.00514	H785.99	.04017	.02558	.10561	61.339
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.7093	120.00	.08832	-.00983	2.5420	.05043	.16988
SDev	.0452	1.21	.00536	.00010	.2161	.00002	.00176
%RSD	1.2175	1.0101	6.0662	1.0308	8.4994	.04636	1.0380
#1	3.6774	119.15	.08453	-.00976	2.6948	.05041	.16863
#2	3.7413	120.86	.09211	-.00990	2.3892	.05044	.17113
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	11.104	-.00557	.00510	.04191	.05315	-.01415	.00344
SDev	.005	.00183	.00138	.00294	.00592	.00648	.00363
%RSD	.04948	32.899	26.998	7.0119	11.137	45.774	111.15
#1	11.100	-.00686	.00412	.04399	.04896	-.00957	.00615
#2	11.108	-.00427	.00607	.03983	.05733	-.01873	.00074
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00050	.03061	.31212	-.08055	7.7877		
SDev	.00111	.00157	.00345	.00054	.0799		
%RSD	223.27	5.1321	1.1054	.67642	1.0261		
#1	.00129	.02950	.30968	-.08094	7.7312		
#2	-.00029	.03172	.31456	-.08017	7.8442		

*DR 9/10/04*

Analysis Report

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Method: 6010B Sample Name: S4482-05  
 Run Time: 09/10/04 15:11:45  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00548	-.00775	.04324	.00746	.00237	30.425	.13394
SDev	.00302	.00064	.00102	.00296	.00186	.212	.00084
%RSD	55.177	8.2474	2.3482	39.637	78.485	.69689	.62676
#1	.00334	-.00729	.04252	.00955	.00105	30.575	.13453
#2	.00762	-.00820	.04396	.00537	.00368	30.275	.13335
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00144	.00326	H863.83	.04288	.02302	.11612	47.042
SDev	.00026	.00053	12.80	.00041	.00046	.00066	.444
%RSD	17.727	16.166	1.4822	.95101	1.9748	.56567	.94336
#1	.00126	.00289	H872.89	.04317	.02270	.11659	47.355
#2	.00163	.00363	H854.78	.04259	.02334	.11566	46.728
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0337	117.49	.08171	-.00921	2.4406	.06451	.25474
SDev	.0273	1.13	.00235	.00062	.1095	.00100	.00390
%RSD	1.3420	.96183	2.8805	6.7105	4.4858	1.5563	1.5327
#1	2.0530	118.29	.08338	-.00965	2.3632	.06522	.25750
#2	2.0144	116.69	.08005	-.00878	2.5180	.06380	.25198
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	10.336	.00049	.00293	.03061	.04754	.00384	.00747
SDev	.001	.00266	.00025	.00136	.00084	.00447	.00667
%RSD	.00966	544.17	8.6099	4.4599	1.7681	116.52	89.217
#1	10.336	-.00139	.00275	.02965	.04695	.00068	.01219
#2	10.337	.00237	.00311	.03158	.04814	.00700	.00276
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00738	.03474	.28877	-.02135	4.8810		
SDev	.00089	.00112	.00222	.00109	.0231		
%RSD	12.079	3.2304	.76812	5.1049	.47226		
#1	-.00801	.03553	.29034	-.02058	4.8973		
#2	-.00675	.03394	.28720	-.02212	4.8647		

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Method: 6010B

Sample Name: S4482-10

Operator: DR

Run Time: 09/10/04 15:13:44

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01048	-.01278	.04863	.00278	.00162	45.796	.65371
SDev	.00334	.00630	.00332	.00055	.00596	.256	.00318
%RSD	31.919	49.293	6.8184	19.817	367.07	.55969	.48604
#1	.01285	-.00832	.04628	.00239	.00584	45.614	.65146
#2	.00812	-.01723	.05097	.00317	-.00259	45.977	.65596
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00182	.00465	494.16	.06673	.04292	.08644	69.514
SDev	.00005	.00036	1.44	.00057	.00045	.00042	.366
%RSD	2.8527	7.8444	.29121	.85844	1.0563	.48098	.52640
#1	.00186	.00440	493.14	.06713	.04324	.08615	69.255
#2	.00178	.00491	495.18	.06632	.04260	.08674	69.773
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.5714	144.53	.09053	-.00912	1.5102	.09019	.26784
SDev	.0094	.63	.00344	.00064	.0707	.00051	.00143
%RSD	.36650	.43510	3.8042	7.0623	4.6831	.56141	.53282
#1	2.5648	144.08	.09296	-.00867	1.5603	.08984	.26683
#2	2.5781	144.97	.08809	-.00958	1.4602	.09055	.26884
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.5692	-.00040	.00247	.03927	.05130	-.00798	.00635
SDev	.0400	.00684	.00421	.00420	.00287	.00321	.00077
%RSD	.52785	1727.9	170.50	10.692	5.6041	40.169	12.205
#1	7.5409	.00444	.00545	.03630	.04927	-.01025	.00690
#2	7.5974	-.00523	-.00051	.04223	.05334	-.00572	.00580
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.01085	.01411	.96451	-.06437	7.6153		
SDev	.00111	.00292	.00382	.00309	.0430		
%RSD	10.273	20.682	.39606	4.7966	.56501		
#1	-.01006	.01204	.96180	-.06219	7.5849		
#2	-.01164	.01617	.96721	-.06655	7.6458		

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Analysis Report

QC Standard

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Method: 6010B  
 Run Time: 09/10/04 15:15:49  
 Comment: CCV  
 Mode: CONC

Sample Name: CCV  
 Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.2422	5.3118	5.1265	5.4795	5.1824	10.303	10.394
SDev	.0300	.0041	.0687	.0330	.0458	.189	.057
%RSD	.57233	.07722	1.3399	.60249	.88378	1.8300	.55151
#1	5.2634	5.3089	5.1751	Q5.5029	5.2148	10.436	10.434
#2	5.2210	5.3147	5.0780	5.4562	5.1500	10.169	10.353
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25594	2.5534	26.072	.99678	2.5128	1.2497	4.9691
SDev	.00343	.0343	.662	.01614	.0368	.0031	.1163
%RSD	1.3393	1.3417	2.5387	1.6192	1.4634	.24828	2.3404
#1	.25837	2.5776	26.540	1.0082	2.5388	1.2519	5.0514
#2	.25352	2.5291	25.604	.98536	2.4868	1.2475	4.8869
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4960	25.703	2.5544	1.3034	25.900	2.4768	2.5720
SDev	.0379	.256	.0359	.0228	.094	.0340	.0400
%RSD	1.5191	.99788	1.4041	1.7474	.36285	1.3741	1.5552
#1	2.5228	25.884	2.5798	1.3195	25.834	2.5009	2.6003
#2	2.4692	25.521	2.5290	1.2873	25.967	2.4527	2.5437
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.334	5.2229	5.0981	5.1005	5.1375	5.4523	5.4915
SDev	.043	.0444	.0485	.0301	.0880	.0112	.0439
%RSD	.16499	.85097	.95168	.59003	1.7121	.20561	.79938
#1	26.365	5.2544	5.1324	5.1217	5.1997	5.4602	5.5226
#2	26.303	5.1915	5.0638	5.0792	5.0753	5.4444	5.4605
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	5.1591	5.2000	4.9776	5.0459	5.4725		
SDev	.0417	.0503	.0555	.0667	.0533		
%RSD	.80787	.96675	1.1153	1.3210	.97346		
#1	5.1886	5.2355	5.0168	5.0930	Q5.5102		
#2	5.1296	5.1644	4.9383	4.9987	5.4348		

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QC Standard

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Method: 6010B

Sample Name: CCB

Operator: DR

Run Time: 09/10/04 15:18:03

Comment: CCB

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00810	-.00507	-.00217	-.00288	.00185	-.01970	-.00243
SDev	.00048	.00105	.00311	.00151	.00134	.46109	.00130
%RSD	5.9291	20.658	143.54	52.298	72.253	2340.6	53.491
#1	.00844	-.00433	.00003	-.00182	.00090	Q.30634	-.00151
#2	.00776	-.00581	-.00437	-.00395	.00279	Q-.34574	-.00335
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00044	-.00212	.15312	.00379	-.00153	-.00492	.01086
SDev	.00005	.00000	.05304	.00126	.00068	.00024	.01558
%RSD	11.364	.14673	34.641	33.375	44.529	4.7806	143.43
#1	.00047	-.00212	.19063	.00468	-.00201	-.00475	-.00015
#2	.00040	-.00212	.11561	.00289	-.00105	-.00508	.02188
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00007	.05643	-.00083	-.00091	-.46484	.00019	-.00820
SDev	.00055	.02474	.00100	.00034	.08526	.00049	.00077
%RSD	813.65	43.837	121.23	36.944	18.342	261.21	9.3743
#1	.00045	.07392	-.00154	-.00067	-.52512	.00054	-.00765
#2	-.00032	.03894	-.00012	-.00115	-.40455	-.00016	-.00874
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00206	.00123	-.00012	-.01093	.00021	.00371	-.00787
SDev	.00300	.00016	.00369	.00396	.00269	.00165	.00130
%RSD	145.81	12.898	3080.7	36.221	1285.9	44.560	16.452
#1	.00417	.00112	-.00273	-.00813	.00211	.00488	-.00696
#2	-.00006	.00135	.00249	-.01374	-.00169	.00254	-.00879
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00714	-.00287	-.00008	-.00606	.00644		
SDev	.00368	.00314	.00074	.00890	.00564		
%RSD	51.474	109.34	913.42	146.75	87.497		
#1	-.00454	-.00065	.00044	.00023	.01042		
#2	-.00974	-.00510	-.00060	-.01236	.00246		

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Method: 6010B Sample Name: S4482-11  
 Run Time: 09/10/04 15:23:55  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01748	-.02155	.07480	.00354	-.00048	96.580	1.1448
SDev	.00111	.00176	.00296	.00264	.00233	.269	.0017
%RSD	6.3599	8.1576	3.9525	74.688	482.63	.27876	.14712
#1	.01669	-.02279	.07271	.00541	.00116	96.389	1.1437
#2	.01827	-.02031	.07689	.00167	-.00213	96.770	1.1460
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00396	.00816	162.95	.10623	.04902	.11432	86.310
SDev	.00019	.00170	1.05	.00464	.00318	.00290	.358
%RSD	4.6906	20.834	.64396	4.3711	6.4838	2.5338	.41510
#1	.00409	.00936	162.21	.10952	.05126	.11636	86.056
#2	.00383	.00696	163.69	.10295	.04677	.11227	86.563
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.5284	70.423	.12264	.00187	1.4774	.14494	.42253
SDev	.0093	.060	.00208	.01650	.8768	.00788	.00527
%RSD	.36736	.08504	1.6988	882.33	59.350	5.4354	1.2468
#1	2.5218	70.381	.12411	.01354	2.0974	.15052	.41881
#2	2.5350	70.465	.12117	-.00980	.85737	.13937	.42626
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.0365	-.00402	.00339	.04463	.08787	-.01372	.01036
SDev	.0649	.00651	.00606	.00005	.00441	.00116	.00338
%RSD	1.0755	162.17	178.48	.10607	5.0178	8.4788	32.652
#1	6.0824	.00059	-.00089	.04460	.08475	-.01290	.01275
#2	5.9906	-.00862	.00768	.04466	.09098	-.01454	.00797
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00588	.00395	.84631	-.05384	5.9169		
SDev	.00123	.00067	.00339	.00345	.0231		
%RSD	20.835	17.044	.40042	6.4095	.38956		
#1	-.00675	.00443	.84391	-.05140	5.9006		
#2	-.00502	.00347	.84870	-.05628	5.9332		

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Method: 6010B Sample Name: S4482-14  
 Run Time: 09/10/04 15:26:02  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02062	-.02293	.08404	.01094	-.00206	109.22	1.1304
SDev	.00096	.00697	.00189	.00124	.00056	.05	.0025
%RSD	4.6337	30.408	2.2495	11.306	26.962	.04184	.22396
#1	.01994	-.01800	.08270	.01181	-.00246	109.19	1.1322
#2	.02129	-.02786	.08538	.01006	-.00167	109.26	1.1286
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00436	.01094	22.354	.12755	.05848	.15208	136.93
SDev	.00010	.00009	.201	.00070	.00204	.00095	.02
%RSD	2.3287	.82998	.89756	.55014	3.4932	.62332	.01137
#1	.00443	.01101	22.496	.12805	.05993	.15275	136.94
#2	.00429	.01088	22.212	.12706	.05704	.15141	136.91
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.8971	28.987	.15408	-.01138	.52853	.15885	.73878
SDev	.0040	.022	.00215	.00115	.09882	.00000	.00075
%RSD	.10149	.07635	1.3938	10.136	18.698	.00120	.10143
#1	3.8999	29.003	.15560	-.01057	.59841	.15886	.73931
#2	3.8943	28.972	.15256	-.01220	.45865	.15885	.73825
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.6146	-.00652	.00366	.04969	.09909	-.00809	.01864
SDev	.0185	.00294	.00757	.00454	.00524	.00449	.00039
%RSD	.27935	45.153	206.85	9.1286	5.2883	55.493	2.0706
#1	6.6277	-.00444	-.00169	.05290	.09539	-.00491	.01837
#2	6.6016	-.00860	.00901	.04648	.10280	-.01126	.01891
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00186	.00570	.92011	-.05679	9.1522		
SDev	.00067	.00224	.00092	.00727	.0302		
%RSD	35.854	39.401	.10045	12.792	.33021		
#1	-.00234	.00411	.92076	-.05166	9.1735		
#2	-.00139	.00728	.91946	-.06193	9.1308		

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Analysis Report

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Method: 6010B Sample Name: S4482-16  
 Run Time: 09/10/04 15:27:58  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02846	-.00002	.06368	.00504	.00311	52.193	.33220
SDev	.00494	.00664	.00183	.00588	.00174	.067	.00020
%RSD	17.371	37367.	2.8789	116.56	56.159	.12755	.05946
#1	.02497	.00467	.06498	.00920	.00187	52.146	.33234
#2	.03196	-.00471	.06239	.00089	.00434	52.241	.33206
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00192	.00982	H876.63	.05805	.04131	.14733	87.731
SDev	.00010	.00044	1.01	.00085	.00000	.00049	.280
%RSD	5.4053	4.5293	.11523	1.4658	.00021	.33238	.31950
#1	.00184	.00951	H875.92	.05865	.04131	.14699	87.533
#2	.00199	.01014	H877.35	.05744	.04131	.14768	87.929
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.1669	83.303	.12307	-.01512	2.8140	.06129	.37920
SDev	.0040	.092	.00044	.00035	.0853	.00098	.00198
%RSD	.12523	.11097	.35360	2.3408	3.0299	1.5922	.52102
#1	3.1641	83.369	.12337	-.01537	2.8742	.06198	.37780
#2	3.1697	83.238	.12276	-.01487	2.7537	.06060	.38060
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.076	.00048	.00516	.03991	.07355	-.00230	.00691
SDev	.029	.00030	.00464	.00232	.00159	.00483	.00640
%RSD	.19214	62.272	89.886	5.8047	2.1645	210.19	92.686
#1	15.055	.00027	.00188	.04155	.07468	.00112	.01144
#2	15.096	.00069	.00844	.03827	.07243	-.00571	.00238
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00200	.05632	.20355	-.11279	7.8928		
SDev	.00100	.00157	.00012	.00363	.0297		
%RSD	50.240	2.7894	.06054	3.2206	.37641		
#1	.00271	.05521	.20364	-.11022	7.8718		
#2	.00129	.05743	.20347	-.11536	7.9138		

OK 9/10/04

## Analysis Report

Method: 6010B

Sample Name: S4482-18

Operator: DR

Run Time: 09/10/04 15:29:59

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03341	-.01425	.08819	.00398	.00294	60.074	.51738
SDev	.00001	.00275	.00047	.00051	.00363	.287	.00129
%RSD	.04114	19.323	.53027	12.740	123.63	.47808	.24850
#1	.03340	-.01619	.08852	.00434	.00550	59.871	.51647
#2	.03342	-.01230	.08786	.00362	.00037	60.277	.51829
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00217	.00521	523.86	.06271	.04292	.15973	74.243
SDev	.00015	.00100	8.07	.00066	.00045	.00126	1.261
%RSD	7.1226	19.248	1.5400	1.0590	1.0578	.78767	1.6988
#1	.00228	.00592	518.15	.06224	.04260	.15884	73.351
#2	.00206	.00450	529.56	.06318	.04324	.16062	75.135
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.8088	189.42	.09722	-.01101	2.1789	.09351	.37488
SDev	.0343	1.84	.00026	.00044	.1269	.00104	.00679
%RSD	1.2204	.97049	.26862	3.9519	5.8250	1.1092	1.8099
#1	2.7846	188.12	.09703	-.01132	2.0891	.09278	.37008
#2	2.8331	190.72	.09740	-.01071	2.2686	.09424	.37967
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.924	.00201	.00158	.06746	.09654	-.01389	.01111
SDev	.082	.00596	.00104	.00507	.00183	.01080	.00463
%RSD	.63372	295.76	65.828	7.5095	1.8937	77.753	41.713
#1	12.982	.00623	.00084	.07104	.09524	-.00626	.00783
#2	12.866	-.00220	.00231	.06388	.09783	-.02153	.01438
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00076	.02442	.89654	-.08312	14.963		
SDev	.00134	.00179	.00850	.00527	.028		
%RSD	175.57	7.3517	.94839	6.3367	.18486		
#1	-.00171	.02315	.89053	-.08685	14.983		
#2	.00018	.02569	.90255	-.07940	14.944		

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Method: 6010B Sample Name: S4482-22

Operator: DR

Run Time: 09/10/04 15:32:09

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02035	-.00334	.04772	-.00198	.00273	35.940	.27539
SDev	.00527	.00493	.00072	.00123	.00069	.141	.00084
%RSD	25.887	147.83	1.5126	61.987	25.307	.39265	.30452
#1	.02407	-.00683	.04721	-.00284	.00322	36.040	.27598
#2	.01662	.00015	.04823	-.00111	.00224	35.840	.27480
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00142	.01305	H943.79	.04295	.03281	.11973	68.044
SDev	.00010	.00115	10.73	.00026	.00068	.00044	.529
%RSD	7.2239	8.7843	1.1367	.61678	2.0748	.36809	.77804
#1	.00135	.01386	H951.38	.04313	.03329	.11942	68.419
#2	.00149	.01224	H936.21	.04276	.03233	.12004	67.670
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.3907	140.53	.09972	-.01335	2.5721	.05873	1.3127
SDev	.0221	.85	.00221	.00046	.0610	.00051	.0123
%RSD	.92497	.60588	2.2150	3.4635	2.3730	.87589	.94072
#1	2.4064	141.13	.10128	-.01367	2.5290	.05910	1.3214
#2	2.3751	139.93	.09816	-.01302	2.6153	.05837	1.3040
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.272	-.00144	.00788	.02510	.05701	-.00741	-.00086
SDev	.038	.00168	.00129	.00383	.00083	.00427	.00397
%RSD	.30929	116.66	16.329	15.283	1.4606	57.675	459.44
#1	12.245	-.00025	.00697	.02238	.05760	-.00439	-.00367
#2	12.299	-.00263	.00879	.02781	.05642	-.01043	.00194
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00515	.04093	.33330	-.10303	6.4570		
SDev	.00390	.00045	.00136	.00291	.0154		
%RSD	75.761	1.0967	.40669	2.8206	.23799		
#1	.00791	.04124	.33426	-.10508	6.4679		
#2	.00239	.04061	.33234	-.10097	6.4461		

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Analysis Report

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Method: 6010B Sample Name: S4482-25  
 Run Time: 09/10/04 15:34:18  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01362	-.01049	.02895	.00246	.00443	20.834	.17807
SDev	.00701	.00141	.00187	.00130	.00043	.160	.00097
%RSD	51.488	13.465	6.4703	52.690	9.6369	.76792	.54540
#1	.01858	-.00950	.02763	.00338	.00473	20.721	.17739
#2	.00866	-.01149	.03028	.00155	.00412	20.947	.17876
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00110	.00104	440.53	.02779	.01949	.08101	40.568
SDev	.00010	.00042	2.53	.00015	.00045	.00041	.257
%RSD	9.2006	40.403	.57324	.53316	2.3300	.50513	.63332
#1	.00118	.00074	438.75	.02789	.01981	.08072	40.386
#2	.00103	.00133	442.32	.02768	.01917	.08130	40.749
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7048	117.03	.05612	-.00627	1.3486	.03983	.20009
SDev	.0098	.74	.00021	.00023	.0165	.00001	.00145
%RSD	.57655	.63077	.37353	3.5940	1.2213	.02512	.72336
#1	1.6979	116.51	.05598	-.00643	1.3369	.03983	.19907
#2	1.7118	117.55	.05627	-.00611	1.3602	.03984	.20112
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.9327	.00328	.00351	.02444	.02921	-.00184	.00291
SDev	.0400	.00017	.00095	.00008	.00277	.00037	.00199
%RSD	.67344	5.0994	26.908	.31621	9.4842	19.869	68.212
#1	5.9045	.00340	.00418	.02438	.02725	-.00210	.00432
#2	5.9610	.00316	.00285	.02449	.03116	-.00158	.00151
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00580	.02061	.29008	-.04562	5.5928		
SDev	.00045	.00224	.00185	.00200	.0102		
%RSD	7.6791	10.888	.63721	4.3794	.18318		
#1	-.00612	.01903	.28877	-.04703	5.5855		
#2	-.00549	.02220	.29139	-.04421	5.6000		

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Method: 6010B Sample Name: S4505-01

Operator: DR

Run Time: 09/10/04 15:36:20

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02204	-.00829	.45379	.00969	-.00250	65.196	.44182
SDev	.00590	.02131	.00419	.00286	.00164	.130	.00142
%RSD	26.784	256.91	.92214	29.476	65.749	.19967	.32227

#1	.01787	-.02336	.45083	.01171	-.00134	65.104	.44081
#2	.02622	.00677	.45675	.00767	-.00366	65.288	.44283

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00281	.00872	20.050	.12209	.07582	.51530	156.65
SDev	.00005	.00001	.046	.00055	.00023	.00050	.43
%RSD	1.8092	.09494	.23005	.44959	.29927	.09672	.27335

#1	.00284	.00872	20.017	.12170	.07598	.51495	156.35
#2	.00277	.00873	20.083	.12248	.07566	.51565	156.95

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.5163	19.307	.16588	-.01181	1.2054	.19517	.57285
SDev	.0098	.042	.00065	.00062	.1976	.00002	.00065
%RSD	.27972	.21579	.39359	5.2172	16.397	.00929	.11271

#1	3.5093	19.278	.16634	-.01138	1.0656	.19516	.57239
#2	3.5232	19.337	.16542	-.01225	1.3451	.19519	.57330

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.286	-.00606	.00144	.43301	.46197	-.01309	.01927
SDev	.006	.00029	.00550	.00139	.00558	.00447	.00205
%RSD	.05310	4.7322	383.03	.32038	1.2081	34.122	10.658

#1	11.282	-.00626	.00533	.43203	.45802	-.00993	.02072
#2	11.291	-.00586	-.00245	.43399	.46592	-.01625	.01781

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00328	-.01446	3.6078	-.18497	6.1527
SDev	.00022	.00067	.0085	.00799	.0400
%RSD	6.7883	4.6568	.23567	4.3205	.64938

#1	-.00313	-.01398	3.6017	-.17932	6.1245
#2	-.00344	-.01493	3.6138	-.19062	6.1810

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Analysis Report

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Method: 6010B Sample Name: S4505-02  
 Run Time: 09/10/04 15:38:13  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01657	-.01639	.13459	.01079	.00437	60.392	.45903
SDev	.00096	.00630	.00228	.00575	.00028	.042	.00046
%RSD	5.7923	38.441	1.6905	53.262	6.4912	.06914	.09932
#1	.01590	-.01193	.13298	.00673	.00457	60.362	.45935
#2	.01725	-.02084	.13620	.01486	.00417	60.421	.45871
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00267	.00401	15.520	.15502	.06282	.21553	111.35
SDev	.00010	.00069	.023	.00112	.00000	.00015	.15
%RSD	3.6451	17.206	.14859	.72161	.00024	.06902	.13282
#1	.00260	.00352	15.503	.15423	.06282	.21563	111.25
#2	.00273	.00450	15.536	.15581	.06282	.21542	111.46
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0837	19.543	.12832	-.01051	1.1287	.21084	.35849
SDev	.0046	.036	.00078	.00202	.0523	.00198	.00005
%RSD	.22280	.18653	.61143	19.185	4.6354	.93861	.01296
#1	2.0804	19.517	.12776	-.01194	1.0917	.20944	.35852
#2	2.0870	19.569	.12887	-.00909	1.1657	.21224	.35846
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.315	.00113	.00767	.12071	.13942	-.00852	.01864
SDev	.017	.00030	.00145	.00032	.00371	.00308	.00708
%RSD	.12211	26.503	18.912	.26122	2.6609	36.102	38.001
#1	14.327	.00092	.00869	.12093	.13680	-.01070	.01363
#2	14.302	.00134	.00664	.12048	.14204	-.00635	.02365
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00596	-.00716	3.6120	-.23223	8.7552		
SDev	.00201	.00067	.0031	.00545	.0077		
%RSD	33.642	9.4057	.08529	2.3463	.08776		
#1	-.00738	-.00763	3.6098	-.22838	8.7498		
#2	-.00454	-.00668	3.6142	-.23608	8.7606		

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## Analysis Report

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Method: 6010B Sample Name: S4505-03 Operator: DR  
 Run Time: 09/10/04 15:40:03  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01539	-.02115	.10061	.01181	.00402	231.46	1.7786
SDev	.00488	.01068	.00119	.00331	.00193	1.91	.0118
%RSD	31.679	50.480	1.1785	28.034	48.146	.82442	.66562
#1	.01195	-.01360	.10144	.00947	.00538	232.81	1.7870
#2	.01884	-.02870	.09977	.01415	.00265	230.11	1.7702
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00654	.02609	12.876	.40287	.18062	.35004	255.67
SDev	.00030	.00513	.348	.01448	.00908	.00837	4.11
%RSD	4.6487	19.649	2.7045	3.5936	5.0272	2.3912	1.6077
#1	.00675	.02971	13.122	.41310	.18705	.35596	258.58
#2	.00632	.02246	12.630	.39263	.17420	.34413	252.76
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.2440	65.660	.30362	-.00282	2.8838	.48989	.77584
SDev	.1000	.891	.00629	.02891	1.0425	.02335	.01748
%RSD	1.9067	1.3563	2.0715	1025.9	36.149	4.7665	2.2534
#1	5.3147	66.289	.30807	.01762	3.6210	.50641	.78821
#2	5.1733	65.030	.29918	-.02326	2.1467	.47338	.76348
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	70.108	.00021	.00844	.02290	.13700	-.01255	.02217
SDev	1.080	.00253	.00074	.00070	.00143	.00570	.00212
%RSD	1.5401	1194.5	8.7406	3.0661	1.0416	45.422	9.5473
#1	70.872	.00200	.00896	.02340	.13801	-.01658	.02067
#2	69.345	-.00158	.00791	.02241	.13599	-.00852	.02366
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.01432	-.02176	13.533	-.98085	12.764		
SDev	.00379	.00292	.172	.01072	.058		
%RSD	26.468	13.409	1.2707	1.0925	.45751		
#1	-.01164	-.01969	13.654	-.99842	12.805		
#2	-.01699	-.02382	13.411	-.97327	12.722		

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Analysis Report

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Method: 6010B Sample Name: S4505-04  
 Run Time: 09/10/04 15:43:04  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03312	-.00856	1.7941	.00617	.00422	57.405	.69177
SDev	.00382	.01219	.0169	.00712	.00235	.177	.00181
%RSD	11.529	142.39	.94390	115.51	55.697	.30831	.26225
#1	.03582	-.01719	1.7821	.01121	.00588	57.280	.69049
#2	.03042	.00006	1.8061	.00113	.00256	57.530	.69306
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00225	.00674	193.54	.08357	.03858	.55892	87.091
SDev	.00003	.00315	.99	.00266	.00341	.00538	.358
%RSD	1.2884	46.782	.51359	3.1778	8.8252	.96309	.41107
#1	.00223	.00451	192.83	.08169	.03618	.55512	86.838
#2	.00227	.00897	194.24	.08544	.04099	.56273	87.344
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.1854	45.387	.10572	-.01951	6.5826	.15330	1.3745
SDev	.0100	.264	.00207	.01658	.3439	.00987	.0068
%RSD	.84095	.58231	1.9572	84.988	5.2250	6.4414	.49442
#1	1.1783	45.200	.10425	-.03123	6.3394	.14631	1.3697
#2	1.1924	45.574	.10718	-.00779	6.8258	.16028	1.3793
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.292	.00064	.00819	1.7794	1.7994	-.00493	.00991
SDev	.596	.00282	.00140	.0166	.0171	.00967	.00585
%RSD	5.7939	443.59	17.157	.93370	.94999	196.22	59.099
#1	9.8702	.00263	.00918	1.7677	1.7873	.00191	.01405
#2	10.714	-.00136	.00719	1.7912	1.8115	-.01176	.00577
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00596	-.00033	2.3821	-.12268	11.745		
SDev	.00156	.00045	.0085	.00708	.020		
%RSD	26.166	134.23	.35694	5.7740	.17445		
#1	-.00486	-.00002	2.3761	-.12769	11.731		
#2	-.00707	-.00065	2.3881	-.11767	11.760		

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Analysis Report

QC Standard

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page 1

Method: 6010B Sample Name: CCV  
 Run Time: 09/10/04 15:45:01  
 Comment: CCV  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.1826	5.2272	5.0597	5.3513	5.1332	10.930	10.325
SDev	.0291	.0123	.0142	.0072	.0114	.011	.022
%RSD	.56194	.23550	.28019	.13497	.22213	.10125	.21502
#1	5.1620	5.2185	5.0697	5.3462	5.1413	10.922	10.309
#2	5.2032	5.2359	5.0496	5.3565	5.1251	10.938	10.341
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25427	2.5434	25.336	.99470	2.4984	1.2482	4.9160
SDev	.00080	.0045	.042	.00114	.0055	.0003	.0398
%RSD	.31573	.17643	.16402	.11419	.21991	.02502	.80936
#1	.25370	2.5402	25.365	.99550	2.5023	1.2480	4.9442
#2	.25484	2.5466	25.307	.99390	2.4945	1.2484	4.8879
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4893	25.475	2.5255	1.2860	25.833	2.4796	2.5549
SDev	.0004	.029	.0034	.0007	.325	.0040	.0067
%RSD	.01671	.11246	.13342	.05184	1.2592	.16117	.26070
#1	2.4896	25.455	2.5278	1.2855	25.603	2.4768	2.5502
#2	2.4890	25.496	2.5231	1.2865	26.063	2.4825	2.5596
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.244	5.1913	5.0136	5.0576	5.0587	5.3579	5.3463
SDev	.155	.0115	.0112	.0176	.0125	.0192	.0011
%RSD	.59229	.22194	.22265	.34863	.24614	.35776	.02090
#1	26.134	5.1994	5.0215	5.0701	5.0675	5.3444	5.3456
#2	26.354	5.1832	5.0057	5.0451	5.0499	5.3715	5.3471
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	5.1198	5.1401	4.9679	4.9986	5.3751		
SDev	.0039	.0004	.0024	.0166	.0080		
%RSD	.07599	.00865	.04773	.33286	.14805		
#1	5.1226	5.1398	4.9696	4.9868	5.3694		
#2	5.1171	5.1404	4.9663	5.0104	5.3807		

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QC Standard

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Method: 6010B

Sample Name: CCB

Operator: DR

Run Time: 09/10/04 15:50:45

Comment: CCB

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00941	.00412	-.00074	.00149	.00409	.02404	-.00097
SDev	.00173	.00068	.00302	.00474	.00386	.02583	.00006
%RSD	18.406	16.453	409.14	318.66	94.472	107.44	6.6906
#1	.00818	.00364	-.00287	.00484	.00682	.04231	-.00101
#2	Q.01063	.00460	.00140	-.00187	.00136	.00578	-.00092
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00058	-.00224	.04388	.00030	-.00076	-.00520	.01098
SDev	.00015	.00091	.00462	.00028	.00229	.00008	.01590
%RSD	26.174	40.497	10.524	94.203	301.57	1.5740	144.84
#1	.00069	-.00288	.04714	.00050	-.00238	-.00526	-.00026
#2	.00047	-.00160	.04061	.00010	.00086	-.00514	.02222
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00042	.01684	.00003	-.00025	-.51599	-.00021	-.00693
SDev	.00000	.00000	.00351	.00035	.00770	.00000	.00000
%RSD	.14772	.00000	12011.	139.42	1.4922	.05522	.04661
#1	.00042	.01684	-.00245	-.00050	-.51055	-.00021	-.00693
#2	.00042	.01684	.00251	-.00000	-.52143	-.00021	-.00693
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01346	.00314	.00279	-.01282	.00329	.00767	-.00340
SDev	.00497	.00369	.00422	.00199	.00353	.01400	.00012
%RSD	36.909	117.52	150.93	15.504	107.11	182.48	3.5235
#1	.00994	.00575	.00577	-.01422	.00080	.01758	-.00331
#2	.01697	.00053	-.00019	-.01141	.00579	-.00223	-.00348
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00389	.00208	.00112	.00458	.01101		
SDev	.00267	.00333	.00006	.00402	.00398		
%RSD	68.606	159.95	5.5868	87.743	36.154		
#1	-.00200	.00444	.00116	.00174	.00819		
#2	-.00578	-.00027	.00107	.00743	.01382		

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Method: 6010B Sample Name: S4506-01  
 Run Time: 09/10/04 15:54:18  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00514	-.00156	.02805	.00534	.00321	18.294	.25241
SDev	.00283	.01774	.00471	.00029	.00232	.142	.00155
%RSD	55.095	1135.2	16.785	5.5127	72.221	.77703	.61410
#1	.00714	-.01411	.03138	.00513	.00157	18.193	.25131
#2	.00314	.01098	.02472	.00555	.00486	18.394	.25350
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00185	-.00052	7.1538	.05900	.02270	.07817	41.616
SDev	.00000	.00112	.0485	.00042	.00023	.00089	.342
%RSD	.00172	214.79	.67776	.70482	1.0089	1.1454	.82123
#1	.00185	-.00132	7.1196	.05870	.02254	.07753	41.374
#2	.00185	.00027	7.1881	.05929	.02286	.07880	41.858
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7302	11.983	.06800	-.00338	2.0265	.05813	.11948
SDev	.0140	.077	.00044	.00020	.1232	.00001	.00090
%RSD	.80684	.64118	.64273	5.7851	6.0790	.02482	.75615
#1	1.7203	11.928	.06831	-.00324	2.1136	.05812	.11884
#2	1.7401	12.037	.06769	-.00352	1.9394	.05814	.12012
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.9343	.00290	.00064	.02416	.02799	-.00249	.00765
SDev	.0263	.00382	.00069	.00140	.00776	.00013	.00038
%RSD	.53342	131.78	108.01	5.8171	27.722	5.2016	4.9252
#1	4.9157	.00020	.00112	.02317	.03348	-.00258	.00738
#2	4.9529	.00561	.00015	.02515	.02251	-.00240	.00792
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00420	.00696	.88977	-.05450	4.8275		
SDev	.00044	.00044	.00580	.01152	.0303		
%RSD	10.579	6.3901	.65234	21.136	.62848		
#1	-.00452	.00727	.88567	-.06265	4.8060		
#2	-.00389	.00664	.89388	-.04636	4.8489		

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Method: 6010B Sample Name: S4535-01  
 Run Time: 09/10/04 15:56:25  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00827	-.01052	.01838	.00151	.00436	12.868	.09871
SDev	.00126	.00682	.00205	.00331	.00224	.024	.00019
%RSD	15.211	64.811	11.178	219.31	51.335	.18311	.19600
#1	.00916	-.01534	.01983	-.00083	.00594	12.851	.09858
#2	.00738	-.00570	.01692	.00385	.00278	12.885	.09885
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00097	-.00076	276.83	.01894	.01219	.04957	28.061
SDev	.00010	.00102	.82	.00028	.00046	.00008	.072
%RSD	10.438	134.62	.29441	1.4887	3.7527	.16852	.25492
#1	.00104	-.00148	276.26	.01874	.01251	.04951	28.010
#2	.00090	-.00004	277.41	.01914	.01186	.04963	28.111
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.4538	107.70	.02665	-.00385	1.0377	.03418	.16283
SDev	.0066	.37	.00280	.00037	.0472	.00000	.00073
%RSD	.45609	.33976	10.501	9.6255	4.5447	.00987	.44764
#1	1.4491	107.44	.02862	-.00412	1.0043	.03418	.16231
#2	1.4585	107.96	.02467	-.00359	1.0710	.03418	.16335
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.0659	.00438	.00111	.02057	.01528	-.00513	.00313
SDev	.0050	.00293	.00086	.00280	.00168	.00815	.00103
%RSD	.12215	66.735	77.743	13.590	11.020	158.79	32.997
#1	4.0623	.00645	.00172	.02255	.01647	-.01090	.00240
#2	4.0694	.00231	.00050	.01860	.01409	.00063	.00385
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00680	.01042	.38181	-.02955	4.2190		
SDev	.00256	.00133	.00056	.00183	.0005		
%RSD	37.615	12.806	.14711	6.1880	.01179		
#1	-.00499	.01136	.38141	-.02825	4.2187		
#2	-.00861	.00947	.38220	-.03084	4.2194		

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Method: 6010B Sample Name: S4535-09

Operator: DR

Run Time: 09/10/04 15:58:22

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01921	-.00146	.02040	.00004	-.00135	9.7718	.04867
SDev	.00173	.00344	.00047	.00032	.00161	.0479	.00013
%RSD	9.0018	236.01	2.3208	765.10	118.53	.49012	.26352
#1	.01799	-.00389	.02006	-.00018	-.00022	9.8056	.04876
#2	.02043	.00097	.02073	.00027	-.00249	9.7379	.04858
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00082	-.00107	409.46	.01525	.00830	.02775	20.541
SDev	.00005	.00007	4.59	.00071	.00092	.00040	.119
%RSD	6.1890	6.5565	1.1210	4.6337	11.029	1.4605	.58039
#1	.00078	-.00102	412.71	.01575	.00895	.02804	20.625
#2	.00086	-.00112	406.21	.01475	.00766	.02746	20.457
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0550	100.17	.02076	-.00349	1.0737	.02185	.10159
SDev	.0083	.52	.00043	.00029	.0039	.00001	.00046
%RSD	.78579	.52129	2.0607	8.3980	.35853	.02771	.45015
#1	1.0608	100.54	.02106	-.00369	1.0765	.02185	.10191
#2	1.0491	99.801	.02046	-.00328	1.0710	.02184	.10126
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.6518	-.00381	.00037	.01710	.02005	.00213	-.00280
SDev	.0065	.00245	.00009	.00031	.00055	.00046	.00071
%RSD	.17678	64.267	23.501	1.8240	2.7638	21.714	25.434
#1	3.6564	-.00208	.00031	.01688	.01966	.00246	-.00330
#2	3.6473	-.00555	.00043	.01732	.02044	.00180	-.00230
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00648	.01026	.25572	-.02800	2.1905		
SDev	.00167	.00067	.00162	.01243	.0164		
%RSD	25.722	6.5009	.63458	44.410	.74931		
#1	-.00530	.00979	.25687	-.03679	2.2021		
#2	-.00766	.01073	.25457	-.01920	2.1789		

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Method: 6010B

Sample Name: S4535-13

Operator: DR

Run Time: 09/10/04 16:01:42

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.03610	.00782	.05706	.00528	.00165	21.256	.18139
SDev	.00504	.00270	.00135	.00330	.00131	.008	.00019
%RSD	13.954	34.543	2.3736	62.432	79.695	.03935	.10630
#1	.03254	.00973	.05801	.00295	.00072	21.250	.18152
#2	.03966	.00591	.05610	.00761	.00258	21.262	.18125
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.00155	.00407	H919.79	.05017	.02448	.11041	44.775
SDev	.00005	.00004	8.01	.00057	.00046	.00055	.135
%RSD	3.2739	.87460	.87053	1.1405	1.8727	.49706	.30178
#1	.00158	.00410	H925.45	.04976	.02415	.11002	44.870
#2	.00151	.00405	H914.13	.05057	.02480	.11080	44.679
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	2.0410	183.52	.08766	-.00865	1.5011	.04905	.37781
SDev	.0134	.66	.00251	.00005	.0539	.00000	.00402
%RSD	.65652	.35906	2.8598	.62401	3.5904	.00889	1.0634
#1	2.0505	183.98	.08943	-.00861	1.4630	.04905	.38065
#2	2.0315	183.05	.08589	-.00869	1.5392	.04904	.37497
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	8.7528	-.00179	.00533	.03942	.06386	.00845	.00190
SDev	.0482	.00446	.00499	.00295	.00056	.00218	.00385
%RSD	.55035	249.61	93.627	7.4939	.86979	25.790	203.11
#1	8.7187	-.00494	.00886	.04151	.06425	.00691	-.00083
#2	8.7869	.00137	.00180	.03734	.06347	.00999	.00462
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avgc	.00075	.03447	.12235	-.01274	2.0909		
SDev	.00056	.00289	.00050	.00073	.0099		
%RSD	74.216	8.3848	.40809	5.7406	.47574		
#1	.00114	.03243	.12270	-.01222	2.0839		
#2	.00036	.03651	.12200	-.01326	2.0980		

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Method: 6010B Sample Name: S4536-03  
 Run Time: 09/10/04 16:03:49  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01655	-.00771	.05548	.00568	.00388	40.903	.38971
SDev	.00046	.00301	.00443	.00176	.00046	.641	.00361
%RSD	2.7752	38.985	7.9769	31.061	11.868	1.5666	.92690
#1	.01688	-.00984	.05235	.00692	.00420	40.450	.38716
#2	.01623	-.00558	.05861	.00443	.00355	41.356	.39226
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00219	.00426	563.65	.05130	.03176	.10246	60.354
SDev	.00010	.00022	13.24	.00025	.00069	.00127	1.248
%RSD	4.6434	5.1740	2.3492	.48068	2.1651	1.2368	2.0676
#1	.00226	.00410	554.29	.05113	.03225	.10157	59.471
#2	.00212	.00441	573.01	.05148	.03128	.10336	61.236
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0657	118.16	.08872	-.00794	1.9407	.06876	.32179
SDev	.0445	1.95	.00428	.00106	.1155	.00005	.00829
%RSD	2.1548	1.6499	4.8212	13.321	5.9509	.07324	2.5746
#1	2.0343	116.78	.08569	-.00719	2.0224	.06873	.31593
#2	2.0972	119.53	.09174	-.00869	1.8591	.06880	.32765
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.879	.00080	.00684	.04947	.05648	-.00126	.00754
SDev	.047	.00270	.00680	.00100	.00714	.00235	.00382
%RSD	.39298	338.59	99.316	2.0251	12.633	186.44	50.623
#1	11.846	-.00111	.01165	.05018	.05144	-.00292	.01024
#2	11.912	.00271	.00204	.04876	.06153	.00040	.00484
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00640	.02787	.75587	-.05890	6.4537		
SDev	.00000	.00022	.01329	.00091	.0482		
%RSD	.00000	.79781	1.7588	1.5522	.74756		
#1	-.00640	.02771	.74647	-.05825	6.4196		
#2	-.00640	.02802	.76527	-.05954	6.4878		

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Analysis Report

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Method: 6010B Sample Name: S4536-05  
 Run Time: 09/10/04 16:05:45  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01476	-.00516	.06596	.00548	.00106	57.101	.61428
SDev	.00045	.01123	.00010	.00030	.00248	.841	.00652
%RSD	3.0702	217.86	.15275	5.4902	233.22	1.4724	1.0615
#1	.01444	.00279	.06588	.00527	-.00069	57.695	.61889
#2	.01508	-.01310	.06603	.00569	.00282	56.506	.60967
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00314	.00409	149.11	.07876	.04649	.10114	99.081
SDev	.00006	.00032	3.26	.00123	.00092	.00006	1.701
%RSD	1.7961	7.7710	2.1833	1.5576	1.9677	.05580	1.7166
#1	.00310	.00431	151.41	.07962	.04714	.10110	100.28
#2	.00318	.00386	146.81	.07789	.04585	.10118	97.879
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9868	52.364	.11172	-.00999	.72531	.10890	.44096
SDev	.0401	.686	.00506	.00040	.05005	.00257	.00872
%RSD	2.0189	1.3106	4.5264	3.9598	6.9000	2.3603	1.9782
#1	2.0152	52.849	.11530	-.01027	.76070	.11072	.44713
#2	1.9585	51.879	.10815	-.00971	.68992	.10709	.43479
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.3675	-.00135	.00270	.04573	.07406	-.00451	.00876
SDev	.0437	.00240	.00265	.00022	.00004	.00158	.00138
%RSD	.59318	177.38	98.379	.49088	.05264	35.012	15.745
#1	7.3984	-.00304	.00082	.04557	.07403	-.00339	.00779
#2	7.3366	.00034	.00457	.04588	.07408	-.00562	.00974
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00908	.00319	.69824	-.04028	4.1913		
SDev	.00022	.00089	.01067	.00055	.0398		
%RSD	2.4494	27.918	1.5285	1.3618	.94936		
#1	-.00923	.00361	.70578	-.04067	4.2194		
#2	-.00892	.00256	.69069	-.03989	4.1631		

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Method: 6010B Sample Name: S4536-08  
 Run Time: 09/10/04 16:07:42  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02063	-.01076	.04615	.00138	.00159	33.490	.19944
SDev	.00473	.01872	.00107	.00096	.00602	.277	.00180
%RSD	22.953	173.98	2.3156	69.537	379.41	.82848	.90413

#1	.01728	-.02399	.04690	.00070	-.00267	33.293	.19816
#2	.02397	.00248	.04539	.00206	.00585	33.686	.20071

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00182	.00515	H820.12	.04569	.02480	.09504	56.656
SDev	.00005	.00069	13.32	.00125	.00000	.00013	.914
%RSD	2.9061	13.475	1.6244	2.7370	.00192	.14137	1.6133

#1	.00186	.00466	H810.70	.04481	.02480	.09494	56.009
#2	.00179	.00564	H829.54	.04658	.02480	.09513	57.302

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.5502	155.04	.08773	-.00953	2.2640	.05446	.22417
SDev	.0402	1.79	.00238	.00075	.2627	.00104	.00376
%RSD	1.5771	1.1541	2.7181	7.8672	11.605	1.9075	1.6788

#1	2.5217	153.77	.08941	-.00900	2.4498	.05373	.22151
#2	2.5786	156.30	.08604	-.01006	2.0782	.05520	.22683

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.919	-.00247	.00652	.03122	.05160	-.00071	.00073
SDev	.009	.00641	.00526	.00139	.00091	.00325	.00004
%RSD	.07304	258.96	80.622	4.4501	1.7606	456.22	6.0010

#1	12.926	-.00700	.00280	.03220	.05225	-.00301	.00076
#2	12.912	.00206	.01023	.03024	.05096	.00159	.00070

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00923	.03431	.32289	-.05036	5.2755		
SDev	.00044	.00089	.00412	.01408	.0492		
%RSD	4.8155	2.5918	1.2758	27.955	.93337		

#1	-.00892	.03368	.31998	-.06032	5.2407		
#2	-.00955	.03494	.32580	-.04041	5.3104		

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Analysis Report

QC Standard

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Method: 6010B  
 Run Time: 09/10/04 16:15:26  
 Comment: CRI  
 Mode: CONC    Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02493	.02173	.00594	.01171	.12646	.36278	.43824
SDev	.00319	.00280	.00384	.00248	.00585	.00070	.00026
%RSD	12.794	12.868	64.715	21.206	4.6271	.19416	.05925
#1	.02267	.02371	Q.00866	Q.01347	.13059	.36328	.43806
#2	Q.02718	.01976	Q.00322	.00996	.12232	.36228	.43843
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00926	.00827	9.6800	.02045	.10008	.04871	.18568
SDev	.00015	.00034	.0438	.00042	.00363	.00063	.00001
%RSD	1.6328	4.1641	.45267	2.0601	3.6300	1.2989	.00413
#1	.00915	.00851	9.6490	.02015	.09751	.04826	.18568
#2	.00937	.00803	9.7109	.02074	.10265	.04916	.18567
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03256	10.138	.08285	.01970	8.4720	.10127	.03847
SDev	.00014	.036	.00050	.00069	.0455	.00049	.00000
%RSD	.41845	.35958	.60488	3.4984	.53749	.48732	.00227
#1	.03246	10.112	.08321	.01921	8.4398	.10092	.03847
#2	.03266	10.164	.08250	.02018	8.5042	.10162	.03847
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.9637	.12487	.12644	-.00058	.00719	.01331	.00912
SDev	.0454	.00667	.00421	.00381	.00386	.00224	.00260
%RSD	.50701	5.3422	3.3298	653.53	53.670	16.861	28.557
#1	8.9316	.12958	.12941	.00211	.00992	.01489	.01096
#2	8.9959	.12015	.12346	-.00327	.00446	.01172	.00728
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.19340	.19422	.20695	.19287	.20058		
SDev	.00067	.00045	.00086	.00617	.00359		
%RSD	.34572	.23110	.41681	3.2017	1.7876		
#1	.19388	.19454	.20634	.18851	.19805		
#2	.19293	.19390	.20756	.19724	.20312		

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Method: 6010B Sample Name: ICSA  
 Run Time: 09/10/04 16:20:37  
 Comment: ICSA  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00077	.01378	-.00487	.00037	.00473	441.32	-.00065
SDev	.00716	.02292	.00387	.00977	.00693	.76	.00005
%RSD	926.74	166.26	79.595	2635.9	146.51	.17226	8.0842
#1	-.00429	-.00242	Q-.00761	.00728	-.00017	441.86	-.00061
#2	.00584	Q.02999	-.00213	-.00654	.00963	440.78	-.00069
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00081	.00124	412.75	.01951	.00072	.00563	166.43
SDev	.00010	.00013	3.87	.00141	.00113	.00015	1.25
%RSD	12.279	10.378	.93757	7.2069	157.97	2.7168	.74821
#1	-.00088	.00133	415.49	.02050	-.00008	.00573	167.31
#2	-.00074	.00115	410.02	.01851	.00152	.00552	165.55
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00933	463.28	-.00274	-.01139	-.08051	-.00393	.01112
SDev	.00038	2.13	.00112	.00079	.10367	.00093	.00077
%RSD	4.0704	.46039	40.934	6.9351	128.77	23.764	6.9508
#1	.00960	464.79	-.00195	-.01083	-.00720	-.00459	.01166
#2	.00906	461.77	-.00353	-.01195	-.15381	-.00327	.01057
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06739	.00196	.00709	-.15104	.06631	-.01103	.00446
SDev	.00849	.00627	.00826	.00281	.00441	.01354	.00789
%RSD	12.599	320.71	116.48	1.8621	6.6439	122.75	176.86
#1	.07339	-.00248	.00125	-.15303	.06319	-.00146	.01004
#2	.06138	.00639	.01293	-.14905	.06942	-.02060	-.00112
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.01211	.00601	-.00322	.01461	-.00153		
SDev	.00111	.00179	.00000	.00436	.00051		
%RSD	9.2032	29.857	.00000	29.830	33.506		
#1	-.01290	-.00728	-.00322	.01153	-.00189		
#2	-.01132	.00474	-.00322	.01770	-.00117		

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Analysis Report

QC Standard

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Method: 6010B  
 Run Time: 09/10/04 16:22:55  
 Comment: ICSAB  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09721	.08285	.04532	.04596	.55414	441.67	.47926
SDev	.00462	.00824	.00358	.00580	.00257	.63	.00085
%RSD	4.7480	9.9487	7.8904	12.620	.46364	.14170	.17697
#1	.10047	.08868	.04785	.05006	.55232	442.11	.47986
#2	.09395	.07702	.04279	.04186	.55596	441.23	.47866
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.37189	.81079	412.63	.40047	.42134	.51080	162.67
SDev	.00162	.00254	2.45	.00226	.00182	.00163	.42
%RSD	.43620	.31342	.59412	.56400	.43095	.31885	.25987
#1	.37074	.80899	410.89	.39887	.42005	.51195	162.37
#2	.37304	.81258	414.36	.40206	.42262	.50965	162.97
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.41195	459.94	.81537	.18854	-.09832	.40150	.97026
SDev	.00082	1.04	.00293	.00099	.01260	.00101	.00060
%RSD	.19946	.22541	.35895	.52712	12.810	.25070	.06166
#1	.41137	459.21	.81330	.18784	-.10723	.40079	.97069
#2	.41253	460.67	.81744	.18925	-.08941	.40221	.96984
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05397	.54861	.56202	-.09193	.11194	.03425	.05021
SDev	.00749	.00183	.00405	.00691	.00177	.00340	.00700
%RSD	13.881	.33384	.72006	7.5162	1.5815	9.9250	13.940
#1	.04867	.54731	.55916	-.08704	.11319	.03666	.05516
#2	.05926	.54990	.56488	-.09681	.11069	.03185	.04526
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.01723	.00839	-.00444	.00819	.00753		
SDev	.00033	.00067	.00012	.00363	.00615		
%RSD	1.9402	8.0212	2.7768	44.346	81.670		
#1	-.01699	.00887	-.00452	.00562	.00318		
#2	-.01747	.00792	-.00435	.01076	.01187		

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Analysis Report

QC Standard

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Method: 6010B

Sample Name: CCV

Operator: DR

Run Time: 09/10/04 16:28:17

Comment: CCV

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.9992	5.0343	5.0280	5.1771	5.0431	9.9601	10.076
SDev	.0241	.0669	.0196	.0373	.0027	.0479	.057
%RSD	.48139	1.3285	.39003	.72112	.05311	.48126	.56955
#1	5.0162	5.0816	5.0141	5.1507	5.0450	9.9940	10.116
#2	4.9822	4.9870	5.0418	5.2035	5.0412	9.9262	10.035
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24931	2.4843	24.588	.98813	2.4893	1.2668	5.0020
SDev	.00046	.0074	.136	.00562	.0025	.0061	.0389
%RSD	.18325	.29962	.55338	.56838	.10027	.48521	.77789
#1	.24899	2.4790	24.492	.98416	2.4910	1.2712	4.9745
#2	.24963	2.4896	24.684	.99210	2.4875	1.2625	5.0295
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4839	25.270	2.5114	1.2344	24.717	2.4897	2.5087
SDev	.0090	.085	.0079	.0020	.320	.0000	.0130
%RSD	.36247	.33489	.31646	.15923	1.2935	.00047	.51858
#1	2.4775	25.330	2.5170	1.2331	24.943	2.4897	2.4995
#2	2.4902	25.210	2.5058	1.2358	24.491	2.4897	2.5179
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.696	5.0286	5.0690	5.0158	5.0321	5.1687	5.1796
SDev	.505	.0117	.0153	.0123	.0234	.0071	.0594
%RSD	1.9650	.23178	.30192	.24551	.46489	.13713	1.1462
#1	26.053	5.0369	5.0582	5.0071	5.0156	5.1737	5.1376
#2	25.339	5.0204	5.0798	5.0245	5.0487	5.1636	5.2216
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	4.9274	5.0041	5.0063	4.9988	4.8868		
SDev	.0194	.0206	.0026	.0151	.0343		
%RSD	.39352	.41260	.05292	.30157	.70230		
#1	4.9137	4.9895	5.0044	4.9882	4.9111		
#2	4.9411	5.0187	5.0082	5.0095	4.8626		

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Method: 6010B Sample Name: CCB  
 Run Time: 09/10/04 16:34:34  
 Comment: CCB  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00539	.00042	.00139	-.00014	.00439	.00560	-.00009
SDev	.00335	.00596	.00052	.00514	.00052	.00000	.00007
%RSD	62.150	1414.9	37.576	3568.4	11.962	.02048	75.556
#1	.00302	.00464	.00176	.00349	.00402	.00560	-.00004
#2	.00776	-.00380	.00102	-.00378	.00476	.00560	-.00013
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00060	-.00165	.01451	-.00018	-.00057	-.00380	-.00013
SDev	.00020	.00021	.00000	.00014	.00068	.00024	.03114
%RSD	33.449	12.869	.00000	75.902	120.25	6.2553	23161.
#1	-.00075	-.00181	.01451	-.00028	-.00008	-.00397	-.02215
#2	-.00046	-.00150	.01451	-.00009	-.00105	-.00364	.02188
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00026	.01224	.00181	-.00019	-.13463	.00018	-.00657
SDev	.00000	.00130	.00000	.00045	.06588	.00049	.00001
%RSD	.46221	10.637	.03447	238.12	48.936	272.14	.09704
#1	.00026	.01316	.00181	.00013	-.18121	-.00017	-.00656
#2	.00026	.01132	.00181	-.00050	-.08804	.00053	-.00657
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02324	.00213	.00572	-.00948	.00482	.00529	-.00466
SDev	.00000	.00295	.00748	.00052	.00105	.00059	.00741
%RSD	.00000	138.68	130.90	5.5053	21.682	11.119	159.04
#1	.02324	.00421	.00043	-.00985	.00556	.00571	.00058
#2	.02324	.00004	.01101	-.00911	.00408	.00488	-.00990
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.01106	.01458	.00105	.00370	.00209		
SDev	.01672	.00988	.00012	.00418	.01076		
%RSD	151.16	67.715	11.716	113.02	513.87		
#1	.02288	.02156	.00096	.00074	.00970		
#2	-.00076	.00760	.00114	.00665	-.00551		

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Analysis Report

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Method: 6010B Sample Name: S4480-07X10  
 Run Time: 09/10/04 16:41:18  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00147	.00781	.00144	-.00092	.00071	3.3421	.01892
SDev	.00173	.00274	.00025	.00130	.00101	.0357	.00019
%RSD	117.96	35.056	17.512	142.15	141.53	1.0688	1.0237
#1	.00024	.00587	.00126	.00000	.00143	3.3673	.01906
#2	.00269	.00974	.00162	-.00184	-.00000	3.3168	.01879
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00071	-.00232	138.78	.00562	.00151	.00662	6.7551
SDev	.00005	.00018	.42	.00043	.00092	.00032	.0477
%RSD	7.4512	7.6847	.29946	7.6008	60.885	4.8561	.70618
#1	.00075	-.00220	139.07	.00532	.00215	.00685	6.7888
#2	.00067	-.00245	138.48	.00592	.00086	.00639	6.7213
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.32866	19.482	.01161	-.00182	-.22064	.00643	.01620
SDev	.00152	.119	.00330	.00066	.12512	.00100	.00104
%RSD	.46272	.60828	28.426	36.487	56.706	15.535	6.4107
#1	.32973	19.566	.00927	-.00229	-.30911	.00572	.01547
#2	.32758	19.398	.01394	-.00135	-.13217	.00714	.01693
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.85133	-.00070	.00034	-.01018	.00524	.00307	-.00450
SDev	.00099	.00123	.00550	.00045	.00015	.00092	.00241
%RSD	.11667	176.66	1630.5	4.4239	2.9134	29.836	53.156
#1	.85203	-.00157	.00423	-.01050	.00513	.00242	-.00280
#2	.85062	.00017	-.00355	-.00986	.00535	.00372	-.00621
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00900	-.00137	.05262	-.01222	.81393		
SDev	.00122	.00022	.00000	.00219	.01144		
%RSD	13.590	16.186	.00000	17.950	1.4055		
#1	-.00813	-.00122	.05262	-.01377	.82202		
#2	-.00986	-.00153	.05262	-.01067	.80584		

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Method: 6010B Sample Name: S4482-02X10

Operator: DR

Run Time: 09/10/04 16:43:12

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00537	.00331	.00111	-.00010	.00006	3.0400	.01292
SDev	.00063	.00240	.00049	.00430	.00514	.0008	.00013
%RSD	11.750	72.572	44.694	4453.2	8258.8	.02508	.99856
#1	.00582	.00161	.00146	-.00313	-.00357	3.0395	.01301
#2	.00493	.00500	.00076	.00294	.00370	3.0405	.01283
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00068	-.00214	117.77	.00459	.00151	.00640	7.8229
SDev	.00000	.00007	.98	.00071	.00046	.00023	.0477
%RSD	.16191	3.3789	.83514	15.457	30.378	3.6766	.60965
#1	.00068	-.00219	118.47	.00509	.00183	.00624	7.8566
#2	.00067	-.00209	117.08	.00408	.00118	.00657	7.7892
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47789	15.631	.00956	-.00158	-.30366	.00612	.01128
SDev	.00290	.087	.00258	.00025	.10587	.00050	.00024
%RSD	.60718	.55819	27.000	15.745	34.863	8.1218	2.0904
#1	.47994	15.693	.01138	-.00140	-.37852	.00577	.01145
#2	.47584	15.569	.00773	-.00175	-.22880	.00647	.01111
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.77302	-.00009	-.00283	-.00476	.00204	.00299	-.00344
SDev	.01341	.00462	.00620	.00068	.00040	.00815	.00237
%RSD	1.7346	4919.5	219.15	14.372	19.659	272.46	69.045
#1	.78250	-.00336	-.00721	-.00428	.00232	-.00277	-.00511
#2	.76354	.00317	.00155	-.00524	.00176	.00875	-.00176
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00837	-.00357	.03673	-.01028	.92295		
SDev	.00011	.00111	.00025	.00421	.00149		
%RSD	1.3282	31.099	.67965	40.893	.16167		
#1	-.00845	-.00279	.03691	-.01326	.92401		
#2	-.00829	-.00436	.03656	-.00731	.92190		

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Method: 6010B

Sample Name: S4482-05X10

Operator: DR

Run Time: 09/10/04 16:45:39

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00669	.00607	.00072	-.00470	.00285	2.8642	.01147
SDev	.00693	.00615	.00010	.00197	.00177	.0061	.00000
%RSD	103.57	101.33	13.295	41.790	62.130	.21251	.00970
#1	.01159	.01042	.00065	-.00609	.00160	2.8685	.01147
#2	.00179	.00172	.00079	-.00331	.00410	2.8599	.01147
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00100	-.00188	128.80	.00455	.00037	.00639	5.7772
SDev	.00025	.00024	.39	.00029	.00114	.00009	.1113
%RSD	25.432	12.831	.30475	6.3211	307.62	1.3592	1.9261
#1	.00082	-.00205	129.07	.00434	.00118	.00645	5.8558
#2	.00118	-.00171	128.52	.00475	-.00044	.00633	5.6985
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24885	14.615	.01061	-.00173	-.30298	.00639	.01994
SDev	.00166	.073	.00058	.00041	.00866	.00000	.00054
%RSD	.66765	.49896	5.4264	23.468	2.8588	.06148	2.7077
#1	.25002	14.667	.01021	-.00202	-.30911	.00639	.01956
#2	.24767	14.564	.01102	-.00145	-.29686	.00639	.02033
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.65046	.00175	.00186	-.00989	.00402	.00483	-.01116
SDev	.00397	.00339	.00146	.00673	.00321	.00022	.00298
%RSD	.61079	193.75	78.720	68.038	80.059	4.6285	26.668
#1	.64765	-.00065	.00289	-.01464	.00629	.00467	-.01327
#2	.65327	.00414	.00082	-.00513	.00174	.00499	-.00906
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.01081	-.00200	.03245	-.00110	.55860		
SDev	.00156	.00067	.00006	.00658	.01641		
%RSD	14.402	33.308	.19232	596.09	2.9383		
#1	-.01191	-.00247	.03241	-.00576	.54699		
#2	-.00971	-.00153	.03250	.00355	.57020		

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Method: 6010B Sample Name: S4482-16X10  
 Run Time: 09/10/04 16:47:34  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01510	.01578	.00248	-.00465	.00205	3.9457	.03444
SDev	.00236	.00513	.00134	.00365	.00094	.0061	.00032
%RSD	15.644	32.508	54.123	78.511	45.716	.15404	.94063
#1	.01343	.01215	.00343	-.00724	.00139	3.9414	.03467
#2	.01677	.01941	.00153	-.00207	.00271	3.9500	.03421
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00092	-.00186	133.75	.00649	.00393	.01071	11.184
SDev	.00005	.00059	.54	.00014	.00023	.00016	.032
%RSD	5.3692	31.722	.40394	2.2005	5.8230	1.5039	.28434
#1	.00096	-.00227	134.13	.00659	.00377	.01060	11.161
#2	.00089	-.00144	133.37	.00639	.00409	.01083	11.206
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.39972	10.629	.01547	-.00196	-.33633	.00696	.03314
SDev	.00097	.012	.00029	.00044	.10009	.00050	.00000
%RSD	.24150	.11026	1.8578	22.532	29.760	7.1674	.00885
#1	.40040	10.621	.01568	-.00165	-.26555	.00732	.03314
#2	.39904	10.637	.01527	-.00227	-.40710	.00661	.03314
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.97318	-.00049	.00393	-.00718	.00531	.00079	-.00907
SDev	.00546	.00154	.00026	.00565	.00081	.00241	.00442
%RSD	.56133	315.75	6.6416	78.670	15.159	305.41	48.671
#1	.97704	-.00157	.00411	-.00319	.00474	-.00092	-.01219
#2	.96932	.00060	.00375	-.01118	.00588	.00250	-.00595
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00955	-.00043	.02279	-.00834	.88849		
SDev	.00289	.00111	.00025	.00585	.02139		
%RSD	30.270	258.31	1.0956	70.118	2.4071		
#1	-.00750	-.00122	.02261	-.00421	.90361		
#2	-.01159	.00036	.02296	-.01248	.87336		

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## Analysis Report

Method: 6010B

Sample Name: S4482-22X10

Operator: DR

Run Time: 09/10/04 16:49:28

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00638	-.00433	-.00174	-.00192	.00024	2.6616	.02751
SDev	.00425	.00580	.00112	.00275	.00297	.0038	.00006
%RSD	66.567	133.97	64.361	143.73	1247.0	.14246	.23327
#1	.00338	-.00023	-.00095	-.00386	.00234	2.6589	.02755
#2	.00939	-.00843	-.00253	.00003	-.00186	2.6643	.02746
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00078	-.00158	145.52	.00506	.00377	.00724	8.6041
SDev	.00015	.00036	.58	.00028	.00092	.00040	.0556
%RSD	19.625	23.030	.39983	5.5741	24.283	5.5463	.64654
#1	.00067	-.00133	145.93	.00526	.00442	.00752	8.6434
#2	.00089	-.00184	145.11	.00486	.00312	.00695	8.5648
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.29583	17.739	.01035	-.00210	-.32816	.00686	.13859
SDev	.00194	.055	.00072	.00002	.04235	.00050	.00152
%RSD	.65421	.30833	6.9368	1.1455	12.904	7.3327	1.0942
#1	.29719	17.777	.00985	-.00208	-.35811	.00721	.13967
#2	.29446	17.700	.01086	-.00212	-.29822	.00650	.13752
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.77618	-.00296	.00344	-.01178	.00127	.00449	-.00681
SDev	.01192	.00553	.00215	.00127	.00104	.00229	.00312
%RSD	1.5356	186.77	62.396	10.795	81.910	51.031	45.847
#1	.78461	.00095	.00192	-.01088	.00201	.00287	-.00902
#2	.76775	-.00687	.00496	-.01268	.00054	.00612	-.00461
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00931	-.00216	.03784	-.01701	.71651		
SDev	.00078	.00044	.00031	.00677	.00696		
%RSD	8.3560	20.589	.82479	39.779	.97183		
#1	-.00876	-.00185	.03806	-.01222	.71158		
#2	-.00986	-.00247	.03761	-.02179	.72143		

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Method: 6010B  
 Run Time: 09/10/04 16:51:40  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01225	.00679	.00267	-.00494	.00212	1.7688	.01596
SDev	.00315	.00581	.00373	.00072	.00054	.0046	.00000
%RSD	25.706	85.541	139.39	14.531	25.551	.25747	.00100
#1	.01448	.01089	.00531	-.00443	.00174	1.7656	.01596
#2	.01002	.00268	.00004	-.00545	.00250	1.7720	.01596
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00075	-.00188	136.46	.00516	.00215	.00575	5.3051
SDev	.00000	.00053	.50	.00028	.00046	.00048	.0159
%RSD	.14699	28.208	.36376	5.4898	21.261	8.2812	.29951
#1	.00075	-.00150	136.81	.00536	.00248	.00541	5.3163
#2	.00075	-.00225	136.11	.00496	.00183	.00608	5.2939
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24219	22.042	.00996	-.00202	-.36015	.00460	.03164
SDev	.00083	.020	.00064	.00035	.01059	.00050	.00001
%RSD	.34239	.08863	6.4745	17.238	2.9395	10.887	.01871
#1	.24277	22.028	.01042	-.00178	-.35266	.00496	.03164
#2	.24160	22.056	.00951	-.00227	-.36763	.00425	.03164
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50894	.00296	-.00278	-.00795	.00598	.00180	-.01001
SDev	.00050	.00077	.00008	.00218	.00450	.00034	.00139
%RSD	.09758	25.988	2.9947	27.464	75.249	19.075	13.885
#1	.50859	.00242	-.00283	-.00640	.00916	.00156	-.00903
#2	.50929	.00351	-.00272	-.00949	.00280	.00205	-.01099
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00884	-.00342	.01264	-.00628	.23785		
SDev	.00056	.00133	.00013	.00878	.00647		
%RSD	6.2869	39.035	.98788	139.85	2.7185		
#1	-.00845	-.00436	.01255	-.01248	.23328		
#2	-.00923	-.00247	.01272	-.00007	.24242		

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Method: 6010B Sample Name: S4536-09

Operator: DR

Run Time: 09/10/04 16:53:31

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00823	-.01014	.01872	.00107	.00206	11.964	.09024
SDev	.00378	.01336	.00550	.00018	.00158	.081	.00019
%RSD	45.957	131.68	29.382	16.792	76.536	.67355	.20956

#1	.00556	-.00070	.02261	.00094	.00094	11.907	.09010
#2	.01091	-.01959	.01483	.00120	.00317	12.021	.09037

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00135	-.00186	253.56	.01663	.01073	.03789	24.503
SDev	.00031	.00062	2.79	.00002	.00023	.00059	.509
%RSD	22.768	33.229	1.0991	.09296	2.1338	1.5502	2.0759

#1	.00156	-.00230	251.59	.01665	.01057	.03747	24.144
#2	.00113	-.00142	255.53	.01662	.01089	.03830	24.863

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.3540	96.751	.02580	-.00387	.94240	.02696	.15360
SDev	.0178	.975	.00008	.00001	.01636	.00102	.00239
%RSD	1.3171	1.0081	.31731	.21450	1.7361	3.7848	1.5566

#1	1.3414	96.061	.02586	-.00387	.93083	.02624	.15191
#2	1.3666	97.440	.02575	-.00388	.95397	.02768	.15529

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.8302	.00174	-.00052	.01555	.01830	-.00417	.00199
SDev	.0065	.00202	.000878	.00190	.00730	.00794	.00384
%RSD	.16855	116.04	1698.7	12.214	39.873	190.55	193.35

#1	3.8257	.00317	-.00673	.01690	.02347	-.00979	.00470
#2	3.8348	.00031	.00569	.01421	.01314	.00145	-.00073

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00813	.00570	.31923	-.02580	5.3251
SDev	.00000	.00000	.00406	.00530	.0716
%RSD	.00000	.00000	1.2708	20.553	1.3450

#1	-.00813	.00570	.31636	-.02955	5.3758
#2	-.00813	.00570	.32209	-.02205	5.2745

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Method: 6010B

Sample Name: S4536-10

Operator: DR

Run Time: 09/10/04 16:55:23

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02278	-.01873	.07411	.00556	.00191	64.218	.78026
SDev	.00064	.00340	.00360	.00518	.00134	.228	.00181
%RSD	2.7913	18.142	4.8543	93.175	70.400	.35506	.23144
#1	.02234	-.01633	.07157	.00190	.00096	64.057	.77899
#2	.02323	-.02113	.07666	.00922	.00286	64.380	.78154
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00380	.00887	239.81	.08566	.05070	.11680	109.83
SDev	.00000	.00094	.77	.00016	.00229	.00020	.65
%RSD	.05647	10.650	.32253	.18840	4.5156	.17194	.59344
#1	.00379	.00954	239.27	.08578	.05232	.11694	109.37
#2	.00380	.00820	240.36	.08555	.04908	.11666	110.29
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0901	69.700	.12591	-.00948	5.7211	.12031	.50951
SDev	.0071	.221	.00109	.00233	.1165	.00097	.00419
%RSD	.33818	.31761	.86460	24.609	2.0355	.80984	.82292
#1	2.0851	69.544	.12668	-.00783	5.6388	.12100	.50655
#2	2.0951	69.857	.12514	-.01113	5.8035	.11962	.51248
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.2283	-.00039	.00331	.06060	.07886	-.01543	.01424
SDev	.0065	.00227	.00052	.00057	.00568	.00750	.00402
%RSD	.06996	579.80	15.768	.94423	7.2019	48.590	28.233
#1	9.2328	-.00200	.00368	.06101	.07485	-.02073	.01139
#2	9.2237	.00122	.00294	.06020	.08288	-.01013	.01708
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00900	.00507	.61730	-.05088	7.7131		
SDev	.00056	.00044	.00306	.00713	.0219		
%RSD	6.1771	8.7669	.49542	14.015	.28373		
#1	-.00939	.00539	.61514	-.05592	7.6977		
#2	-.00861	.00476	.61946	-.04584	7.7286		

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Analysis Report

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Method: 6010B Sample Name: S4553-01  
 Run Time: 09/10/04 16:57:20  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00758	-.00698	1.8849	.00487	.00394	6.7576	.10861
SDev	.00173	.00683	.0025	.00375	.00524	.0190	.00032
%RSD	22.824	97.830	.13288	77.094	133.08	.28110	.29746
#1	.00636	-.01181	1.8867	.00221	.00023	6.7710	.10884
#2	.00880	-.00215	1.8831	.00752	.00764	6.7441	.10838
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00112	-.00128	22.677	.02332	.01008	.25146	36.109
SDev	.00000	.00007	.002	.00057	.00069	.00008	.056
%RSD	.09716	5.7570	.01018	2.4298	6.8116	.03278	.15410
#1	.00113	-.00133	22.675	.02372	.00960	.25152	36.148
#2	.00112	-.00123	22.678	.02292	.01057	.25141	36.069
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.41102	3.4579	.01594	-.00349	.29385	.02991	.12529
SDev	.00014	.0664	.00036	.00157	.21943	.00050	.00050
%RSD	.03306	1.9206	2.2425	45.019	74.676	1.6608	.39983
#1	.41092	3.4109	.01619	-.00460	.13869	.02956	.12564
#2	.41111	3.5049	.01569	-.00238	.44901	.03026	.12494
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.3103	.00233	.00394	1.8838	1.8834	-.00291	.00716
SDev	.0025	.00523	.00525	.0029	.0052	.00149	.00488
%RSD	.18950	224.14	133.23	.15659	.27757	51.093	68.261
#1	1.3120	-.00137	.00023	1.8817	1.8871	-.00397	.00370
#2	1.3085	.00603	.00766	1.8859	1.8797	-.00186	.01061
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00640	-.00750	.41460	.05992	4.0263		
SDev	.00200	.00089	.00013	.00073	.0095		
%RSD	31.245	11.850	.03011	1.2206	.23471		
#1	-.00782	-.00688	.41468	.06044	4.0330		
#2	-.00499	-.00813	.41451	.05940	4.0196		

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Method: 6010B

Sample Name: S4553-02

Operator: DR

Run Time: 09/10/04 17:00:32

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02826	-.01400	.14915	.00332	.00132	12.654	.08518
SDev	.00992	.00245	.01001	.00247	.00106	.013	.00040
%RSD	35.096	17.488	6.7126	74.454	80.706	.10169	.46678

#1	.03527	-.01573	.15623	.00157	.00207	12.645	.08546
#2	.02124	-.01227	.14207	.00507	.00057	12.663	.08489

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00163	.00132	159.58	.05493	.01542	.14299	50.029
SDev	.00034	.00040	.10	.00471	.00275	.00098	.922
%RSD	21.213	30.655	.06366	8.5820	17.812	.68540	1.8430

#1	.00187	.00160	159.65	.05826	.01736	.14369	49.377
#2	.00138	.00103	159.51	.05159	.01348	.14230	50.681

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.77706	85.996	.04035	-.00137	1.2799	.07861	.26540
SDev	.00169	.040	.00231	.00472	.6978	.00447	.00211
%RSD	.21801	.04694	5.7321	345.57	54.515	5.6887	.79590

#1	.77586	86.024	.04199	.00197	1.7733	.08177	.26391
#2	.77826	85.967	.03872	-.00470	.78656	.07545	.26690

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4273	.00076	-.00077	.13509	.15417	.00004	.00316
SDev	.0248	.00326	.00333	.00158	.01422	.00269	.00236
%RSD	1.0230	429.84	435.25	1.1729	9.2231	6719.0	74.738

#1	2.4449	.00306	-.00312	.13621	.16422	-.00187	.00149
#2	2.4098	-.00154	.00159	.13397	.14411	.00195	.00483

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00491	-.00798	.74519	-.02373	4.8679
SDev	.00011	.00022	.00580	.00274	.1094
%RSD	2.2637	2.7873	.77890	11.558	2.2478

#1	-.00483	-.00782	.74109	-.02567	4.9453
#2	-.00499	-.00813	.74930	-.02179	4.7905

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Method: 6010B Sample Name: CCV  
Run Time: 09/10/04 17:02:32  
Comment: CCV  
Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.2636	5.2494	5.1272	5.4555	5.1854	10.392	10.369
SDev	.0198	.0833	.0217	.0060	.0115	.019	.035
%RSD	.37705	1.5864	.42273	.10981	.22112	.18433	.33336
#1	5.2776	5.3083	5.1425	5.4598	5.1935	10.405	10.393
#2	5.2495	5.1905	5.1119	5.4513	5.1773	10.378	10.344
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25719	2.5709	25.720	1.0035	2.5159	1.2470	5.0395
SDev	.00120	.0175	.215	.0063	.0179	.0012	.1193
%RSD	.46691	.67959	.83485	.62293	.70976	.09536	2.3680
#1	.25804	2.5833	25.872	1.0080	2.5285	1.2462	4.9551
#2	.25634	2.5586	25.568	.99911	2.5032	1.2479	5.1239
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.5002	25.630	2.5538	1.3031	25.976	2.4878	2.5926
SDev	.0106	.057	.0093	.0107	.052	.0075	.0161
%RSD	.42507	.22355	.36229	.81818	.20008	.30176	.62109
#1	2.5077	25.671	2.5604	1.3107	26.013	2.4931	2.6040
#2	2.4927	25.590	2.5473	1.2956	25.939	2.4825	2.5812
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.352	5.2402	5.0726	5.1112	5.1330	5.4315	5.4657
SDev	.047	.0051	.0243	.0206	.0425	.0229	.0204
%RSD	.17904	.09646	.47920	.40348	.82815	.42085	.37312
#1	26.318	5.2437	5.0898	5.0966	5.1630	5.4154	5.4801
#2	26.385	5.2366	5.0554	5.1258	5.1029	5.4477	5.4513
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	5.1624	5.2178	4.9920	5.0363	5.4932		
SDev	.0166	.0165	.0102	.0108	.0159		
%RSD	.32086	.31532	.20505	.21420	.28974		
#1	5.1742	5.2294	4.9992	5.0440	5.5045		
#2	5.1507	5.2061	4.9847	5.0287	5.4820		

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Method: 6010B Sample Name: CCB  
 Run Time: 09/10/04 17:05:41  
 Comment: CCB  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00662	.00316	-.00238	-.00028	.00742	.01490	-.00252
SDev	.00472	.00752	.00229	.00228	.00295	.00227	.00058
%RSD	71.315	238.15	96.214	812.40	39.768	15.239	23.106
#1	.00996	.00847	-.00400	.00133	.00534	.01650	-.00293
#2	.00328	-.00216	-.00076	-.00189	.00951	.01329	-.00211
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00087	-.00143	.04714	.00010	-.00060	-.00543	-.02835
SDev	.00005	.00091	.00000	.00028	.00069	.00008	.00793
%RSD	6.2049	63.412	.00000	277.44	115.12	1.4664	27.970
#1	.00091	-.00207	.04714	.00030	-.00011	-.00548	-.03396
#2	.00083	-.00079	.04714	-.00010	-.00108	-.00537	-.02274
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00036	.01408	-.00083	-.00067	-.68680	-.00128	-.00746
SDev	.00028	.00130	.00158	.00000	.01829	.00150	.00025
%RSD	76.106	9.2508	189.60	.51071	2.6625	117.51	3.3920
#1	-.00056	.01316	-.00195	-.00067	-.67387	-.00234	-.00764
#2	-.00017	.01500	.00028	-.00067	-.69974	-.00022	-.00728
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00024	.00738	.00431	-.01570	.00227	.00557	-.00500
SDev	.00447	.00477	.00068	.00213	.00450	.00386	.00149
%RSD	1862.3	64.572	15.775	13.575	198.23	69.401	29.856
#1	.00292	.00401	.00479	-.01419	-.00091	.00830	-.00394
#2	-.00340	.01075	.00383	-.01721	.00545	.00284	-.00606
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00617	.00995	-.00043	.00484	.01734		
SDev	.01112	.00956	.00025	.00439	.00995		
%RSD	180.09	96.125	58.398	90.609	57.380		
#1	.01403	.01671	-.00060	.00174	.02437		
#2	-.00169	.00319	-.00025	.00795	.01030		

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Method: 6010B Sample Name: S4553-03  
 Run Time: 09/10/04 17:07:33  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03961	-.02111	.63476	.01937	.00814	26.901	.38430
SDev	.00366	.00772	.01570	.00132	.00261	.364	.00345
%RSD	9.2322	36.583	2.4728	6.8360	32.036	1.3529	.89844
#1	.03702	-.01565	.62366	.01843	.00629	26.643	.38186
#2	.04220	-.02657	.64585	.02031	.00998	27.158	.38674
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00215	.01512	36.519	.06712	.08081	1.9605	225.77
SDev	.00012	.00107	.776	.00396	.00412	.0154	4.25
%RSD	5.5162	7.0745	2.1243	5.8985	5.0998	.78758	1.8836
#1	.00223	.01588	35.971	.06992	.08373	1.9496	222.76
#2	.00206	.01436	37.068	.06432	.07790	1.9715	228.77
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4632	12.453	.12242	.01339	1.6624	.10334	.30459
SDev	.0368	.026	.00034	.03666	.8421	.01534	.00515
%RSD	1.4923	.20914	.28196	273.85	50.657	14.842	1.6894
#1	2.4372	12.435	.12218	.03930	2.2579	.11419	.30096
#2	2.4892	12.472	.12267	-.01253	1.0669	.09250	.30823
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.2873	.00508	.01106	.62381	.63822	-.00426	.02947
SDev	.0084	.00296	.01376	.00051	.02379	.00476	.00422
%RSD	.25682	58.401	124.45	.08238	3.7274	111.69	14.323
#1	3.2933	.00717	.00133	.62417	.62140	-.00090	.02649
#2	3.2814	.00298	.02079	.62344	.65504	-.00763	.03246
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00530	-.02040	.80530	.87443	5.6504		
SDev	.00111	.00133	.01342	.00841	.0642		
%RSD	20.960	6.5404	1.6663	.96185	1.1355		
#1	-.00452	-.01945	.79581	.86849	5.6051		
#2	-.00609	-.02134	.81479	.88038	5.6958		

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Method: 6010B Sample Name: S4553-04  
 Run Time: 09/10/04 17:09:23  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00288	-.00544	.25227	.00244	.00225	12.413	.14316
SDev	.00283	.00414	.00170	.00018	.00058	.056	.00033
%RSD	98.283	76.046	.67326	7.2917	25.853	.44783	.22744
#1	.00488	-.00251	.25107	.00257	.00184	12.374	.14293
#2	.00088	-.00836	.25347	.00232	.00266	12.452	.14339
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00148	-.00358	68.396	.02171	.00830	.05802	22.677
SDev	.00008	.00289	.145	.00341	.00229	.00118	.199
%RSD	5.3597	80.761	.21267	15.719	27.569	2.0377	.87686
#1	.00143	-.00562	68.499	.01930	.00668	.05718	22.817
#2	.00154	-.00154	68.293	.02412	.00992	.05885	22.536
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.64173	16.362	.02356	-.01683	.40682	.03043	.13069
SDev	.00179	.043	.00316	.02124	.17516	.01000	.00029
%RSD	.27844	.26263	13.409	126.18	43.057	32.856	.22065
#1	.64047	16.332	.02132	-.03185	.28296	.02336	.13048
#2	.64299	16.393	.02579	-.00181	.53067	.03750	.13089
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3220	-.00144	.00644	.24693	.25293	.00007	.00183
SDev	.0258	.00230	.00287	.00104	.00307	.00388	.00167
%RSD	1.1122	159.39	44.532	.42253	1.2127	5539.1	91.409
#1	2.3037	-.00307	.00847	.24767	.25076	.00281	.00065
#2	2.3402	.00018	.00441	.24620	.25510	-.00267	.00301
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00656	-.00263	.64515	-.03356	4.5880		
SDev	.00111	.00022	.00000	.00384	.0328		
%RSD	16.942	8.4494	.00000	11.443	.71549		
#1	-.00578	-.00279	.64515	-.03627	4.5648		
#2	-.00735	-.00247	.64515	-.03084	4.6112		

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Method: 6010B Sample Name: S4553-05  
 Run Time: 09/10/04 17:11:24  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02813	-.01214	1.6082	.01007	.00193	38.896	.62116
SDev	.00425	.00345	.0236	.00503	.00023	.261	.00258
%RSD	15.094	28.376	1.4674	49.938	11.996	.67003	.41544
#1	.03113	-.01458	1.5915	.00652	.00177	38.712	.61933
#2	.02513	-.00971	1.6248	.01363	.00210	39.081	.62298
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00383	.00669	106.21	.06611	.04083	.85051	102.03
SDev	.00013	.00233	1.19	.00201	.00481	.00037	.85
%RSD	3.4589	34.866	1.1238	3.0435	11.774	.04306	.83363
#1	.00392	.00834	105.37	.06753	.04423	.85025	101.43
#2	.00374	.00504	107.06	.06469	.03743	.85077	102.63
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0294	15.326	.08150	.00551	1.7073	.12137	.82886
SDev	.0133	.057	.00174	.01947	.4052	.00897	.00669
%RSD	.65487	.37386	2.1325	353.40	23.732	7.3906	.80693
#1	2.0200	15.286	.08273	.01928	1.9938	.12772	.82413
#2	2.0388	15.367	.08027	-.00826	1.4208	.11503	.83359
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.6183	-.00275	.00812	1.6111	1.6047	-.00644	.01662
SDev	.1122	.00196	.00324	.0096	.0306	.00098	.00817
%RSD	1.3023	71.279	39.835	.59470	1.9067	15.176	49.168
#1	8.6977	-.00414	.01041	1.6043	1.5831	-.00575	.01084
#2	8.5389	-.00137	.00583	1.6179	1.6263	-.00713	.02240
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00892	.00429	1.7212	-.02063	14.182		
SDev	.00189	.00111	.0123	.00201	.113		
%RSD	21.177	25.937	.71433	9.7507	.79964		
#1	.01026	.00350	1.7125	-.01920	14.101		
#2	.00759	.00507	1.7299	-.02205	14.262		

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Analysis Report

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Method: 6010B Sample Name: S4553-06  
 Run Time: 09/10/04 17:13:22  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05046	-.02048	.89292	.00756	.00490	58.911	.77527
SDev	.00379	.00306	.00402	.00273	.00402	.012	.00014
%RSD	7.5067	14.941	.45072	36.066	82.001	.02059	.01736
#1	.05314	-.01832	.89576	.00949	.00774	58.902	.77517
#2	.04778	-.02265	.89007	.00563	.00206	58.919	.77536
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00343	.00811	119.43	.17048	.06462	.37550	124.47
SDev	.00006	.00071	.61	.00254	.00046	.00098	.52
%RSD	1.7027	8.7640	.51228	1.4901	.70919	.26245	.41503
#1	.00339	.00862	119.87	.17227	.06495	.37619	124.83
#2	.00348	.00761	119.00	.16868	.06430	.37480	124.10
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.1503	22.253	.11659	-.00575	2.0449	.17019	.92117
SDev	.0113	.082	.00195	.00661	.3609	.00352	.00216
%RSD	.52754	.36867	1.6694	115.06	17.650	2.0715	.23416
#1	2.1583	22.311	.11521	-.00107	2.3001	.17269	.92270
#2	2.1422	22.195	.11797	-.01042	1.7897	.16770	.91965
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.693	.00301	.00549	.87233	.90110	-.00257	.01083
SDev	.084	.00365	.00475	.00637	.00907	.01105	.00143
%RSD	.53481	121.32	86.647	.73075	1.0071	429.36	13.190
#1	15.753	.00559	.00885	.86782	.90751	.00524	.00982
#2	15.634	.00043	.00212	.87684	.89468	-.01039	.01184
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00098	.00413	4.6406	-.26679	6.7502		
SDev	.00100	.00133	.0145	.00201	.0199		
%RSD	102.05	32.309	.31337	.75387	.29473		
#1	-.00169	.00507	4.6509	-.26821	6.7643		
#2	-.00027	.00319	4.6303	-.26537	6.7361		

09/10/04

Method: 6010B

Sample Name: PB00854BL

Operator: DR

Run Time: 09/10/04 17:15:33

Comment: PBW

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	.00316	-.00399	-.00390	.00453	.03371	-.00357
SDev	.00252	.00752	.00026	.00383	.00137	.01216	.00026
%RSD	4525.7	238.08	6.4825	98.028	30.373	36.074	7.2444
#1	-.00184	-.00216	-.00381	-.00120	.00355	.04231	-.00339
#2	.00173	.00847	-.00418	-.00661	.00550	.02511	-.00376
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00098	-.00239	.04224	.00010	-.00044	-.00554	.01099
SDev	.00000	.00000	.02078	.00057	.00000	.00008	.00000
%RSD	.00024	.00001	49.190	560.67	.08562	1.4361	.01616
#1	.00098	-.00239	.05694	-.00030	-.00044	-.00548	.01099
#2	.00098	-.00239	.02755	.00050	-.00044	-.00559	.01098
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00026	.01039	.00160	-.00138	-.64597	-.00092	-.00747
SDev	.00014	.00391	.00186	.00011	.11645	.00000	.00026
%RSD	52.292	37.587	116.44	8.2742	18.028	.11222	3.4310
#1	-.00017	.01316	.00028	-.00146	-.72832	-.00092	-.00765
#2	-.00036	.00763	.00292	-.00130	-.56363	-.00092	-.00729
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01007	.00531	-.00025	-.01327	-.00136	.00316	-.00913
SDev	.00745	.00399	.00387	.00335	.00128	.01046	.00037
%RSD	73.956	75.174	1531.4	25.217	94.178	331.01	4.0962
#1	-.01534	.00249	.00249	-.01091	-.00227	.01055	-.00886
#2	-.00481	.00814	-.00299	-.01564	-.00045	-.00424	-.00939
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.01065	-.00719	-.00038	-.00537	.01909		
SDev	.00089	.00222	.00081	.00201	.00149		
%RSD	8.3513	30.920	211.64	37.448	7.8143		
#1	-.01002	-.00562	-.00019	-.00395	.02015		
#2	-.01128	-.00876	-.00096	-.00679	.01804		

09/10/04

Method: 6010B

Sample Name: PB00854BS

Operator: DR

Run Time: 09/10/04 17:17:51

Comment: LCSW

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.77372	1.9375	.95046	1.7308	.79147	1.8589	2.3146
SDev	.00379	.0082	.00739	.0207	.00218	.0069	.0103
%RSD	.48928	.42256	.77705	1.1982	.27515	.36944	.44462
#1	.77104	1.9317	.94524	1.7162	.78993	1.8541	2.3074
#2	.77640	1.9433	.95568	1.7455	.79301	1.8638	2.3219
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18474	.20357	5.1359	.41672	.19536	.30481	3.0912
SDev	.00162	.00193	.0716	.00398	.00183	.00008	.0397
%RSD	.87626	.95017	1.3936	.95391	.93671	.02723	1.2844
#1	.18359	.20220	5.0853	.41391	.19406	.30475	3.0631
#2	.18588	.20493	5.1866	.41954	.19665	.30487	3.1193
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.21226	2.0049	.50649	.07740	2.8009	.30545	.23479
SDev	.00235	.0143	.00853	.00047	.1713	.00201	.00382
%RSD	1.1066	.71449	1.6846	.61095	6.1162	.65769	1.6273
#1	.21060	1.9947	.50046	.07707	2.6798	.30403	.23209
#2	.21392	2.0150	.51253	.07774	2.9221	.30687	.23749
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.4622	.80255	.76607	.96329	.94206	1.7266	1.7312
SDev	.0303	.00048	.00750	.00367	.00924	.0135	.0242
%RSD	.32015	.05957	.97870	.38073	.98102	.78351	1.3976
#1	9.4836	.80289	.76077	.96070	.93552	1.7170	1.7141
#2	9.4407	.80222	.77137	.96588	.94859	1.7361	1.7483
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.41218	.27814	.20792	.67869	Q.92999		
SDev	.00656	.00156	.00144	.00951	.00249		
%RSD	1.5913	.55952	.69040	1.4009	.26741		
#1	.40754	.27704	.20691	.67197	Q.93174		
#2	.41682	.27924	.20894	.68541	Q.92823		

DR 9/10/04

Method: 6010B

Sample Name: PB00854BSD

Operator: DR

Run Time: 09/10/04 17:19:48

Comment: LCSWD

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.78063	1.9143	.96096	1.7539	.79898	1.8649	2.3212
SDev	.01417	.0075	.00098	.0134	.00228	.0061	.0091
%RSD	1.8155	.39280	.10190	.76637	.28500	.32632	.39039
#1	.79065	1.9089	.96026	1.7444	.79737	1.8606	2.3148
#2	.77061	1.9196	.96165	1.7634	.80059	1.8692	2.3276
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18581	.20436	5.1947	.42175	.19795	.30554	3.0799
SDev	.00020	.00219	.0115	.00170	.00000	.00223	.0079
%RSD	.10979	1.0722	.22223	.40419	.00013	.72887	.25803
#1	.18595	.20282	5.2029	.42295	.19795	.30397	3.0743
#2	.18566	.20591	5.1866	.42054	.19795	.30712	3.0855
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.21353	2.0104	.51090	.07780	2.7628	.30793	.23569
SDev	.00055	.0039	.00129	.00102	.0404	.00050	.00000
%RSD	.25872	.19432	.25260	1.3144	1.4631	.16147	.00038
#1	.21392	2.0076	.50999	.07852	2.7342	.30758	.23569
#2	.21314	2.0132	.51182	.07708	2.7914	.30828	.23569
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.5071	.81058	.77253	.96134	.95876	1.7439	1.7573
SDev	.0432	.00354	.00026	.00559	.00426	.0009	.0197
%RSD	.45446	.43690	.03304	.58174	.44435	.05219	1.1209
#1	9.4765	.80808	.77272	.96530	.95575	1.7432	1.7434
#2	9.5377	.81308	.77235	.95739	.96178	1.7445	1.7712
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.41761	.28097	.20911	.67960	Q.93350		
SDev	.00044	.00422	.00013	.01042	.00547		
%RSD	.10649	1.5034	.05969	1.5335	.58608		
#1	.41792	.28396	.20903	.68697	Q.92963		
#2	.41729	.27799	.20920	.67223	Q.93737		

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Analysis Report

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Method: 6010B Sample Name: S4366-02  
 Run Time: 09/10/04 17:22:02  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00431	.00123	.00422	-.00196	.00255	-.18827	.04139
SDev	.00079	.01093	.00206	.00296	.00032	.00227	.00006
%RSD	18.261	890.50	48.775	151.20	12.471	1.2077	.15598
#1	.00486	.00896	.00568	.00014	.00278	-.18988	.04144
#2	.00375	-.00650	.00277	-.00405	.00233	-.18666	.04135
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00105	-.00185	26.729	-.00047	-.00076	.00725	2.2815
SDev	.00000	.00054	.025	.00043	.00046	.00016	.0159
%RSD	.10491	28.992	.09502	90.968	60.365	2.2105	.69651
#1	.00105	-.00223	26.711	-.00077	-.00044	.00736	2.2928
#2	.00105	-.00147	26.747	-.00017	-.00108	.00714	2.2703
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.35884	2.2931	.00161	-.00135	1.4385	-.00048	.04104
SDev	.00028	.0026	.00222	.00035	.1347	.00050	.00077
%RSD	.07713	.11358	138.40	25.919	9.3666	104.60	1.8803
#1	.35904	2.2912	.00003	-.00110	1.5338	-.00012	.04050
#2	.35865	2.2949	.00318	-.00159	1.3432	-.00083	.04159
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.9126	.00183	.00078	.00104	.00381	-.00007	-.00460
SDev	.0214	.00108	.00120	.00202	.00410	.00159	.00350
%RSD	.36117	58.755	153.27	194.53	107.48	2262.0	76.076
#1	5.8975	.00259	-.00007	-.00039	.00671	.00106	-.00212
#2	5.9277	.00107	.00163	.00247	.00091	-.00120	-.00707
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00971	.03431	.00068	-.01028	2.8629		
SDev	.00067	.00044	.00031	.00457	.0085		
%RSD	6.8722	1.2959	46.176	44.449	.29534		
#1	-.01018	.03463	.00090	-.00705	2.8689		
#2	-.00923	.03400	.00046	-.01352	2.8569		

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Analysis Report

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Method: 6010B Sample Name: S4414-01  
 Run Time: 09/10/04 17:24:59  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00818	.00526	-.00250	-.00166	.00094	-.21569	.01057
SDev	.00441	.01196	.00131	.00443	.00014	.00304	.00006
%RSD	53.878	227.45	52.363	266.38	14.654	1.4108	.61475
#1	.00507	-.00320	-.00343	.00147	.00084	-.21353	.01061
#2	.01130	.01372	-.00158	-.00479	.00104	-.21784	.01052
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00094	-.00247	24.830	-.00030	-.00173	-.00373	.08404
SDev	.00005	.00066	.023	.00000	.00046	.00024	.02385
%RSD	5.2747	26.810	.09299	.20344	26.454	6.4340	28.379
#1	.00098	-.00200	24.846	-.00030	-.00205	-.00390	.06718
#2	.00091	-.00294	24.814	-.00030	-.00141	-.00356	.10091
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02659	6.9533	-.00124	-.00088	17.140	-.00057	.02118
SDev	.00000	.0013	.00115	.00010	.042	.00050	.00052
%RSD	.00341	.01873	92.500	11.792	.24707	88.251	2.4394
#1	.02659	6.9524	-.00205	-.00080	17.110	-.00021	.02154
#2	.02659	6.9542	-.00043	-.00095	17.170	-.00092	.02081
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0072	.00172	-.00384	-.00995	-.00078	.00259	-.00558
SDev	.0010	.00323	.00688	.00250	.00321	.00807	.00261
%RSD	.09861	187.24	179.16	25.149	411.76	311.58	46.719
#1	1.0065	.00401	-.00871	-.00818	-.00305	.00830	-.00374
#2	1.0079	-.00056	.00102	-.01172	.00149	-.00312	-.00743
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00664	.07927	-.00043	-.03407	.93245		
SDev	.00167	.00044	.00000	.00165	.01094		
%RSD	25.113	.56091	.00000	4.8296	1.1735		
#1	-.00546	.07959	-.00043	-.03291	.94019		
#2	-.00782	.07896	-.00043	-.03524	.92471		

OK 9/10/04

Analysis Report

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Method: 6010B Sample Name: S4414-02  
 Run Time: 09/10/04 17:26:56  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00217	.00483	.00046	-.00000	.00368	-.20655	.06458
SDev	.00315	.00855	.00259	.00032	.00002	.00381	.00006
%RSD	144.96	177.01	565.23	6589.8	.61009	1.8450	.10011
#1	-.00005	-.00121	-.00137	-.00023	.00369	-.20385	.06453
#2	.00440	.01087	.00229	.00022	.00366	-.20924	.06462
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00116	-.00339	143.49	.00030	-.00157	-.00239	.01660
SDev	.00015	.00022	1.22	.00085	.00023	.00056	.00796
%RSD	12.981	6.4246	.85278	282.30	14.578	23.288	47.985
#1	.00126	-.00354	142.63	.00090	-.00141	-.00200	.01096
#2	.00105	-.00323	144.36	-.00030	-.00173	-.00278	.02223
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00764	17.243	.00104	-.00057	24.195	-.00021	.01619
SDev	.00000	.005	.00136	.00057	.484	.00100	.00051
%RSD	.00562	.03021	130.61	98.674	2.0008	468.89	3.1519
#1	.00764	17.240	.00201	-.00017	24.537	.00049	.01583
#2	.00764	17.247	.00008	-.00098	23.853	-.00092	.01655
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.5919	.00270	.00243	-.00746	.00241	.00460	-.00410
SDev	.0045	.00153	.00301	.00053	.00362	.00296	.00099
%RSD	.28077	56.744	123.78	7.1267	149.91	64.216	24.222
#1	1.5951	.00379	.00030	-.00783	-.00014	.00251	-.00340
#2	1.5888	.00162	.00455	-.00708	.00497	.00669	-.00481
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00861	.11826	-.00171	-.11384	3.5747		
SDev	.00089	.00089	.00019	.00037	.0124		
%RSD	10.335	.75198	10.967	.32122	.34784		
#1	-.00923	.11763	-.00157	-.11358	3.5659		
#2	-.00798	.11889	-.00184	-.11410	3.5835		

09/10/04

Method: 6010B Sample Name: CCV  
 Run Time: 09/10/04 17:28:51  
 Comment: CCV  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.2623	5.2986	5.0857	5.4584	5.1900	10.289	10.362
SDev	.0052	.0721	.0136	.0593	.0228	.012	.003
%RSD	.09865	1.3604	.26730	1.0871	.43863	.11904	.02811
#1	5.2586	5.3495	5.0761	5.4164	5.1739	10.297	10.364
#2	5.2660	5.2476	5.0953	Q5.5003	5.2061	10.280	10.360
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.25700	2.5747	25.507	.99420	2.4953	1.2308	4.8600
SDev	.00003	.0047	.030	.00241	.0007	.0016	.0078
%RSD	.01118	.18243	.11767	.24263	.02755	.12923	.16073
#1	.25702	2.5781	25.529	.99591	2.4948	1.2319	4.8656
#2	.25698	2.5714	25.486	.99250	2.4958	1.2296	4.8545
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.4761	25.436	2.5556	1.3023	26.029	2.4634	2.5797
SDev	.0011	.027	.0042	.0001	.114	.0100	.0089
%RSD	.04461	.10751	.16273	.00853	.43631	.40616	.34682
#1	2.4769	25.455	2.5586	1.3023	26.109	2.4704	2.5861
#2	2.4753	25.416	2.5527	1.3024	25.949	2.4563	2.5734
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	26.187	5.2742	5.0181	5.0691	5.0918	5.4501	5.4607
SDev	.132	.0059	.0566	.0080	.0245	.0159	.0810
%RSD	.50445	.11092	1.1288	.15730	.48123	.29199	1.4837
#1	26.280	5.2701	4.9780	5.0747	5.0745	5.4388	5.4034
#2	26.093	5.2784	5.0581	5.0635	5.1092	5.4613	5.5180
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	5.1801	5.2183	4.9305	4.9841	Q5.6005		
SDev	.0097	.0127	.0061	.0335	.0154		
%RSD	.18671	.24284	.12279	.67133	.27530		
#1	5.1732	5.2093	4.9348	5.0078	Q5.5896		
#2	5.1869	5.2272	4.9262	4.9604	Q5.6114		

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Method: 6010B Sample Name: CCB  
 Run Time: 09/10/04 17:31:05  
 Comment: CCB  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00673	.00366	.00138	-.00121	.00387	.02565	-.00316
SDev	.00331	.01163	.00251	.00403	.00123	.00076	.00006
%RSD	49.102	317.98	181.59	334.34	31.766	2.9640	2.0497

#1	.00907	Q.01188	-.00039	.00165	.00300	.02618	-.00321
#2	.00440	-.00457	.00316	-.00406	.00473	.02511	-.00312

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00119	-.00170	.02265	-.00070	-.00173	-.00571	-.01711
SDev	.00000	.00034	.00231	.00000	.00000	.00032	.00795
%RSD	.00006	20.198	10.193	.03401	.02818	5.5805	46.446

#1	.00119	-.00146	.02428	-.00070	-.00173	-.00548	-.01149
#2	.00119	-.00194	.02102	-.00070	-.00173	-.00593	-.02273

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00056	.00671	.00120	-.00075	-.60514	-.00092	-.00837
SDev	.00000	.00130	.00244	.00012	.06641	.00000	.00000
%RSD	.04555	19.406	203.86	15.756	10.974	.03437	.02128

#1	-.00056	.00763	-.00053	-.00066	-.55818	-.00092	-.00837
#2	-.00056	.00579	.00292	-.00083	-.65210	-.00092	-.00837

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00094	.00423	-.00007	.00072	-.00029	.00227	-.00464
SDev	.00546	.00031	.00430	.00159	.00297	.00034	.00574
%RSD	579.71	7.2566	6117.9	219.81	1039.5	15.020	123.55

#1	.00292	.00445	-.00311	-.00040	-.00239	.00251	-.00059
#2	-.00481	.00401	.00297	.00185	.00182	.00203	-.00870

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00412	-.00295	-.00082	-.00666	.02367
SDev	.00278	.00289	.00019	.00201	.00100
%RSD	67.379	98.118	22.704	30.183	4.2032

#1	-.00216	-.00090	-.00069	-.00524	.02296
#2	-.00609	-.00499	-.00096	-.00809	.02437

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Method: 6010B Sample Name: S4414-03  
 Run Time: 09/10/04 17:34:59  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00095	.00285	.00322	-.00061	.00346	-.21031	.01972
SDev	.00866	.00444	.00028	.00149	.00212	.00151	.00019
%RSD	911.28	156.01	8.6707	243.58	61.352	.71970	.98595
#1	.00707	.00599	.00342	-.00167	.00196	-.21138	.01986
#2	-.00517	-.00029	.00302	.00044	.00496	-.20924	.01958
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00126	-.00224	6.8567	.00049	-.00173	-.00338	.35381
SDev	.00000	.00031	.0762	.00085	.00046	.00008	.02385
%RSD	.08716	13.787	1.1112	173.09	26.463	2.3179	6.7419
#1	.00126	-.00246	6.9106	.00110	-.00141	-.00333	.33694
#2	.00126	-.00202	6.8028	-.00011	-.00205	-.00344	.37068
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03373	6.6577	-.00074	-.00124	19.403	-.00055	.01585
SDev	.00069	.1328	.00029	.00010	.569	.00050	.00025
%RSD	2.0441	1.9951	38.921	8.2882	2.9315	90.483	1.6001
#1	.03422	6.7516	-.00054	-.00117	19.805	-.00020	.01567
#2	.03324	6.5638	-.00094	-.00132	19.000	-.00091	.01603
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.1007	.00562	-.00408	.00427	.00070	.00751	-.00636
SDev	.0238	.00292	.00051	.00213	.00064	.00000	.00238
%RSD	2.1658	51.994	12.571	49.808	92.360	.02293	37.356
#1	1.1175	.00355	-.00445	.00578	.00024	.00750	-.00805
#2	1.0838	.00769	-.00372	.00277	.00115	.00751	-.00468
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00538	.08808	-.00047	-.02528	.16434		
SDev	.00033	.00044	.00031	.00347	.00497		
%RSD	6.1961	.50484	66.167	13.741	3.0264		
#1	-.00562	.08839	-.00025	-.02282	.16786		
#2	-.00515	.08776	-.00069	-.02774	.16083		

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Method: 6010B Sample Name: S4414-04  
 Run Time: 09/10/04 17:37:18  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00373	-.00047	.00349	-.00345	.00317	-.22266	.05780
SDev	.00315	.00172	.00033	.00059	.00008	.00077	.00006
%RSD	84.381	362.90	9.4633	17.249	2.4174	.34532	.11170
#1	.00150	-.00169	.00325	-.00387	.00323	-.22211	.05776
#2	.00596	.00074	.00372	-.00303	.00312	-.22320	.05785
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00123	-.00301	106.31	.00050	.00151	-.00295	.01098
SDev	.00005	.00044	.11	.00085	.00183	.00072	.01590
%RSD	4.1338	14.672	.10424	169.55	121.51	24.269	144.86
#1	.00126	-.00270	106.23	.00111	.00280	-.00244	-.00027
#2	.00119	-.00332	106.39	-.00010	.00021	-.00346	.02222
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00286	12.796	.00145	-.00098	19.868	-.00021	.01621
SDev	.00014	.026	.00065	.00091	.451	.00000	.00000
%RSD	4.8010	.20354	44.561	92.592	2.2719	.42916	.01387
#1	.00296	12.814	.00191	-.00034	20.187	-.00021	.01621
#2	.00276	12.777	.00099	-.00162	19.549	-.00021	.01621
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.7100	.00216	.00200	.00422	.00112	.00469	-.00931
SDev	.0134	.00046	.00069	.00163	.00032	.00102	.00038
%RSD	.49478	21.237	34.375	38.713	28.659	21.857	4.0841
#1	2.7195	.00248	.00152	.00307	.00135	.00396	-.00957
#2	2.7005	.00184	.00249	.00538	.00089	.00541	-.00904
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00853	.06292	-.00180	-.04972	4.7420		
SDev	.00011	.00178	.00031	.00293	.0099		
%RSD	1.3038	2.8266	17.379	5.8843	.20977		
#1	-.00845	.06418	-.00157	-.05179	4.7350		
#2	-.00861	.06167	-.00202	-.04765	4.7490		

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Method: 6010B Sample Name: S4414-05  
 Run Time: 09/10/04 17:39:34  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00173	-.00312	.00438	-.00195	-.00055	-.22321	.07547
SDev	.00157	.00342	.00194	.00336	.00192	.00152	.00006
%RSD	91.223	109.58	44.289	172.26	348.28	.68256	.08587
#1	.00284	-.00554	.00301	-.00433	.00081	-.22213	.07551
#2	.00061	-.00070	.00576	.00043	-.00191	-.22428	.07542
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00119	-.00306	125.65	-.00010	-.00157	-.00256	.01660
SDev	.00000	.00006	.23	.00028	.00069	.00000	.00795
%RSD	.00016	1.9980	.18559	284.27	43.817	.00253	47.882
#1	.00119	-.00310	125.49	-.00030	-.00108	-.00256	.01098
#2	.00119	-.00301	125.82	.00010	-.00205	-.00256	.02222
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00237	14.835	-.00073	-.00138	13.302	-.00021	.01784
SDev	.00000	.007	.00158	.00011	.015	.00000	.00026
%RSD	.01340	.04389	215.66	8.0167	.11577	.38942	1.4429
#1	.00237	14.840	-.00185	-.00130	13.291	-.00021	.01802
#2	.00237	14.831	.00038	-.00146	13.313	-.00021	.01766
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.1979	-.00197	-.00092	.00762	.00077	.00107	-.00516
SDev	.0233	.00108	.00361	.00583	.00000	.00432	.00275
%RSD	1.9485	54.740	393.67	76.551	.04522	404.22	53.200
#1	1.1814	-.00121	.00164	.00349	.00077	-.00199	-.00710
#2	1.2144	-.00273	-.00347	.01174	.00077	.00412	-.00322
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00963	.04893	-.00171	-.05515	4.1251		
SDev	.00189	.00067	.00006	.00000	.0040		
%RSD	19.630	1.3630	3.6556	.00000	.09646		
#1	-.01096	.04940	-.00166	-.05515	4.1223		
#2	-.00829	.04846	-.00175	-.05515	4.1280		

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Method: 6010B Sample Name: S4414-06  
 Run Time: 09/10/04 17:41:29  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00519	-.00233	.00503	-.00179	.00077	.28528	.06214
SDev	.00236	.00787	.00199	.00179	.00056	.00304	.00026
%RSD	45.522	338.02	39.624	99.478	72.401	1.0658	.41666
#1	.00686	-.00789	.00644	-.00053	.00117	.28743	.06232
#2	.00352	.00323	.00362	-.00306	.00038	.28313	.06196
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00119	-.00346	84.294	.00097	.00086	-.00294	1.1350
SDev	.00000	.00063	.113	.00043	.00000	.00000	.0000
%RSD	.00015	18.123	.13421	43.873	.01334	.00001	.00011
#1	.00119	-.00301	84.374	.00127	.00086	-.00294	1.1350
#2	.00119	-.00390	84.214	.00067	.00086	-.00294	1.1350
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.15620	12.984	.00148	-.00160	12.743	.00054	.01253
SDev	.00014	.018	.00057	.00011	.028	.00000	.00051
%RSD	.08841	.14042	38.834	7.1308	.21903	.14372	4.0783
#1	.15630	12.971	.00188	-.00152	12.763	.00054	.01289
#2	.15610	12.997	.00107	-.00168	12.723	.00054	.01217
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.6709	.00102	-.00292	.00649	.00231	.00501	-.00699
SDev	.0139	.00200	.00232	.00318	.00458	.00261	.00137
%RSD	.83218	196.70	79.522	49.056	198.40	52.186	19.614
#1	1.6808	.00243	-.00456	.00424	.00555	.00686	-.00602
#2	1.6611	-.00040	-.00128	.00874	-.00093	.00316	-.00796
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00853	.04044	.00178	-.03485	3.6117		
SDev	.00011	.00067	.00025	.00786	.0080		
%RSD	1.3038	1.6491	14.032	22.561	.22034		
#1	-.00845	.04092	.00196	-.04041	3.6173		
#2	-.00861	.03997	.00160	-.02929	3.6060		

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Method: 6010B Sample Name: S4414-07  
 Run Time: 09/10/04 17:43:37  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00607	-.00096	.00471	-.00272	.00206	-.22483	.00553
SDev	.00220	.01539	.00076	.00328	.00082	.00380	.00019
%RSD	36.315	1608.1	16.115	120.58	39.734	1.6899	3.5069

#1	-.00451	.00992	.00524	-.00040	.00148	-.22214	.00567
#2	-.00762	-.01184	.00417	-.00504	.00264	-.22752	.00540

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00119	-.00258	3.8413	-.00041	-.00157	-.00322	.16836
SDev	.00010	.00060	.0185	.00071	.00069	.00111	.01590
%RSD	8.4080	23.220	.48085	175.23	43.783	34.498	9.4471

#1	.00112	-.00300	3.8544	-.00091	-.00108	-.00401	.17960
#2	.00126	-.00215	3.8282	.00010	-.00205	-.00244	.15711

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00892	9.8907	-.00139	-.00172	9.7928	-.00127	.01978
SDev	.00014	.0586	.00136	.00091	.6852	.00050	.00103
%RSD	1.5577	.59248	97.739	52.747	6.9975	39.440	5.1896

#1	.00902	9.8493	-.00043	-.00236	9.3082	-.00162	.01905
#2	.00882	9.9321	-.00236	-.00108	10.277	-.00092	.02050

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.95562	.00129	.00041	.00922	.00045	.00164	-.00669
SDev	.01639	.00415	.00585	.00260	.00016	.00034	.00474
%RSD	1.7149	322.58	1411.2	28.167	35.206	20.877	70.877

#1	.94403	-.00165	.00455	.01105	.00034	.00188	-.00334
#2	.96721	.00422	-.00372	.00738	.00057	.00140	-.01004

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00923	.03871	.00050	-.00434	.24910
SDev	.00044	.00089	.00019	.00786	.00647
%RSD	4.8155	2.2971	37.501	181.30	2.5956

#1	-.00892	.03809	-.00063	-.00990	.25368
#2	-.00955	.03934	.00037	.00122	.24453

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Method: 6010B Sample Name: S4414-08  
 Run Time: 09/10/04 17:45:30  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00217	.00235	.00278	-.00257	.00351	-.20332	.06343
SDev	.00142	.00376	.00099	.00414	.00120	.00684	.00013
%RSD	65.309	159.98	35.715	160.89	34.288	3.3626	.20320
#1	-.00117	-.00031	.00348	.00035	.00266	-.20815	.06352
#2	-.00317	.00501	.00208	-.00550	.00436	-.19848	.06334
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00130	-.00330	145.75	-.00020	-.00011	-.00295	-.00588
SDev	.00005	.00036	1.50	.00042	.00000	.00056	.05563
%RSD	3.9884	10.795	1.0281	212.66	.14096	18.972	946.33
#1	.00126	-.00355	146.80	.00010	-.00011	-.00256	.03346
#2	.00134	-.00304	144.69	-.00050	-.00011	-.00335	-.04521
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03039	16.686	.00185	-.00108	9.9772	-.00057	.02009
SDev	.00014	.061	.00079	.00060	.0972	.00050	.00001
%RSD	.46127	.36679	42.463	55.119	.97426	88.416	.05959
#1	.03049	16.730	.00241	-.00066	9.9085	-.00021	.02009
#2	.03029	16.643	.00130	-.00150	10.046	-.00092	.02010
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.4855	.00260	.00212	.00191	.00122	.00668	-.00879
SDev	.0079	.00077	.00206	.00073	.00112	.00864	.00189
%RSD	.53489	29.749	97.176	38.430	92.243	129.34	21.506
#1	1.4911	.00205	.00066	.00243	.00201	.01279	-.00746
#2	1.4799	.00314	.00358	.00139	.00042	.00057	-.01013
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.01018	.09861	-.00157	-.09432	4.0914		
SDev	.00111	.00022	.00000	.00311	.0169		
%RSD	10.923	.22546	.00000	3.2954	.41332		
#1	-.00939	.09877	-.00157	-.09212	4.1033		
#2	-.01096	.09845	-.00157	-.09652	4.0794		

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Method: 6010B Sample Name: S4414-08D  
 Run Time: 09/10/04 17:47:20  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00462	.00236	.00411	-.00294	.00057	-.20332	.06329
SDev	.00283	.00718	.00103	.00019	.00389	.00381	.00006
%RSD	61.367	304.60	25.077	6.3666	687.83	1.8747	.10250
#1	.00662	-.00272	.00338	-.00281	.00332	-.20602	.06325
#2	.00261	.00743	.00484	-.00307	-.00219	-.20063	.06334
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00130	-.00239	144.60	-.00050	-.00108	-.00334	.01098
SDev	.00015	.00063	.15	.00028	.00137	.00016	.01590
%RSD	11.625	26.342	.10060	56.587	126.86	4.7588	144.78
#1	.00119	-.00284	144.70	-.00030	-.00205	-.00323	.02223
#2	.00141	-.00195	144.49	-.00070	-.00011	-.00346	-.00026
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02971	16.586	.00185	-.00123	9.8983	-.00057	.02009
SDev	.00000	.013	.00136	.00011	.0087	.00050	.00052
%RSD	.00203	.07851	73.445	8.6679	.08750	87.706	2.5626
#1	.02971	16.577	.00282	-.00131	9.9044	-.00092	.01973
#2	.02971	16.595	.00089	-.00116	9.8921	-.00022	.02046
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.4767	-.00175	.00200	.00487	.00173	.00307	-.00764
SDev	.0094	.00292	.00585	.00229	.00040	.00466	.00275
%RSD	.63896	166.86	292.35	46.977	23.285	151.96	35.975
#1	1.4701	.00031	.00614	.00325	.00144	-.00023	-.00570
#2	1.4834	-.00381	-.00213	.00649	.00201	.00636	-.00958
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.01057	.09720	-.00166	-.08592	4.1026		
SDev	.00056	.00267	.00012	.00293	.0010		
%RSD	5.2584	2.7449	7.5051	3.4050	.02424		
#1	-.01096	.09531	-.00157	-.08799	4.1033		
#2	-.01018	.09908	-.00175	-.08385	4.1019		

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Method: 6010B Sample Name: S4414-08LX5  
 Run Time: 09/10/04 17:49:23  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00239	.01427	-.00034	-.00450	.00232	-.22374	.00938
SDev	.00409	.00206	.00180	.00174	.00001	.00533	.00006
%RSD	171.07	14.401	529.48	38.545	.58539	2.3831	.68759
#1	-.00050	.01282	-.00161	-.00328	.00233	-.21997	.00942
#2	.00529	.01573	.00093	-.00573	.00231	-.22751	.00933
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00119	-.00298	29.984	-.00060	-.00044	-.00509	-.01712
SDev	.00010	.00041	.002	.00071	.00137	.00008	.02384
%RSD	8.4186	13.812	.00770	118.04	315.44	1.6068	139.25
#1	.00126	-.00327	29.982	-.00010	.00054	-.00503	-.00026
#2	.00112	-.00269	29.986	-.00110	-.00141	-.00515	-.03397
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00559	3.3750	.00079	-.00099	1.0030	-.00057	-.00242
SDev	.00014	.0117	.00258	.00001	.1020	.00050	.00025
%RSD	2.4856	.34726	326.55	1.0745	10.172	88.101	10.337
#1	.00569	3.3667	.00262	-.00098	.93083	-.00021	-.00225
#2	.00549	3.3833	-.00103	-.00100	1.0751	-.00093	-.00260
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.21678	.00271	-.00165	-.00144	-.00179	.00508	-.01099
SDev	.00546	.00093	.00190	.00218	.00161	.00591	.00049
%RSD	2.5200	34.188	114.89	150.66	89.884	116.29	4.4542
#1	.22064	.00205	-.00031	-.00298	-.00292	.00926	-.01134
#2	.21291	.00336	-.00299	.00009	-.00065	.00090	-.01065
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.01033	.01435	-.00157	-.01985	.85472		
SDev	.00111	.00067	.00012	.00421	.00249		
%RSD	10.757	4.6488	7.9257	21.185	.29096		
#1	-.00955	.01388	-.00166	-.01688	.85648		
#2	-.01112	.01482	-.00149	-.02282	.85296		

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Method: 6010B Sample Name: S4414-09  
 Run Time: 09/10/04 17:51:17  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.77640	1.9824	.95501	1.9400	.76168	1.7575	2.1133
SDev	.01276	.0496	.00177	.0041	.00584	.0114	.0046
%RSD	1.6435	2.5009	.18573	.21354	.76674	.65074	.21753
#1	.76738	1.9473	.95375	1.9429	.76581	1.7494	2.1165
#2	.78542	2.0174	.95626	1.9371	.75755	1.7656	2.1100
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.17446	.18974	151.76	.35971	.18096	.27867	2.4624
SDev	.00136	.00104	1.03	.00369	.00069	.00470	.1192
%RSD	.78061	.54877	.68006	1.0254	.37916	1.6863	4.8393
#1	.17349	.18900	151.03	.35710	.18047	.27535	2.3782
#2	.17542	.19047	152.49	.36232	.18144	.28200	2.5467
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.21195	18.747	.46620	.05857	13.349	.26536	.22661
SDev	.00249	.176	.00373	.00028	.027	.00351	.00073
%RSD	1.1745	.93774	.79930	.47885	.20187	1.3233	.32290
#1	.21019	18.623	.46356	.05837	13.330	.26288	.22609
#2	.21371	18.871	.46883	.05877	13.368	.26785	.22713
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.618	.77161	.73858	.95149	.95466	1.9338	1.9413
SDev	.009	.00709	.00333	.00220	.00362	.0185	.0030
%RSD	.07478	.91893	.45159	.23140	.37890	.95781	.15639
#1	12.612	.77662	.74094	.95305	.95210	1.9468	1.9392
#2	12.625	.76659	.73622	.94994	.95722	1.9207	1.9434
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.36777	.38520	.17857	.57707	4.8313		
SDev	.00556	.00667	.00237	.01316	.1035		
%RSD	1.5114	1.7315	1.3281	2.2813	2.1413		
#1	.36384	.38048	.17690	.56776	4.9045		
#2	.37170	.38992	.18025	.58638	4.7582		

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Method: 6010B Sample Name: S4414-10  
 Run Time: 09/10/04 17:53:03  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.76894	1.9611	.95430	1.9462	.76106	1.7639	2.1093
SDev	.00283	.0031	.00158	.0023	.00044	.0008	.0008
%RSD	.36846	.15709	.16586	.11915	.05745	.04315	.03988
#1	.77095	1.9589	.95318	1.9445	.76137	1.7645	2.1087
#2	.76694	1.9633	.95542	1.9478	.76075	1.7634	2.1099
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.17521	.18771	152.10	.36071	.18096	.28098	2.5130
SDev	.00000	.00085	.02	.00028	.00114	.00096	.0159
%RSD	.00063	.45227	.01062	.07859	.63162	.33971	.63227
#1	.17521	.18831	152.09	.36051	.18176	.28031	2.5018
#2	.17521	.18711	152.11	.36091	.18015	.28166	2.5242
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.21351	18.827	.46878	.05827	13.450	.26749	.22714
SDev	.00000	.003	.00911	.00045	.102	.00050	.00102
%RSD	.00021	.01383	1.9427	.77068	.75849	.18737	.44886
#1	.21351	18.829	.47522	.05859	13.522	.26714	.22642
#2	.21351	18.825	.46234	.05795	13.378	.26784	.22786
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.616	.76986	.74024	.94946	.95472	1.9491	1.9429
SDev	.066	.00246	.00362	.00121	.00177	.0030	.0020
%RSD	.51961	.31969	.48859	.12776	.18512	.15168	.10297
#1	12.570	.77160	.73768	.94860	.95347	1.9470	1.9415
#2	12.662	.76812	.74279	.95031	.95597	1.9512	1.9443
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.37296	.38835	.17902	.57824	4.7557		
SDev	.00245	.00044	.00013	.00421	.0045		
%RSD	.65575	.11450	.06973	.72728	.09413		
#1	.37123	.38866	.17910	.58121	4.7526		
#2	.37469	.38803	.17893	.57526	4.7589		

09/10/04

Method: 6010B Sample Name: CCV  
Run Time: 09/10/04 17:56:07  
Comment: CCV  
Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1986	5.2579	4.9787	5.3840	5.0958	10.272	10.175
SDev	.0153	.0507	.0147	.0225	.0053	.003	.003
%RSD	.29363	.96368	.29578	.41701	.10315	.03097	.02799
#1	5.1878	5.2220	4.9683	5.3681	5.0921	10.274	10.173
#2	5.2094	5.2937	4.9892	5.3999	5.0995	10.270	10.177
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.25262	2.5341	25.013	.97483	2.4506	1.2097	4.7652
SDev	.00048	.0092	.074	.00369	.0071	.0033	.0157
%RSD	.19035	.36329	.29538	.37851	.28959	.26907	.33011
#1	.25296	2.5406	25.065	.97744	2.4557	1.2074	4.7763
#2	.25228	2.5276	24.961	.97222	2.4456	1.2120	4.7541
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.4261	24.925	2.5175	1.2747	27.077	2.4145	2.5316
SDev	.0072	.055	.0042	.0024	.127	.0120	.0025
%RSD	.29601	.21944	.16519	.18816	.46750	.49733	.09996
#1	2.4312	24.963	2.5204	1.2764	27.167	2.4230	2.5334
#2	2.4210	24.886	2.5146	1.2731	26.988	2.4060	2.5299
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	26.033	5.1945	4.8949	4.9709	4.9807	5.3852	5.3815
SDev	.039	.0178	.0515	.0041	.0241	.0040	.0356
%RSD	.15070	.34298	1.0515	.08153	.48390	.07383	.66238
#1	26.061	5.2071	4.8585	4.9738	4.9636	5.3881	5.3563
#2	26.006	5.1819	4.9313	4.9680	4.9977	5.3824	5.4067
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	5.0889	5.1437	4.8419	4.9006	Q5.5179		
SDev	.0379	.0193	.0051	.0115	.0109		
%RSD	.74492	.37604	.10441	.23505	.19831		
#1	5.0621	5.1301	4.8455	4.8924	Q5.5101		
#2	5.1157	5.1574	4.8384	4.9087	Q5.5256		

09/10/04

Method: 6010B

Sample Name: CCB

Operator: DR

Run Time: 09/10/04 17:59:32

Comment: CCB

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00941	.00679	.00057	.00222	.00366	-.01071	-.00202
SDev	.00236	.00513	.00282	.00002	.00385	.00593	.00065
%RSD	25.112	75.512	495.18	.84927	105.17	55.356	32.083
#1	.00774	.00317	-.00143	.00223	.00639	-.00652	-.00247
#2	Q.01108	Q.01042	.00257	.00220	.00094	-.01490	-.00156
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00134	-.00185	.02755	-.00060	.00021	-.00588	-.03959
SDev	.00010	.00062	.00000	.00014	.00046	.00008	.00793
%RSD	7.7572	33.803	.00000	23.592	216.00	1.3496	20.041
#1	.00141	-.00229	.02755	-.00070	.00054	-.00582	-.04520
#2	.00126	-.00141	.02755	-.00050	-.00011	-.00593	-.03398
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00036	.00579	.00115	-.00092	-.68389	-.00092	-.00855
SDev	.00000	.00000	.00194	.00057	.03345	.00100	.00026
%RSD	.09165	.00000	168.96	62.503	4.8918	108.23	3.0112
#1	-.00036	.00579	-.00022	-.00132	-.66023	-.00163	-.00836
#2	-.00036	.00579	.00251	-.00051	-.70755	-.00022	-.00873
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.00217	.00346	-.00011	-.00109	.01361	-.00527
SDev	.00199	.00200	.00757	.00037	.00442	.00318	.00162
%RSD	1787.0	92.271	218.77	343.36	405.11	23.397	30.697
#1	-.00129	.00358	.00881	.00015	-.00421	.01135	-.00413
#2	.00152	.00075	-.00189	-.00037	.00203	.01586	-.00641
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00381	.00287	-.00047	-.00020	.02824		
SDev	.00189	.00356	.00006	.00091	.00348		
%RSD	49.599	123.90	13.233	458.89	12.329		
#1	-.00247	.00539	-.00052	-.00085	.03070		
#2	-.00515	.00036	-.00043	.00045	.02578		

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Analysis Report

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Method: 6010B Sample Name: S4414-08A  
 Run Time: 09/10/04 18:02:58  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.76782	1.9676	.94307	1.9443	.76241	1.9223	2.1153
SDev	.00725	.0144	.00113	.0014	.00129	.0007	.0000
%RSD	.94405	.73075	.12004	.07012	.16888	.03617	.00002

#1	.77295	1.9574	.94387	1.9433	.76332	1.9218	2.1153
#2	.76270	1.9778	.94227	1.9453	.76150	1.9228	2.1153

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.17439	.18866	151.26	.35780	.18176	.27924	2.4343
SDev	.00126	.00234	1.36	.00355	.00229	.00120	.0476
%RSD	.72213	1.2403	.89756	.99173	1.2587	.42868	1.9564

#1	.17528	.19031	152.22	.36031	.18338	.28008	2.4680
#2	.17349	.18700	150.30	.35529	.18015	.27839	2.4007

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.21204	18.738	.46868	.05953	12.680	.26571	.22933
SDev	.00180	.163	.00810	.00116	.079	.00401	.00254
%RSD	.84734	.86871	1.7286	1.9505	.62038	1.5086	1.1082

#1	.21331	18.853	.47441	.06035	12.735	.26855	.23113
#2	.21077	18.623	.46295	.05870	12.624	.26288	.22753

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.669	.77705	.72988	.94752	.93885	1.9558	1.9368
SDev	.043	.00398	.00411	.00207	.00273	.0001	.0021
%RSD	.33710	.51228	.56267	.21843	.29084	.00592	.10851

#1	12.700	.77987	.72698	.94606	.94078	1.9559	1.9353
#2	12.639	.77424	.73279	.94898	.93692	1.9557	1.9383

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.36738	.38960	.17791	.56750	4.8549
SDev	.00367	.00044	.00156	.00768	.0284
%RSD	.99859	.11412	.87701	1.3532	.58394

#1	.36478	.38929	.17902	.57293	4.8349
#2	.36997	.38992	.17681	.56207	4.8750

11/9/04

Method: 6010B      Sample Name: S4414-11      Operator: DR  
 Run Time: 09/10/04 18:04:56  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00284	.01228	.00313	-.00157	.00485	.00817	.05588
SDev	.00032	.02667	.00194	.00567	.00304	.00446	.00188
%RSD	11.118	217.09	62.224	361.66	62.720	54.527	3.3594
#1	.00306	.03114	.00450	.00244	.00700	.01132	.05721
#2	.00262	-.00657	.00175	-.00558	.00270	.00502	.05455
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00159	-.00281	121.49	.00050	-.00027	-.00273	.01098
SDev	.00025	.00065	.07	.00057	.00114	.00040	.01590
%RSD	15.979	23.287	.06082	113.03	418.45	14.577	144.73
#1	.00177	-.00327	121.54	.00091	.00054	-.00244	-.00026
#2	.00141	-.00235	121.43	.00010	-.00108	-.00301	.02223
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02415	13.986	.00125	-.00115	7.5228	-.00092	.01812
SDev	.00014	.038	.00093	.00024	.1058	.00000	.00026
%RSD	.56892	.27001	74.831	20.468	1.4062	.04333	1.4250
#1	.02424	14.013	.00191	-.00132	7.5976	-.00092	.01831
#2	.02405	13.960	.00059	-.00098	7.4480	-.00092	.01794
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.2590	.00586	-.00037	.00406	.00066	.00363	-.00596
SDev	.0184	.00323	.00267	.00117	.00233	.00068	.00884
%RSD	1.4595	55.104	712.22	28.852	353.48	18.810	148.31
#1	1.2720	.00814	.00151	.00489	.00231	.00315	.00029
#2	1.2460	.00357	-.00226	.00323	-.00099	.00411	-.01222
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00664	.08619	-.00100	-.07260	3.5174		
SDev	.00167	.00178	.00006	.00859	.0040		
%RSD	25.113	2.0636	6.2337	11.837	.11313		
#1	-.00546	.08745	-.00105	-.07868	3.5202		
#2	-.00782	.08493	-.00096	-.06652	3.5146		

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Method: 6010B Sample Name: S4414-12  
 Run Time: 09/10/04 18:06:46  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00005	.00804	.00195	.00056	.00354	-.00914	.01683
SDev	.00252	.00718	.00123	.00024	.00052	.00519	.00026
%RSD	4926.0	89.391	62.885	43.800	14.785	56.836	1.5389
#1	-.00183	.00296	.00108	.00073	.00391	-.00546	.01702
#2	.00173	.01311	.00282	.00039	.00317	-.01281	.01665
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00141	-.00140	16.318	-.00001	-.00076	-.00393	.48307
SDev	.00010	.00028	.129	.00043	.00092	.00024	.01589
%RSD	7.2882	19.918	.79237	3189.8	120.66	6.0732	3.2890
#1	.00148	-.00160	16.409	-.00031	-.00011	-.00410	.47184
#2	.00133	-.00120	16.226	.00029	-.00141	-.00377	.49431
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07855	8.4183	.00058	-.00113	6.4417	-.00055	.02290
SDev	.00028	.0573	.00057	.00046	.4412	.00050	.00026
%RSD	.35234	.68063	99.269	41.125	6.8498	91.331	1.1362
#1	.07835	8.3778	.00017	-.00145	6.1297	-.00090	.02308
#2	.07875	8.4588	.00098	-.00080	6.7537	-.00019	.02271
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0575	.00214	.00316	.00482	-.00148	.00372	-.00272
SDev	.0035	.00046	.00249	.00095	.00136	.00602	.00250
%RSD	.32874	21.453	78.960	19.715	92.028	162.05	91.973
#1	1.0599	.00181	.00492	.00415	-.00245	.00798	-.00448
#2	1.0550	.00246	.00139	.00549	-.00052	-.00054	-.00095
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00153	.04846	-.00078	-.01701	.68063		
SDev	.00356	.00089	.00012	.00311	.01791		
%RSD	232.41	1.8351	15.992	18.277	2.6307		
#1	.00096	.04909	-.00087	-.01481	.69330		
#2	-.00405	.04783	-.00069	-.01920	.66797		

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Method: 6010B Sample Name: S4414-13  
 Run Time: 09/10/04 18:08:35  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00697	.00335	.00187	-.00280	.00538	.18443	.04315
SDev	.00551	.00309	.00005	.00158	.00055	.00298	.00045
%RSD	79.141	92.261	2.6685	56.356	10.221	1.6185	1.0502
#1	.01086	.00116	.00191	-.00391	.00499	.18654	.04347
#2	.00307	.00553	.00184	-.00168	.00577	.18232	.04283
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00148	-.00283	95.680	.00089	.00054	.00001	.65728
SDev	.00000	.00044	.663	.00142	.00183	.00072	.00796
%RSD	.14935	15.441	.69256	160.47	341.76	5710.3	1.2119
#1	.00147	-.00314	96.148	.00189	.00183	.00052	.65165
#2	.00148	-.00252	95.211	-.00012	-.00076	-.00049	.66292
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.19104	13.416	.00144	-.00086	10.284	.00052	.01648
SDev	.00166	.134	.00065	.00102	.679	.00100	.00001
%RSD	.86713	.99980	44.951	118.37	6.6032	192.65	.02964
#1	.19221	13.510	.00189	-.00014	10.764	.00123	.01648
#2	.18986	13.321	.00098	-.00159	9.8034	-.00019	.01648
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.5726	.00473	.00347	.00435	-.00136	.00649	-.00903
SDev	.0149	.00323	.00482	.00323	.00169	.00273	.00100
%RSD	.94737	68.281	139.15	74.261	124.16	42.030	11.077
#1	1.5831	.00245	.00688	.00206	-.00017	.00456	-.00974
#2	1.5621	.00702	.00006	.00663	-.00255	.00842	-.00833
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00923	.07754	-.00069	-.05127	3.0310		
SDev	.00000	.00067	.00025	.00512	.0234		
%RSD	.00000	.86011	36.061	9.9858	.77124		
#1	-.00923	.07802	-.00052	-.04765	3.0475		
#2	-.00923	.07707	-.00087	-.05489	3.0145		

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Method: 6010B      Sample Name: S4414-15      Operator: DR  
 Run Time: 09/10/04 18:10:33  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00395	-.00965	.00528	-.00153	.00095	-.01753	-.00060
SDev	.00567	.00992	.00336	.00034	.00003	.00074	.00006
%RSD	143.43	102.80	63.670	22.502	2.6151	4.2316	10.807
#1	-.00006	-.00263	.00766	-.00129	.00097	-.01701	-.00055
#2	.00796	-.01666	.00290	-.00178	.00093	-.01805	-.00064
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00144	-.00305	1.5997	.00010	-.00044	-.00363	.01099
SDev	.00015	.00019	.0670	.00028	.00000	.00008	.00000
%RSD	10.540	6.1524	4.1855	280.34	.00330	2.1934	.00807
#1	.00155	-.00319	1.6471	-.00010	-.00044	-.00368	.01099
#2	.00134	-.00292	1.5524	.00030	-.00044	-.00357	.01099
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00022	.34096	-.00017	-.00098	.86653	-.00092	.01025
SDev	.00000	.00521	.00007	.00023	.03436	.00000	.00026
%RSD	.00712	1.5277	41.314	23.365	3.9651	.05611	2.4957
#1	.00022	.34465	-.00012	-.00114	.89083	-.00092	.01043
#2	.00022	.33728	-.00022	-.00081	.84224	-.00092	.01007
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06262	.00053	-.00141	.00449	.00368	.00461	-.00640
SDev	.00497	.00031	.00069	.00318	.00346	.00546	.00324
%RSD	7.9309	57.683	48.859	70.793	93.928	118.46	50.672
#1	.06613	.00031	-.00092	.00674	.00612	.00075	-.00410
#2	.05911	.00075	-.00190	.00224	.00124	.00846	-.00869
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00806	.01136	-.00043	-.00653	.09295		
SDev	.00211	.00089	.00000	.00622	.00448		
%RSD	26.222	7.8282	.00000	95.137	4.8159		
#1	-.00955	.01199	-.00043	-.00214	.09612		
#2	-.00656	.01073	-.00043	-.01093	.08979		

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Method: 6010B Sample Name: S4435-01  
 Run Time: 09/10/04 18:12:28  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01832	.00178	.00156	.00149	.00335	.06865	.00901
SDev	.00205	.00069	.00189	.00265	.00072	.00073	.00006
%RSD	11.169	38.423	121.43	178.15	21.485	1.0644	.71653
#1	.01977	.00227	.00290	.00336	.00386	.06916	.00906
#2	.01688	.00130	.00022	-.00039	.00284	.06813	.00897
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00167	-.00204	22.277	.00492	.01251	-.00164	.14572
SDev	.00010	.00047	.009	.00028	.00046	.00032	.01592
%RSD	5.8692	22.868	.04145	5.7820	3.6602	19.301	10.922
#1	.00160	-.00171	22.270	.00471	.01283	-.00187	.15698
#2	.00174	-.00237	22.283	.00512	.01219	-.00142	.13447
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.12462	102.09	.03760	-.00082	1347.8	.00935	.02225
SDev	.00000	.10	.00029	.00001	1.2	.00150	.00102
%RSD	.00056	.09822	.76203	.87576	.09265	16.048	4.5852
#1	.12462	102.16	.03780	-.00081	1346.9	.00829	.02297
#2	.12462	102.02	.03740	-.00082	1348.6	.01041	.02153
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	H272.25	.00279	.00127	-.00034	.00051	.00906	-.00409
SDev	.67	.00138	.00061	.00472	.00048	.00204	.00499
%RSD	.24570	49.618	48.227	1393.3	95.097	22.566	121.92
#1	H272.72	.00377	.00083	.00300	.00085	.00762	-.00056
#2	H271.78	.00181	.00170	-.00367	.00017	.01051	-.00762
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.01026	2.8112	.00279	-.04881	13.886		
SDev	.00033	.0049	.00019	.00018	.110		
%RSD	3.2517	.17398	6.7010	.37459	.79160		
#1	-.01002	2.8078	.00266	-.04868	13.808		
#2	-.01049	2.8147	.00293	-.04894	13.963		

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Method: 6010B  
 Run Time: 09/10/04 18:15:14  
 Comment: PBW  
 Mode: CONC

Sample Name: PB00982BL  
 Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00339	-.00404	.00000	-.00288	.00098	-.01492	-.00426
SDev	.00268	.00069	.00041	.00200	.00078	.00445	.00006
%RSD	78.873	17.035	44769.	69.332	79.526	29.852	1.5250
#1	.00529	-.00453	-.00029	-.00430	.00043	-.01177	-.00421
#2	.00150	-.00356	.00029	-.00147	.00153	-.01807	-.00431
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00094	-.00298	.01286	-.00110	-.00238	-.00582	-.01711
SDev	.00005	.00085	.00693	.00000	.00046	.00000	.02384
%RSD	5.3871	28.515	53.875	.06487	19.256	.01985	139.35
#1	.00098	-.00238	.01775	-.00110	-.00205	-.00582	-.03397
#2	.00091	-.00358	.00796	-.00110	-.00270	-.00582	-.00025
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00095	.01131	-.00240	-.00099	-.53236	-.00092	-.00891
SDev	.00000	.00521	.00050	.00067	.09403	.00000	.00077
%RSD	.10052	46.037	20.900	68.155	17.664	.10301	8.6660
#1	-.00095	.00763	-.00205	-.00051	-.46587	-.00093	-.00836
#2	-.00095	.01500	-.00276	-.00146	-.59886	-.00092	-.00946
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03066	.00021	-.00068	-.00113	-.00143	.00975	-.01099
SDev	.00248	.00046	.00327	.00042	.00040	.00500	.00549
%RSD	8.0982	219.13	481.72	37.097	27.967	51.289	49.990
#1	.02891	.00054	-.00299	-.00143	-.00172	.01328	-.01487
#2	.03242	-.00012	.00163	-.00084	-.00115	.00621	-.00710
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.01065	-.00483	-.00127	-.00149	.02824		
SDev	.00044	.00067	.00006	.00347	.00348		
%RSD	4.1756	13.803	4.9299	232.82	12.329		
#1	-.01033	-.00436	-.00131	-.00395	.03070		
#2	-.01096	-.00530	-.00122	.00096	.02578		

bx 9/10/04

Method: 6010B

Sample Name: PB00982BS

Operator: DR

Run Time: 09/10/04 18:19:03

Comment: LCSW

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.74384	1.8487	.90978	1.6918	.76286	1.9356	2.2449
SDev	.00568	.0268	.00560	.0073	.00548	.0149	.0143
%RSD	.76296	1.4477	.61598	.42982	.71890	.76779	.63721
#1	.73983	1.8298	.90581	1.6866	.75899	1.9251	2.2348
#2	.74785	1.8676	.91374	1.6969	.76674	1.9461	2.2550
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.17476	.19335	4.7849	.39092	.18516	.29771	2.8835
SDev	.00147	.00166	.0462	.00440	.00160	.00342	.0000
%RSD	.83921	.85866	.96504	1.1262	.86505	1.1489	.00137
#1	.17372	.19218	4.7523	.38781	.18403	.29529	2.8836
#2	.17580	.19453	4.8176	.39404	.18630	.30013	2.8835
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.19927	1.9561	.47785	.07409	2.5640	.29054	.22077
SDev	.00221	.0234	.00459	.00023	.0389	.00201	.00178
%RSD	1.1084	1.1983	.96038	.30634	1.5164	.69117	.80654
#1	.19771	1.9395	.47460	.07393	2.5365	.28912	.21952
#2	.20083	1.9726	.48109	.07425	2.5915	.29196	.22203
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.3793	.77669	.73197	.92439	.90048	1.6734	1.6993
SDev	.0502	.00521	.00604	.01119	.00281	.0114	.0166
%RSD	.53478	.67073	.82444	1.2105	.31265	.67930	.97553
#1	9.3438	.77300	.72771	.91648	.89849	1.6815	1.6876
#2	9.4147	.78037	.73624	.93231	.90247	1.6654	1.7111
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.38868	.27123	.19936	.64469	Q.89693		
SDev	.00378	.00289	.00169	.00384	.00149		
%RSD	.97245	1.0656	.84528	.59558	.16635		
#1	.38601	.26918	.19817	.64197	Q.89798		
#2	.39135	.27327	.20055	.64740	Q.89587		

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Method: 6010B Sample Name: S4436-01  
 Run Time: 09/10/04 18:20:59  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00028	-.00129	.00261	-.00134	.00227	.00398	.06297
SDev	.00299	.01785	.00016	.00606	.00164	.00594	.00259
%RSD	1074.1	1383.7	6.3037	452.32	72.183	149.04	4.1111
#1	-.00184	.01133	.00249	.00295	.00111	.00818	.06480
#2	.00239	-.01391	.00272	-.00563	.00343	-.00021	.06114
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00101	-.00282	119.78	-.00020	.00037	-.00283	.07842
SDev	.00015	.00022	3.15	.00014	.00114	.00008	.01590
%RSD	15.137	7.8753	2.6293	70.105	305.79	2.7483	20.277
#1	.00112	-.00298	122.00	-.00010	.00118	-.00289	.08957
#2	.00090	-.00267	117.55	-.00030	-.00043	-.00278	.06718
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05061	12.878	.00053	-.00105	17.586	-.00057	.01186
SDev	.00166	.272	.00251	.00012	.423	.00050	.00076
%RSD	3.2754	2.1134	469.10	11.438	2.4063	88.254	6.3918
#1	.05178	13.070	.00231	-.00097	17.885	-.00092	.01240
#2	.04944	12.685	-.00124	-.00114	17.286	-.00021	.01133
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.2123	.00281	-.00202	.00136	.00123	.01399	-.01079
SDev	.0030	.00323	.00155	.00063	.00056	.00671	.00574
%RSD	.24578	114.86	76.712	46.662	45.775	47.930	53.171
#1	1.2144	.00053	-.00092	.00181	.00083	.01873	-.00674
#2	1.2102	.00509	-.00311	.00091	.00163	.00925	-.01485
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00837	.05569	-.00149	-.05579	3.9155		
SDev	.00322	.00133	.00000	.00128	.0836		
%RSD	38.519	2.3952	.00000	2.2940	2.1340		
#1	-.00609	.05664	-.00149	-.05489	3.9746		
#2	-.01065	.05475	-.00149	-.05670	3.8564		

09/10/04

Method: 6010B      Sample Name: S4436-02      Operator: DR  
 Run Time: 09/10/04 18:22:50  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00306	-.01819	.00234	-.00262	.00148	.42518	.04686
SDev	.00142	.00343	.00125	.00501	.00407	.00519	.00013
%RSD	46.388	18.879	53.329	191.53	274.80	1.2213	.27627
#1	-.00205	-.01577	.00146	-.00616	.00436	.42885	.04695
#2	-.00406	-.02062	.00322	.00093	-.00140	.42151	.04677
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00101	-.00234	99.716	.00018	-.00076	-.00213	.64043
SDev	.00005	.00013	.423	.00014	.00092	.00008	.00001
%RSD	4.9084	5.3569	.42373	77.703	120.67	3.7663	.00107
#1	.00105	-.00225	99.417	.00028	-.00141	-.00218	.64042
#2	.00098	-.00243	100.01	.00008	-.00011	-.00207	.64043
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03110	14.352	.00057	-.00152	13.460	.00016	.03407
SDev	.00000	.008	.00086	.00046	.078	.00050	.00051
%RSD	.00005	.05444	149.80	30.108	.57769	303.64	1.5015
#1	.03110	14.358	.00118	-.00119	13.405	.00052	.03371
#2	.03110	14.346	-.00003	-.00184	13.515	-.00019	.03443
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.4484	.00126	-.00128	.00219	.00042	.00142	-.00643
SDev	.0457	.00292	.00637	.00069	.00153	.00682	.00411
%RSD	1.8661	231.72	497.34	31.798	362.99	481.80	63.959
#1	2.4807	.00332	.00322	.00170	-.00066	-.00341	-.00934
#2	2.4161	-.00080	-.00579	.00268	.00150	.00624	-.00352
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00971	.04547	.00032	-.03524	4.2036		
SDev	.00044	.00067	.00006	.00658	.0184		
%RSD	4.5815	1.4667	19.338	18.680	.43779		
#1	-.00939	.04500	.00028	-.03989	4.2166		
#2	-.01002	.04595	.00037	-.03058	4.1906		

OK 9/10/04

Method: 6010B Sample Name: CCV  
 Run Time: 09/10/04 18:24:46  
 Comment: CCV  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0502	5.1428	4.8021	5.3131	4.9456	9.9477	9.9181
SDev	.0354	.0785	.0300	.0211	.0061	.0618	.0464
%RSD	.70168	1.5265	.62536	.39699	.12341	.62111	.46792
#1	5.0252	5.0873	4.7808	5.2981	4.9412	9.9040	9.8853
#2	5.0753	5.1983	4.8233	5.3280	4.9499	9.9914	9.9509
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.24145	2.4199	23.702	.92234	2.3356	1.1821	4.5082
SDev	.00169	.0112	.164	.00752	.0174	.0061	.0316
%RSD	.70060	.46315	.69162	.81569	.74496	.51231	.70040
#1	.24025	2.4120	23.586	.91702	2.3232	1.1778	Q4.4859
#2	.24265	2.4279	23.818	.92766	2.3479	1.1863	4.5305
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.3092	24.286	2.4070	1.2278	26.524	2.3069	2.4269
SDev	.0162	.141	.0079	.0066	.342	.0150	.0199
%RSD	.69961	.57911	.32767	.53926	1.2886	.65089	.81937
#1	2.2978	24.186	2.4014	1.2232	26.282	2.2963	2.4128
#2	2.3207	24.385	2.4125	1.2325	26.765	2.3176	2.4409
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.691	5.0420	4.7491	4.7807	4.8107	5.3010	5.3174
SDev	.107	.0036	.0255	.0132	.0384	.0114	.0258
%RSD	.41560	.07072	.53632	.27681	.79855	.21433	.48536
#1	25.616	5.0446	4.7311	4.7714	4.7836	5.2929	5.2991
#2	25.767	5.0395	4.7671	4.7901	4.8379	5.3090	5.3356
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	4.8764	4.9496	4.6618	4.6786	5.3652		
SDev	.0389	.0414	.0263	.0512	.0338		
%RSD	.79790	.83547	.56497	1.0942	.63038		
#1	4.8489	4.9203	4.6432	4.6424	5.3413		
#2	4.9039	4.9788	4.6805	4.7148	5.3891		

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Method: 6010B Sample Name: CCB  
 Run Time: 09/10/04 18:26:46  
 Comment: CCB  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00306	-.00575	-.00107	.00349	.00561	.00030	-.00325
SDev	.00189	.01545	.00202	.00158	.00094	.00667	.00071
%RSD	61.742	268.71	190.08	45.120	16.823	2219.3	21.897
#1	.00440	.00517	.00037	.00461	.00628	.00502	-.00275
#2	.00172	Q-.01667	-.00250	.00238	.00494	-.00442	-.00376
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00112	-.00207	.02918	-.00060	-.00173	-.00588	-.03398
SDev	.00010	.00032	.00693	.00014	.00046	.00040	.03179
%RSD	9.1548	15.430	23.735	23.831	26.445	6.7363	93.550
#1	.00119	-.00185	.03408	-.00050	-.00141	-.00560	-.05645
#2	.00105	-.00230	.02428	-.00070	-.00205	-.00616	-.01150
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00056	.00671	-.00169	-.00108	-.53940	-.00057	-.00873
SDev	.00000	.00130	.00208	.00010	.06962	.00050	.00052
%RSD	.24176	19.406	122.81	9.2639	12.907	87.781	5.9321
#1	-.00056	.00763	-.00022	-.00101	-.49017	-.00093	-.00836
#2	-.00056	.00579	-.00316	-.00115	-.58863	-.00022	-.00909
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02188	.00369	.00626	-.00263	-.00228	.01144	-.00227
SDev	.01093	.00108	.00499	.00382	.00113	.00398	.00435
%RSD	49.927	29.147	79.683	145.13	49.391	34.807	191.66
#1	.02961	.00293	.00979	.00007	-.00148	.00862	.00081
#2	.01416	.00445	.00273	-.00534	-.00308	.01425	-.00535
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00161	.00712	-.00096	.00484	.02261		
SDev	.01023	.00823	.00025	.00146	.00945		
%RSD	633.82	115.61	26.084	30.203	41.793		
#1	.00885	.01293	-.00078	.00381	.02929		
#2	-.00562	.00130	-.00113	.00588	.01593		

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Method: 6010B      Sample Name: S4436-03      Operator: DR  
 Run Time: 09/10/04 18:28:42  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00640	-.00639	.00284	-.00532	.00164	-.00966	.03396
SDev	.00315	.00447	.00051	.00077	.00243	.00295	.00013
%RSD	49.174	69.933	18.012	14.438	148.03	30.501	.38006
#1	.00418	-.00956	.00248	-.00586	-.00008	-.01174	.03405
#2	.00863	-.00323	.00320	-.00478	.00337	-.00757	.03387
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00123	-.00190	81.835	.00000	-.00044	-.00233	.00536
SDev	.00005	.00012	.723	.00042	.00275	.00032	.03973
%RSD	4.3137	6.1702	.88308	45905.	631.14	13.809	741.61
#1	.00119	-.00182	82.346	.00030	.00151	-.00210	.03345
#2	.00126	-.00198	81.324	-.00030	-.00238	-.00256	-.02273
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05226	9.3520	.00064	-.00125	8.6596	-.00021	.02074
SDev	.00069	.0182	.00050	.00104	.0099	.00100	.00050
%RSD	1.3239	.19494	78.573	83.701	.11485	467.23	2.4161
#1	.05275	9.3649	.00099	-.00051	8.6666	.00049	.02109
#2	.05178	9.3391	.00028	-.00199	8.6525	-.00092	.02038
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0237	.00205	-.00238	.00056	.00198	.00724	-.01329
SDev	.0025	.00185	.00361	.00329	.00241	.00761	.00251
%RSD	.24255	90.002	151.71	584.06	121.69	105.22	18.870
#1	1.0255	.00075	-.00493	.00289	.00028	.00185	-.01152
#2	1.0220	.00336	.00017	-.00176	.00369	.01262	-.01506
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00806	.03085	-.00113	-.02244	3.3873		
SDev	.00078	.00267	.00025	.00201	.0090		
%RSD	9.6607	8.6469	22.022	8.9641	.26431		
#1	-.00750	.03274	-.00096	-.02101	3.3936		
#2	-.00861	.02897	-.00131	-.02386	3.3810		

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## Analysis Report

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Method: 6010B Sample Name: S4436-04  
 Run Time: 09/10/04 18:30:34  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00329	-.01802	.00119	-.00766	-.00177	.25208	.03322
SDev	.00094	.00789	.00049	.00376	.00185	.00669	.00013
%RSD	28.709	43.804	41.147	49.115	104.52	2.6523	.38872
#1	.00262	-.01244	.00084	-.01032	-.00307	.25681	.03331
#2	.00396	-.02360	.00154	-.00500	-.00046	.24736	.03313
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00126	-.00193	78.315	-.00001	.00005	-.00253	.46059
SDev	.00000	.00090	.012	.00014	.00114	.00016	.03179
%RSD	.08732	46.823	.01474	1113.1	2268.3	6.1840	6.9010
#1	.00126	-.00129	78.324	.00009	.00086	-.00264	.48307
#2	.00126	-.00256	78.307	-.00011	-.00076	-.00242	.43812
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05131	10.399	.00012	-.00088	8.2740	-.00055	.02644
SDev	.00014	.025	.00222	.00058	.1194	.00050	.00052
%RSD	.26659	.23793	1827.6	66.387	1.4425	91.203	1.9572
#1	.05121	10.416	-.00145	-.00047	8.3584	-.00020	.02607
#2	.05140	10.381	.00169	-.00129	8.1896	-.00090	.02680
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.3187	-.00145	-.00560	.00094	-.00069	.00373	-.01514
SDev	.0084	.00123	.00800	.00308	.00081	.01307	.00088
%RSD	.64020	84.813	142.72	327.96	117.49	350.66	5.8416
#1	1.3247	-.00058	-.01126	-.00124	-.00012	-.00551	-.01452
#2	1.3128	-.00232	.00005	.00312	-.00125	.01297	-.01577
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00986	.02771	.00072	-.01274	3.8195		
SDev	.00067	.00044	.00013	.00585	.0104		
%RSD	6.7627	1.6047	17.338	45.925	.27346		
#1	-.01033	.02740	.00081	-.01688	3.8121		
#2	-.00939	.02802	.00063	-.00860	3.8269		

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## Analysis Report

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Method: 6010B Sample Name: S4436-05  
 Run Time: 09/10/04 18:32:26  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00251	-.01874	.00121	-.00331	.00454	.01920	.04892
SDev	.00299	.01717	.00119	.00008	.00069	.00371	.00006
%RSD	119.19	91.603	98.467	2.3122	15.111	19.332	.13264
#1	.00039	-.03088	.00205	-.00326	.00503	.02182	.04896
#2	.00462	-.00660	.00037	-.00336	.00406	.01657	.04887
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00144	-.00284	92.109	-.00052	.00086	-.00270	.49432
SDev	.00005	.00025	.328	.00085	.00137	.00024	.01589
%RSD	3.5914	8.7075	.35594	165.32	159.74	8.8438	3.2150
#1	.00148	-.00302	91.877	.00009	.00183	-.00253	.48308
#2	.00141	-.00267	92.341	-.00112	-.00011	-.00286	.50555
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.21036	11.168	.00078	-.00095	6.0919	-.00055	.08717
SDev	.00028	.052	.00115	.00035	.1148	.00050	.00076
%RSD	.13161	.46641	147.10	36.887	1.8850	90.830	.87577
#1	.21017	11.131	.00159	-.00119	6.1731	-.00090	.08663
#2	.21056	11.205	-.00003	-.00070	6.0107	-.00020	.08771
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.2064	.00388	.00267	.00549	-.00293	.01001	-.01166
SDev	.0074	.00107	.00009	.00711	.00177	.00227	.00088
%RSD	.61751	27.678	3.3313	129.66	60.384	22.698	7.5348
#1	1.2011	.00464	.00261	.01052	-.00417	.01162	-.01228
#2	1.2116	.00312	.00273	.00046	-.00168	.00841	-.01104
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00900	.03966	-.00052	-.02593	3.9057		
SDev	.00011	.00000	.00000	.00073	.0189		
%RSD	1.2354	.00000	.00000	2.8208	.48391		
#1	-.00892	.03966	-.00052	-.02644	3.9190		
#2	-.00908	.03966	-.00052	-.02541	3.8923		

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Analysis Report

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Method: 6010B Sample Name: S4436-06  
 Run Time: 09/10/04 18:34:20  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.00328	-.01815	.00034	-.00348	.00504	.03230	.04755
SDev	.00220	.00892	.00276	.00239	.00067	.00148	.00019
%RSD	67.114	49.134	801.82	68.816	13.197	4.5764	.40771
#1	.00484	-.01185	-.00161	-.00179	.00551	.03126	.04741
#2	.00173	-.02446	.00229	-.00517	.00457	.03335	.04769
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.00130	-.00227	104.25	-.00060	-.00092	-.00194	.05594
SDev	.00015	.00018	.14	.00014	.00206	.00024	.03179
%RSD	11.625	8.0121	.13732	23.375	223.82	12.356	56.816
#1	.00119	-.00239	104.14	-.00070	.00054	-.00211	.03347
#2	.00141	-.00214	104.35	-.00050	-.00238	-.00177	.07842
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	.00872	12.199	-.00088	-.00072	5.8688	-.00057	.01383
SDev	.00014	.000	.00021	.00036	.0850	.00050	.00025
%RSD	1.5976	.00000	24.254	49.607	1.4482	88.428	1.7992
#1	.00862	12.199	-.00104	-.00097	5.8087	-.00092	.01365
#2	.00882	12.199	-.00073	-.00047	5.9289	-.00021	.01400
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgc	1.1639	.00651	-.00110	.00284	-.00290	.00420	-.00911
SDev	.0060	.00139	.00078	.00298	.00562	.00103	.00410
%RSD	.51204	21.285	70.499	104.98	193.75	24.384	45.002
#1	1.1596	.00749	-.00165	.00495	-.00688	.00348	-.00621
#2	1.1681	.00553	-.00055	.00073	.00107	.00493	-.01201
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avgc	-.01033	.07126	-.00175	-.04429	3.6834		
SDev	.00111	.00067	.00012	.00073	.0298		
%RSD	10.757	.93602	7.1269	1.6514	.81018		
#1	-.00955	.07173	-.00166	-.04377	3.6623		
#2	-.01112	.07078	-.00184	-.04480	3.7045		

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Analysis Report

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Method: 6010B Sample Name: S4436-07

Operator: DR

Run Time: 09/10/04 18:36:21

Comment:

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00317	-.01424	.00247	-.00648	-.00162	.03807	.02750
SDev	.00173	.00378	.00492	.00407	.00024	.00222	.00019
%RSD	54.621	26.540	199.27	62.847	14.604	5.8426	.70489
#1	.00195	-.01691	.00594	-.00936	-.00179	.03650	.02764
#2	.00440	-.01156	-.00101	-.00360	-.00146	.03965	.02737
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00151	-.00356	62.811	-.00081	-.00060	-.00356	.11215
SDev	.00005	.00013	.323	.00071	.00114	.00016	.03180
%RSD	3.4214	3.6958	.51463	88.252	191.70	4.5361	28.357
#1	.00155	-.00366	63.039	-.00131	.00021	-.00345	.13463
#2	.00148	-.00347	62.582	-.00030	-.00141	-.00368	.08966
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07883	8.0564	.00033	-.00129	9.8552	-.00057	.01193
SDev	.00042	.0195	.00021	.00021	.0823	.00050	.00050
%RSD	.52709	.24246	64.710	16.546	.83490	88.456	4.2201
#1	.07912	8.0426	.00048	-.00144	9.9133	-.00092	.01229
#2	.07853	8.0702	.00018	-.00114	9.7970	-.00021	.01158
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.1337	-.00306	-.00195	.00544	-.00101	.00578	-.01440
SDev	.0040	.00046	.00164	.00334	.00570	.00102	.00560
%RSD	.35045	15.119	83.799	61.435	562.31	17.656	38.858
#1	1.1309	-.00273	-.00311	.00780	.00302	.00506	-.01836
#2	1.1365	-.00338	-.00080	.00308	-.00505	.00651	-.01045
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00978	.07330	-.00100	-.04933	2.7718		
SDev	.00078	.00044	.00006	.00786	.0099		
%RSD	7.9532	.60661	6.2337	15.938	.35888		
#1	-.00923	.07361	-.00105	-.05489	2.7788		
#2	-.01033	.07299	-.00096	-.04377	2.7648		

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Method: 6010B Sample Name: S4436-08  
 Run Time: 09/10/04 18:38:12  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00830	-.01306	.00128	-.00157	.00315	.00294	.05629
SDev	.00268	.00172	.00106	.00155	.00755	.00446	.00039
%RSD	32.266	13.188	82.619	98.880	239.70	151.90	.69049
#1	.00640	-.01428	.00053	-.00047	.00849	.00609	.05656
#2	.01019	-.01184	.00203	-.00266	-.00219	-.00022	.05601
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00144	-.00361	120.96	-.00041	.00054	-.00322	.23578
SDev	.00005	.00085	.43	.00014	.00046	.00000	.03181
%RSD	3.3648	23.609	.35884	35.021	85.367	.05077	13.489
#1	.00148	-.00301	120.66	-.00031	.00086	-.00322	.21329
#2	.00141	-.00421	121.27	-.00051	.00021	-.00322	.25827
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.17237	16.102	-.00033	-.00112	17.564	-.00021	.01917
SDev	.00041	.042	.00057	.00021	.018	.00100	.00103
%RSD	.23958	.25880	173.93	18.999	.10296	484.81	5.3644
#1	.17266	16.131	.00008	-.00097	17.577	.00050	.01989
#2	.17208	16.072	-.00074	-.00128	17.551	-.00091	.01844
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.5227	.00085	.00456	.00245	-.00130	.00463	-.00646
SDev	.0189	.00968	.00328	.00181	.00249	.00057	.00261
%RSD	1.2393	1142.3	71.864	73.848	191.25	12.327	40.355
#1	1.5361	.00770	.00687	.00373	-.00306	.00422	-.00461
#2	1.5094	-.00600	.00224	.00117	.00046	.00503	-.00830
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00994	.08509	-.00166	-.08062	3.7341		
SDev	.00078	.00111	.00012	.00238	.0099		
%RSD	7.8274	1.3064	7.5051	2.9484	.26640		
#1	-.00939	.08430	-.00175	-.07894	3.7411		
#2	-.01049	.08588	-.00157	-.08230	3.7270		

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Method: 6010B Sample Name: S4436-09  
 Run Time: 09/10/04 18:40:00  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00863	-.00624	-.00022	-.00518	.00235	-.00335	.02407
SDev	.00440	.00618	.00353	.00257	.00190	.00152	.00000
%RSD	50.984	99.136	1589.4	49.585	80.918	45.382	.00099
#1	.00552	-.01061	.00227	-.00337	.00369	-.00227	.02407
#2	.01174	-.00186	-.00272	-.00700	.00101	-.00442	.02407
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00158	-.00197	412.07	.00311	-.00092	-.00166	-.00592
SDev	.00015	.00078	2.45	.00398	.00160	.00112	.02379
%RSD	9.2065	39.588	.59505	127.66	173.89	67.259	401.87
#1	.00168	-.00142	410.34	.00593	.00021	-.00087	.01090
#2	.00148	-.00252	413.80	.00030	-.00205	-.00245	-.02274
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.40269	158.68	.00175	-.00087	184.68	.00191	.01512
SDev	.00221	.33	.00394	.00184	.18	.00301	.00000
%RSD	.54845	.20763	224.88	211.95	.09987	157.33	.01742
#1	.40113	158.44	.00454	.00043	184.55	.00404	.01512
#2	.40425	158.91	-.00103	-.00217	184.81	-.00022	.01511
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.297	.00128	.00128	-.00035	-.00216	.01054	-.01473
SDev	.867	.00198	.00174	.00271	.00394	.00773	.00013
%RSD	1.7230	154.68	135.31	774.39	182.59	73.327	.91237
#1	50.909	.00268	.00251	.00156	.00063	.01601	-.01464
#2	49.684	-.00012	.00006	-.00226	-.00494	.00508	-.01483
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00200	1.0654	-.00343	L-1.0222	7.8605		
SDev	.00044	.0100	.00000	.0084	.0542		
%RSD	22.208	.93902	.00000	.82278	.68969		
#1	-.00232	1.0584	-.00343	L-1.0282	7.8222		
#2	-.00169	1.0725	-.00343	L-1.0163	7.8988		

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Method: 6010B Sample Name: S4436-12  
 Run Time: 09/10/04 18:41:54  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00184	-.02110	.00257	-.00166	.00254	-.01019	.05638
SDev	.00425	.00481	.00542	.00069	.00434	.00074	.00000
%RSD	231.57	22.789	211.35	41.834	170.50	7.2910	.00043
#1	-.00117	-.02450	.00640	-.00117	.00561	-.00966	.05638
#2	.00484	-.01770	-.00127	-.00215	-.00052	-.01071	.05638
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00155	-.00211	122.08	-.00060	-.00092	-.00413	.02785
SDev	.00000	.00004	.36	.00014	.00023	.00016	.02384
%RSD	.00018	1.7140	.29503	23.467	24.849	3.8188	85.620
#1	.00155	-.00208	122.34	-.00070	-.00076	-.00402	.01099
#2	.00155	-.00213	121.83	-.00050	-.00108	-.00424	.04471
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01975	16.775	-.00134	-.00122	10.048	-.00092	.01669
SDev	.00028	.020	.00100	.00056	.024	.00000	.00128
%RSD	1.3931	.11644	74.947	45.830	.23398	.13135	7.6858
#1	.01995	16.788	-.00063	-.00083	10.064	-.00092	.01760
#2	.01956	16.761	-.00205	-.00162	10.031	-.00092	.01578
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0532	.00195	.00054	.00150	.00110	.00709	-.00763
SDev	.0134	.00753	.00206	.00743	.00442	.00239	.00223
%RSD	1.2731	387.15	383.76	493.91	403.23	33.688	29.287
#1	1.0438	.00727	-.00092	.00676	.00422	.00540	-.00605
#2	1.0627	-.00338	.00200	-.00375	-.00203	.00878	-.00921
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00868	.14923	-.00193	-.06678	4.4920		
SDev	.00211	.00156	.00000	.00731	.0184		
%RSD	24.323	1.0429	.00000	10.951	.40968		
#1	-.01018	.15033	-.00193	-.07195	4.5050		
#2	-.00719	.14813	-.00193	-.06161	4.4789		

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Method: 6010B Sample Name: S4436-13  
 Run Time: 09/10/04 18:43:47  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00674	-.01679	.00251	-.00156	.00425	-.00284	.04210
SDev	.00488	.00069	.00337	.00002	.00036	.00075	.00013
%RSD	72.458	4.0949	134.20	1.3814	8.4025	26.246	.30691
#1	.01019	-.01631	.00013	-.00158	.00400	-.00337	.04219
#2	.00328	-.01728	.00490	-.00155	.00451	-.00232	.04201
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00148	-.00317	95.170	-.00101	-.00108	-.00041	.25265
SDev	.00000	.00060	.455	.00014	.00000	.00016	.02385
%RSD	.07428	18.928	.47793	14.113	.01193	39.495	9.4404
#1	.00148	-.00359	95.492	-.00111	-.00108	-.00029	.26952
#2	.00148	-.00275	94.849	-.00091	-.00108	-.00052	.23579
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04437	11.143	-.00140	-.00137	10.075	-.00056	.01583
SDev	.00028	.033	.00065	.00069	.106	.00050	.00076
%RSD	.62456	.29216	46.287	50.578	1.0500	89.156	4.8112
#1	.04456	11.120	-.00185	-.00088	10.150	-.00091	.01637
#2	.04417	11.166	-.00094	-.00187	10.000	-.00021	.01529
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.3584	.00281	.00395	.00459	-.00052	.00950	-.00879
SDev	.0050	.00015	.00138	.00176	.00418	.00330	.00175
%RSD	.36559	5.4552	34.950	38.230	796.44	34.668	19.963
#1	1.3619	.00291	.00297	.00335	-.00348	.00717	-.00755
#2	1.3549	.00270	.00492	.00583	.00243	.01183	-.01003
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.01057	.08210	-.00193	-.05566	4.4596		
SDev	.00056	.00133	.00000	.00110	.0015		
%RSD	5.2584	1.6247	.00000	1.9708	.03346		
#1	-.01018	.08305	-.00193	-.05644	4.4607		
#2	-.01096	.08116	-.00193	-.05489	4.4585		

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Method: 6010B Sample Name: S4436-14  
 Run Time: 09/10/04 18:45:40  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00184	-.01434	.00119	-.00649	.00309	.01237	.06458
SDev	.00331	.00789	.00142	.00080	.00042	.00147	.00006
%RSD	179.98	55.022	118.69	12.370	13.452	11.884	.10011
#1	-.00050	-.00876	.00219	-.00706	.00338	.01133	.06453
#2	.00417	-.01992	.00019	-.00593	.00279	.01341	.06462
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00155	-.00302	96.571	-.00010	-.00011	-.00357	.03908
SDev	.00000	.00069	.196	.00028	.00183	.00016	.00796
%RSD	.07097	22.901	.20321	282.94	1646.0	4.4408	20.355
#1	.00155	-.00253	96.710	.00010	.00118	-.00368	.03346
#2	.00155	-.00350	96.432	-.00030	-.00141	-.00346	.04471
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.11144	14.528	-.00058	-.00118	13.004	-.00057	.02865
SDev	.00014	.027	.00108	.00022	.060	.00050	.00077
%RSD	.12365	.18824	185.55	18.995	.45891	88.231	2.6743
#1	.11153	14.547	.00018	-.00102	13.046	-.00021	.02811
#2	.11134	14.509	-.00134	-.00134	12.962	-.00092	.02920
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.5480	.00097	.00413	.00192	-.00117	.00336	-.01321
SDev	.0030	.00092	.00060	.00441	.00008	.00034	.00137
%RSD	.19248	95.481	14.514	229.66	6.9054	10.148	10.403
#1	1.5501	.00162	.00371	.00504	-.00123	.00360	-.01418
#2	1.5459	.00031	.00455	-.00120	-.00111	.00311	-.01224
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.01049	.04988	-.00171	-.03937	4.4237		
SDev	.00333	.00111	.00031	.00110	.0174		
%RSD	31.787	2.2288	18.278	2.7863	.39352		
#1	-.00813	.04909	-.00149	-.03860	4.4360		
#2	-.01285	.05066	-.00193	-.04015	4.4114		

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## Analysis Report

QC Standard

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Method: 6010B

Sample Name: CCV

Operator: DR

Run Time: 09/10/04 18:47:33

Comment: CCV

Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0554	5.0661	4.8183	5.2812	4.9408	9.7578	9.9478
SDev	.0115	.0342	.0114	.0132	.0032	.0054	.0069
%RSD	.22726	.67458	.23705	.25044	.06553	.05511	.06940
#1	5.0636	5.0419	4.8103	5.2718	4.9431	9.7616	9.9527
#2	5.0473	5.0902	4.8264	5.2905	4.9385	9.7540	9.9429
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.24306	2.4462	24.124	.94119	2.3576	1.1718	4.5623
SDev	.00037	.0046	.076	.00102	.0009	.0026	.0581
%RSD	.15248	.18608	.31452	.10854	.04008	.22308	1.2745
#1	.24280	2.4494	24.070	.94047	2.3583	1.1736	4.5212
#2	.24332	2.4429	24.177	.94192	2.3569	1.1699	4.6034
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.3385	24.288	2.4277	1.2456	24.250	2.3265	2.4435
SDev	.0020	.012	.0034	.0015	.012	.0036	.0010
%RSD	.08537	.04943	.13903	.12321	.05135	.15486	.04215
#1	2.3370	24.296	2.4253	1.2446	24.242	2.3290	2.4428
#2	2.3399	24.279	2.4301	1.2467	24.259	2.3239	2.4443
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.170	5.0315	4.7559	4.7981	4.8264	5.2694	5.2854
SDev	.138	.0268	.0439	.0120	.0237	.0286	.0342
%RSD	.54902	.53217	.92326	.25008	.49063	.54240	.64782
#1	25.267	5.0504	4.7249	4.8066	4.8097	5.2896	5.2612
#2	25.072	5.0125	4.7870	4.7897	4.8432	5.2492	5.3096
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	4.9204	4.9758	4.6818	4.7211	5.3971		
SDev	.0157	.0038	.0014	.0273	.0039		
%RSD	.31932	.07723	.03018	.57883	.07308		
#1	4.9093	4.9731	4.6828	4.7018	5.3943		
#2	4.9315	4.9785	4.6808	4.7404	5.3999		

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QC Standard

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Method: 6010B  
 Run Time: 09/10/04 18:50:55  
 Comment: CCB  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00980	-.00545	.00365	.00222	.00552	.00320	-.00178
SDev	.00000	.00871	.00148	.00571	.00376	.00382	.00210
%RSD	.00254	159.91	40.551	257.65	68.106	119.56	118.21
#1	.00980	.00071	.00470	.00626	.00818	.00590	-.00029
#2	.00980	Q-.01161	.00261	-.00182	.00286	.00049	-.00327
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00158	-.00186	.04757	-.00076	-.00004	-.00649	-.04163
SDev	.00010	.00045	.00948	.00029	.00118	.00033	.02490
%RSD	6.5666	24.325	19.936	38.741	2651.5	5.0255	59.825
#1	.00165	-.00154	.05428	-.00055	.00079	-.00626	-.05924
#2	.00150	-.00218	.04087	-.00096	-.00088	-.00672	-.02402
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00037	.01272	-.00035	-.00096	-.67758	-.00105	-.00845
SDev	.00043	.00267	.00066	.00013	.00287	.00000	.00026
%RSD	114.82	20.977	186.46	13.236	.42410	.04419	3.1369
#1	-.00007	.01460	-.00082	-.00105	-.67555	-.00105	-.00826
#2	-.00067	.01083	.00011	-.00087	-.67961	-.00105	-.00864
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01746	.00278	.00782	-.00449	.00572	.01202	-.00448
SDev	.00706	.00047	.01036	.00099	.00173	.00567	.01140
%RSD	40.438	16.820	132.45	22.015	30.211	47.189	254.62
#1	.01247	.00311	.01515	-.00379	.00694	.00801	.00358
#2	.02245	.00245	.00050	-.00519	.00450	.01603	-.01253
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.00665	.00809	-.00030	-.00240	.03118		
SDev	.01492	.00972	.00096	.00716	.00789		
%RSD	224.32	120.15	319.23	298.94	25.296		
#1	.01720	.01496	.00038	.00267	.03676		
#2	-.00390	.00122	-.00098	-.00746	.02561		

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Method: 6010B Sample Name: S4436-15  
 Run Time: 09/10/04 18:53:29  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00428	-.01578	-.00010	-.00190	-.00029	-.02267	.02420
SDev	.00175	.00698	.00098	.00089	.00018	.00074	.00020
%RSD	40.974	44.254	1035.0	46.491	60.218	3.2493	.81625
#1	.00304	-.02072	-.00079	-.00253	-.00017	-.02319	.02434
#2	.00552	-.01084	.00060	-.00128	-.00042	-.02215	.02406
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00132	-.00233	238.05	.00182	.00195	-.00271	.26942
SDev	.00015	.00045	.05	.00278	.00165	.00155	.03324
%RSD	11.459	19.498	.02092	152.83	84.520	57.196	12.337
#1	.00142	-.00201	238.02	.00378	.00312	-.00162	.24592
#2	.00121	-.00265	238.09	-.00015	.00079	-.00381	.29292
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.89881	37.437	.01749	-.00054	69.874	.00116	.02671
SDev	.00028	.228	.00051	.00138	1.046	.00206	.00078
%RSD	.03150	.60932	2.9408	253.73	1.4970	178.71	2.9230
#1	.89901	37.598	.01786	.00043	70.613	.00262	.02616
#2	.89861	37.275	.01713	-.00152	69.134	-.00030	.02726
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.3047	-.00176	-.00056	-.00175	-.00127	.00757	-.00833
SDev	.0424	.00030	.00008	.00001	.00148	.00197	.00217
%RSD	.98413	17.178	13.791	.70531	116.71	25.961	26.006
#1	4.3347	-.00155	-.00061	-.00174	-.00232	.00896	-.00987
#2	4.2747	-.00197	-.00050	-.00176	-.00022	.00618	-.00680
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00973	.40672	-.00253	-.37300	4.2564		
SDev	.00124	.00113	.00000	.00961	.0049		
%RSD	12.774	.27788	.00000	2.5768	.11583		
#1	-.01061	.40752	-.00253	-.37980	4.2599		
#2	-.00885	.40592	-.00253	-.36620	4.2529		

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Method: 6010B Sample Name: S4436-16  
 Run Time: 09/10/04 18:55:21  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00382	-.01242	-.00404	-.00326	.00401	-.01889	.02886
SDev	.00718	.01323	.00254	.00195	.00048	.00158	.00020
%RSD	187.74	106.50	62.990	59.860	11.906	8.3736	.68381
#1	-.00125	-.00307	-.00224	-.00188	.00367	-.01777	.02900
#2	.00890	-.02178	-.00583	-.00463	.00435	-.02001	.02872
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00117	-.00209	461.60	.00275	.00062	-.00117	-.02994
SDev	.00025	.00147	.89	.00497	.00307	.00147	.00838
%RSD	21.308	70.483	.19365	180.26	492.63	125.68	27.975
#1	.00134	-.00105	462.23	.00627	.00279	-.00013	-.03586
#2	.00099	-.00313	460.97	-.00076	-.00155	-.00221	-.02402
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.43215	183.44	.00115	-.00069	228.71	.00224	.01570
SDev	.00128	.90	.00191	.00197	2.50	.00465	.00104
%RSD	.29639	.49231	165.83	287.00	1.0923	207.58	6.6459
#1	.43305	184.08	.00250	.00071	230.48	.00552	.01644
#2	.43124	182.80	-.00020	-.00208	226.95	-.00105	.01496
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	59.209	.00309	.00264	-.00990	-.00311	.01274	-.01304
SDev	1.753	.00064	.00015	.00026	.00394	.00023	.00304
%RSD	2.9608	20.721	5.6785	2.6579	126.98	1.8250	23.297
#1	60.449	.00264	.00254	-.01009	-.00032	.01257	-.01089
#2	57.970	.00355	.00275	-.00972	-.00589	.01290	-.01519
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00014	1.2318	-.00371	L-1.2058	8.6225		
SDev	.00124	.0007	.00000	.0011	.0296		
%RSD	873.84	.05505	.00000	.09378	.34307		
#1	.00074	1.2323	-.00371	L-1.2066	8.6434		
#2	-.00102	1.2313	-.00371	L-1.2050	8.6016		

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Method: 6010B Sample Name: S4436-16D Operator: DR  
 Run Time: 09/10/04 18:57:11  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00743	-.01539	-.00334	-.00874	.00208	-.01892	.02872
SDev	.00048	.00349	.00124	.00174	.00036	.00610	.00000
%RSD	6.4445	22.653	37.174	19.880	17.499	32.260	.00029
#1	.00709	-.01293	-.00246	-.00997	.00182	-.02324	.02872
#2	.00777	-.01786	-.00421	-.00751	.00234	-.01461	.02872
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00103	-.00306	468.15	-.00045	.00012	-.00204	-.02989
SDev	.00005	.00150	1.20	.00015	.00094	.00008	.00831
%RSD	5.1518	49.035	.25527	32.742	772.40	4.0610	27.792
#1	.00099	-.00412	468.99	-.00034	-.00055	-.00210	-.03577
#2	.00107	-.00200	467.30	-.00055	.00079	-.00198	-.02402
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.43869	184.57	.00042	-.00176	227.91	-.00068	.01586
SDev	.00028	.22	.00015	.00000	1.58	.00052	.00026
%RSD	.06484	.11997	34.562	.22101	.69178	75.496	1.6464
#1	.43889	184.41	.00032	-.00176	226.80	-.00032	.01567
#2	.43849	184.73	.00053	-.00175	229.03	-.00105	.01604
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	58.108	.00167	-.00032	-.00768	-.00317	.00668	-.01824
SDev	.359	.00109	.00327	.00126	.00123	.00139	.00330
%RSD	.61709	65.056	1037.6	16.356	38.896	20.776	18.083
#1	57.855	.00244	-.00263	-.00679	-.00230	.00766	-.02057
#2	58.362	.00090	.00200	-.00856	-.00404	.00570	-.01591
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00118	1.2452	-.00371	L-1.2162	8.6710		
SDev	.00158	.0066	.00013	.0008	.0232		
%RSD	133.96	.52642	3.4643	.06199	.26724		
#1	-.00006	1.2406	-.00362	L-1.2167	8.6546		
#2	-.00230	1.2498	-.00380	L-1.2156	8.6874		

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Method: 6010B  
 Run Time: 09/10/04 18:59:05  
 Comment:  
 Mode: CONC

Sample Name: S4436-16LX5  
 Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00325	-.00006	.00100	-.00690	.00384	-.03458	.00287
SDev	.00128	.00977	.00057	.00282	.00117	.00230	.00000
%RSD	39.248	15126.	56.652	40.939	30.373	6.6435	.00579
#1	.00415	-.00697	.00140	-.00490	.00302	-.03295	.00287
#2	.00235	.00684	.00060	-.00889	.00467	-.03620	.00287
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00110	-.00310	110.04	-.00179	-.00004	-.00563	-.04749
SDev	.00005	.00016	.31	.00088	.00071	.00025	.01661
%RSD	4.5968	5.2591	.28012	48.977	1596.2	4.3706	34.967
#1	.00114	-.00299	109.82	-.00241	.00046	-.00580	-.05923
#2	.00107	-.00322	110.26	-.00117	-.00055	-.00545	-.03575
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09568	40.765	-.00113	-.00126	33.548	-.00141	-.00473
SDev	.00014	.079	.00029	.00046	.178	.00051	.00027
%RSD	.14946	.19307	25.956	36.231	.53107	36.274	5.6239
#1	.09558	40.709	-.00092	-.00094	33.422	-.00105	-.00454
#2	.09578	40.820	-.00134	-.00158	33.674	-.00178	-.00491
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.0324	.00476	-.00120	-.00152	.00026	.00969	-.01688
SDev	.0419	.00171	.00009	.00088	.00041	.00544	.00709
%RSD	.46344	35.866	7.1533	57.614	157.96	56.150	42.014
#1	9.0028	.00355	-.00126	-.00090	.00055	.00584	-.01186
#2	9.0620	.00597	-.00114	-.00214	-.00003	.01353	-.02189
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00710	.24369	-.00203	-.24147	1.7941		
SDev	.00136	.00339	.00006	.00565	.0044		
%RSD	19.115	1.3914	3.1677	2.3414	.24732		
#1	-.00806	.24608	-.00198	-.23747	1.7973		
#2	-.00614	.24129	-.00207	-.24547	1.7910		

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Method: 6010B Sample Name: S4436-10  
 Run Time: 09/10/04 19:04:03  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.68072	1.7940	.82904	1.8235	.71448	1.9849	1.7218
SDev	.01951	.0386	.02487	.0008	.01673	.0283	.0289
%RSD	2.8659	2.1523	3.0004	.04644	2.3421	1.4266	1.6801
#1	.69452	1.8213	.84663	1.8229	.72631	2.0049	1.7422
#2	.66693	1.7667	.81145	1.8241	.70265	1.9649	1.7013
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.13827	.14845	486.48	.28681	.15044	.24881	2.1734
SDev	.00486	.00484	23.66	.01270	.00496	.00140	.1078
%RSD	3.5116	3.2593	4.8637	4.4296	3.2939	.56256	4.9593
#1	.14170	.15187	503.21	.29579	.15395	.24980	2.2496
#2	.13484	.14503	469.74	.27782	.14694	.24782	2.0971
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.55441	187.72	.38104	.08039	234.30	.21490	.19089
SDev	.02350	3.70	.00910	.00131	2.20	.00673	.00775
%RSD	4.2382	1.9692	2.3881	1.6345	.93988	3.1299	4.0576
#1	.57102	190.33	.38747	.08132	235.86	.21965	.19636
#2	.53779	185.10	.37460	.07946	232.74	.21014	.18541
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	70.860	.71833	.70356	.80442	.83952	1.8168	1.8252
SDev	.227	.00897	.03228	.00983	.03238	.0072	.0023
%RSD	.32099	1.2492	4.5879	1.2224	3.8574	.39510	.12679
#1	71.021	.72468	.72638	.81138	.86242	1.8117	1.8269
#2	70.699	.71199	.68073	.79747	.81663	1.8219	1.8236
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.34531	1.5016	.15499	-.53212	9.5690		
SDev	.00577	.0301	.00571	.02054	.2569		
%RSD	1.6695	2.0021	3.6874	3.8605	2.6843		
#1	.34938	1.5228	.15903	-.51759	9.7506		
#2	.34123	1.4803	.15095	-.54664	9.3874		

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Method: 6010B Sample Name: S4436-11  
 Run Time: 09/10/04 19:05:58  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.65632	1.7536	.80521	1.8211	.70039	1.9465	1.6859
SDev	.01438	.0031	.00021	.0001	.00684	.0092	.0015
%RSD	2.1906	.17941	.02648	.00466	.97698	.47046	.08966
#1	.64615	1.7559	.80505	1.8212	.70523	1.9401	1.6848
#2	.66648	1.7514	.80536	1.8211	.69555	1.9530	1.6870
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.13491	.14670	473.24	.28061	.14844	.24430	2.0854
SDev	.00093	.00089	3.67	.00102	.00071	.00107	.0498
%RSD	.69044	.60345	.77560	.36383	.47729	.43625	2.3878
#1	.13425	.14608	470.64	.27989	.14894	.24354	2.0502
#2	.13557	.14733	475.83	.28133	.14794	.24505	2.1206
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.53930	184.83	.37310	.07954	228.99	.21051	.18670
SDev	.00385	.78	.00154	.00014	.05	.00052	.00128
%RSD	.71315	.42222	.41288	.17172	.02217	.24660	.68787
#1	.53658	184.27	.37201	.07944	229.03	.21014	.18580
#2	.54202	185.38	.37419	.07963	228.96	.21088	.18761
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	69.121	.70967	.67861	.79317	.80941	1.8068	1.8267
SDev	.035	.01106	.00160	.00067	.00066	.0030	.0016
%RSD	.05034	1.5580	.23538	.08489	.08102	.16660	.08923
#1	69.097	.71749	.67748	.79365	.80895	1.8047	1.8279
#2	69.146	.70185	.67974	.79270	.80988	1.8089	1.8256
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	.33316	1.4810	.15091	-.56010	9.3407		
SDev	.00192	.0050	.00071	.00283	.0148		
%RSD	.57678	.33579	.46809	.50472	.15835		
#1	.33180	1.4775	.15041	-.56210	9.3511		
#2	.33452	1.4845	.15140	-.55810	9.3302		

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Method: 6010B      Sample Name: S4436-16A      Operator: DR  
 Run Time: 09/10/04 19:08:02  
 Comment:  
 Mode: CONC      Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.67259	1.7775	.81877	1.8233	.69255	1.9703	1.7037
SDev	.00416	.0104	.00575	.0041	.00214	.0046	.0051
%RSD	.61876	.58635	.70195	.22513	.30926	.23427	.30100

#1	.66965	1.7702	.81470	1.8204	.69103	1.9671	1.7001
#2	.67553	1.7849	.82283	1.8262	.69406	1.9736	1.7073

Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.13743	.14952	481.44	.28650	.15111	.24754	2.1264
SDev	.00212	.00080	8.31	.00526	.00212	.00074	.0082
%RSD	1.5408	.53349	1.7262	1.8353	1.4049	.29806	.38771

#1	.13593	.14896	475.57	.28278	.14961	.24702	2.1206
#2	.13893	.15008	487.32	.29022	.15261	.24806	2.1322

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.54837	186.55	.38010	.08086	230.81	.21380	.18962
SDev	.00897	1.48	.00822	.00128	.75	.00310	.00494
%RSD	1.6358	.79374	2.1628	1.5787	.32371	1.4507	2.6047

#1	.54202	185.50	.37429	.07996	231.33	.21161	.18613
#2	.55471	187.60	.38592	.08177	230.28	.21599	.19312

Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	69.696	.69996	.67449	.81038	.82115	1.8306	1.8180
SDev	.516	.00294	.00055	.01694	.00016	.0103	.0010
%RSD	.74026	.41956	.08146	2.0909	.01915	.56243	.05577

#1	70.060	.69788	.67410	.79840	.82104	1.8233	1.8173
#2	69.331	.70204	.67488	.82236	.82127	1.8379	1.8187

Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881
Units	ppm	ppm	ppm	ppm	ppm
Avge	.34515	1.5033	.15354	.56090	9.4648
SDev	.00667	.0086	.00161	.00358	.0414
%RSD	1.9322	.57137	1.0456	.63839	.43755

#1	.34043	1.4973	.15240	.55837	9.4355
#2	.34986	1.5094	.15467	.56343	9.4941

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Analysis Report

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Method: 6010B Sample Name: S4436-19  
 Run Time: 09/10/04 19:09:55  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00217	.00112	.00501	.00117	.00167	-.01354	.07051
SDev	.00320	.01708	.00181	.01117	.00088	.00307	.00020
%RSD	147.55	1524.3	36.204	955.89	52.827	22.700	.27938
#1	-.00443	.01320	.00629	.00907	.00105	-.01572	.07065
#2	.00009	-.01096	.00373	-.00673	.00230	-.01137	.07037
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00125	-.00310	188.01	-.00118	.00029	-.00209	.16969
SDev	.00015	.00010	2.00	.00146	.00071	.00049	.02493
%RSD	12.057	3.2538	1.0656	124.32	244.67	23.474	14.693
#1	.00114	-.00317	189.43	-.00221	-.00021	-.00243	.18732
#2	.00136	-.00303	186.60	-.00014	.00079	-.00174	.15206
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.27963	23.443	-.00031	-.00167	44.918	-.00250	.01288
SDev	.00256	.104	.00162	.00057	.271	.00206	.00103
%RSD	.91693	.44383	527.27	34.210	.60349	82.592	8.0190
#1	.28144	23.370	-.00145	-.00207	44.726	-.00396	.01361
#2	.27781	23.517	.00084	-.00126	45.110	-.00104	.01215
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0983	.00123	-.00064	-.00162	.00632	.01249	-.00628
SDev	.3445	.00326	.00389	.00246	.00395	.00509	.01420
%RSD	16.416	266.02	607.80	152.00	62.446	40.777	226.09
#1	1.8547	-.00108	.00211	-.00335	.00911	.01609	.00376
#2	2.3419	.00354	-.00339	.00012	.00353	.00889	-.01632
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00933	.27741	-.00239	-.20855	4.5611		
SDev	.00136	.00316	.00019	.00584	.0306		
%RSD	14.532	1.1407	8.0589	2.8014	.67017		
#1	-.00837	.27965	-.00225	-.21269	4.5827		
#2	-.01029	.27517	-.00253	-.20442	4.5395		

029/10/04

Method: 6010B Sample Name: S4436-20 Operator: DR  
 Run Time: 09/10/04 19:11:44  
 Comment:  
 Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00224	-.00917	-.00101	-.00048	.00272	-.02379	.00277
SDev	.00208	.00488	.00048	.00164	.00031	.00381	.00013
%RSD	92.870	53.270	47.757	343.60	11.432	16.020	4.7381
#1	.00077	-.00572	-.00136	-.00164	.00294	-.02110	.00287
#2	.00371	-.01262	-.00067	.00068	.00250	-.02649	.00268
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00132	-.00191	7.1346	-.00159	-.00138	-.00492	.20490
SDev	.00005	.00071	.0640	.00117	.00071	.00123	.00830
%RSD	3.9154	36.915	.89730	73.530	51.330	24.940	4.0528
#1	.00129	-.00241	7.0893	-.00242	-.00188	-.00579	.21077
#2	.00136	-.00141	7.1798	-.00076	-.00088	-.00405	.19903
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01343	8.8964	-.00062	-.00217	5.6323	-.00177	.01292
SDev	.00028	.1174	.00044	.00127	.9148	.00000	.00078
%RSD	2.1158	1.3195	71.182	58.589	16.241	.10153	6.0759
#1	.01323	8.8134	-.00031	-.00307	4.9855	-.00177	.01237
#2	.01363	8.9794	-.00093	-.00127	6.2791	-.00177	.01348
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.98211	.00145	.00206	.00326	-.00515	.01023	-.00752
SDev	.00756	.00046	.00186	.00332	.00238	.00035	.00215
%RSD	.77028	31.993	90.375	101.71	46.281	3.3880	28.594
#1	.97676	.00112	.00337	.00561	-.00683	.00998	-.00904
#2	.98746	.00177	.00074	.00092	-.00346	.01047	-.00600
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	-.00885	.05364	-.00153	.00320	.43349		
SDev	.00023	.00090	.00000	.01357	.01085		
%RSD	2.5532	1.6855	.00000	423.85	2.5021		
#1	-.00869	.05428	-.00153	-.00639	.44116		
#2	-.00901	.05300	-.00153	.01280	.42582		

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Analysis Report

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Method: 6010B Sample Name: S4436-21  
 Run Time: 09/10/04 19:13:31  
 Comment:  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00081	-.02171	.00387	-.00436	.00187	-.01463	-.00067
SDev	.00255	.01220	.00086	.00104	.00268	.00001	.00013
%RSD	314.50	56.184	22.334	23.752	143.19	.06987	19.721
#1	.00099	-.03034	.00326	-.00510	-.00002	-.01463	-.00057
#2	-.00262	-.01309	.00449	-.00363	.00377	-.01462	-.00076
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00147	-.00246	2.0260	-.00096	-.00272	-.00210	.03468
SDev	.00005	.00025	.0047	.00088	.00118	.00016	.03321
%RSD	3.6044	10.112	.23407	90.932	43.471	7.7433	95.762
#1	.00151	-.00229	2.0226	-.00159	-.00355	-.00221	.05817
#2	.00143	-.00264	2.0293	-.00034	-.00188	-.00198	.01120
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00064	.37116	-.00139	-.00159	.41154	-.00141	.01171
SDev	.00014	.13607	.00022	.00013	.19828	.00052	.00001
%RSD	22.534	36.660	15.849	8.2556	48.180	36.576	.06039
#1	.00074	.27495	-.00155	-.00149	.27134	-.00177	.01170
#2	.00054	.46737	-.00124	-.00168	.55175	-.00104	.01171
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04706	.00299	-.00358	.00621	.00071	.00171	-.00920
SDev	.02875	.00327	.00151	.00119	.00189	.00034	.00138
%RSD	61.086	109.12	42.184	19.149	265.59	20.144	15.021
#1	.02673	.00068	-.00464	.00705	-.00063	.00147	-.01017
#2	.06739	.00530	-.00251	.00537	.00205	.00196	-.00822
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	-.00893	.00889	.00006	-.00373	.15947		
SDev	.00147	.00000	.00006	.00942	.00099		
%RSD	16.447	.00000	104.38	252.75	.61830		
#1	-.00997	.00889	.00011	-.01039	.16017		
#2	-.00790	.00889	.00002	.00293	.15878		

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Analysis Report

QC Standard

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Method: 6010B Sample Name: CCV  
 Run Time: 09/10/04 19:15:23  
 Comment: CCV  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0709	5.1335	4.8482	5.2744	4.9594	9.7683	9.9910
SDev	.0128	.0397	.0016	.0530	.0129	.0075	.0101
%RSD	.25180	.77318	.03286	1.0047	.26053	.07628	.10134
#1	5.0619	5.1615	4.8493	5.2369	4.9503	9.7630	9.9838
#2	5.0800	5.1054	4.8470	5.3118	4.9686	9.7736	9.9982
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.24554	2.4647	24.526	.95317	2.3778	1.1687	4.5913
SDev	.00059	.0040	.100	.00540	.0068	.0002	.0168
%RSD	.23843	.16359	.40604	.56676	.28790	.02073	.36658
#1	.24596	2.4676	24.596	.95699	2.3826	1.1686	4.5794
#2	.24513	2.4619	24.456	.94935	2.3730	1.1689	4.6032
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.3603	24.239	2.4508	1.2567	24.426	2.3473	2.4729
SDev	.0050	.043	.0023	.0029	.301	.0165	.0118
%RSD	.21111	.17610	.09286	.23022	1.2314	.70285	.47579
#1	2.3638	24.270	2.4524	1.2587	24.638	2.3590	2.4812
#2	2.3568	24.209	2.4492	1.2546	24.213	2.3356	2.4646
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.104	5.0524	4.7700	4.8209	4.8600	5.2543	5.2828
SDev	.021	.0017	.0353	.0244	.0098	.0071	.0759
%RSD	.08438	.03428	.74072	.50588	.20138	.13441	1.4372
#1	25.119	5.0512	4.7450	4.8381	4.8531	5.2493	5.2291
#2	25.089	5.0537	4.7949	4.8037	4.8669	5.2593	5.3365
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avge	4.9601	4.9983	4.6964	4.7468	5.4776		
SDev	.0253	.0194	.0053	.0177	.0182		
%RSD	.51047	.38892	.11212	.37321	.33302		
#1	4.9422	4.9846	4.7001	4.7594	5.4647		
#2	4.9780	5.0121	4.6927	4.7343	5.4905		

029110/04



Method: 6010B Sample Name: CCB  
 Run Time: 09/10/04 19:17:26  
 Comment: CCB  
 Mode: CONC Corr. Factor: 1

Operator: DR

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00483	-.00150	.00321	-.00045	.00659	.00912	-.00225
SDev	.00671	.00873	.00393	.00363	.00032	.00306	.00184
%RSD	138.77	581.95	122.57	806.83	4.9273	33.586	81.993
#1	.00958	-.00767	Q.00599	.00212	.00636	.01129	-.00094
#2	.00009	.00467	.00043	-.00302	.00681	.00696	-.00355
Elem	Be3130	Cd2265	Ca3179	Cr2677	Co2296	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00176	-.00137	.08111	-.00065	-.00071	-.00649	-.02988
SDev	.00005	.00045	.01423	.00044	.00354	.00066	.00831
%RSD	3.0046	32.900	17.541	67.085	497.15	10.116	27.795
#1	.00180	-.00168	.09116	-.00034	.00179	-.00603	-.02401
#2	.00172	-.00105	.07105	-.00096	-.00322	-.00696	-.03576
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na3302	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00047	.02498	-.00035	-.00079	-.63085	-.00141	-.00882
SDev	.00057	.00133	.00095	.00011	.03448	.00051	.00026
%RSD	120.89	5.3400	269.30	14.189	5.4662	36.425	2.9210
#1	-.00007	.02404	.00032	-.00087	-.60646	-.00178	-.00864
#2	-.00087	.02592	-.00103	-.00071	-.65523	-.00105	-.00900
Elem	K_7664	2068-2	2068-1	2203-1	2203-2	1960-1	1960-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00926	.00531	.00594	-.00338	.00450	.00957	-.00725
SDev	.02269	.00062	.00222	.00028	.00576	.00151	.00469
%RSD	245.13	11.692	37.308	8.3429	127.95	15.729	64.723
#1	.02531	.00575	.00438	-.00318	.00857	.01063	-.00393
#2	-.00679	.00487	.00751	-.00358	.00043	.00850	-.01057
Elem	Mo2020	B_2496	Ti3349	Sn1899	Si2881		
Units	ppm	ppm	ppm	ppm	ppm		
Avg	.00721	.00793	-.00067	-.00053	.02874		
SDev	.01684	.01175	.00071	.00528	.00641		
%RSD	233.56	148.23	106.22	995.74	22.298		
#1	.01912	.01624	-.00017	-.00320	-.03328		
#2	-.00470	-.00038	-.00116	-.00426	.02421		

09/10/04

54480ASP 54482ASP 54505ASP 54506ASP 54537ASP 54536ASP 54550CLP 54553ASP

CHEMTECH

54362LY 54414ASP 54435C

284 Sheffield Street Mountainside, NJ 07092  
**ICP-1 ANALYSIS RUN LOG**

6010  
 METHOD: 200.7 01/10/04

PROJECT No: 54552CLP 54259 ASP 54167 ASP

54422 NJ 54542 ASP 54543 ASP 54544 ASP 54545 ASP 54546 ASP 54547 ASP 54477 ASP

RUN ID: P1091004 DATE: 09/10/04 ANALYST: J. to Rogn SUPERVISOR REVIEW: J. to R

QC/SAMPLE ID	ANALYSIS TIME	STD. REF. No from Stock Log	LBP #	STD. REF. No. from Prep. Log	LBP #	PREP DATE	DATE OPENED	COMMENT
STD-S0	07:35							
STD-S1	07:37							
STD-S2	07:40							
STD-S	07:54							
<del>WHS</del>	07:57							
<del>WHS/100</del>	08:00							
ICV	08:12							
ICB	08:15							
CRI	08:18							
ICSA	08:23							
ICSAB	08:27							
<del>CCV</del> CCV	08:30							
CCV	08:33							
CCB	08:36							

11/04/04  
OK

11/04/04

QC/SAMPLE ID	CLIENT ID	ANALYSIS TIME	DILUTION FACTOR	COMMENTS
PB0092 BL	PBS	08:38		
PB 10992 BS	LCSS	08:41		
54161-01		08:42		
-02		08:44		
-03		08:46		
-04		08:48		
-05		08:52		
-08		08:54		
-05L		08:56	5	
-07		08:58		
CCV		09:00		
CCB		09:04		
PB00931 BL	PBS	09:08		
PB00931 BS	LCSS	09:10		
54422-01		09:18		

## ICP-1 ANALYSIS RUN LOG

METHOD: 6010B

PROJECT No: \_\_\_\_\_

RUN ID: P1091004 DATE: 09/10/04 ANALYST: D. St. Louis

QC/SAMPLE ID	CLIENT ID	ANALYSIS TIME	DILUTION FACTOR	COMMENTS
S4422-03		09:20		
-03D		09:22		
-03L		09:25		
-03S		09:27		
-03SD		09:29		
-03A		09:30		
-04		09:33		
CCV		09:35		
CCB		09:37		
S4422-05		09:39		
-06		09:41		
-07		09:43		
-08		09:46		
-09		09:48		
-10		09:50		
S4533-01	S4542-01	09:52		
S4543-01		09:54		
S4544-01		09:56		
-02		09:58		
CCV		10:01		
CCB		10:05		
S4545-01		10:08		
-02		10:10		
S4546-01		10:12		

OK  
9/10/04

# ICP-1 ANALYSIS RUN LOG

METHOD: 6010B

PROJECT No: \_\_\_\_\_

RUN ID: P1091004 DATE: 09/10/04 ANALYST: [Signature]

QC/SAMPLE ID	CLIENT ID	ANALYSIS TIME	DILUTION FACTOR	COMMENTS
S4546-02		10:14		
S4547-01		10:17		
-02		10:29		
EXTBLK(9/17/04)	FLUID#1	10:37		TRIP
S4552-01		10:39		↓
-01D		10:41		
-01L		10:43	5	↓
CCV		10:45		
CCB		10:47		
S4552-01S		10:54		TRIP
-01SD		10:56		↓
-01A		10:57		
PB00992 BL	PBLW	<sup>02</sup> 10:11:00		
PB00992 BS	LCSW	<sup>9/10/04</sup> 11:02		↓
PB00661 BL	PBS	11:09		
PB00661 BS	LCS	11:11		
S4167-01		11:13		
-02		11:15		
-03		11:17		
CCV		11:21		
CCB		11:23		
S4167-04		11:25		
-05		11:30		
-06		11:34		

## ICP-1 ANALYSIS RUN LOG

METHOD: 6010B

PROJECT No: \_\_\_\_\_

RUN ID: PP91004 DATE: 09/10/04 ANALYST: S. L. Run

QC/SAMPLE ID	CLIENT ID	ANALYSIS TIME	DILUTION FACTOR	COMMENTS
S4167-06D		11:37		
-06L		11:39	5	
-07		11:41		
-08		11:43		
-06A		11:47		
-09		11:52		
-10		11:57		
CCV		12:05		
CCB		12:08		
S4167-11		12:11		
-12		12:13		
-13		12:15		
-14		12:17		
-15		12:19		
-16		12:25		
-17		12:27		
-18		12:29		
-19		12:31		
PP00987BL	PBS	12:33		
CCV		12:37		
CCB	PP910104	12:39		
PP00987BKS	LCSS	12:42		
S4550-01		12:44		
-02		12:46		

# ICP-1 ANALYSIS RUN LOG

METHOD: G010B

PROJECT No: \_\_\_\_\_

RUN ID: P1091004 DATE: 09/10/04 ANALYST: Shirley Knight

QC/SAMPLE ID	CLIENT ID	ANALYSIS TIME	DILUTION FACTOR	COMMENTS
S4550-03		12:48		
-04		12:51		
-05		12:53		
-05D		12:55		
-06		12:57		
-07		12:59		
S4161-05A		13:03		
CCV		13:05		
CCB		13:07		
S4550-05L		13:11		
-05A		13:12		
PB00888BL	PBS	13:15		
PB00888BS	LCSS	13:17		
S4259-01		13:20		
-02		13:22		
-03		13:23		
-03D		13:25		
-03L		13:29	5	
OK 9/10/04 017		13:31		
CCV		13:33		
CCB		13:35		
S4259-18		13:37		
-03A		13:40	OK 9/10/04	
-04		13:42		

## ICP-2 ANALYSIS RUN LOG

IUP-1

METHOD: 6010B

PROJECT No: \_\_\_\_\_

RUN ID: P1091004 DATE: 09 / 10 / 04 ANALYST: *[Signature]*

QC/SAMPLE ID	CLIENT ID	ANALYSIS TIME	DILUTION FACTOR	COMMENTS
S4259-05		13:45		
-06		13:47		
-07		13:48		
-08		14:08		
-09		14:11		typo!
-10		14:13		↓
-11		14:15		
CCV		14:19		
CCB		14:21		
S4259-12		14:25		
-13		14:27		
-14		14:28		
-15		14:30		
-16		14:32		
PB00986 BL	PBS	14:35		
PB00986 BS	LCSS	14:38		
S4477-07		14:41		
-07D		14:44		
-07L		14:45		
CCV		14:51		
CCB		14:53		
S4477-07S		14:55		
-07SD		14:57		
-07A		14:59		

METHOD: 6010B

PROJECT No: \_\_\_\_\_

 RUN ID: P1091004 DATE: 09 / 10 / 04 ANALYST: D. K.

QC/SAMPLE ID	CLIENT ID	ANALYSIS TIME	DILUTION FACTOR	COMMENTS
S4480-02		15:01		
-03		15:03		
-07		15:05		Ca high
-11		15:07		
S4482-02		15:09		Ca high
-05		15:11		Ca high
-10		15:13		
CCV		15:15		
CCB		15:18		
S4482-11		15:23		
-14		15:26		
-16		15:27		Ca high
-18		15:29		
-22		15:32		Ca high
-25		15:34		
S4505-01		15:36		
-02		15:38		
-03		15:40		
-04		15:43		
CCV		15:45		
CCB		15:50		
S4506-01		15:54		
S4535-01		15:56		
-09		15:58		



ICP-2 ANALYSIS RUN LOG

METHOD: 6010B

PROJECT No: \_\_\_\_\_

RUN ID: P1091004 DATE: 09/10/04 ANALYST: Jito Lopez

QC/SAMPLE ID	CLIENT ID	ANALYSIS TIME	DILUTION FACTOR	COMMENTS
S4535-13		16:01		Ca high
S4536-03		16:03		
-05		16:05		
-08		16:07		
CRI		16:15		
ICSA		16:20		
ICSA B		16:22		
CCV		16:28		
CCB		16:34		
S4480-07		16:41	10	Ca only
S4482-02		16:43	10	↓
-05		16:45	10	
-16		16:47	10	Ca only
-22		16:49	10	↓
<del>S4535</del> -S4535-13		16:51	10	
S4536-09		16:53		
-10		16:55		
S4553-01		16:57		
-02		DUPLICATE 17:00		
CCV		17:02		
CCB		17:05		
S4553-03		17:07		
-04		17:09		
-05		17:11		

09/10/04

## ICP-1 ANALYSIS RUN LOG

METHOD: 6010B

PROJECT No: \_\_\_\_\_

RUN ID: P1091004 DATE: 09/10/04 ANALYST: D. K. R.

QC/SAMPLE ID	CLIENT ID	ANALYSIS TIME	DILUTION FACTOR	COMMENTS
S4553-06		17:13		
PB00854BL	PBW	17:15		
PB00854BS	LCSW	17:17		
PB00854BSD	LCSWD	17:19		
S4366-02		17:22		
S4414-01		17:24		
-02		17:26		
CCV		17:28		
CCB		17:31		
S4414-03		17:34		
-04		17:37		
-05		17:39		
-06		17:41		
-07		17:43		
-08		17:45		
-08D		17:47		
-08L		17:49	5	
-09		17:51		
-10		17:53		
CCV		17:56		
CCB		17:59		
S4414-08A		18:02		
-11		18:04		
-12		18:06		

# ICP-1 ANALYSIS RUN LOG

METHOD: 6010B

PROJECT No: \_\_\_\_\_

RUN ID: P1091004 DATE: 09/10/04 ANALYST: S. L. Kim

QC/SAMPLE ID	CLIENT ID	ANALYSIS TIME	DILUTION FACTOR	COMMENTS
S4414-13		18:08		
-15		18:10		
S4435-01		18:12	0.9/10104	
PB00982BL	PBW	<del>18:18</del> 18:15		
PB00982BS	LCBW	18:19		
S4436-01		18:20		
-02		18:22		
CCV		18:24		
CCB		18:26		
S4436-03		18:28		
-04		18:30		
-05		<del>02911004</del> 18:36		
-06		18:34		
-07		18:36		
-08		18:38		
-09		18:40		
-12		18:41		
-13		18:43		
-14		18:45		
CCV		18:47		
CCB		18:50		
S4436-15		18:53		
-16		18:55		
-16D		18:57		



**WATER SAMPLE PREPARATION WORKSHEET**

SDG No \_\_\_\_\_

Batch #: PB00982

Matrix: WaterICP Digest Date: 9/9/04Method: 3010Sample Received By: [Signature]Initial Vol: 100 mlFinal Vol: 100 mlAnalyst Signature: [Signature]Hot Plate Temp: 1. 2. 3.  
95°CSupervisor Signature: [Signature]

STANDARD NAME	MLS USED	STD REF. # FROM LOG
Spike Sol 1		
Spike Sol 2	<u>1.0 mL</u>	<u>MI 4450</u>
Spike Sol 3	<u>1.0 mL</u>	<u>MI 4451</u>
Spike Sol 4		
Spike Sol 5	<u>1.0 mL</u>	<u>MI 4452</u>

CHEMICAL USED	LOT #
CONC: HNO <sub>3</sub>	<u>MR 170</u>
1:1 HCL	<u>MI 4661</u>
1:1 HNO <sub>3</sub>	
CONC: HCL	

Date/Time	Received By	Relinquished By	Location
<u>9/9/04 12:00</u>	<u>[Signature]</u>	<u>[Signature]</u>	<u>ICP Lab</u>

LAB SAMPLE ID	CLIENT SAMPLE ID	COLOR BEFORE	COLOR AFTER	CLARITY BEFORE	CLARITY AFTER	pH	COMMENTS
S4436-16DUP	ARD2246	C	C	CL	CL	<2	
PB00982BL	PBW	C	C	CL	CL	<2	
PB00982BS	LCSW	C	C	CL	CL	<2	Spike Sol. 2, 3, 5
S4436-01	ARD2254	C	C	CL	CL	<2	
S4436-02	ARD2255	C	C	CL	CL	<2	
S4436-03	ARD2259	C	C	CL	CL	<2	
S4436-04	ARD2256	C	C	CL	CL	<2	
S4436-05	ARD2245	C	C	CL	CL	<2	
S4436-06	ARD2257	C	C	CL	CL	<2	
S4436-07	ARD2252	C	C	CL	CL	<2	
S4436-08	ARD2258	C	C	CL	CL	<2	
S4436-09	ARD2253	C	C	CL	CL	<2	
S4436-10	ARD2246MS	C	C	CL	CL	<2	Spike Sol. 2, 3, 5
S4436-11	ARD2246MSD	C	C	CL	CL	<2	Spike Sol. 2, 3, 5
S4436-12	ARD2247	C	C	CL	CL	<2	
S4436-13	ARD2249	C	C	CL	CL	<2	
S4436-14	ARD2258	C	C	CL	CL	<2	
S4436-15	ARD2250	C	C	CL	CL	<2	
S4436-16	ARD2246	C	C	CL	CL	<2	
S4436-19	ARD2251	C	C	CL	CL	<2	
S4436-20	TR2150	C	C	CL	CL	<2	
S4436-21	ARD0049	C	C	CL	CL	<2	

JN  
9/9/04

JN  
9/9/04

JN  
9/9/04

\* BL=Blank BS=Blank Spike TB=TCLP Blank  
 \* COLOR: R=Red BU=Blue Y=Yellow GR=Green O=Orange V=Violet W=White C=Colorless BR=Brown GY=Grey BL=Black  
 \* CLARITY: CL=Clear CD=Cloudy O=Opaque

**WATER SAMPLE PREPARATION WORKSHEET**

SDG No \_\_\_\_\_



Batch #: PB00982

Matrix: WaterICP Digest Date: 9/9/04

Method: \_\_\_\_\_

Sample Received By: [Signature]Initial Vol: 100 mlFinal Vol: 100 mlAnalyst Signature: Jaya NairHot Plate Temp: 1 2. 3.  
95°CSupervisor Signature: [Signature]

STANDARD NAME	MLS USED	STD REF. # FROM LOG
Spike Sol 2	1.0mL	MI4450
Spike Sol 3	1.0mL	MI4451
Spike Sol 5	1.0mL	MI4452

JN  
9/9/04

CHEMICAL USED	LOT #
CONC: HNO <sub>3</sub>	MR170
1:1 HCL	MI4661

JN  
9/9/04

Batch #: PB00982

LAB SAMPLE ID	CLIENT SAMPLE ID	COLOR BEFORE	COLOR AFTER	CLARITY BEFORE	CLARITY AFTER	pH	COMMENTS
S4436-16DUP	ARD2246	Colorless	Colorless	Clear	Clear	<2	
PB00982BL	PBW	Colorless	Colorless	Clear	Clear	<2	
PB00982BS	LCSW	Colorless	Colorless	Clear	Clear	<2	Spike Sol 2,3,5
S4436-01	ARD2254	Colorless	Colorless	Clear	Clear	<2	
S4436-02	ARD2255	Colorless	Colorless	Clear	Clear	<2	
S4436-03	ARD2259	Colorless	Colorless	Clear	Clear	<2	
S4436-04	ARD2256	Colorless	Colorless	Clear	Clear	<2	
S4436-05	ARD2245	Colorless	Colorless	Clear	Clear	<2	
S4436-06	ARD2257	Colorless	Colorless	Clear	Clear	<2	
S4436-07	ARD2252	Colorless	Colorless	Clear	Clear	<2	
S4436-08	ARD2258	Colorless	Colorless	Clear	Clear	<2	
S4436-09	ARD2253	Colorless	Colorless	Clear	Clear	<2	
S4436-10	ARD2246MS	Colorless	Colorless	Clear	Clear	<2	Spike Sol 2,3,5
S4436-11	ARD2246MSD	Colorless	Colorless	Clear	Clear	<2	Spike Sol 2,3,5
S4436-12	ARD2247	Colorless	Colorless	Clear	Clear	<2	
S4436-13	ARD2249	Colorless	Colorless	Clear	Clear	<2	
S4436-14	ARD2258	Colorless	Colorless	Clear	Clear	<2	
S4436-15	ARD2250	Colorless	Colorless	Clear	Clear	<2	
S4436-16	ARD2246	Colorless	Colorless	Clear	Clear	<2	
S4436-19	ARD2251	Colorless	Colorless	Clear	Clear	<2	
S4436-20	TR2150	Colorless	Colorless	Clear	Clear	<2	
S4436-21	ARD0049	Colorless	Colorless	Clear	Clear	<2	

JN  
9/9/04

JN  
9/9/04

JN  
9/9/04

[Back To Main](#)

\* BL=Blank BS=Blank Spike TB=TCLP Blank

\* COLOR: R=Red BU=Blue Y=Yellow GR=Green O=Orange V=Violet W=White C=Colorless BR=Brown GY=Grey BL=Black

\* CLARITY: CL=Clear CD=Cloudy O=Opaque



MISCELLANEOUS  
DATA

**CHEMTECH** 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#: 20012; NEW YORK LAB ID#: 11376

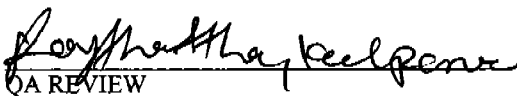
**METALS CONFORMANCE/NON-CONFORMANCE SUMMARY**

CHEMTECH PROJECT NUMBER: S4436

MATRIX: Water

METHOD: 6010

	NA	NO	YES
1. Calibration Summary met criteria.			✓
2. ICP Interference Check Sample Results Summary Submitted.			✓
3. Serial Dilution Summary (if applicable) Submitted.		✓	
The Serial Dilution met the acceptable requirements except for Calcium, Magnesium, Manganese, Potassium and Sodium.			
4. Laboratory Control Sample Summary (if applicable) Submitted.			✓
5. Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
6. Matrix Spike/Matrix Spike Duplicate Recoveries Met Criteria			✓
If not met, list those compounds and their recoveries which fall outside the acceptable range.			
7. Sample Duplicate Analysis Met QC Criteria			✓
If not met, list those compounds and their recoveries which fall outside the acceptable range.			
8. Digestion Holding Time Met			✓
If not met, list number of days exceeded for each sample:			
9. Analysis Holding Time Met			✓
If not met, list those compounds and their recoveries which fall outside the acceptable range.			

  
QA REVIEW

9/17/04  
Date

**CHEMTECH**

**SHIPPING AND  
RECEIVING  
DOCUMENTATION**



# CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092  
 (908) 789-8900 Fax (908) 789-8922  
 www.chemtech.net

CHEMTECH JOB NO.: 54436  
 CHEMTECH QUOTE NO.:

CLIENT INFORMATION		PROJECT INFORMATION		BILLING INFORMATION	
REPORT TO BE SENT TO:		PROJECT NAME:		BILL TO:	
COMPANY: <u>Parsons</u>		Ash Lavellfill		PO #:	
ADDRESS: <u>100 Summer St 8th Floor</u>		PROJECT NO.: <u>743155</u> LOCATION: <u>Seneca</u>		ADDRESS: <u>SAME</u>	
CITY: <u>Boston</u> STATE: <u>MA</u> ZIP: <u>02110</u>		PROJECT MANAGER: <u>J. Rossman</u>		CITY: _____ STATE: _____ ZIP: _____	
ATTENTION: <u>Jean for Rossman</u>		E-MAIL: <u>jean.f.rossman@parsons.com</u>		ATTENTION: _____ PHONE: _____	
PHONE: <u>617-457-7900</u> FAX: <u>617-457-7979</u>		PHONE: <u>617-457-7900</u> FAX: <u>617-457-7979</u>		ANALYSIS	
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		PRESERVATIVES	
FAX: _____ DAYS: _____		<input type="checkbox"/> RESULTS ONLY		← Specify Preservatives	
HARD COPY: _____ DAYS: _____		<input type="checkbox"/> RESULTS + QC		A - HCl B - HNO <sub>3</sub>	
EDD: _____ DAYS: _____		<input type="checkbox"/> NJ REDUCED		C - H <sub>2</sub> SO <sub>4</sub> D - NaOH	
* TO BE APPROVED BY CHEMTECH		<input type="checkbox"/> NJ CLP		E - ICE F - Other	
** NORMAL TURNAROUND TIME - 14 DAYS		<input checked="" type="checkbox"/> EDD FORMAT		1 2 3 4 5 6 7 8 9	
CHEMTECH SAMPLE ID		PROJECT IDENTIFICATION		COMMENTS	
1. <u>ARD 2254</u>		<u>W</u>		<u>A E A E B E A E</u>	
2. <u>ARD 2255</u>		<u>W</u>		<u>3 3 1</u>	
3. <u>ARD 2259</u>		<u>W</u>		<u>3 3 1</u>	
4. <u>ARD 2250</u>		<u>W</u>		<u>3 3 1</u>	
5. <u>ARD 2245</u>		<u>W</u>		<u>3 3 1</u>	
6. <u>ARD 2257</u>		<u>W</u>		<u>3 3 1</u>	
7. <u>ARD 2252</u>		<u>W</u>		<u>3 3 1</u>	
8. <u>ARD 2258</u>		<u>W</u>		<u>3 3 1</u>	
RELINQUISHED BY SAMPLER:		DATE/TIME:		SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY	
1. <u>[Signature]</u>		1. <u>8/24/04 1700</u>		Conditions of bottles or coolers at receipt: <input type="checkbox"/> Compliant <input type="checkbox"/> Non-Compliant <input type="checkbox"/> Temp. of Cooler <u>4</u>	
RELINQUISHED BY:		DATE/TIME:		MeOH extractions requires an additional 4oz. jar for percent solid.	
2. <u>[Signature]</u>		2. _____		Comments:	
RELINQUISHED BY:		DATE/TIME:		Shipped Via: Client <input type="checkbox"/> Hand Delivered <input checked="" type="checkbox"/> Overnight <input type="checkbox"/> Overnight Complete <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	
3. <u>Fair Ex</u>		3. <u>8/24/04 9:00 PM</u>		Page <u>1</u> of <u>3</u>	

NJ (360) 423-5213  
 NJ (360) 423-5213  
 NJ (360) 423-5213

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT    YELLOW - CHEMTECH COPY    PINK - SAMPLER COPY    33091



CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092  
(908) 789-8900 Fax (908) 789-8922  
www.chemtech.net

CHEMTECH PROJECT NO.

54434

COC Number 52402

CLIENT INFORMATION		PROJECT INFORMATION		BILLING INFORMATION					
REPORT TO BE SENT TO:		PROJECT NAME:		BILL TO:					
COMPANY: <u>Parsons</u>		<u>Ash hand bill</u>		PO#:					
ADDRESS: <u>100 Summit St 8th Floor</u>		PROJECT NO.: <u>783155</u>		LOCATION: <u>Seneca</u>					
CITY: <u>Boston</u>		PROJECT MANAGER: <u>Jennifer Gossman</u>		ADDRESS: <u>SAME</u>					
ATTENTION: <u>Jennifer Gossman</u>		e-mail: <u>Jennifer.Gossman@parsons.com</u>		CITY: _____					
PHONE: <u>617-457-7900</u>		PHONE: <u>617-457-7900</u>		STATE: _____					
FAX: <u>617-457-7979</u>		FAX: <u>617-457-7979</u>		ZIP: _____					
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		ANALYSIS					
FAX: _____		RESULTS ONLY <input checked="" type="checkbox"/> USEPA CLP		PHONE: _____					
HARD COPY: _____		RESULTS + QC <input checked="" type="checkbox"/> New York State ASP "B"		_____					
EDD: _____		New Jersey REDUCED <input checked="" type="checkbox"/> New York State ASP "A"		_____					
* TO BE APPROVED BY CHEMTECH		New Jersey CLP <input type="checkbox"/> Other _____		_____					
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS		<input checked="" type="checkbox"/> EDD FORMAT		_____					
CHEMTECH SAMPLE ID	PROJECT IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE	SAMPLE COLLECTION DATE	TIME	SEALS	PRESERVATIVES	COMMENTS	
1. 9	ARD 2253	W	X	8-29-04	1130	7	A, E, A, E, B, A, E		
2. 10	ARD 2246 ms	W	X	8-29-04	1130	7	B, B, B, B, B, B, B		
3. 11	ARD 2246 MSD	W	X	8-29-04	1130	7	B, B, B, B, B, B, B		
4. 12	ARD 2247	W	X	8-29-04	1300	7	B, B, B, B, B, B, B		
5. 13	ARD 2249	W	X	8-29-04	1445	7	B, B, B, B, B, B, B		
6. 14	ARD 2258	W	X	8-29-04	1710	7	B, B, B, B, B, B, B		
7. 15	ARD 2250	W	X	8-29-04	0927	7	B, B, B, B, B, B, B		
8. 16	ARD 2246	W	X	8-29-04	1130	7	B, B, B, B, B, B, B		
9. 17	TR 0050	W	X			2		Trip Blank	
10. 18	ARD 0016	W	X			2		Trip Blank	
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY									
RELINQUISHED BY: <u>[Signature]</u>	DATE/TIME: <u>8/29/04 1700</u>	RECEIVED BY: _____							
RELINQUISHED BY: _____	DATE/TIME: _____	RECEIVED BY: _____							
RELINQUISHED BY: <u>FED SA</u>	DATE/TIME: <u>08/11/04 AM</u>	RECEIVED FOR LAB BY: <u>[Signature]</u>							
Comments: Conditions of bottles or coolers at receipt: <input type="checkbox"/> Compliant <input type="checkbox"/> Non Compliant <input type="checkbox"/> Cooler Temp. <u>LC</u> MeOH extraction requires an additional 4 oz jar for percent solid.			SHIPPED VIA: CLIENT: <input type="checkbox"/> HAND DELIVERED <input type="checkbox"/> OVERNIGHT <input type="checkbox"/> PICKED UP <input type="checkbox"/> OVERNIGHT <input type="checkbox"/> YES <input type="checkbox"/> NO						
Page <u>2</u> of <u>3</u>			SHIPMENT COMPLETE: <input type="checkbox"/> YES <input type="checkbox"/> NO						

# CHEMTECH

## CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092  
 (908) 789-8900 Fax (908) 789-8922  
 www.chemtech.net

CHEMTECH JOB NO.: 546136  
 CHEMTECH QUOTE NO.:

CLIENT INFORMATION		PROJECT INFORMATION		BILLING INFORMATION											
REPORT TO BE SENT TO:		PROJECT NAME:		BILL TO:											
COMPANY: <u>Parsons</u>		<u>Ashtonside Hill</u>		PO #:											
ADDRESS: <u>100 Summer St 8th Fl</u>		PROJECT NO.: <u>743155</u> LOCATION: <u>Somerville</u>		ADDRESS: <u>SPM</u>											
CITY: <u>Boston</u> STATE: <u>MA</u> ZIP: <u>02110</u>		PROJECT MANAGER: <u>J Rossman</u>		CITY: STATE: ZIP:											
ATTENTION: <u>Jennifer Rossman</u>		E-MAIL: <u>jennifer.rossman</u>		ATTENTION: PHONE:											
PHONE: <u>617-457-7900</u> FAX: <u>617-457-7979</u>		PHONE: <u>617-457-7900</u> FAX: <u>617-457-7979</u>		ANALYSIS:											
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		PRESERVATIVES											
<input type="checkbox"/> RESULTS ONLY <input type="checkbox"/> RESULTS + OC <input type="checkbox"/> NJ REDUCED <input type="checkbox"/> NJ CLP <input checked="" type="checkbox"/> EDD FORMAT:		<input type="checkbox"/> USEPA CLP <input checked="" type="checkbox"/> NYS ASP "B" <input checked="" type="checkbox"/> NYS ASP "A" <input type="checkbox"/> EDD		1 2 3 4 5 6 7 8 9											
FAX: _____ DAYS * _____		FAX: _____ DAYS * _____		COMMENTS											
HARD COPY: _____ DAYS * _____		HARD COPY: _____ DAYS * _____		+ Specify Preservatives A - HCl B - HNO <sub>3</sub> C - H <sub>2</sub> SO <sub>4</sub> D - NaOH E - ICE F - Other											
EDD: _____ DAYS * _____		EDD: _____ DAYS * _____													
* TO BE APPROVED BY CHEMTECH		* TO BE APPROVED BY CHEMTECH													
** NORMAL TURNAROUND TIME - 14 DAYS		** NORMAL TURNAROUND TIME - 14 DAYS													
CHEMTECH SAMPLE ID	PROJECT IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE	SAMPLE COLLECTION DATE	TIME	# OF BOTTLES	1	2	3	4	5	6	7	8	9
1. 19	ARD 2261	W	AS	8-30-04	0900	7	A.E.	A.E.	A.E.	B.E.					
2. 20	TR2150	W	AS	8-30-04	1221	7	3	3	3	1					
3. 21	ARD0044	W	AS	8-30-04	0830	7	3	3	3	1					
4.															
5.															
6.															
7.															
8.															

REQUISITIONED BY SAMPLER: \_\_\_\_\_ RECEIVED BY: \_\_\_\_\_

1. [Signature] DATE/TIME: 8/24/04 1000 1. \_\_\_\_\_

REQUISITIONED BY: \_\_\_\_\_ RECEIVED BY: \_\_\_\_\_

2. \_\_\_\_\_ DATE/TIME: \_\_\_\_\_ 2. \_\_\_\_\_

REQUISITIONED BY: \_\_\_\_\_ RECEIVED FOR LAB BY: \_\_\_\_\_

3. [Signature] DATE/TIME: 08/31/04 9:10 AM 3. [Signature]

Comments: \_\_\_\_\_

Shipped Via: Client  Hand Delivered  Picked Up  Overnight  Overnight Complete  No

Chemtech  Non-Compliant  Temp. of Cooler 4°C

MeOH extractions requires an additional 4oz. jar for percent solid.

Page 3 of 3

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

Ver. 9/2002

**FedEx**® USA Airbill  
Express

FedEx  
Tracking  
Number

840693935031

1 From 8-30-04

Date 8-30-04

Sender's Name JOHN ROSSIGNAN Phone 617 457-7100

Company Parsons

Address 100 Summer St

City Boston State MA ZIP 02110

2 Your Internal Billing Reference 743155-06100

3 To Recipient's Name Kurt Phone 908 789-8700

Company Chemtech

Address 224 Sheffield St

City Acramtansite State NJ ZIP 07092



*Handwritten notes:*  
 8/30/04  
 10/15/08  
 [Signature]

**Recipient's Copy**

4a Express Package Service  
 FedEx Priority Overnight  
 FedEx Standard Overnight  
 FedEx Express Saver  
 FedEx 2Day  
 FedEx 1Day Freight\*  
 FedEx 2Day Freight  
 FedEx 3Day Freight

4b Express Freight Service  
 FedEx Pak\*  
 Other

5 Packaging  
 FedEx Envelope\*  
 Other

6 Special Handling  
 SATURDAY Delivery  
 HOLD Weekday at FedEx Location  
 HOLD Weekday at FedEx Location  
 HOLD Saturday at FedEx Location

7 Payment \$/lb for:  
 Sender  
 Recipient  
 Third Party  
 Credit Card  
 Cash/Check

8 Release Signature

Total Packages: 1  
 Total Weight: 2.6  
 Total Declared Value: \$ .00  
 Total Charges: Credit Card Auth.

9 Release Signature  
 [Signature]

446

**FedEx** USA Airbill  
Express Tracking Number **840693935020**

1 From **8330-01**  
 Date **8/30/01**  
 Sender's Name **Wynn Rossman** Phone **617 457-7900**  
 Company **Wynn Rossman**  
 Address **600 Summer St 8th Floor**  
 City **Boston** State **MA** ZIP **02110**

2 Your Internal Billing Reference **743155-06100**  
 3 To Recipient's Name **Kurt +** Phone **908 789-8900**  
 Company **Chemtech**  
 Address **284 Stoffel rd st**  
 City **Myran Township** State **NJ** ZIP **07092**



8406 9393 5020

Original Signature

Recipient's Copy

4a Express Package Service  
 FedEx Priority Overnight  
 FedEx Standard Overnight  
 FedEx First Overnight  
 FedEx Express Saver  
 FedEx 2Day  
 FedEx 1Day Freight  
 FedEx 2Day Freight  
 FedEx 3Day Freight

4b Express Freight Service  
 FedEx Envelope\*  
 FedEx Pak\*  
 Other  
 Special Handling  
 Saturday Delivery  
 Hold Saturday at FedEx Location  
 Hold Sunday at FedEx Location

5 Packaging  
 No  
 Yes  
 Shipper's Declaration  
 Dangerous Goods (including Dry Ice) contents are shipped in FedEx packaging.  
 Recipient  
 Third Party  
 Credit Card  
 Cash/Check  
 Other

6 Special Handling  
 Saturday Delivery  
 Hold Saturday at FedEx Location  
 Hold Sunday at FedEx Location  
 Hold Monday at FedEx Location  
 Hold Tuesday at FedEx Location  
 Hold Wednesday at FedEx Location  
 Hold Thursday at FedEx Location  
 Hold Friday at FedEx Location

7 Payment **BY** for  
 Sender  
 Recipient  
 Third Party  
 Credit Card  
 Cash/Check  
 Other

Total Packages **1** Total Weight **71** Total Declared Value **\$ .00**

8 Release Signature  
 Signature: *[Signature]*  
 Date: **8/30/01**

446

Signature required to deliver this shipment with an attached signature and name to identify and hold us harmless from any possible claims.  
 Questions? Visit our Web site at [fedex.com](http://fedex.com)  
 Rev. Jan 1999 • Part # 57812 • © 1994-2001 FEDEX INC. PRINTED IN U.S.A. WCSJ, US



**CHEMTECH**

254 Sheffield Street Mountainside NJ 07092  
Tel: 908-789-8900

**END OF ANALYTICAL RESULTS**

**DATA PACKAGE FOR  
VOLATILE ORGANICS**

**PROJECT NAME: Seneca Ash Landfill Quarterly Monitoring**

**PARSONS ENGINEERING  
100 SUMMER STREET  
SUITE 800  
BOSTON, MA 02110  
6174577900**

**CHEMTECH PROJECT NO.  
ATTENTION:**

**S4436  
Jennifer Rossmann**

# CHEMTECH

## CASE NARRATIVE

**Parsons Engineering**

**Project Name: Seneca Ash Landfill Quarterly Monitoring**

**Project # NA**

**Chemtech Project # S4436**

**A. Number of Samples and Date of Receipt:**

21 Water samples were received on 8/31/04.

**B. Parameters**

According to the Chain of Custody document, the following analyses were requested: Gases methane, ethane, ethene, Metals Group3, TCL Volatiles + 10, and Volatiles Method 524.2 + 15. This data package contains results for Gases methane, ethane, ethene

**C. Analytical Techniques:**

The analysis performed on instrument GCVOA3 were done using GC column UPLOT, which is 30 meters, 0.32 mm, ID, Cat. # 19724. The Trap was supplied by Supelco, VOCARB 3000, Tekmar 3000.

**D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The MS recoveries met the requirements for all compounds.

The MSD recoveries met the acceptable requirements except for ETHYLENE

The RPD recoveries met for all samples criteria.

The Blank Spike met requirements for all samples.

The Blank analysis did not indicate the presence of lab contamination.

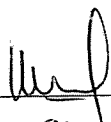
The calibration met the requirements.

**D. Additional Comments:**

Samples ARD2252 and TR215 were diluted due to high concentrations.

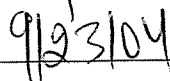
I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature \_\_\_\_\_



Name: Krupa Dubey

Date: \_\_\_\_\_



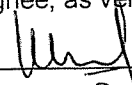
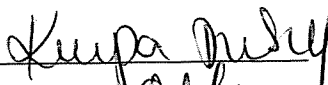
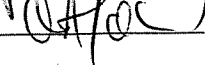
Title: QA/QC

# COVER PAGE

**OrderID:** S4436      **ProjectID:** Seneca Ash Landfill Quarter1  
**CustomerName:** Parsons Engineering

LAB SAMPLE NO.	CLIENT SAMPLE NO
S4436-01	ARD2254
S4436-02	ARD2255
S4436-03	ARD2259
S4436-04	ARD2256
S4436-05	ARD2245
S4436-06	ARD2257
S4436-07	ARD2252
S4436-08	ARD2248
S4436-09	ARD2253
S4436-10	ARD2246MS
S4436-11	ARD2246MSD
S4436-12	ARD2247
S4436-13	ARD2249
S4436-14	ARD2258
S4436-15	ARD2250
S4436-16	ARD2246
S4436-17	TR0056
S4436-18	ARD0046
S4436-19	ARD2251
S4436-20	TR2150
S4436-21	ARD0049

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature:  Name:   
Date: 9/23/04 Title: 

**DATA REPORTING QUALIFIERS- ORGANIC**

For reporting results, the following " Results Qualifiers" are used:

- Value            If the result is a value greater than or equal to the detection limit, report the value
- U**            Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
- J**            Indicates an estimated value. This flag is used:  
(1) When estimating a concentration for a tentatively identified compound (library search hits; where a 1:1 response is assumed.)  
(2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
- B**            Indicates the analyte was found in the blank as well as the sample report as "12 B".
- E**            Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
- D**            This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- P**            This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
- N**            This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
- A**            This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.

CHEMTECH

GC  
DATA

CHEMTECH

GC  
QC DATA

SAMPLE ID: VBC0908G1  
FILENAME: F:\DATA3\D090809.RAW

ANALYST: PHM  
DATE: 9/8/04

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	<0.5	U	0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL - Method Detection Limit  
U - Undetected below MDL

COMMENTS:

---

---



## GASES

## QC Spike 100 PPMV STD

Filename: F:\DATA3\D091024.RAW

Date: 9/10/04  
Batch: QCCGAS051

CAS #	Analyte	Spike Added	Sample	% Rec	Lower	Upper	Flag
		PPB	Conc		Limits	Limits	
74-82-8	METHANE	100	94	94	70	130	
74-85-1	ETHYLENE	100	122	122	70	130	
74-84-0	ETHANE	100	95	95	70	130	

\* Denotes analyte outside criteria

GASES

QC MS/MSD 100 PPMV Spike

Sample Filename: F:\DATA3\ID091016.RAW  
 MS Filename: F:\DATA3\ID091021.RAW  
 MSD Filename: F:\DATA3\ID091023.RAW  
 Sample spiked: S4436-16

Date : 9/10/04

CAS #	Spike Added	Sample Conc (ppmv)	MS Conc		MSD Conc		MSD Flag	RPD Flag	Lower Limits	Upper Limits	RPD Limits
			ppmv	% Rec	ppmv	% Rec					
74-82-8	100	0	107	107	113	113	5		70	130	<20%
74-85-1	100	0	128	128	133	133 *	4		70	130	<20%
74-84-0	100	0	96	96	94	94	2		70	130	<20%

\* Denotes analyte outside control limits

CHEMTECH

GC  
ANALYTICAL  
RESULTS

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: ARD2254  
LAB ID: S4436-01  
FILENAME: F:\DATA3\ID091004.RAW  
LAB PROJECT: S4436

MATRIX: AQUEOUS  
DATE ANALYZED: 9/10/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	<0.5	U	0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

.....  
.....  
.....

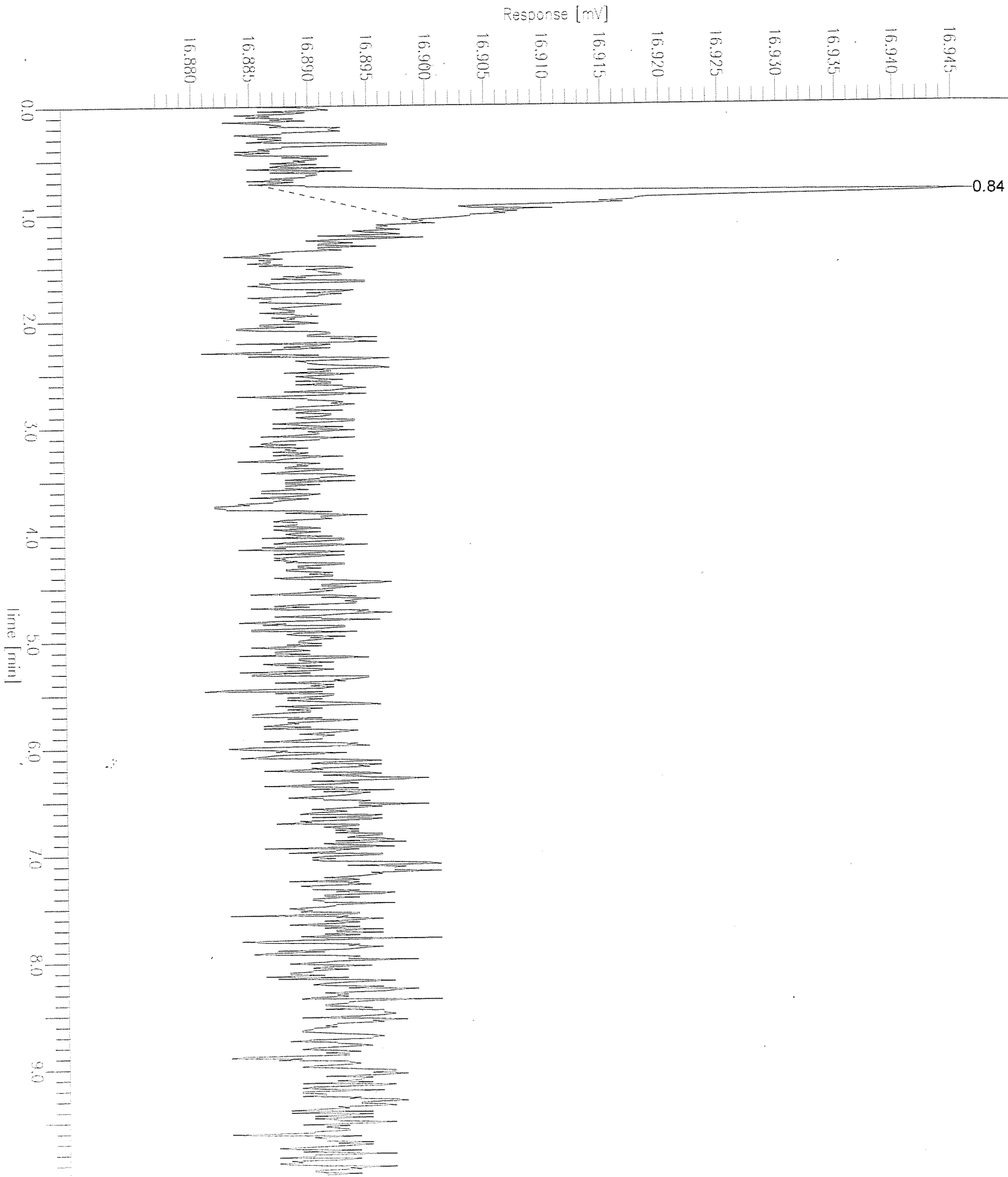
# Chromatogram

Sample Name : S4436-01  
FileName : F:\DATA3\D091004.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 36  
Date : 9/21/04 01:49 PM  
Time of Injection: 9/10/04 12:38 PM  
Low Point : 16.88 mV  
Plot Scale: 0.1 mV  
High Point : 16.95 mV

Page 1 of 1



Software Version: 4.1<2F12>

Date: 9/21/04 01:49 PM

Sample Name : S4436-01

Data File : F:\DATA3\D091004.RAW Date: 9/10/04 12:38 PM

Sequence File: F:\DATA3\C091004.SEQ Cycle: 4 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

19-22

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		0.84	386.47	57.54	0.000	0.000
			386.47	57.54	0.000	0.000

Report stored in ASCII file: .\d091004.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: ARD2255  
LAB ID: S4436-02  
FILENAME: F:\DATA3\ID091005.RAW  
LAB PROJECT: S4436

MATRIX: AQUEOUS  
DATE ANALYZED: 9/10/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	<0.5	U	0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

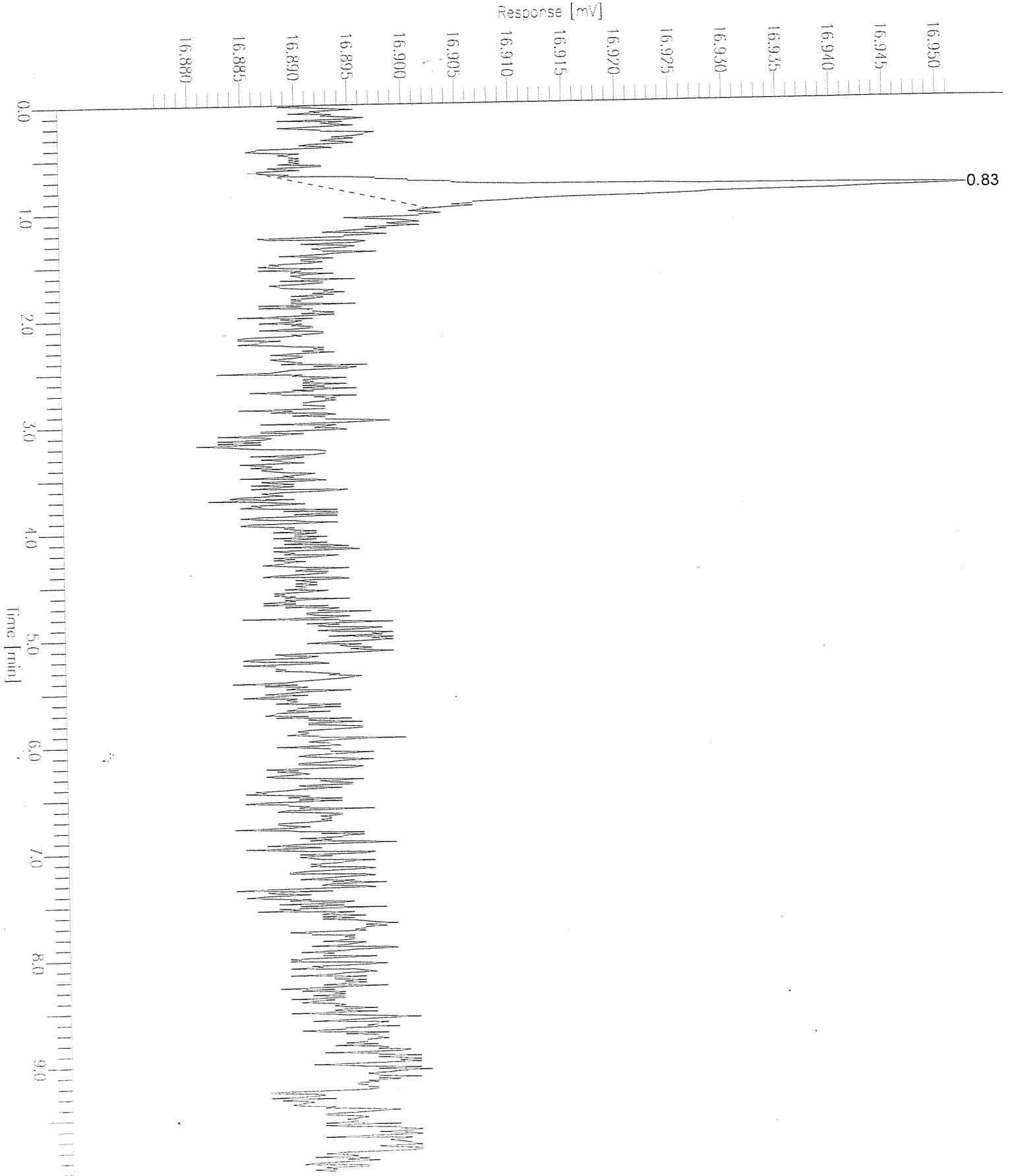
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# Chromatogram

Sample Name : S4436-02  
FileName : F:\DATA3\D091005.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Page 1 of 1  
Sample #: 36  
Date : 9/21/04 01:50 PM  
Time of Injection: 9/10/04 12:54 PM  
Low Point : 16.88 mV  
Plot Scale: 0.1 mV  
High Point : 16.95 mV





Software Version: 4.1<2F12>

Date: 9/21/04 01:50 PM

Sample Name : S4436-02

Data File : F:\DATA3\D091005.RAW Date: 9/10/04 12:54 PM

Sequence File: F:\DATA3\C091004.SEQ Cycle: 5 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

19922

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		0.83	414.52	58.12	0.000	0.000
			414.52	58.12	0.000	0.000

Report stored in ASCII file: .\d091005.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: ARD2259  
LAB ID: S4436-03  
FILENAME: F:\DATA3\ID091006.RAW  
LAB PROJECT: S4436

MATRIX: AQUEOUS  
DATE ANALYZED: 9/10/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	<0.5	U	0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

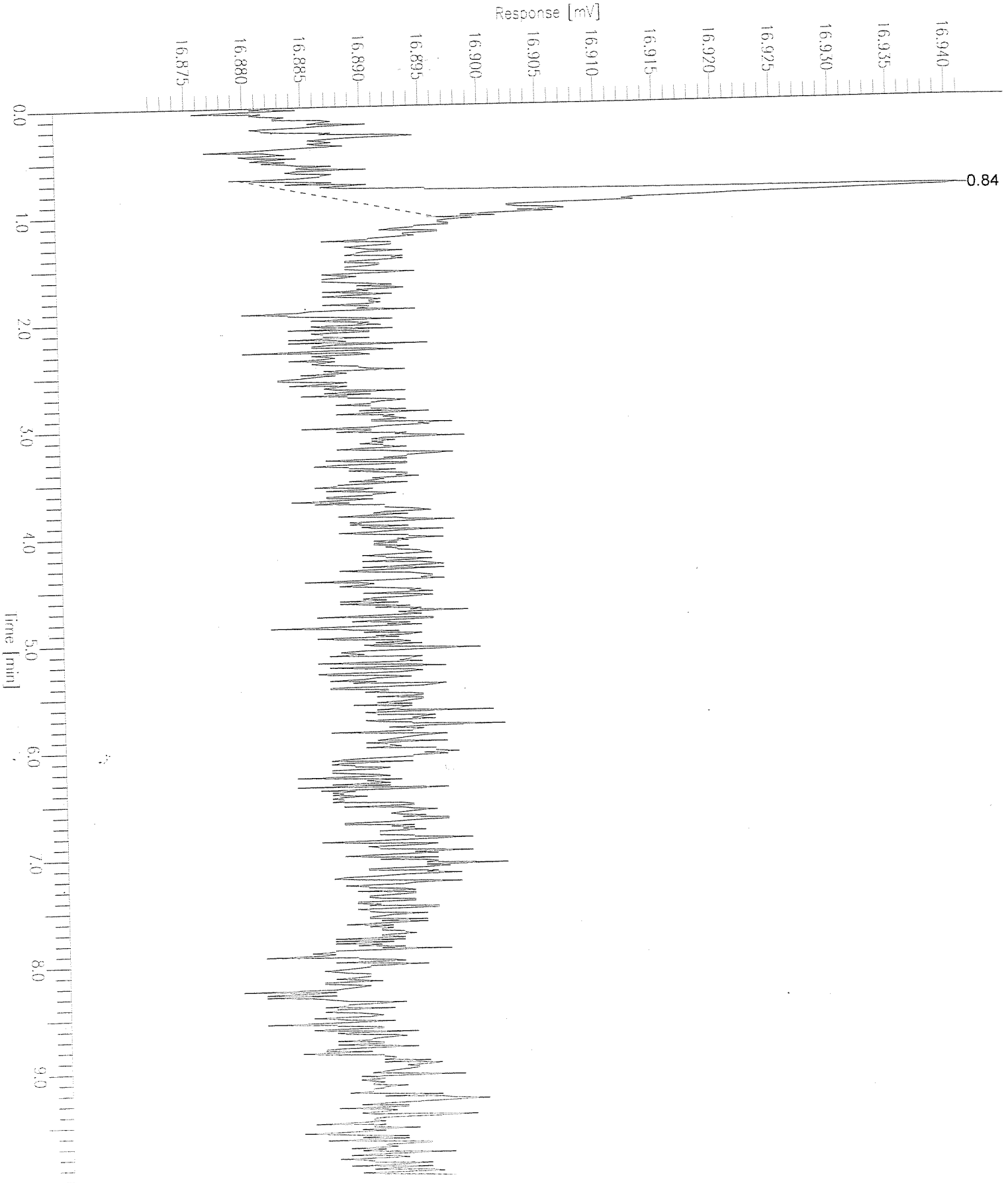
....  
....

# Chromatogram

Sample Name : S4436-03  
FileName : F:\DATA3\D091006.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Page 1 of 1  
Sample #: 36  
Date : 9/21/04 01:51 PM  
Time of Injection: 9/10/04 01:13 PM  
Low Point : 16.87 mV  
High Point : 16.94 mV  
Plot Scale: 0.1 mV



Software Version: 4.1<2F12>

Date: 9/21/04 01:50 PM

Sample Name : S4436-03

Data File : F:\DATA3\D091006.RAW Date: 9/10/04 01:13 PM

Sequence File: F:\DATA3\C091004.SEQ Cycle: 6 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

199.22

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		0.84	404.62	55.49	0.000	0.000
			404.62	55.49	0.000	0.000

Report stored in ASCII file: .\d091006.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: ARD2256  
LAB ID: S4436-04  
FILENAME: F:\DATA3\ID091007.RAW  
LAB PROJECT: S4436

MATRIX: AQUEOUS  
DATE ANALYZED: 9/10/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	<0.5	U	0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

.....  
.....  
.....

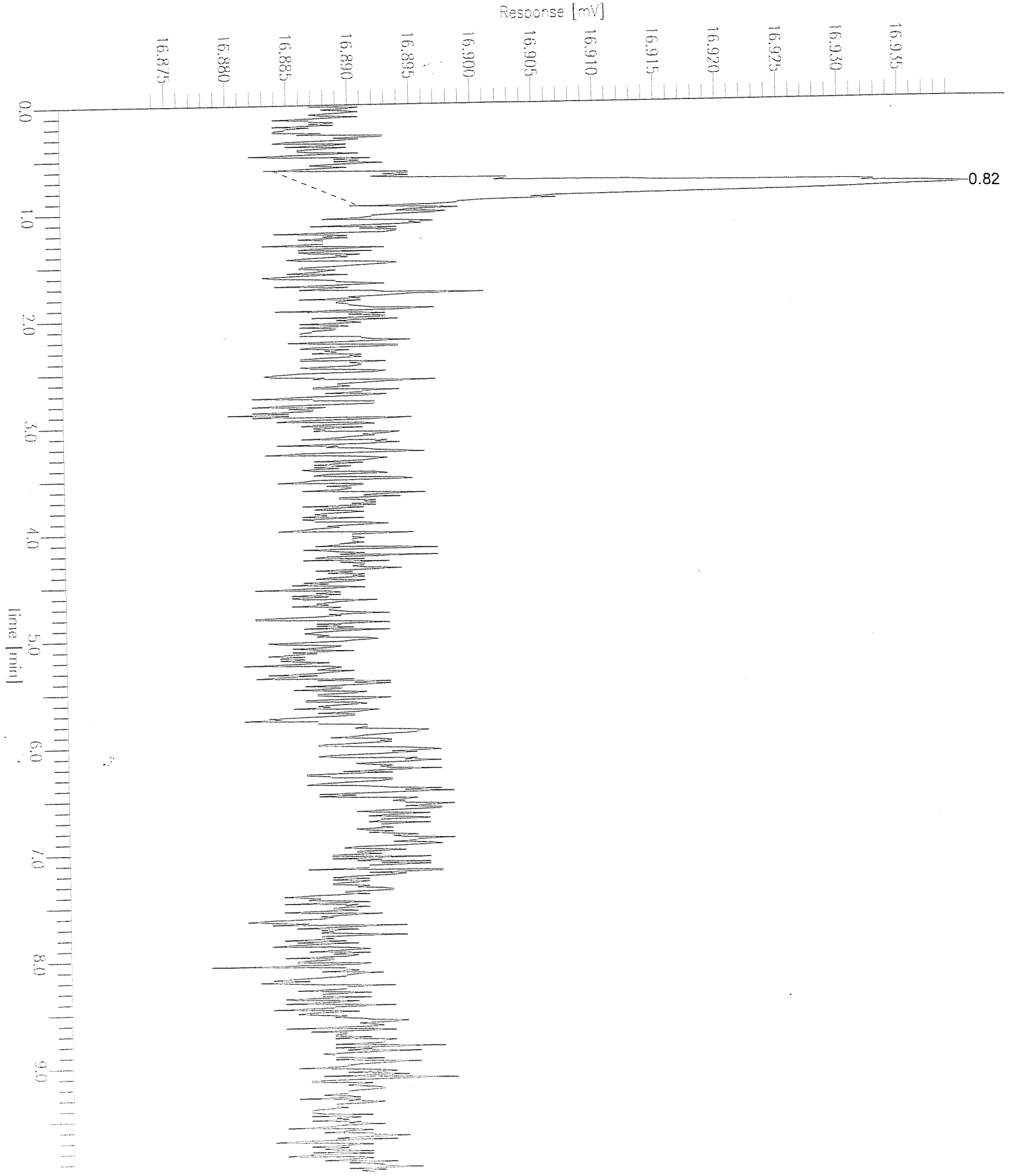
# Chromatogram

Sample Name : S4436-04  
FileName : F:\DATA3\D091007.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 36  
Date : 9/21/04 01:51 PM  
Time of Injection: 9/10/04 01:35 PM  
Low Point : 16.87 mV  
Plot Scale: 0.1 mV  
High Point : 16.94 mV

Page 1 of 1



Software Version: 4.1<2F12>

Date: 9/21/04 01:51 PM

Sample Name : S4436-04

Data File : F:\DATA3\D091007.RAW Date: 9/10/04 01:35 PM

Sequence File: F:\DATA3\C091004.SEQ Cycle: 7 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000

Dilution Factor : 1.00

199.22

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		0.82	476.90	53.09	0.000	0.000
			476.90	53.09	0.000	0.000

Report stored in ASCII file: .\d091007.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: ARD2245  
LAB ID: S4436-05  
FILENAME: F:\DATA3\ID091008.RAW  
LAB PROJECT: S4436

MATRIX: AQUEOUS  
DATE ANALYZED: 9/10/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	<0.5	U	0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

....  
....

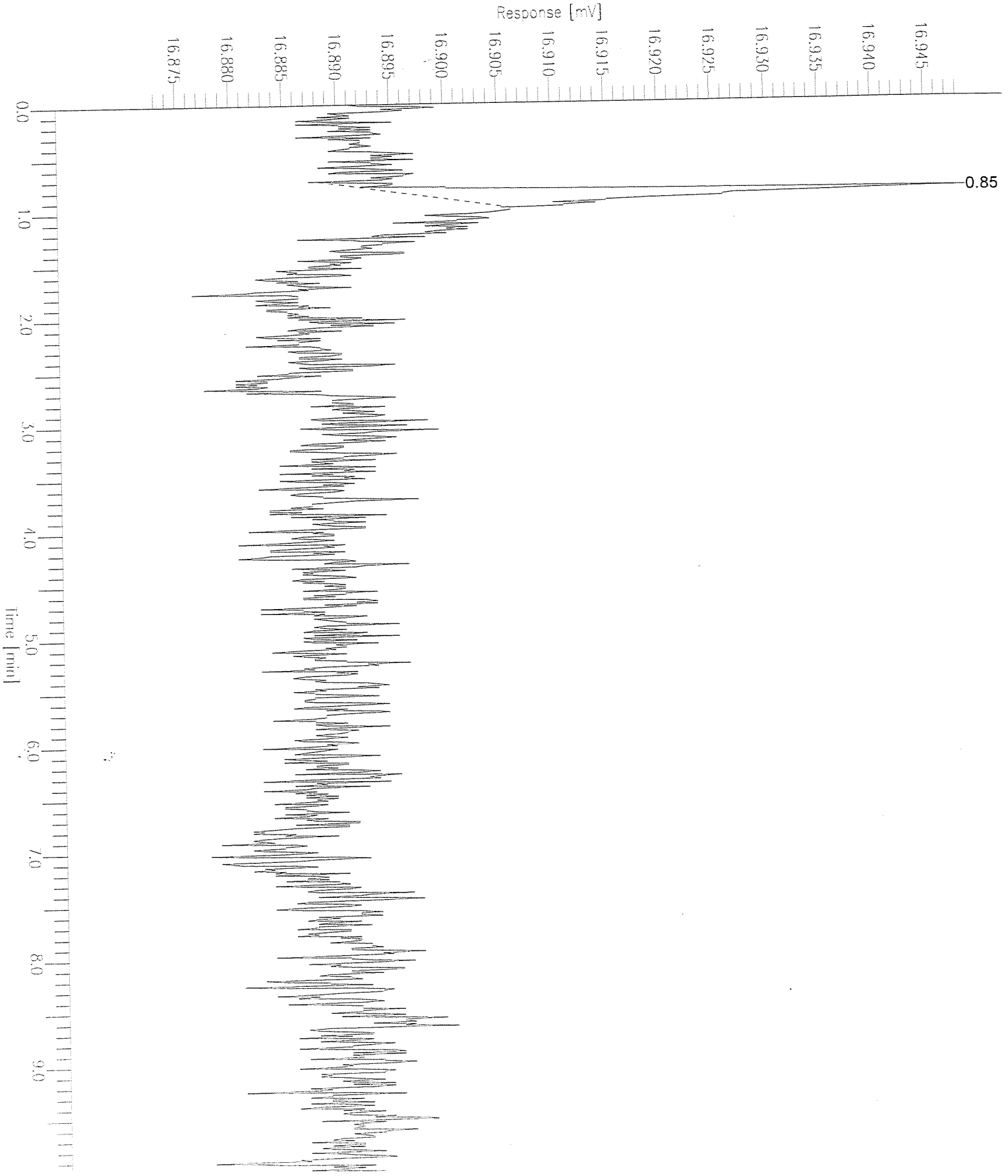


# Chromatogram

Sample Name : S4436-05  
FileName : F:\DATA3\D091008.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 36  
Date : 9/21/04 01:52 PM  
Time of Injection: 9/10/04 01:56 PM  
Low Point : 16.87 mV  
Plot Scale: 0.1 mV  
Page 1 of 1  
High Point : 16.95 mV



Software Version: 4.1<2F12>

Date: 9/21/04 01:52 PM

Sample Name : S4436-05

Data File : F:\DATA3\D091008.RAW Date: 9/10/04 01:56 PM

Sequence File: F:\DATA3\C091004.SEQ Cycle: 8 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000

Dilution Factor : 1.00

199-22

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		0.85	267.99	51.92	0.000	0.000
			267.99	51.92	0.000	0.000

Report stored in ASCII file: .\d091008.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: ARD2257  
LAB ID: S4436-06  
FILENAME: F:\DATA3\D091009.RAW  
LAB PROJECT: S4436

MATRIX: AQUEOUS  
DATE ANALYZED: 9/10/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	<0.5	U	0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

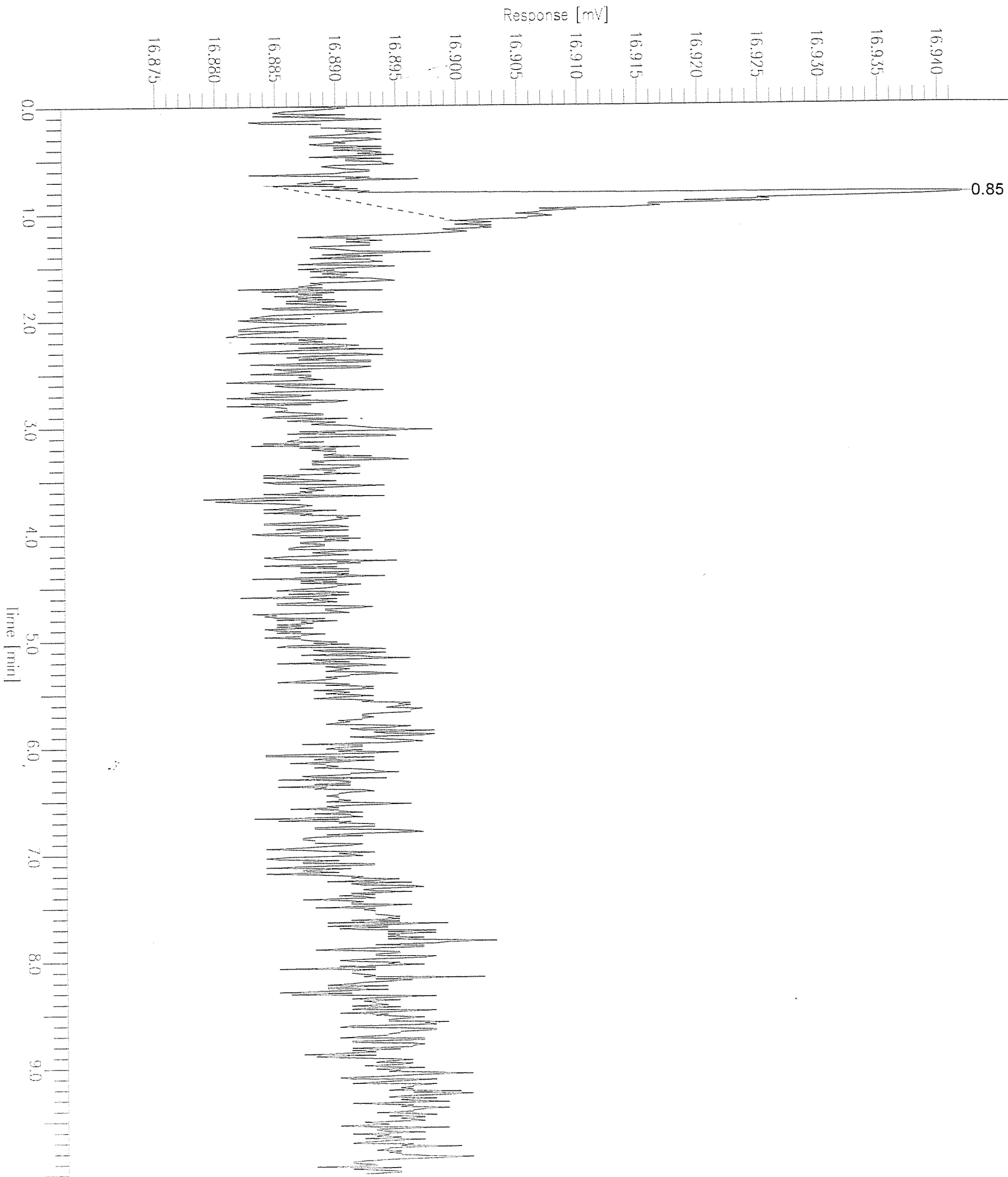
.....  
.....  
.....

# Chromatogram

Sample Name : S4436-06  
FileName : F:\DATA3\D091009.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 36  
Date : 9/21/04 01:52 PM  
Time of Injection: 9/10/04 02:13 PM  
Low Point : 16.87 mV  
High Point : 16.94 mV  
Plot Scale: 0.1 mV



Software Version: 4.1<2F12>

Date: 9/21/04 01:52 PM

Sample Name : S4436-06

Data File : F:\DATA3\D091009.RAW Date: 9/10/04 02:13 PM

Sequence File: F:\DATA3\C091004.SEQ Cycle: 9 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

199.22

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		0.85	399.01	54.14	0.000	0.000
			399.01	54.14	0.000	0.000

Report stored in ASCII file: .\d091009.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: ARD2252  
LAB ID: S4436-07  
FILENAME: F:\DATA3\ID091011.RAW  
LAB PROJECT: S4436

MATRIX: AQUEOUS  
DATE ANALYZED: 9/10/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	141	E	0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

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# Chromatogram

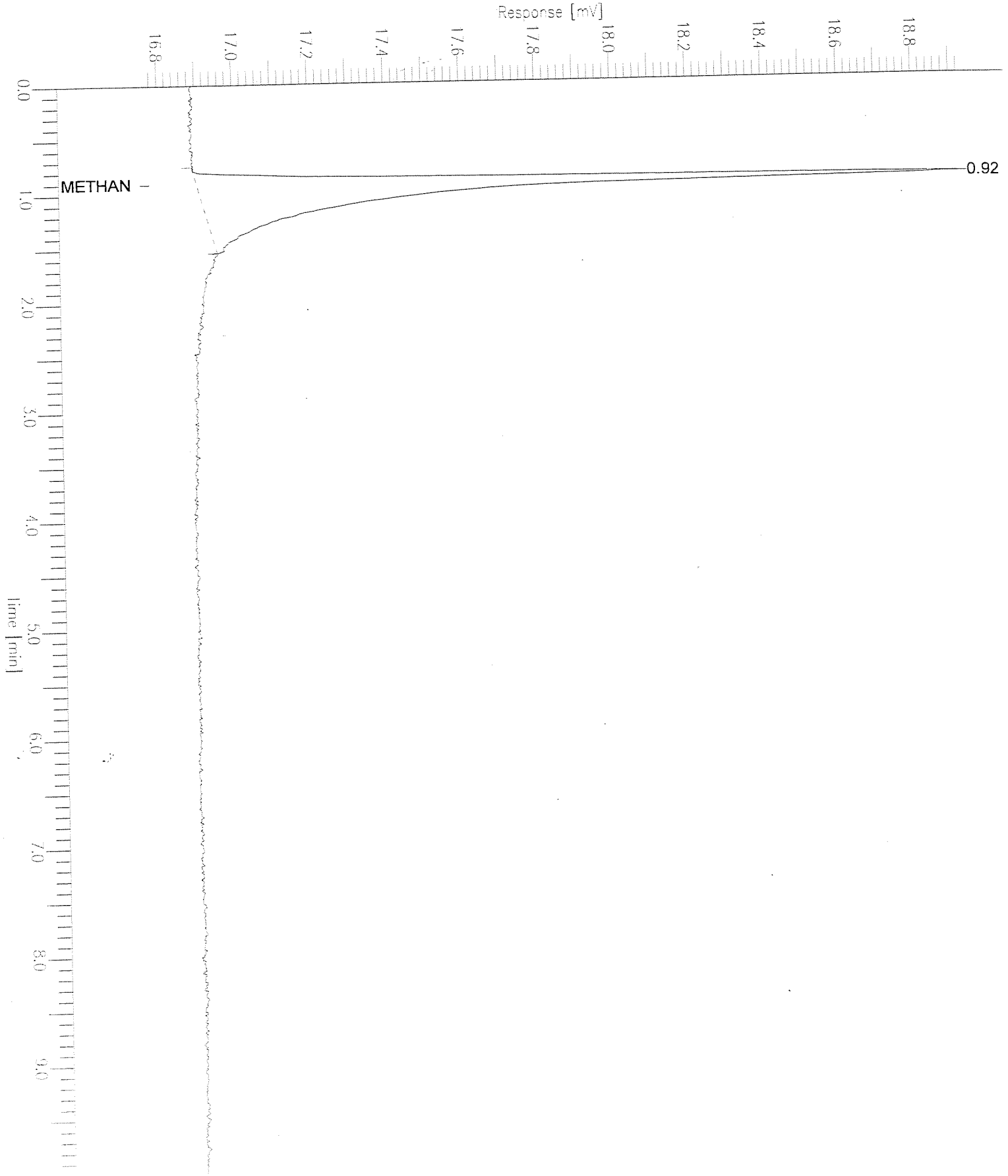
Sample Name : S4436-07  
FileName : F:\DATA3\D091011.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 36  
Date : 9/21/04 01:53 PM  
Time of Injection: 9/10/04 03:03 PM  
Low Point : 16.78 mV  
Plot Scale: 2.1 mV

Page 1 of 1

High Point : 18.92 mV



Software Version: 4.1<2F12>

Date: 9/21/04 01:53 PM

Sample Name : S4436-07

Data File : F:\DATA3\D091011.RAW Date: 9/10/04 03:03 PM

Sequence File: F:\DATA3\C091004.SEQ Cycle: 11 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000

Dilution Factor : 1.00

199.22

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.92	17916.83	2023.52	2426.712	2426.712
			17916.83	2023.52	2426.712	2426.712

Report stored in ASCII file: .\d091011.TX0



CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: ARD2252  
LAB ID: S4436-07 5X  
FILENAME: F:\DATA3\ID091012.RAW  
LAB PROJECT: S4436

DATE ANALYZED: 9/10/04  
ANALYST: PHM  
DILUTION: 5

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	226	D	2.5	2.9
74-85-1	ETHYLENE	<2.5	UD	2.5	5.5
74-84-0	ETHANE	<2.5	UD	2.5	5.05

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

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.....  
.....

# Chromatogram

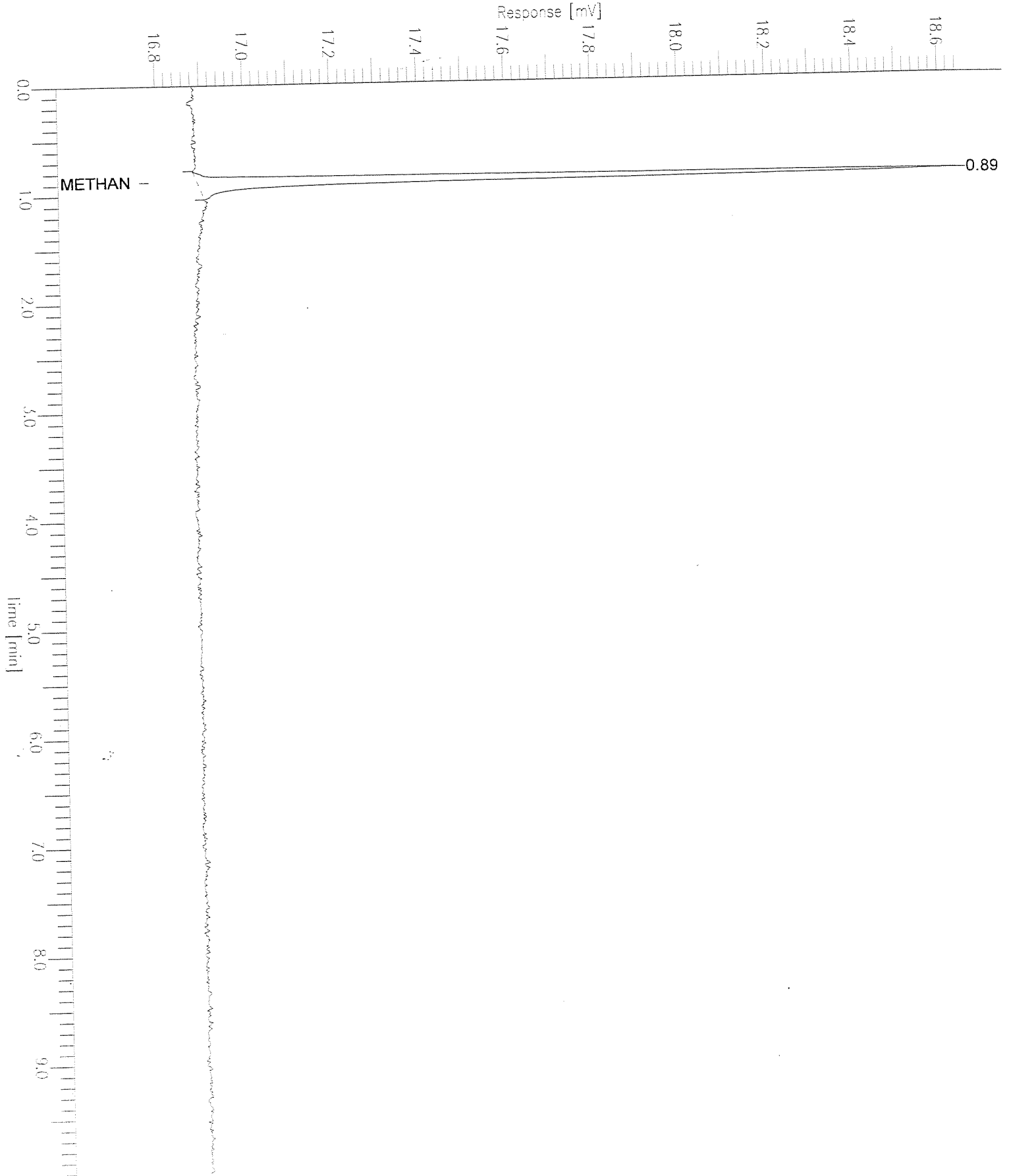
Sample Name : S4436-07 5X  
FileName : F:\DATA3\D091012.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 36  
Date : 9/21/04 01:54 PM  
Time of Injection: 9/10/04 03:21 PM  
Low Point : 16.78 mV  
Plot Scale: 1.9 mV

Page 1 of 1

High Point : 18.64 mV



Software Version: 4.1<2F12>

Date: 9/21/04 01:54 PM

Sample Name : S4436-07 5X

Data File : F:\DATA3\D091012.RAW Date: 9/10/04 03:21 PM

Sequence File: F:\DATA3\C091004.SEQ Cycle: 12 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 5.00

199.22

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.89	5754.46	1749.18	779.401	779.401
			5754.46	1749.18	779.401	779.401

Report stored in ASCII file: .\d091012.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: ARD2248  
LAB ID: S4436-08  
FILENAME: F:\DATA3\ID091013.RAW  
LAB PROJECT: S4436

MATRIX: AQUEOUS  
DATE ANALYZED: 9/10/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	<0.5	U	0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

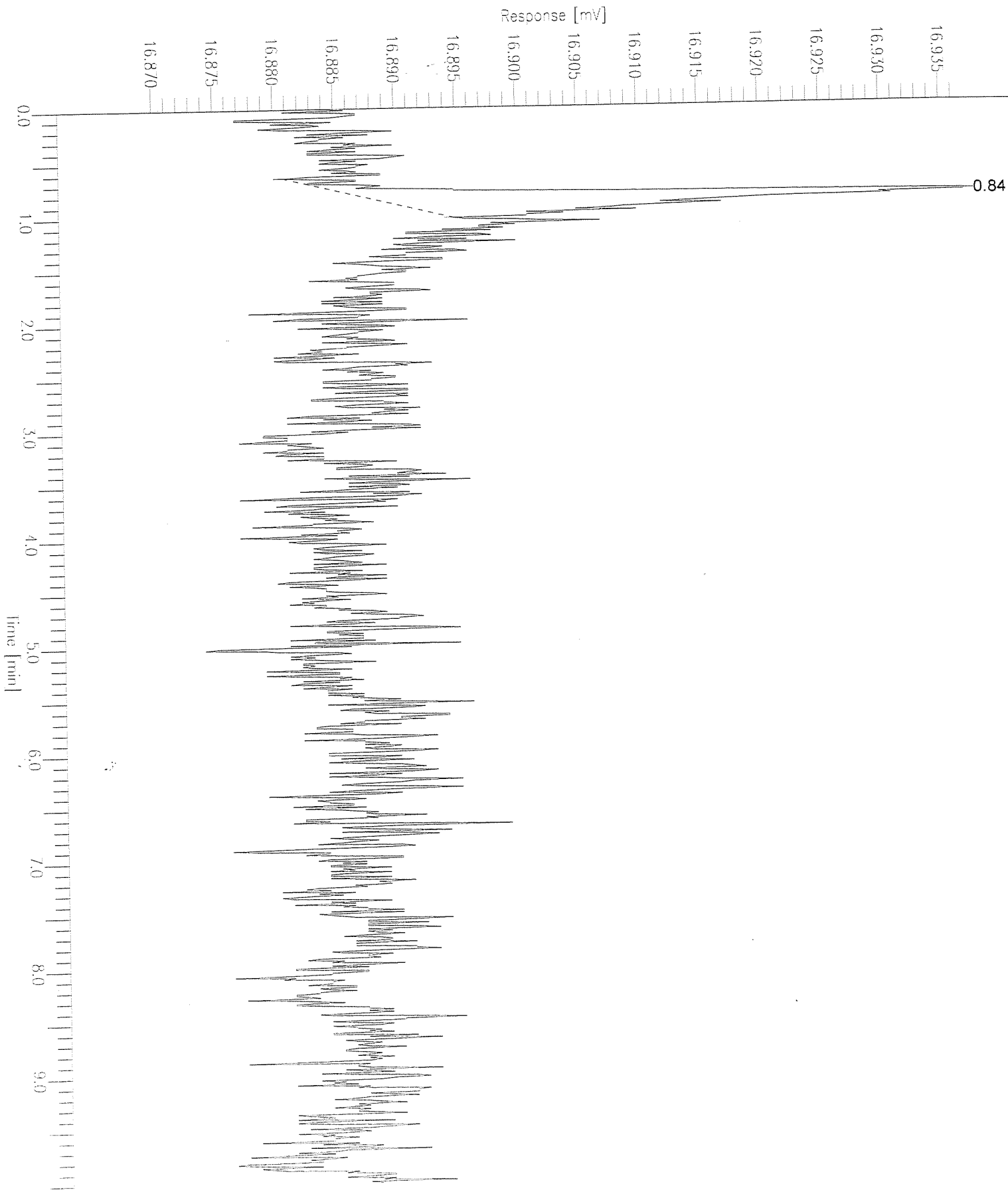
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# Chromatogram

Sample Name : S4436-08  
FileName : F:\DATA3\D091013.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 36  
Date : 9/21/04 01:54 PM  
Time of Injection: 9/10/04 03:39 PM  
Low Point : 16.87 mV  
Plot Scale: 0.1 mV  
Page 1 of 1  
High Point : 16.94 mV



Software Version: 4.1<2F12>

Date: 9/21/04 01:54 PM

Sample Name : S4436-08

Data File : F:\DATA3\D091013.RAW Date: 9/10/04 03:39 PM

Sequence File: F:\DATA3\C091004.SEQ Cycle: 13 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

*PLN*

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		0.84	396.70	50.72	0.000	0.000
			396.70	50.72	0.000	0.000

Report stored in ASCII file: .\d091013.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: ARD2253  
LAB ID: S4436-09  
FILENAME: F:\DATA3\091014.RAW  
LAB PROJECT: S4436

MATRIX: AQUEOUS  
DATE ANALYZED: 9/10/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	4.5		0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

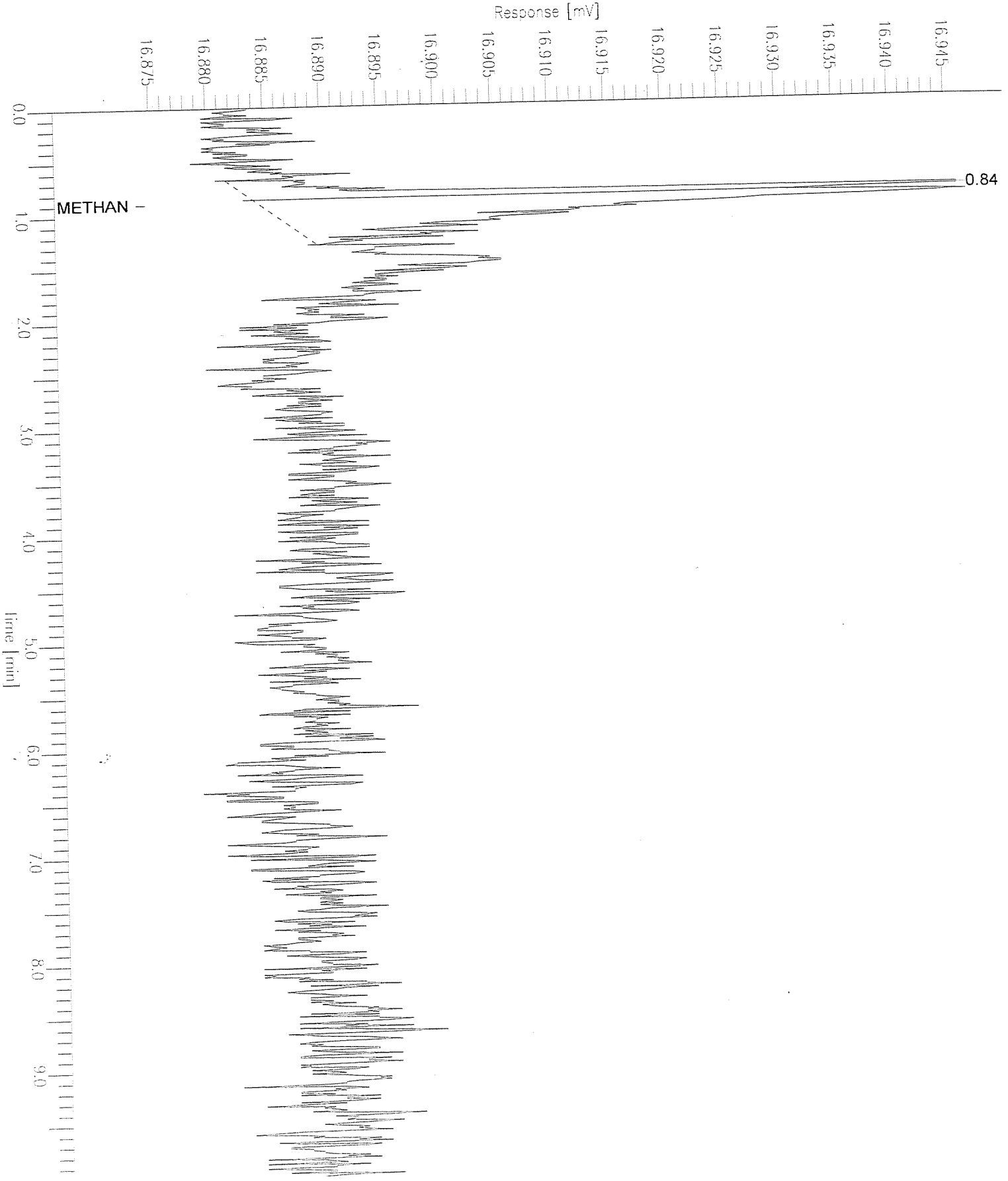
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# Chromatogram

Sample Name : S4436-09  
FileName : F:\DATA3\D091014.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Page 1 of 1  
Sample #: 36  
Date : 9/21/04 01:55 PM  
Time of Injection: 9/10/04 03:55 PM  
Low Point : 16.87 mV  
High Point : 16.95 mV  
Plot Scale: 0.1 mV





Software Version: 4.1<2F12>

Date: 9/21/04 01:55 PM

Sample Name : S4436-09

Data File : F:\DATA3\D091014.RAW Date: 9/10/04 03:55 PM

Sequence File: F:\DATA3\C091004.SEQ Cycle: 14 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

199.22

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		0.84	248.42	63.96	0.000	0.000
2	METHANE	0.90	570.72	61.20	77.300	77.300
			819.14	125.16	77.301	77.301

Report stored in ASCII file: .\d091014.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: ARD2247  
LAB ID: S4436-12  
FILENAME: F:\DATA3\ID091018.RAW  
LAB PROJECT: S4436

MATRIX: AQUEOUS  
DATE ANALYZED: 9/10/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	<0.5	U	0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

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# Chromatogram

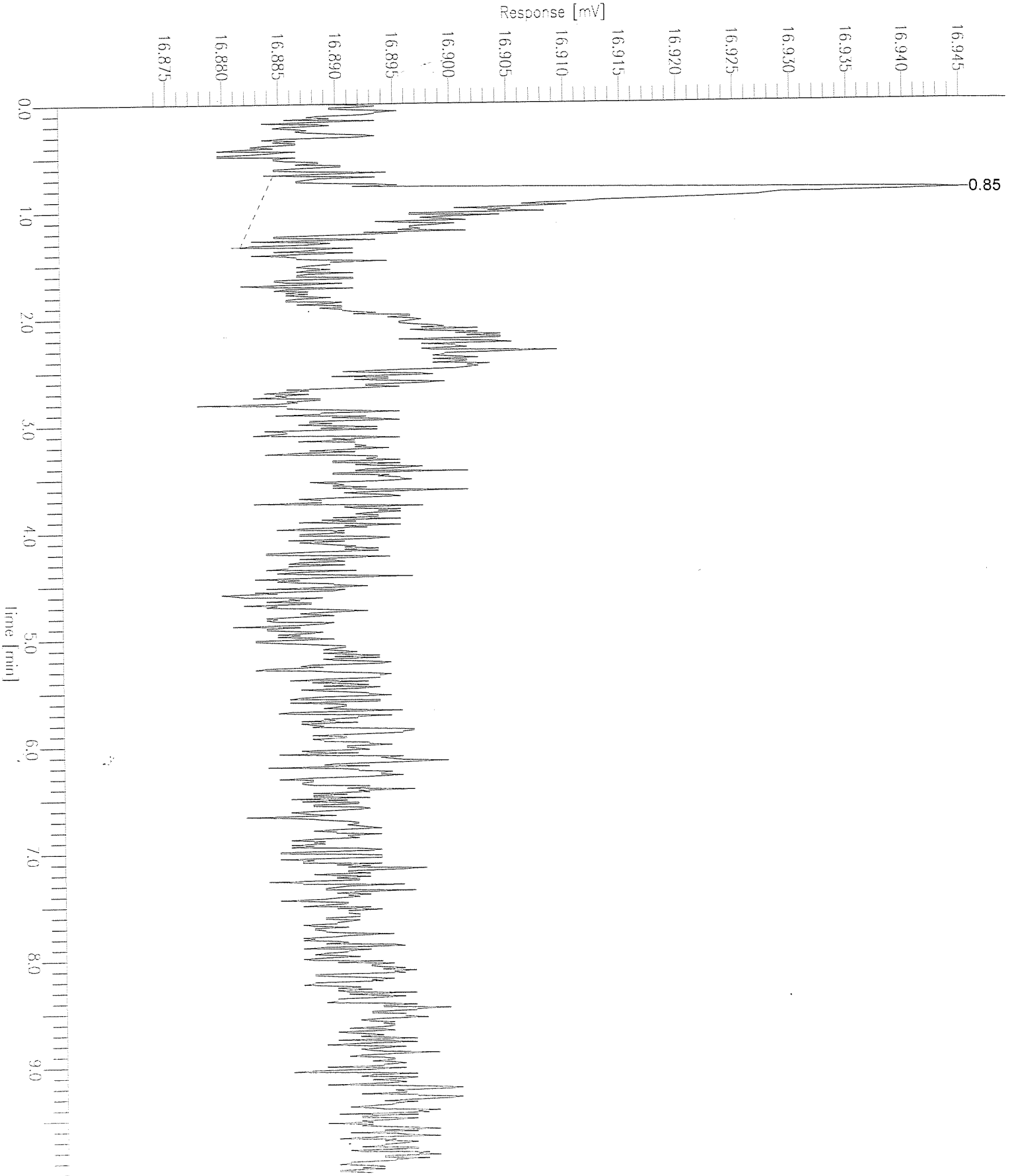
Sample Name : S4436-12  
FileName : F:\DATA3\D091018.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 36  
Date : 9/21/04 01:57 PM  
Time of Injection: 9/10/04 05:01 PM  
Low Point : 16.87 mV  
Plot Scale: 0.1 mV

Page 1 of 1

High Point : 16.94 mV



Software Version: 4.1<2F12>

Date: 9/21/04 01:57 PM

Sample Name : S4436-12

Data File : F:\DATA3\D091018.RAW Date: 9/10/04 05:01 PM

Sequence File: F:\DATA3\C091004.SEQ Cycle: 18 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

199.22

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		0.85	768.65	61.84	0.001	0.001
			768.65	61.84	0.001	0.001

Report stored in ASCII file: .\d091018.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: ARD2249  
LAB ID: S4436-13  
FILENAME: F:\DATA3\ID091019.RAW  
LAB PROJECT: S4436

MATRIX: AQUEOUS  
DATE ANALYZED: 9/10/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	8.1		0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

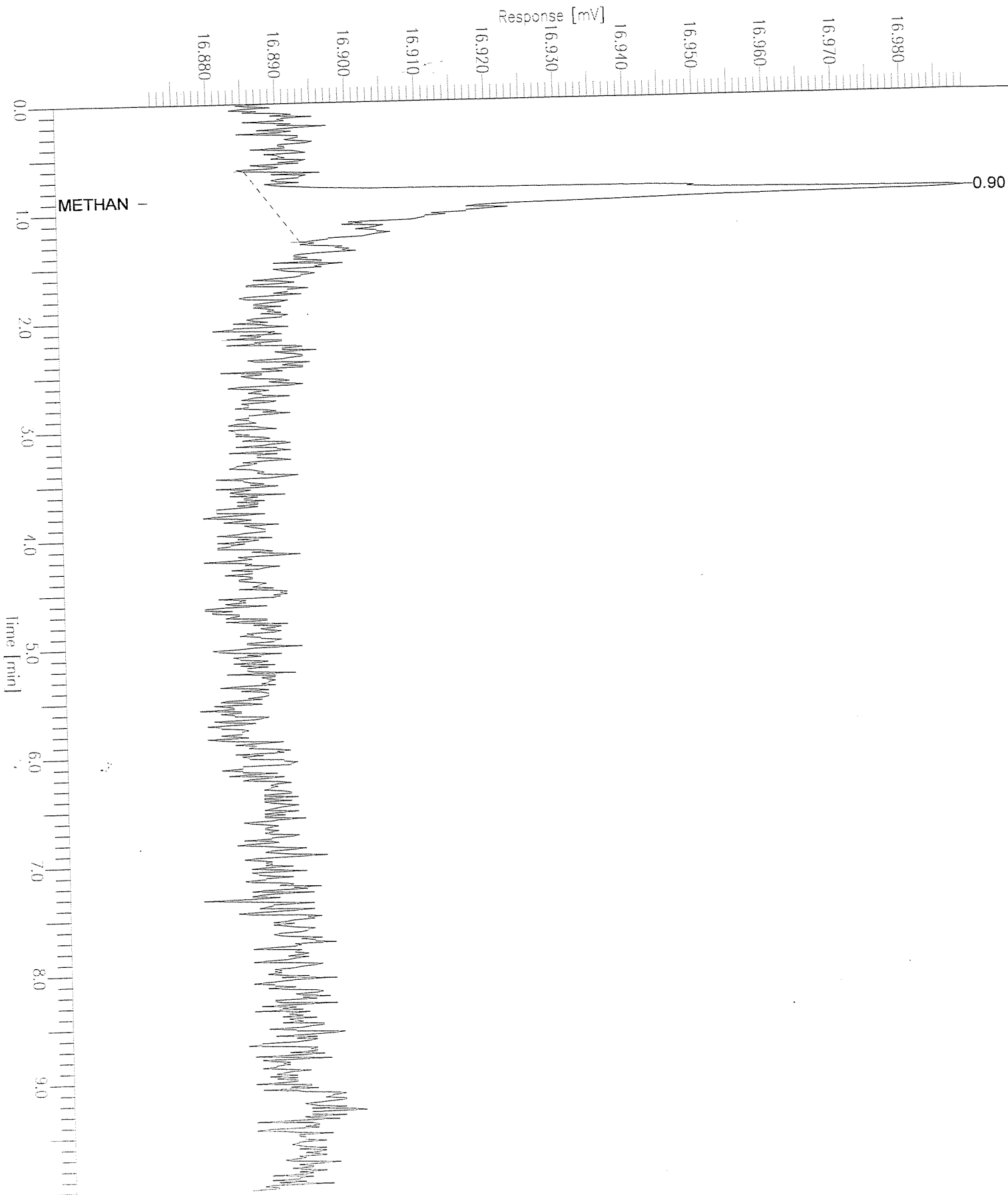
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# Chromatogram

Sample Name : S4436-13  
FileName : F:\DATA3\D091019.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 36  
Date : 9/21/04 01:57 PM  
Time of Injection: 9/10/04 05:17 PM  
Low Point : 16.87 mV  
High Point : 16.99 mV  
Plot Scale: 0.1 mV



Software Version: 4.1<2F12>

Date: 9/21/04 01:57 PM

Sample Name : S4436-13

Data File : F:\DATA3\D091019.RAW Date: 9/10/04 05:17 PM

Sequence File: F:\DATA3\C091004.SEQ Cycle: 19 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

✓ 99-22

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.90	1031.68	100.77	139.734	139.734
			1031.68	100.77	139.734	139.734

Report stored in ASCII file: .\d091019.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: ARD2258  
LAB ID: S4436-14  
FILENAME: F:\DATA3\D091020.RAW  
LAB PROJECT: S4436

MATRIX: AQUEOUS  
DATE ANALYZED: 9/10/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	<0.5	U	0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL = METHOD DETECTION LIMIT

U = UNDETECTED BELOW MDL

B = PRESENT IN THE ASSOCIATED BLANK

E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW

D = DILUTION

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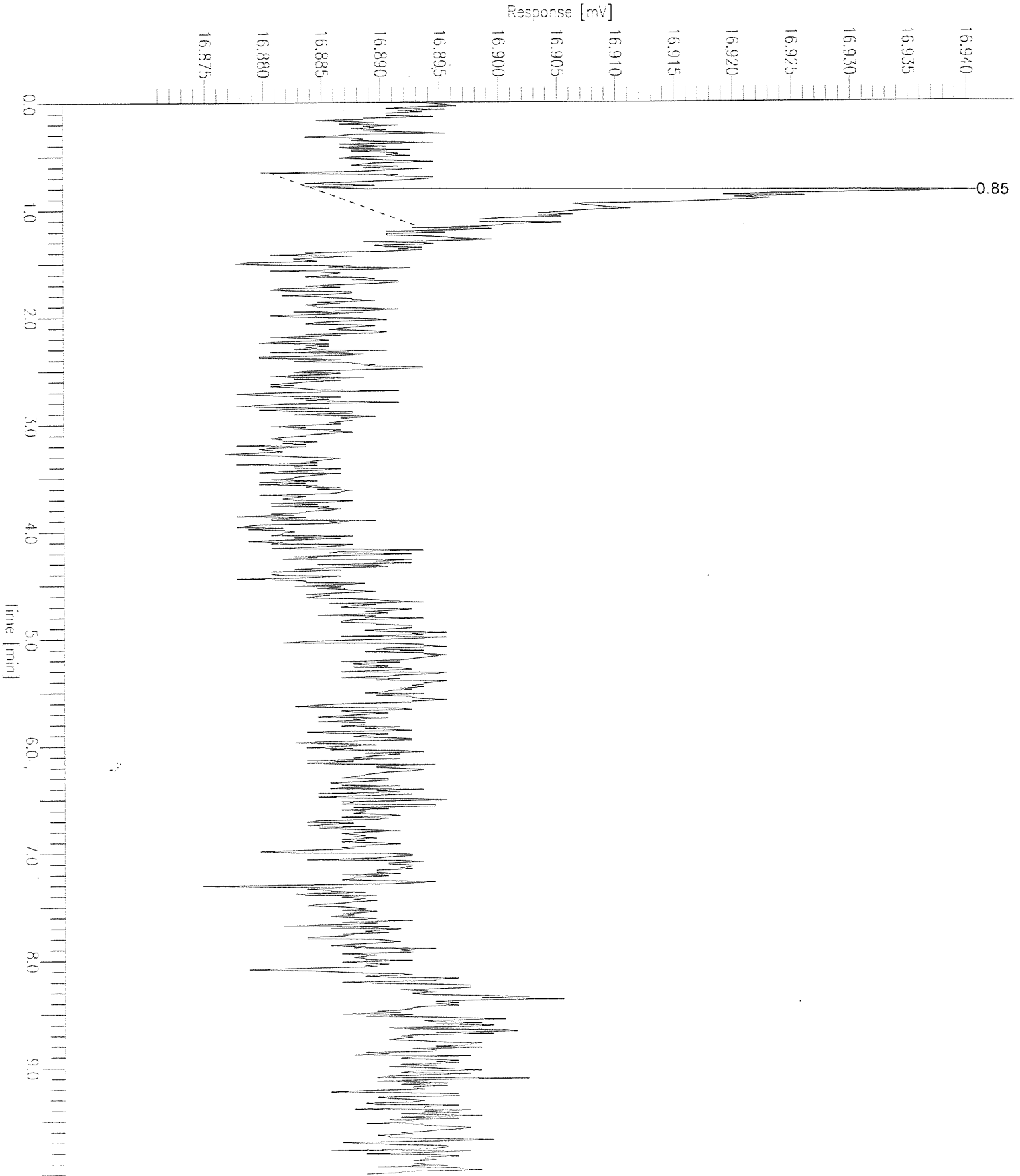
# Chromatogram

Sample Name : S4436-14  
FileName : F:\DATA3\D091020.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 36  
Date : 9/21/04 01:58 PM  
Time of Injection: 9/10/04 05:35 PM  
Low Point : 16.87 mV  
High Point : 16.94 mV  
Plot Scale: 0.1 mV

Page 1 of 1



Software Version: 4.1<2F12>

Date: 9/21/04 01:58 PM

Sample Name : S4436-14

Data File : F:\DATA3\D091020.RAW Date: 9/10/04 05:35 PM

Sequence File: F:\DATA3\C091004.SEQ Cycle: 20 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

199-22

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		0.85	539.60	55.64	0.001	0.001
			539.60	55.64	0.001	0.001

Report stored in ASCII file: .\d091020.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: ARD2250  
LAB ID: S4436-15  
FILENAME: F:\DATA3\ID091017.RAW  
LAB PROJECT: S4436

MATRIX: AQUEOUS  
DATE ANALYZED: 9/10/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	8.4		0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

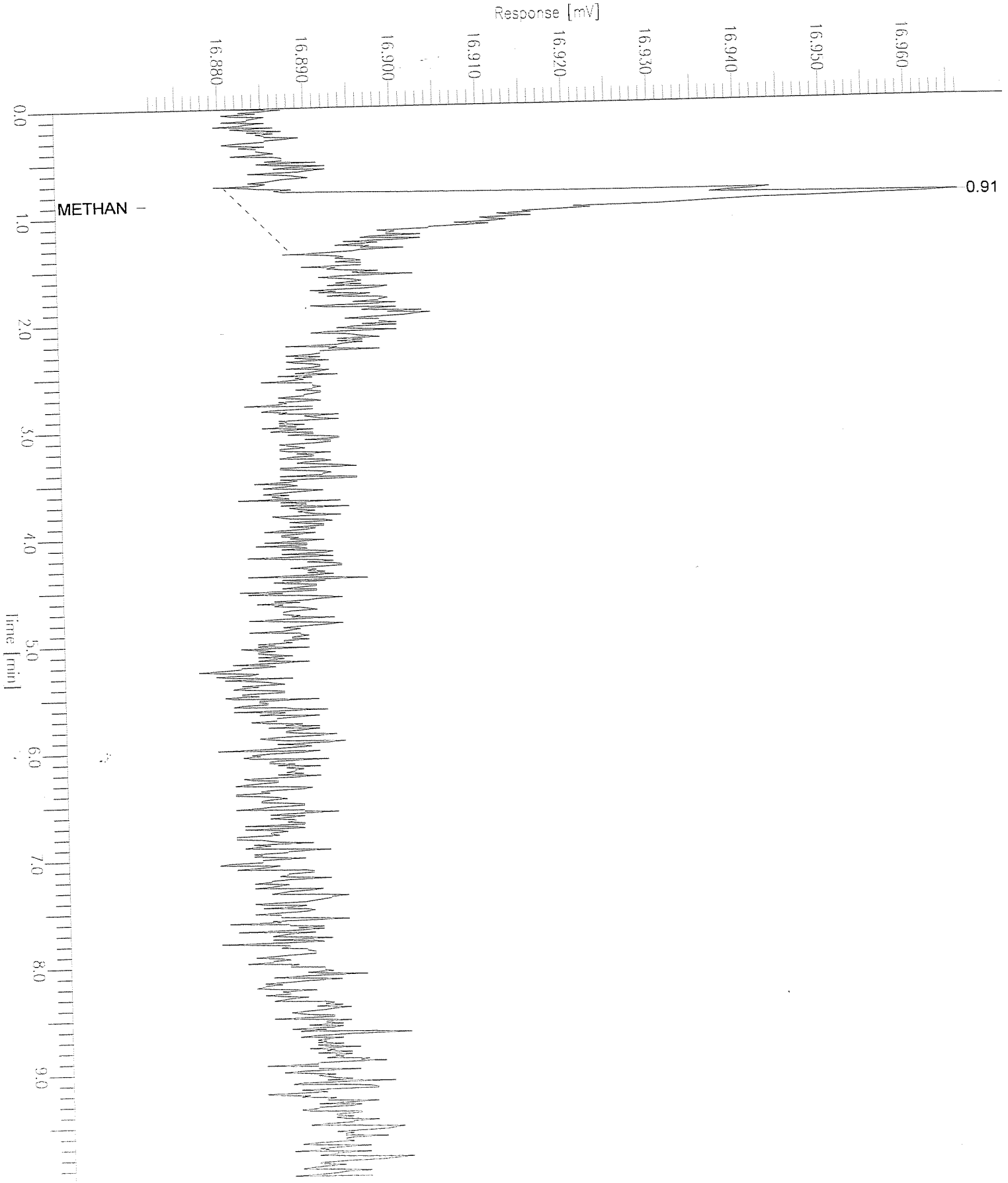
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# Chromatogram

Sample Name : S4436-15  
FileName : F:\DATA3\D091017.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 36  
Date : 9/21/04 01:56 PM  
Time of Injection: 9/10/04 04:45 PM  
Low Point : 16.87 mV  
Plot Scale: 0.1 mV  
Page 1 of 1  
High Point : 16.97 mV



Software Version: 4.1<2F12>

Date: 9/21/04 01:56 PM

Sample Name : S4436-15

Data File : F:\DATA3\D091017.RAW Date: 9/10/04 04:45 PM

Sequence File: F:\DATA3\C091004.SEQ Cycle: 17 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

*129-22*

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.90	1069.31	84.31	144.830	144.830
			1069.31	84.31	144.830	144.830

Report stored in ASCII file: .\d091017.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: ARD2246  
LAB ID: S4436-16  
FILENAME: F:\DATA3\ID091016.RAW  
LAB PROJECT: S4436

MATRIX: AQUEOUS  
DATE ANALYZED: 9/10/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	<0.5	U	0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

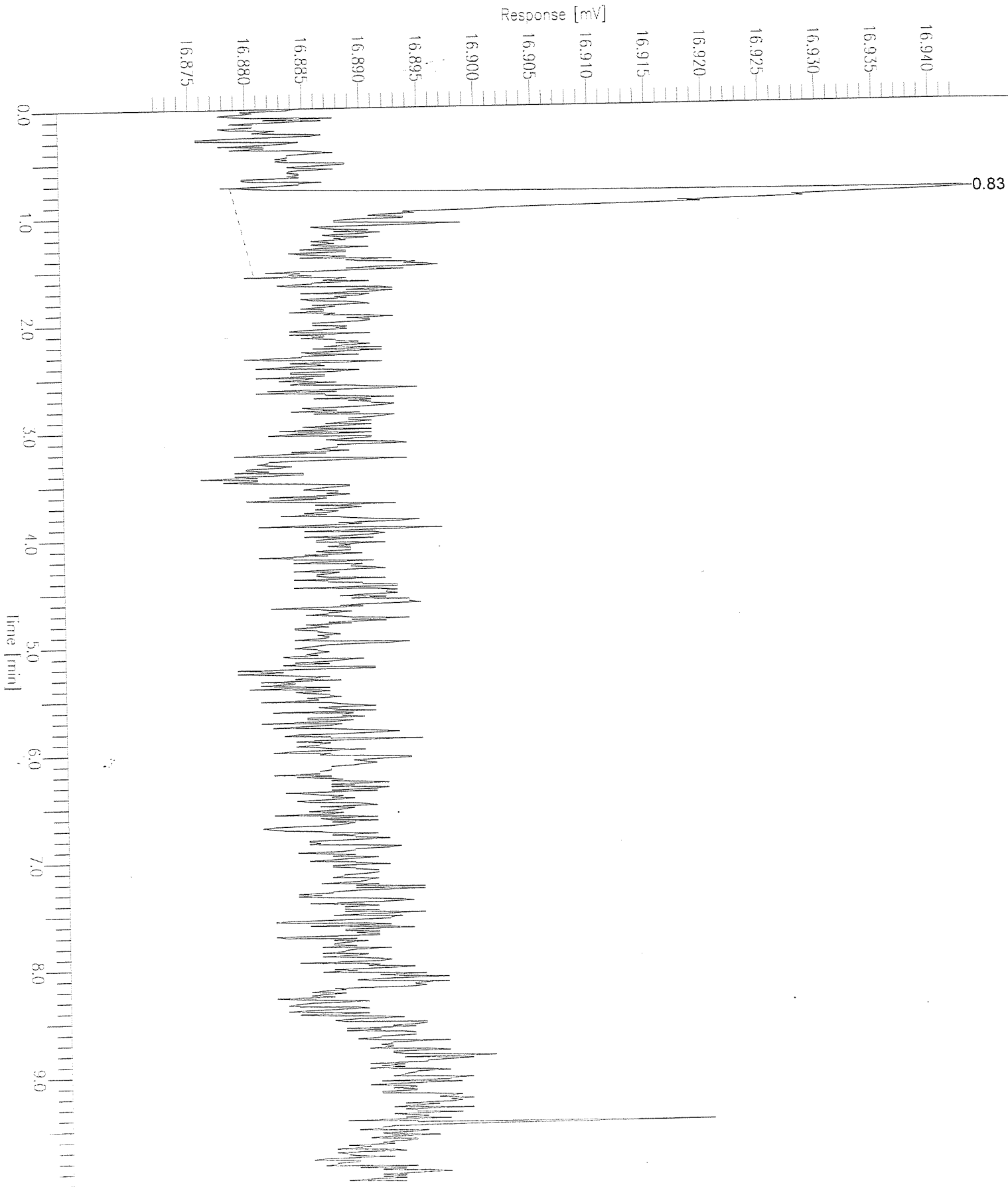
MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

# Chromatogram

Sample Name : S4436-16  
FileName : F:\DATA3\091016.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Page 1 of 1  
Sample #: 36  
Date : 9/21/04 01:56 PM  
Time of Injection: 9/10/04 04:29 PM  
Low Point : 16.87 mV  
High Point : 16.94 mV  
Plot Scale: 0.1 mV



Software Version: 4.1<2F12>

Date: 9/21/04 01:56 PM

Sample Name : S4436-16

Data File : F:\DATA3\D091016.RAW Date: 9/10/04 04:29 PM

Sequence File: F:\DATA3\C091004.SEQ Cycle: 16 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000

Dilution Factor : 1.00

99-22

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		0.83	822.44	65.00	0.001	0.001
			822.44	65.00	0.001	0.001

Report stored in ASCII file: .\d091016.TX0



CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: ARD2251  
LAB ID: S4436-19  
FILENAME: F:\DATA3\D091027.RAW  
LAB PROJECT: S4436

MATRIX: AQUEOUS  
DATE ANALYZED: 9/10/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	<0.5	U	0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

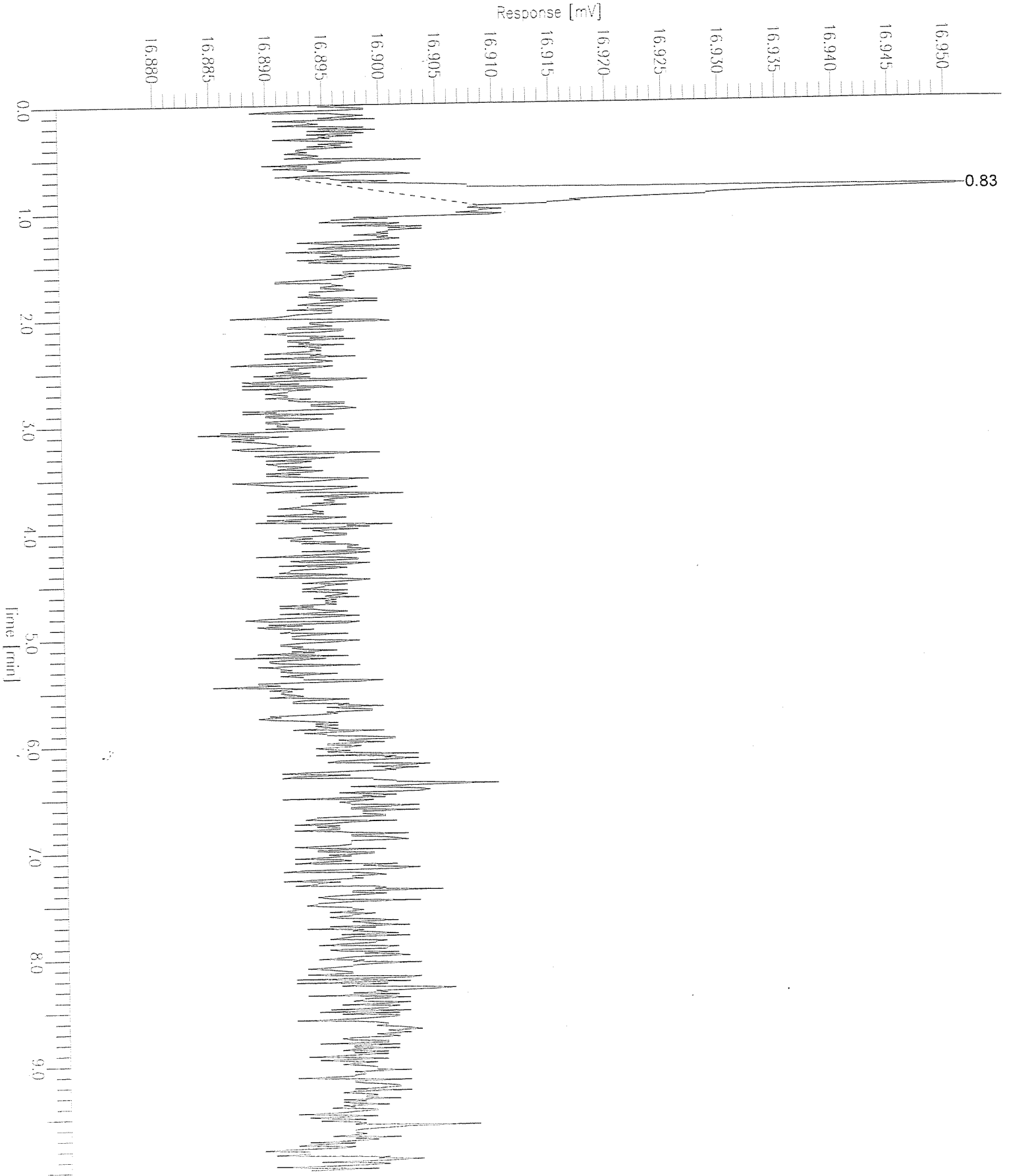
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# Chromatogram

Sample Name : S4436-19  
FileName : F:\DATA3\D091027.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 37  
Date : 9/21/04 02:01 PM  
Time of Injection: 9/10/04 07:36 PM  
Low Point : 16.88 mV  
Plot Scale: 0.1 mV  
Page 1 of 1  
High Point : 16.95 mV



Software Version: 4.1<2F12>

Date: 9/21/04 02:01 PM

Sample Name : S4436-19

Data File : F:\DATA3\D091027.RAW Date: 9/10/04 07:36 PM

Sequence File: F:\DATA3\C091004.SEQ Cycle: 27 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

199-22

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		0.83	298.35	52.62	0.000	0.000
			298.35	52.62	0.000	0.000

Report stored in ASCII file: .\d091027.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: TR2150  
LAB ID: S4436-20  
FILENAME: F:\DATA3\ID091025.RAW  
LAB PROJECT: S4436

MATRIX: AQUEOUS  
DATE ANALYZED: 9/10/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	556	E	0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

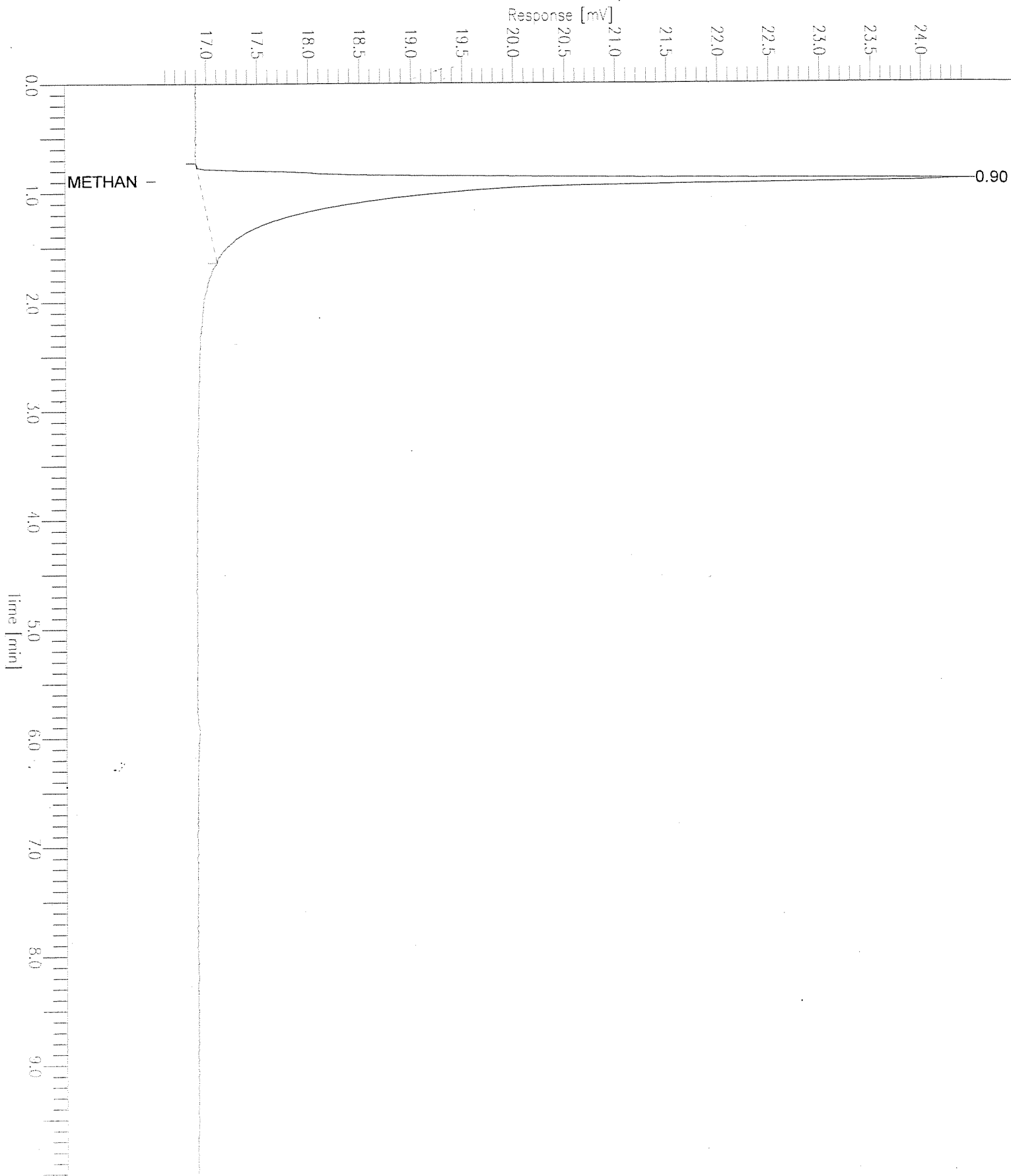
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# Chromatogram

Sample Name : S4436-20  
FileName : F:\DATA3\D091025.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 36  
Date : 9/21/04 01:59 PM  
Time of Injection: 9/10/04 07:04 PM  
Low Point : 16.51 mV  
Plot Scale: 7.9 mV  
Page 1 of 1  
High Point : 24.43 mV



Software Version: 4.1<2F12>

Date: 9/21/04 01:59 PM

Sample Name : S4436-20

Data File : F:\DATA3\D091025.RAW Date: 9/10/04 07:04 PM

Sequence File: F:\DATA3\C091004.SEQ Cycle: 25 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000

Dilution Factor : 1.00

99-22

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.90	70691.75	7503.55	9574.712	9574.712
			70691.75	7503.55	9574.712	9574.712

Report stored in ASCII file: .\d091025.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: TR2150  
LAB ID: S4436-20 25X  
FILENAME: F:\DATA3\ID091026.RAW  
LAB PROJECT: S4436

MATRIX: AQUEOUS  
DATE ANALYZED: 9/10/04  
ANALYST: PHM  
DILUTION: 25

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	509	D	13	15
74-85-1	ETHYLENE	<13	UD	13	28
74-84-0	ETHANE	<13	UD	13	25

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

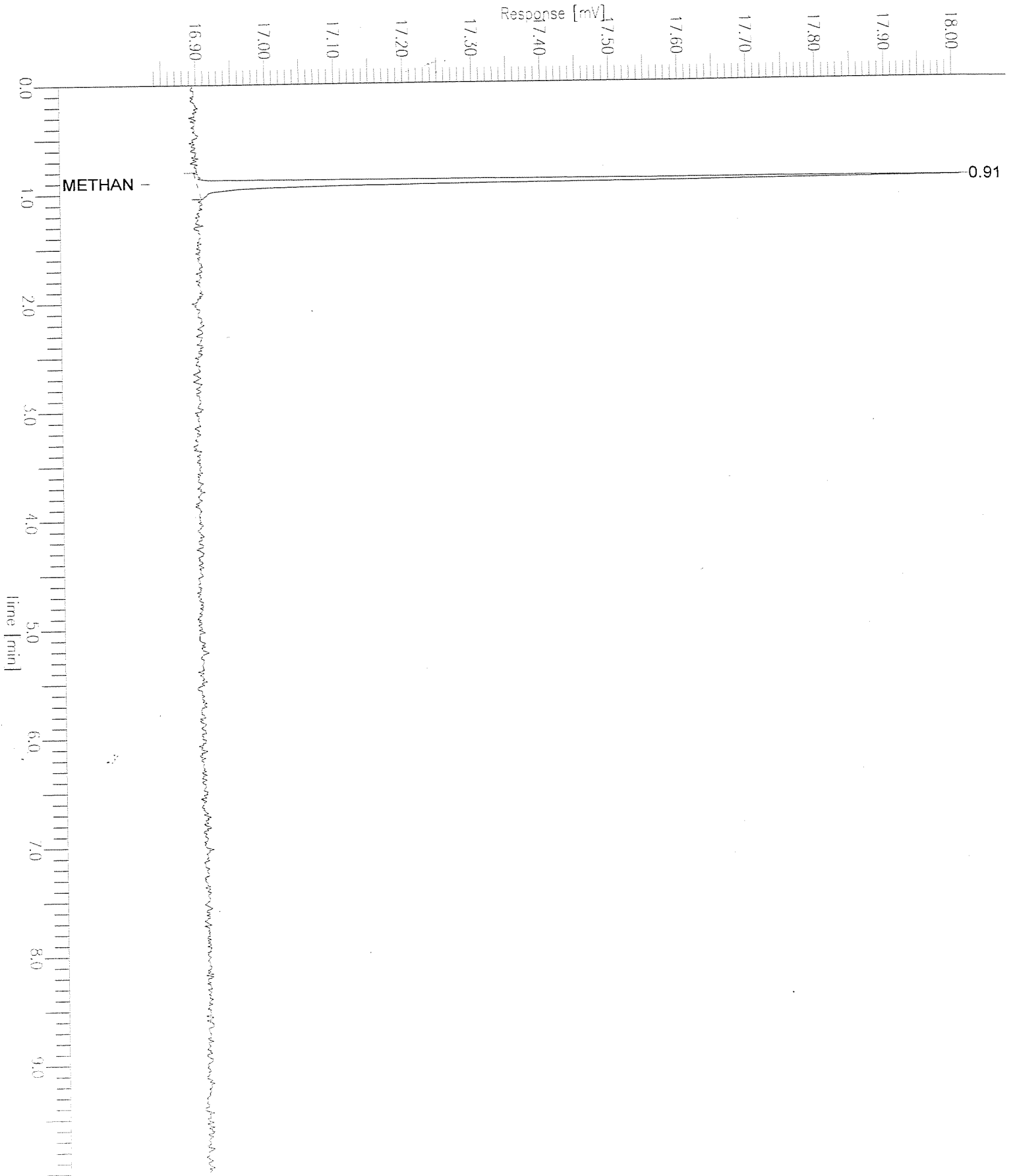
.....  
.....  
.....

# Chromatogram

Sample Name : S4436-20 25X  
FileName : F:\DATA3\D091026.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 37  
Date : 9/21/04 02:00 PM  
Time of Injection: 9/10/04 07:22 PM  
Low Point : 16.83 mV  
Plot Scale: 1.2 mV  
Page 1 of 1  
High Point : 18.01 mV





Software Version: 4.1<2F12>

Date: 9/21/04 02:00 PM

Sample Name : S4436-20 25X

Data File : F:\DATA3\D091026.RAW Date: 9/10/04 07:22 PM

Sequence File: F:\DATA3\C091004.SEQ Cycle: 25 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000

Dilution Factor :  $\frac{25.00}{1.00}$   
 $\frac{25.00}{99.22}$

99.22

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.91	2585.48	1109.37	350.185	350.185
			2585.48	1109.37	350.185	350.185

Report stored in ASCII file: .\d091026.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: ARD0049  
LAB ID: S4436-21  
FILENAME: F:\DATA3\D091028.RAW  
LAB PROJECT: S4436

MATRIX: AQUEOUS  
DATE ANALYZED: 9/10/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	<0.5	U	0.5	0.58
74-85-1	ETHYLENE	<0.5	U	0.5	1.1
74-84-0	ETHANE	<0.5	U	0.5	1.01

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

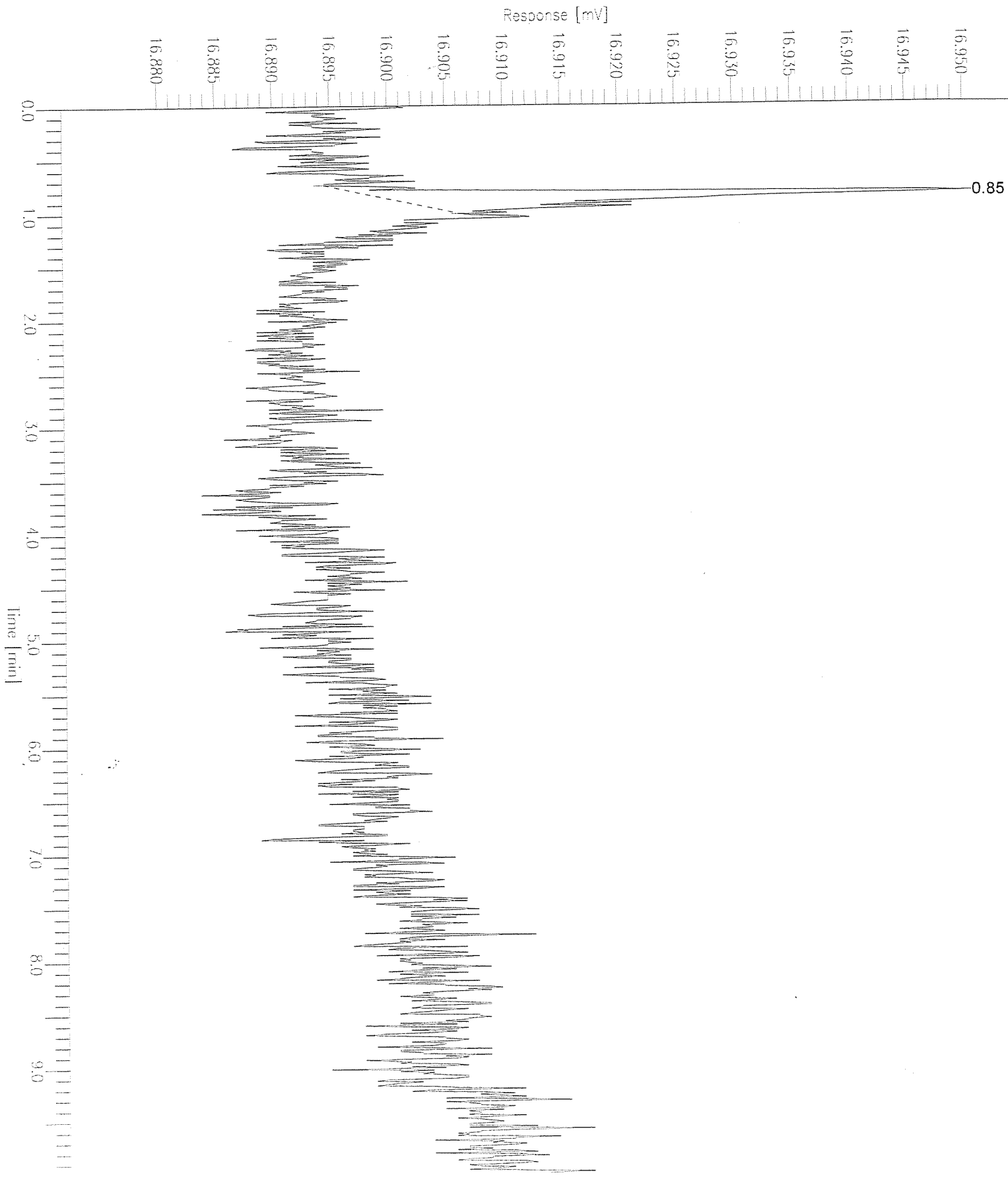
.....  
.....

# Chromatogram

Sample Name : S4436-21  
FileName : F:\DATA3\D091028.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 37  
Date : 9/21/04 02:01 PM  
Time of Injection: 9/10/04 07:58 PM  
Low Point : 16.88 mV  
High Point : 16.95 mV  
Plot Scale: 0.1 mV



Software Version: 4.1<2F12>

Date: 9/21/04 02:01 PM

Sample Name : S4436-21

Data File : F:\DATA3\D091028.RAW Date: 9/10/04 07:58 PM

Sequence File: F:\DATA3\C091004.SEQ Cycle: 28 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

199-22

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		0.85	300.33	51.72	0.000	0.000
			300.33	51.72	0.000	0.000

Report stored in ASCII file: .\d091028.TX0

CHEMTECH

GC  
CALIBRATION  
SUMMARY

Initial Calibration Summary  
GASES

CHEMTECH.

Date Analyzed	9/8/04		Filename					CORR		
	50 ppm	100 ppm	200 ppm	500 ppm	1000 ppm	Ave CF	Std Dev		% RSD	Flag
Analyte	Cal Fac 1	Cal Fac 2	Cal Fac 3	Cal Fac 4	Cal Fac 5					
	METHANE	7	9	6	7	8	7	1.2	16	0.99786
	ETHYLENE	6	7	6	5	5	6	1	14	0.99948
ETHANE	9	9	8	10	12	10	10	2	16	0.99663

\* Denotes outside control criteria: 30% RSD for initial calibration 30% drift for continuing calibration  
(When calibration factor fails correlation coefficient is used as per RSK-175)

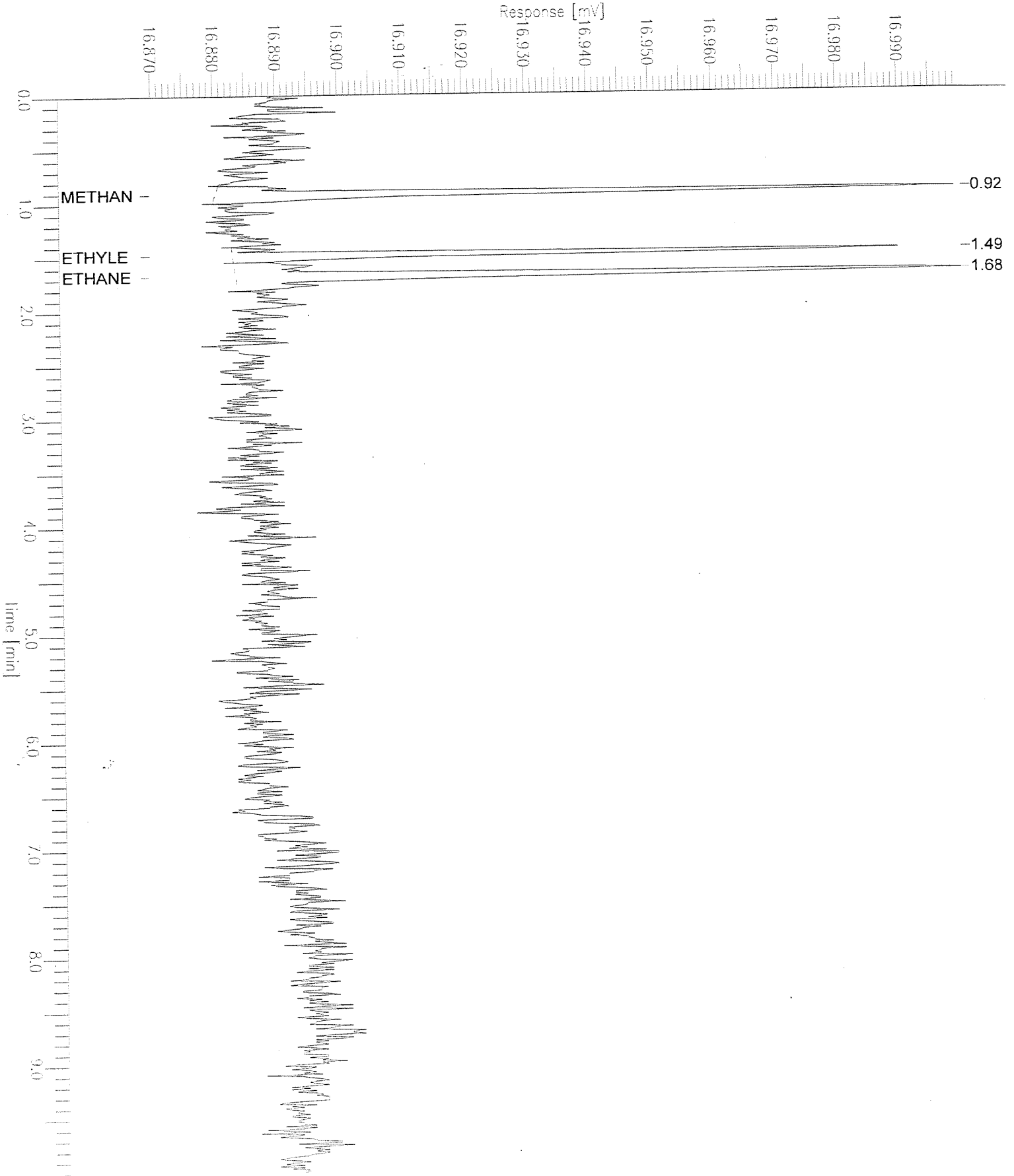
# Chromatogram

Sample Name : 50 PPM ICC  
FileName : F:\DATA3\D090807.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 34  
Date : 9/21/04 09:33 AM  
Time of Injection: 9/8/04 01:49 PM  
Low Point : 16.87 mV  
Plot Scale: 0.1 mV

Page 1 of 1



Software Version: 4.1<2F12>

Date: 9/21/04 09:33 AM

Sample Name : 50 PPM ICC

Data File : F:\DATA3\D090807.RAW Date: 9/8/04 01:49 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 7 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

*09-21*

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.92	352.81	120.15	47.785	47.785
2	ETHYLENE	1.49	285.62	107.39	51.805	51.805
3	ETHANE	1.68	437.48	118.24	44.656	44.656
			1075.91	345.78	144.246	144.246

Report stored in ASCII file: .\d090807.TX0



# Chromatogram

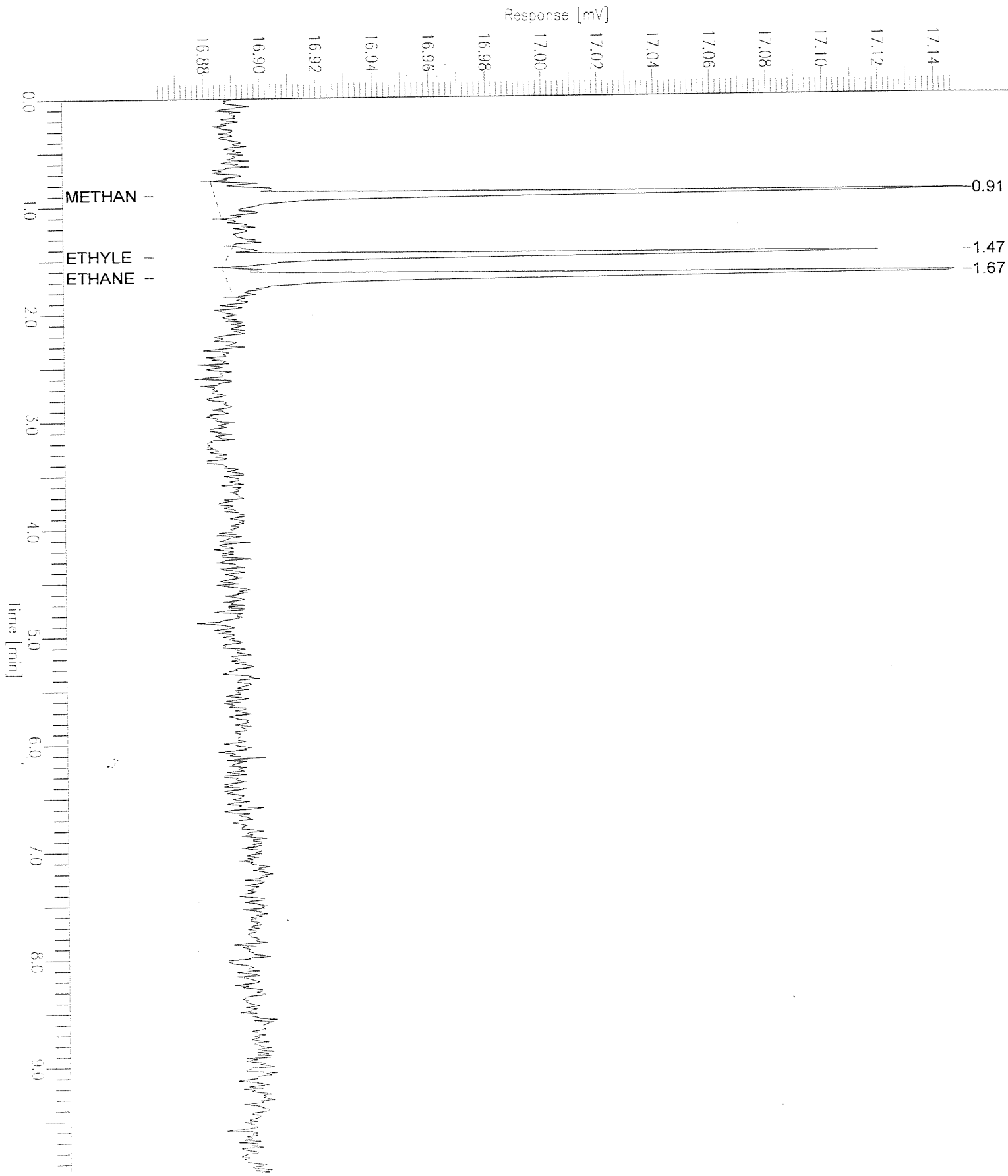
Sample Name : 100 PPM ICC  
FileName : F:\DATA3\D090806.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 34  
Date : 9/21/04 09:32 AM  
Time of Injection: 9/8/04 01:27 PM  
Low Point : 16.86 mV  
Plot Scale: 0.3 mV

Page 1 of 1

High Point : 17.15 mV



Software Version: 4.1<2F12>

Date: 9/21/04 09:32 AM

Sample Name : 100 PPM ICC

Data File : F:\DATA3\D090806.RAW Date: 9/8/04 01:27 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 6 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

919-21

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.90	912.87	270.47	123.642	123.642
2	ETHYLENE	1.47	668.65	231.12	121.276	121.276
3	ETHANE	1.67	933.33	266.92	95.270	95.270
			2514.85	768.51	340.189	340.189

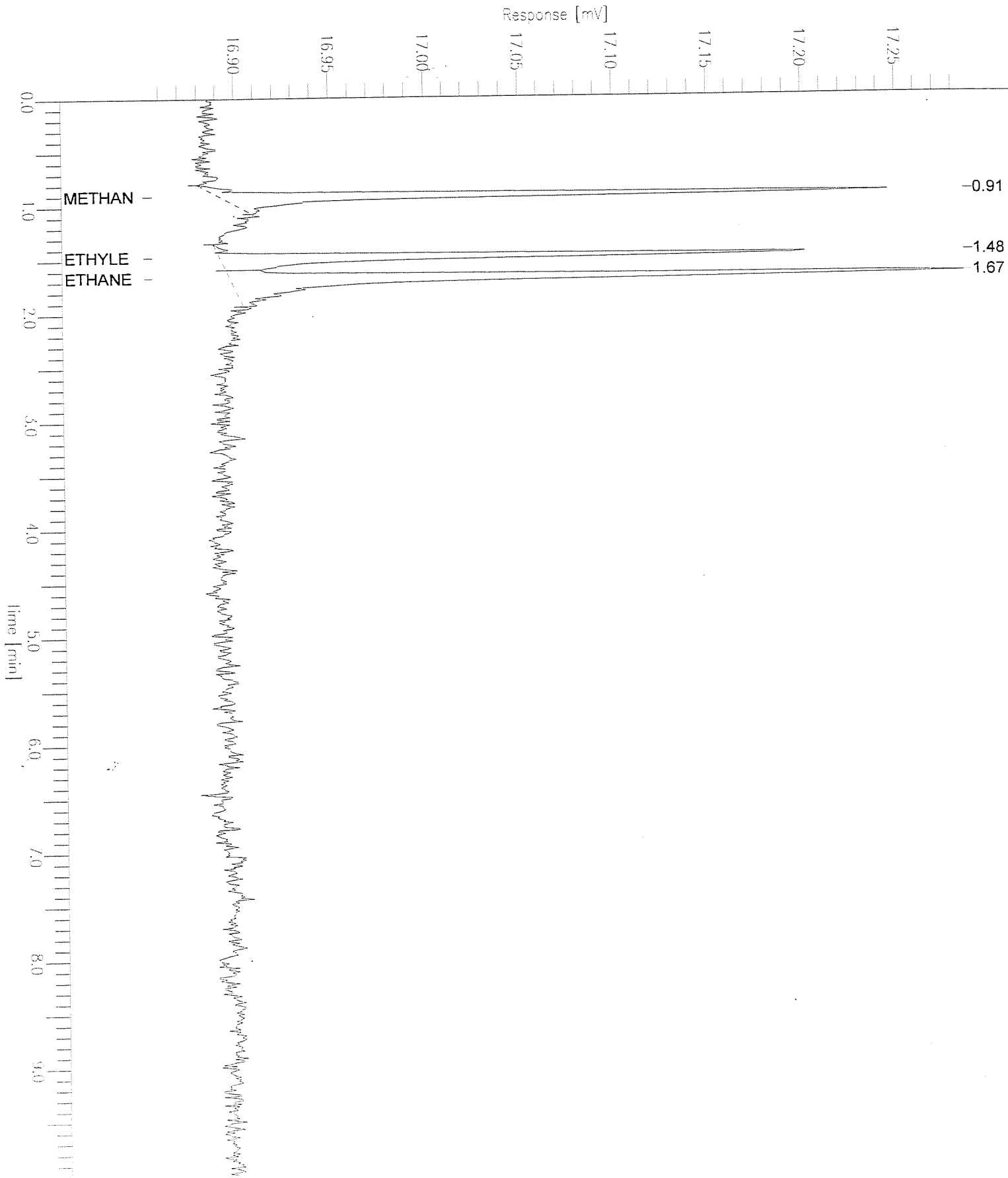
Report stored in ASCII file: .\d090806.TX0

# Chromatogram

Sample Name : 200 PPM ICC  
FileName : F:\DATA3\DO90805.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 34  
Date : 9/21/04 09:32 AM  
Time of Injection: 9/8/04 01:10 PM  
Low Point : 16.86 mV  
High Point : 17.29 mV  
Plot Scale: 0.4 mV



Software Version: 4.1<2F12>

Date: 9/21/04 09:32 AM

Sample Name : 200 PPM ICC

Data File : F:\DATA3\D090805.RAW Date: 9/8/04 01:10 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 5 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

199-21

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.91	1173.93	354.50	159.000	159.000
2	ETHYLENE	1.48	1104.91	320.28	200.404	200.404
3	ETHANE	1.67	1680.57	389.26	171.544	171.544
			3959.41	1064.04	530.949	530.949

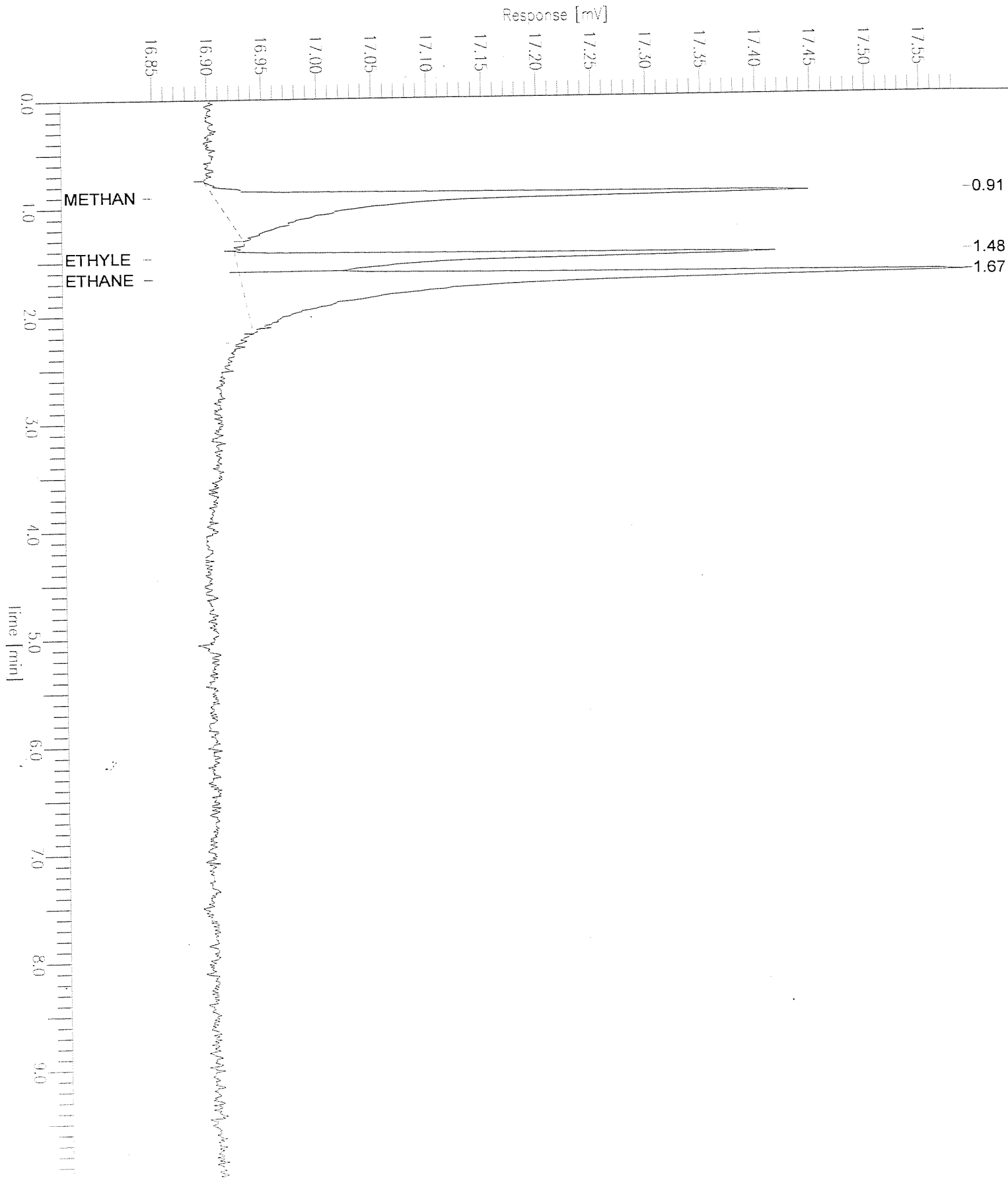
Report stored in ASCII file: .\d090805.TX0

# Chromatogram

Sample Name : 500 PPM ICC  
FileName : F:\DATA3\DO90804.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 34  
Date : 9/21/04 09:31 AM  
Time of Injection: 9/8/04 12:48 PM  
Low Point : 16.85 mV  
High Point : 17.59 mV  
Plot Scale: 0.7 mV



Software Version: 4.1<2F12>

Date: 9/21/04 09:31 AM

Sample Name : 500 PPM ICC

Data File : F:\DATA3\D090804.RAW Date: 9/8/04 12:48 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 4 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

199-21

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.91	3605.94	543.64	488.400	488.400
2	ETHYLENE	1.48	2449.94	494.69	444.359	444.359
3	ETHANE	1.67	5136.86	664.04	524.347	524.347
			11192.74	1702.37	1457.106	1457.106

Report stored in ASCII file: .\d090804.TX0

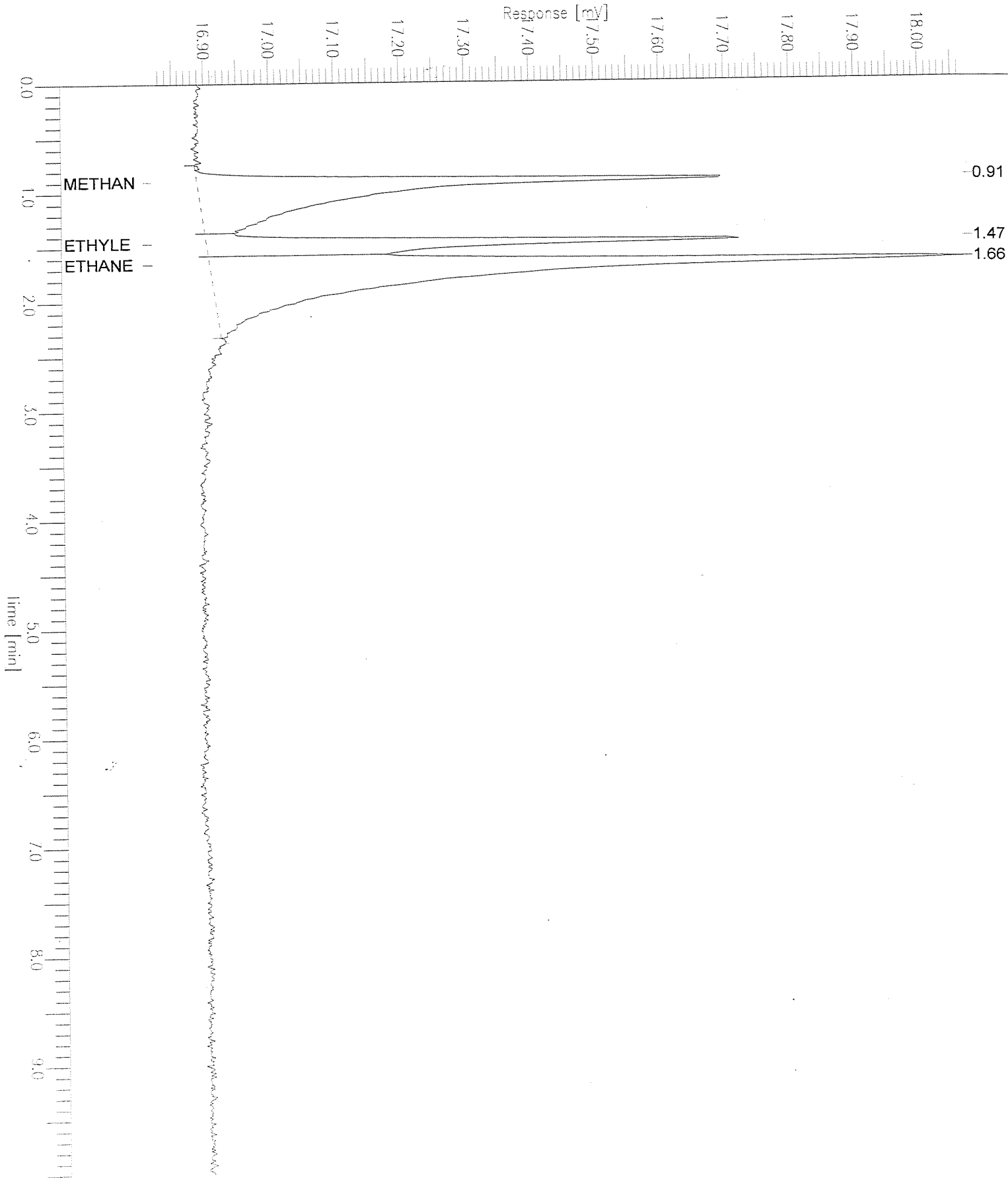
# Chromatogram

Sample Name : 1000 PPM ICC  
FileName : F:\DATA3\D090803.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor : 1.0

End Time : 10.00 min  
Plot Offset : 17 mV

Sample #: 34  
Date : 9/21/04 09:30 AM  
Time of Injection: 9/8/04 12:31 PM  
Low Point : 16.82 mV  
Plot Scale: 1.2 mV

Page 1 of 1



Software Version: 4.1<2F12>

Date: 9/21/04 09:30 AM

Sample Name : 1000 PPM ICC

Data File : F:\DATA3\D090803.RAW Date: 9/8/04 12:31 PM

Sequence File: F:\DATA3\C090804.SEQ Cycle: 3 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

199-21

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.91	7649.53	823.59	1036.076	1036.076
2	ETHYLENE	1.47	4743.76	826.79	860.403	860.403
3	ETHANE	1.66	12223.87	1160.60	1247.757	1247.757
			24617.16	2810.98	3144.236	3144.236

Report stored in ASCII file: .\d090803.TX0



Initial Calibration Summary  
GASES

Analysis Date		9/10/04		Filename: F:\DATA3\ID091001.RAW					
Analyte	Cal Fac	% Drift	Flag	Conc ug/L	% Rec	Lower Limits	Upper Limits	Flag	
METHANE	6	14		86	86	70	130		
ETHYLENE	6	14		114	114	70	130		
ETHANE	8	22*		78	78	70	130		

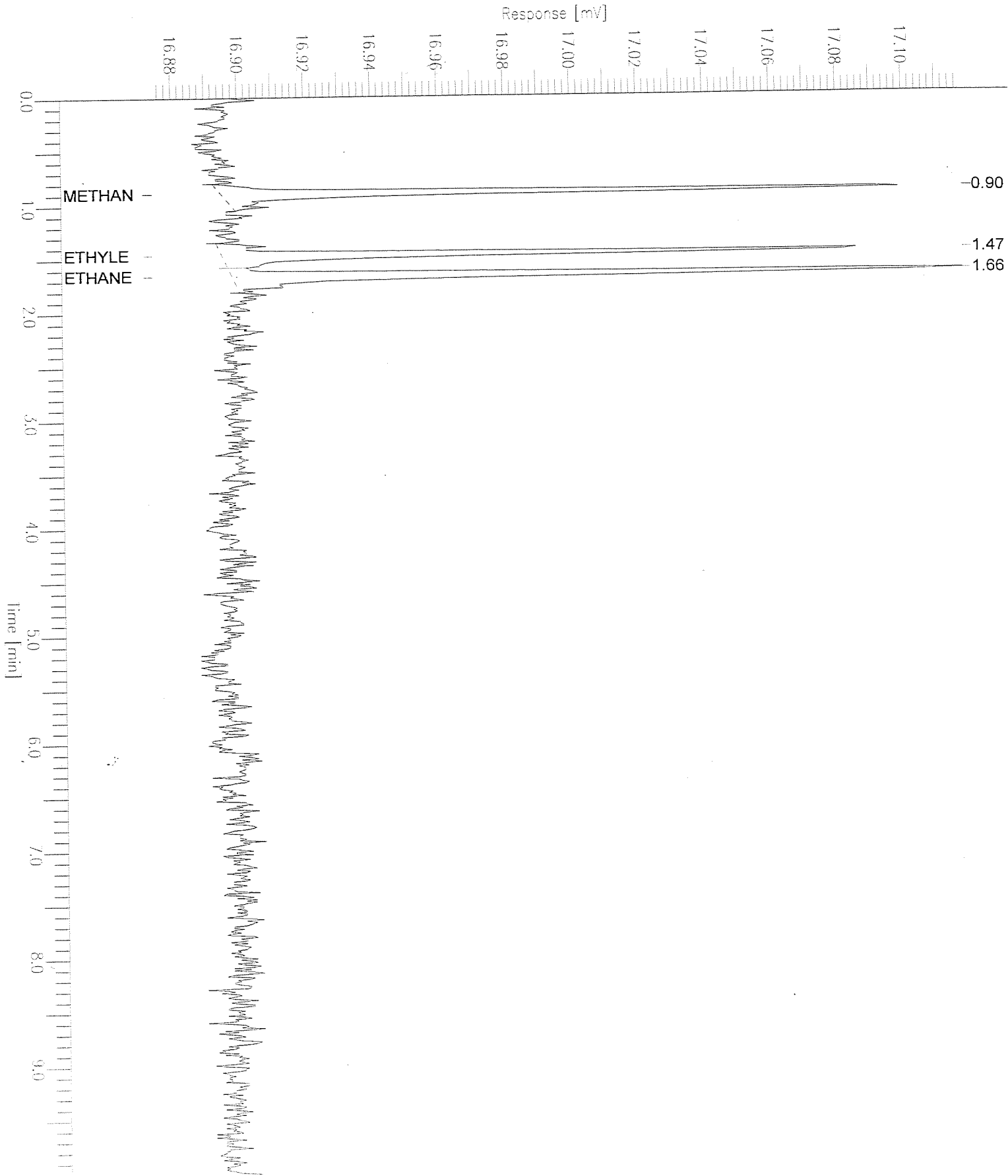
\* Denotes outside control criteria: 30% RSD for initial calibration 30% drift for continuing calibration  
(When calibration factor fails correlation coefficient is used as per RSK-175)

# Chromatogram

Sample Name : 100 PPMV CCC  
FileName : F:\DATA3\D091001.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor : 1.0

End Time : 10.00 min  
Plot Offset : 17 mV

Sample #: 36  
Date : 9/21/04 01:48 PM  
Time of Injection: 9/10/04 11:15 AM  
Low Point : 16.87 mV  
Plot Scale: 0.2 mV  
High Point : 17.12 mV



Software Version: 4.1<2F12>

Date: 9/21/04 01:48 PM

Sample Name : 100 PPMV CCC

Data File : F:\DATA3\D091001.RAW Date: 9/10/04 11:15 AM

Sequence File: F:\DATA3\C091004.SEQ Cycle: 1 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

*29-22*

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.90	637.95	208.26	86.406	86.406
2	ETHYLENE	1.47	626.57	197.99	113.644	113.644
3	ETHANE	1.66	760.23	221.15	77.601	77.601
			2024.75	627.40	277.651	277.651

Report stored in ASCII file: .\d091001.TX0

Initial Calibration Summary  
GASES

CHEMTECH.

Analysis Date	9/10/04	Filename: F:\DATA3\ID091010.RAW				Conc ug/L	% Rec	Lower Limits	Upper Limits	Flag
		Cal Fac	% Drift	Flag	% Rec					
METHANE	7		1		493	99	70	130		
ETHYLENE	6		5		524	105	70	130		
ETHANE	9		3		483	97	70	130		

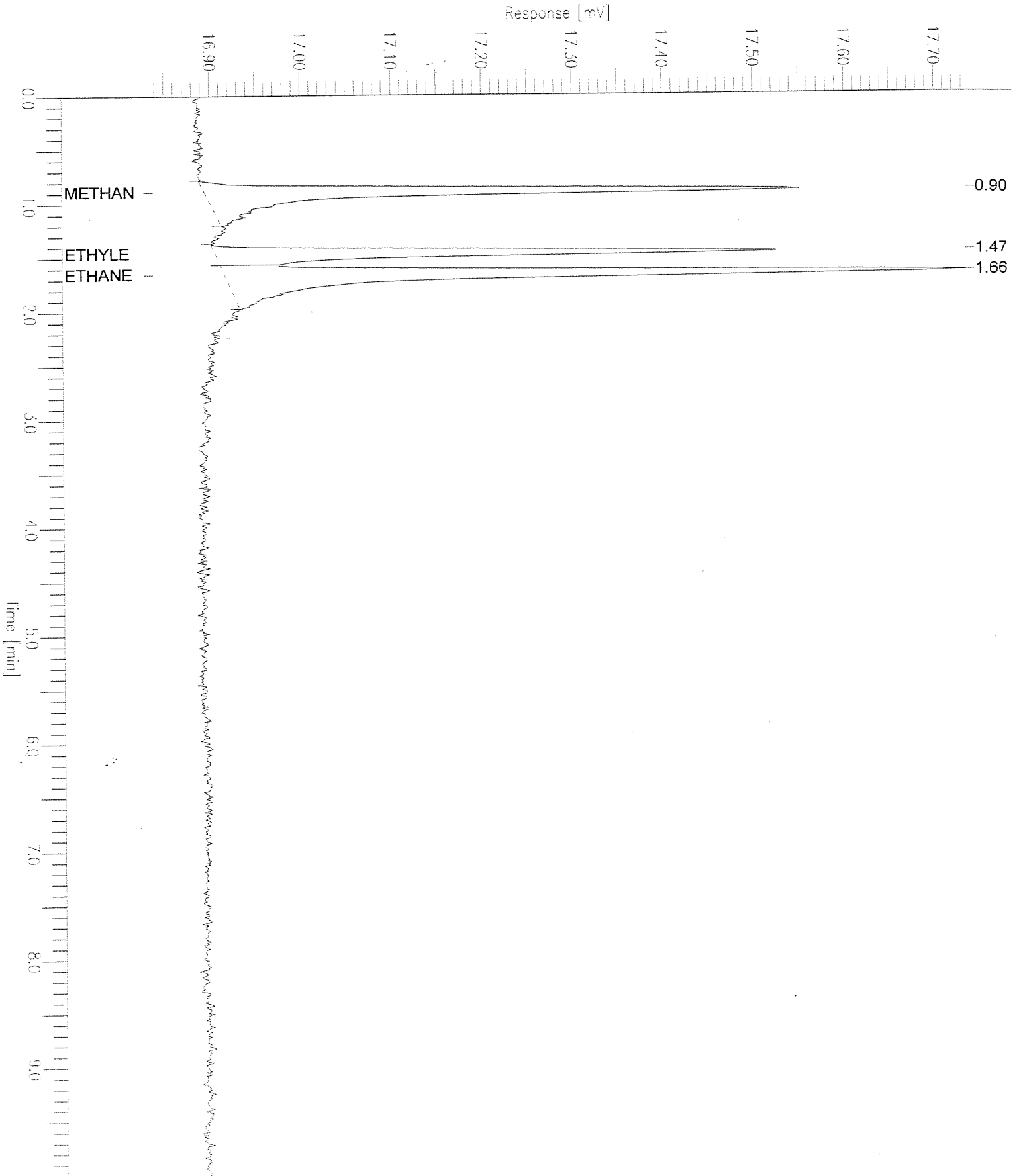
\* Denotes outside control criteria: 30% RSD for initial calibration 30% drift for continuing calibration  
(When calibration factor fails correlation coefficient is used as per RSK-175)

# Chromatogram

Sample Name : 500 PPMV CCC  
FileName : F:\DATA3\D091010.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 36  
Date : 9/21/04 01:53 PM  
Time of Injection: 9/10/04 02:31 PM  
Low Point : 16.84 mV  
Plot Scale: 0.9 mV  
Page 1 of 1  
High Point : 17.73 mV



Software Version: 4.1<2F12>

Date: 9/21/04 01:53 PM

Sample Name : 500 PPMV CCC

Data File : F:\DATA3\D091010.RAW Date: 9/10/04 02:31 PM

Sequence File: F:\DATA3\C091004.SEQ Cycle: 10 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

*9912*

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.90	3639.60	661.42	492.959	492.959
2	ETHYLENE	1.47	2890.26	629.08	524.223	524.223
3	ETHANE	1.66	4736.14	818.15	483.444	483.444
			11266.01	2108.66	1500.626	1500.626

Report stored in ASCII file: .\d091010.TX0

Initial Calibration Summary  
GASES

CHEMTECH.

Analysis Date		9/10/04		Filename: F:\DATA3\ID091029.RAW				
Analyte	Cal Fac	% Drift	Flag	Conc ug/L	% Rec	Lower Limits	Upper Limits	Flag
METHANE	7	0		200	100	70	130	
ETHYLENE	7	19*		237	119	70	130	
ETHANE	9	11		178	89	70	130	

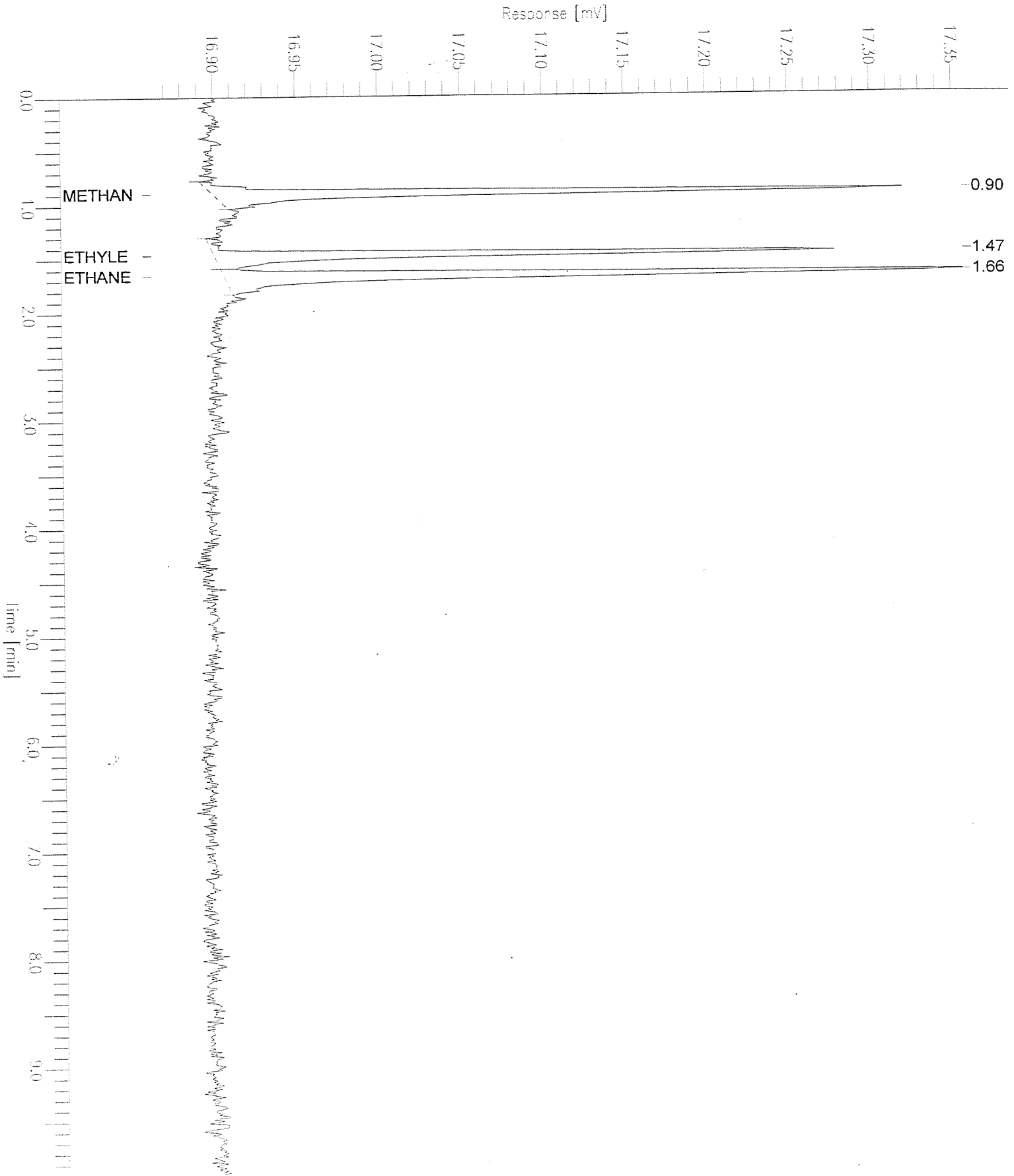
\* Denotes outside control criteria: 30% RSD for initial calibration 30% drift for continuing calibration  
(When calibration factor fails correlation coefficient is used as per RSK-175)

# Chromatogram

Sample Name : 200 PPMV CCC  
FileName : F:\DATA3\D091029.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Page 1 of 1  
Sample #: 37  
Date : 9/21/04 02:02 PM  
Time of Injection: 9/10/04 08:18 PM  
Low Point : 16.66 mV  
High Point : 17.36 mV  
Plot Scale: 0.5 mV





Software Version: 4.1<2F12>

Date: 9/21/04 02:02 PM

Sample Name : 200 PPMV CCC

Data File : F:\DATA3\D091029.RAW Date: 9/10/04 08:18 PM

Sequence File: F:\DATA3\C091004.SEQ Cycle: 29 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

09-22

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.90	1475.25	419.82	199.812	199.812
2	ETHYLENE	1.47	1308.47	379.15	237.325	237.325
3	ETHANE	1.66	1739.05	455.29	177.515	177.515
			4522.77	1254.26	614.652	614.652

Report stored in ASCII file: .\d091029.TX0

CHEMTECH

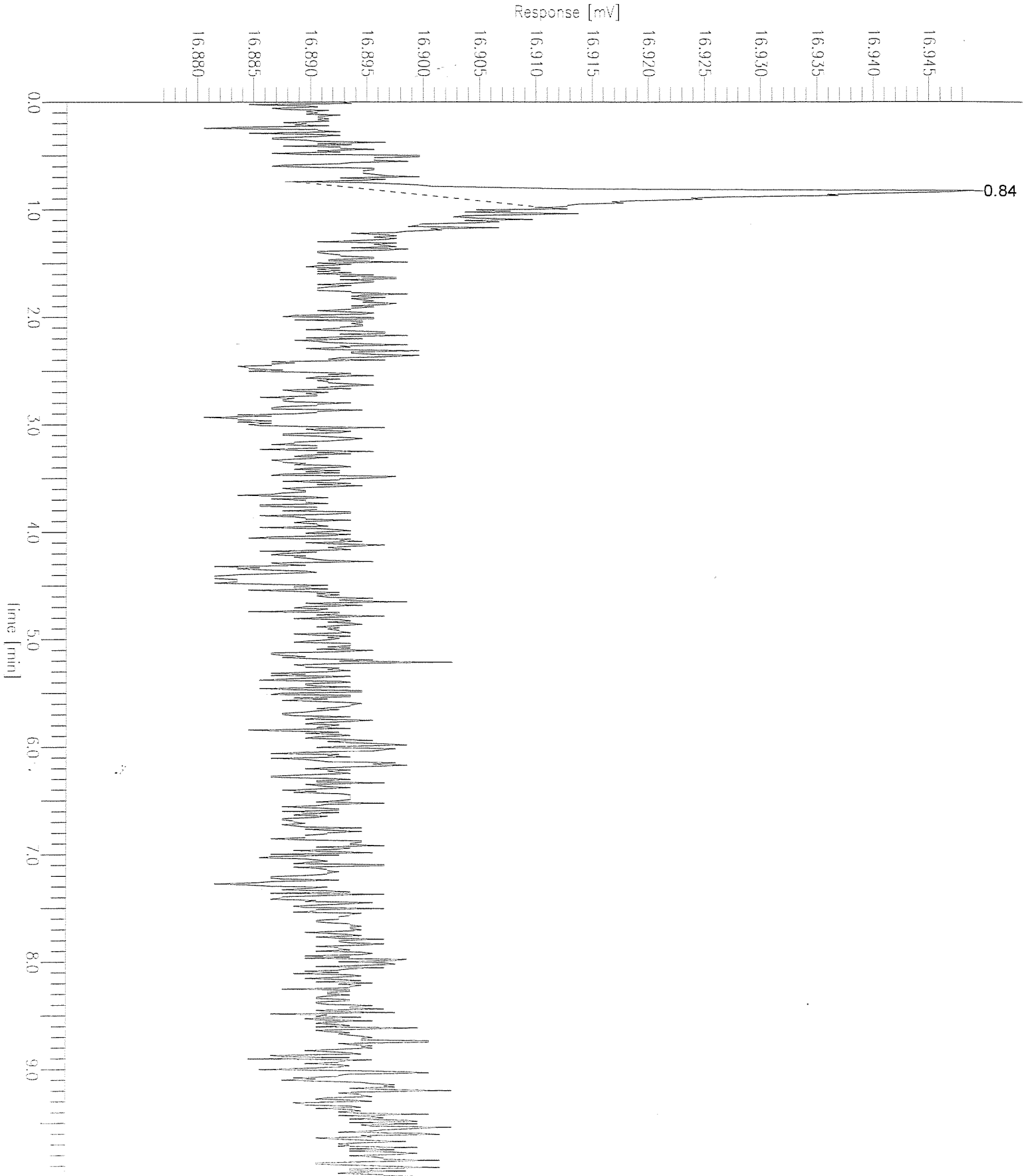
GC  
RAW DATA

# Chromatogram

Sample Name : VBC0910G1  
FileName : F:\DATA3\D091002.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 36  
Date : 9/21/04 01:48 PM  
Time of Injection: 9/10/04 11:41 AM  
Low Point : 16.88 mV  
High Point : 16.95 mV  
Plot Scale: 0.1 mV



Software Version: 4.1<2F12>

Date: 9/21/04 01:48 PM

Sample Name : VBC0910G1

Data File : F:\DATA3\D091002.RAW Date: 9/10/04 11:41 AM

Sequence File: F:\DATA3\C091004.SEQ Cycle: 2 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

99-22

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1		0.84	289.11	53.98	0.000	0.000
			289.11	53.98	0.000	0.000

Report stored in ASCII file: .\d091002.TX0

Tabulated Analytical Results  
Gases

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: ARD2246MS  
LAB ID: S4436-10MS  
FILENAME: F:\DATA3\ID091021.RAW  
LAB PROJECT: S4436

MATRIX: AQUEOUS  
DATE ANALYZED: 9/10/04  
ANALYST: PHM  
DILUTION: 1

<u>CAS #</u>	<u>COMPOUNDS</u>	<u>RESULTS (ug/l)</u>	<u>QUALIFIER</u>	<u>MDL (ug/l)</u>	<u>RDL (ug/l)</u>
74-82-8	METHANE	6.2		0.5	0.58
74-85-1	ETHYLENE	14		0.5	1.1
74-84-0	ETHANE	11		0.5	1.01

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

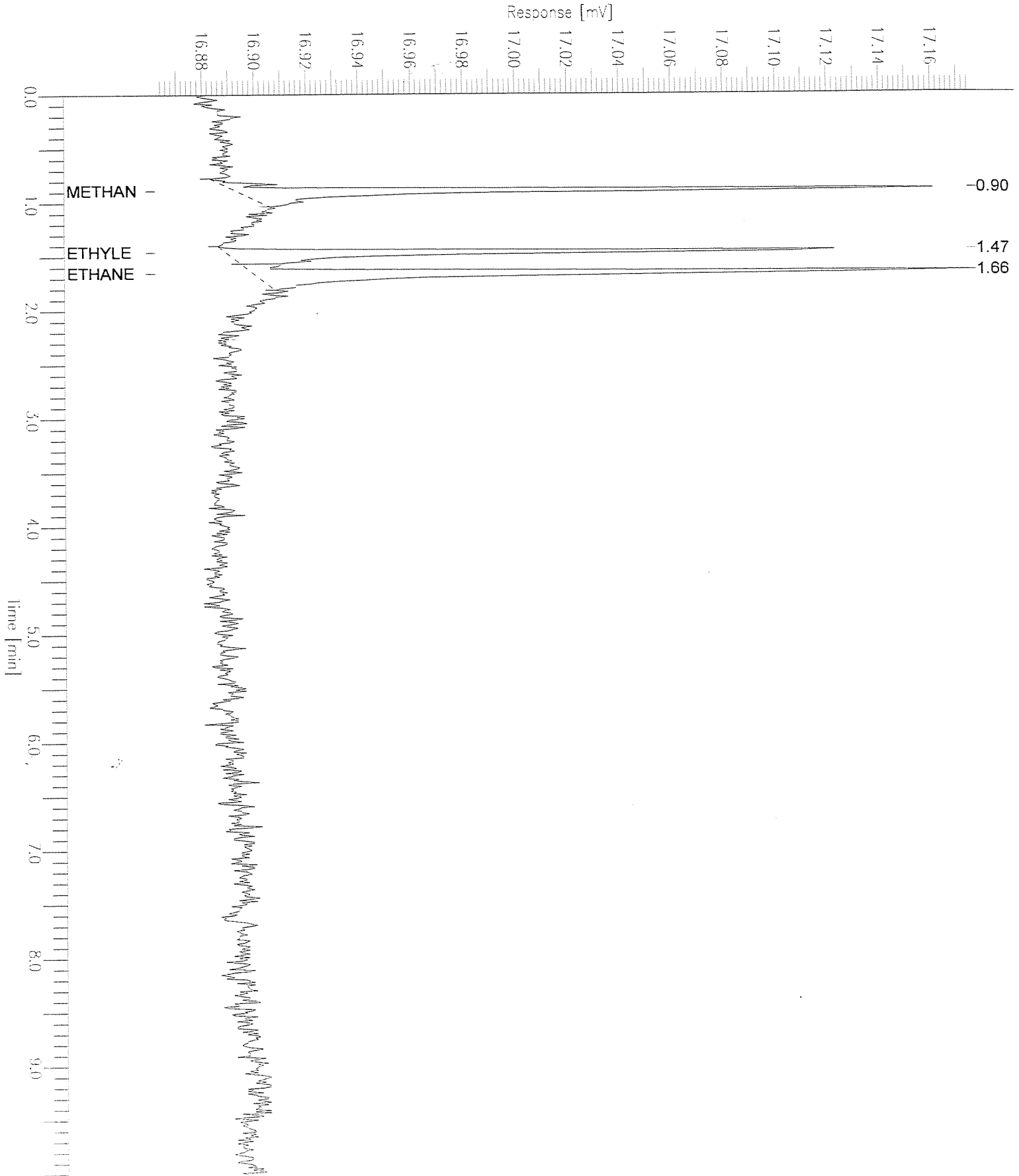
....  
....  
....

# Chromatogram

Sample Name : S4436-10MS  
FileName : F:\DATA3\D091021.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 36  
Date : 9/21/04 01:58 PM  
Time of Injection: 9/10/04 05:51 PM  
Low Point : 16.86 mV  
Plot Scale: 0.3 mV  
High Point : 17.17 mV



Software Version: 4.1<2F12>

Date: 9/21/04 01:58 PM

Sample Name : S4436-10MS

Data File : F:\DATA3\D091021.RAW Date: 9/10/04 05:51 PM

Sequence File: F:\DATA3\C091004.SEQ Cycle: 21 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

99-22

### CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.90	791.42	271.61	107.192	107.192
2	ETHYLENE	1.47	707.66	242.47	128.353	128.353
3	ETHANE	1.66	941.84	274.40	96.139	96.139
			2440.92	788.48	331.684	331.684

Report stored in ASCII file: .\d091021.TX0

CLIENT: PARSONS ENGINEERING  
PROJECT: Seneca Ash Landfill Quarterly Monitoring  
SAMPLE ID: ARD2246MSD  
LAB ID: S4436-11MSD  
FILENAME: F:\DATA3\ID091023.RAW  
LAB PROJECT: S4436

MATRIX: AQUEOUS  
DATE ANALYZED: 9/10/04  
ANALYST: PHM  
DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	6.5		0.5	0.58
74-85-1	ETHYLENE	14		0.5	1.1
74-84-0	ETHANE	10		0.5	1.01

MDL = METHOD DETECTION LIMIT  
U = UNDETECTED BELOW MDL  
B = PRESENT IN THE ASSOCIATED BLANK  
E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
D = DILUTION

.....  
.....  
.....

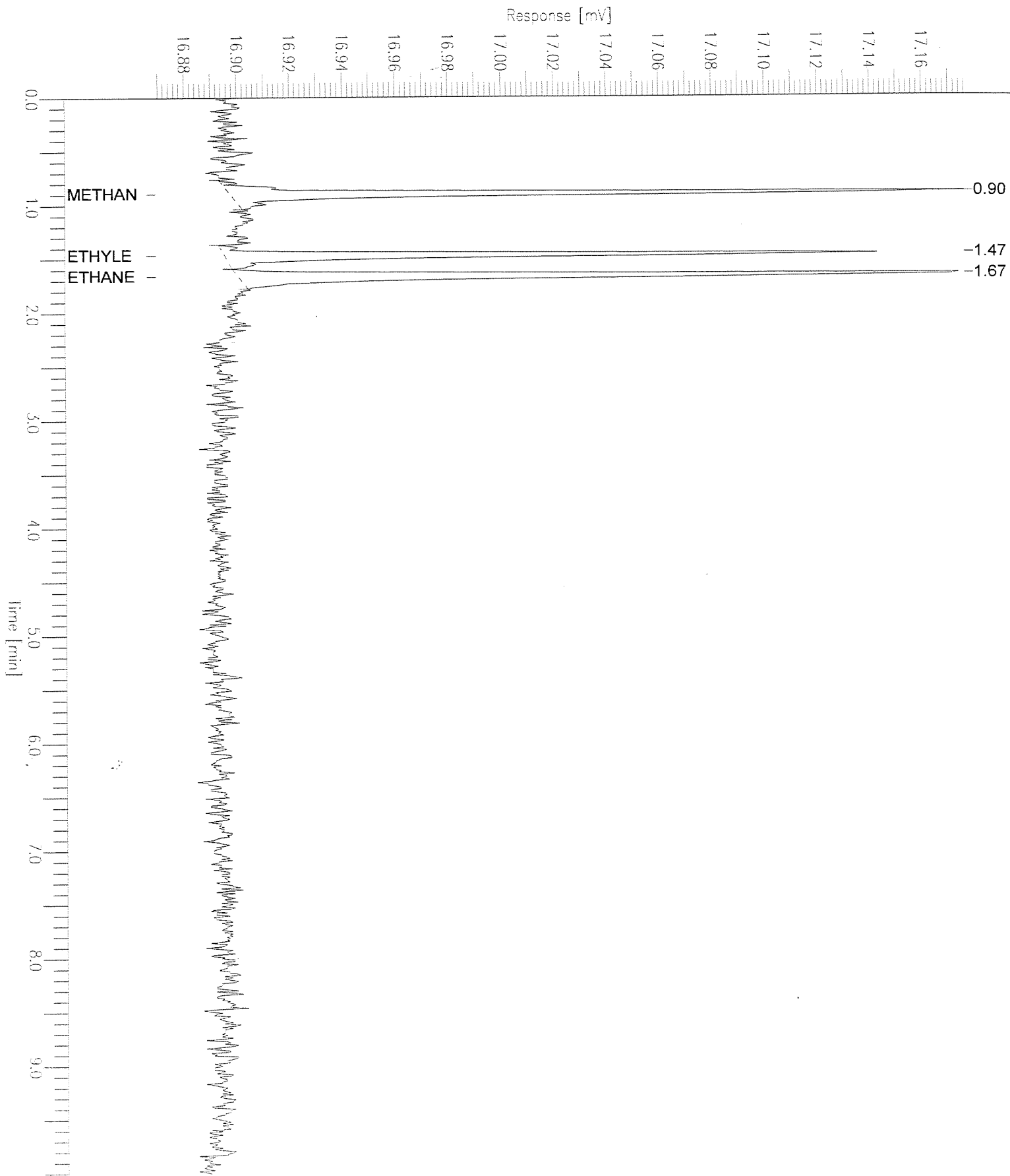


# Chromatogram

Sample Name : S4436-11MSD  
FileName : F:\DATA3\D091023.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 36  
Date : 9/21/04 01:59 PM  
Time of Injection: 9/10/04 06:28 PM  
Low Point : 16.87 mV  
Plot Scale: 0.3 mV  
Page 1 of 1  
High Point : 17.18 mV



Software Version: 4.1<2F12>

Date: 9/21/04 01:59 PM

Sample Name : S4436-11MSD

Data File : F:\DATA3\D091023.RAW Date: 9/10/04 06:28 PM

Sequence File: F:\DATA3\C091004.SEQ Cycle: 23 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

199-22

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.90	830.69	278.91	112.512	112.512
2	ETHYLENE	1.47	734.65	248.08	133.248	133.248
3	ETHANE	1.67	921.45	282.90	94.058	94.058
			2486.80	809.89	339.818	339.818

Report stored in ASCII file: .\d091023.TX0

Tabulated Analytical Results  
Gases

CLIENT: PARSONS ENGINEERING  
 PROJECT: Seneca Ash Landfill Quarterly Monitoring  
 SAMPLE ID: BLANK SPIKE  
 LAB ID: BSC0910G1  
 FILENAME: F:\DATA3\D091024.RAW  
 LAB PROJECT: S4436

MATRIX: AQUEOUS  
 DATE ANALYZED: 9/10/04  
 ANALYST: PHM  
 DILUTION: 1

CAS #	COMPOUNDS	RESULTS (ug/l)	QUALIFIER	MDL (ug/l)	RDL (ug/l)
74-82-8	METHANE	5.5		0.5	0.58
74-85-1	ETHYLENE	13		0.5	1.1
74-84-0	ETHANE	10		0.5	1.01

MDL = METHOD DETECTION LIMIT  
 U = UNDETECTED BELOW MDL  
 B = PRESENT IN THE ASSOCIATED BLANK  
 E = EXCEEDED CALIBRATION RANGE, DILUTION TO FOLLOW  
 D = DILUTION

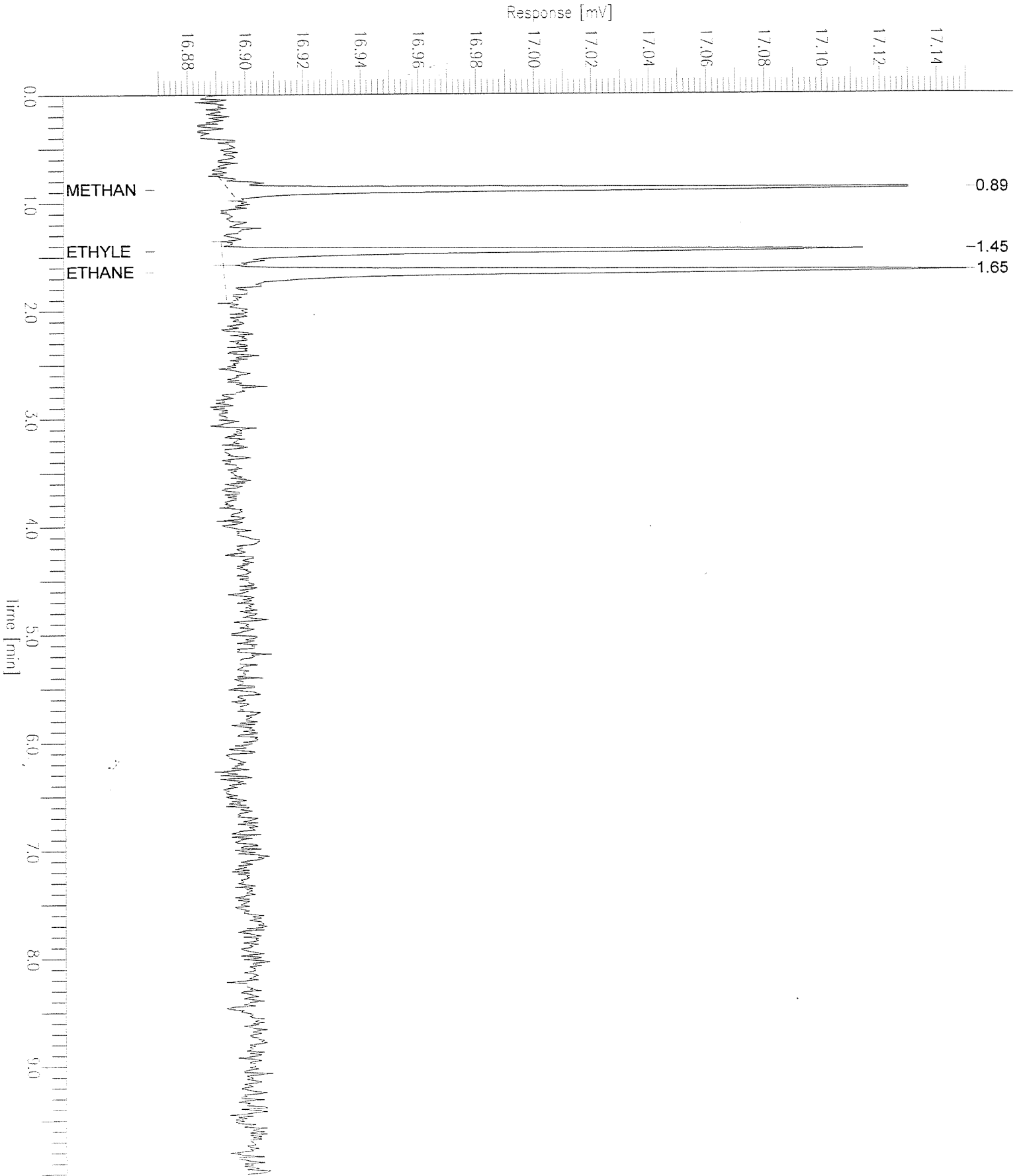
....  
 ....  
 ....

# Chromatogram

Sample Name : BSC0910G1  
FileName : F:\DATA3\D091024.raw  
Method : CGAS  
Start Time : 0.00 min  
Scale Factor: 1.0

End Time : 10.00 min  
Plot Offset: 17 mV

Sample #: 36  
Date : 9/21/04 01:59 PM  
Time of Injection: 9/10/04 06:45 PM  
Low Point : 16.87 mV  
Plot Scale: 0.3 mV  
Page 1 of 1  
High Point : 17.15 mV



Software Version: 4.1<2F12>

Date: 9/21/04 01:59 PM

Sample Name : BSC0910G1

Data File : F:\DATA3\D091024.RAW Date: 9/10/04 06:45 PM

Sequence File: F:\DATA3\C091004.SEQ Cycle: 24 Channel : A

Instrument : DIMENSIONS Rack/Vial: 0/0 Operator:

Sample Amount : 1.0000 Dilution Factor : 1.00

199-22

CHEMTECH COMPOUND LISTINGS & RESULTS

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Raw Amount	Raw Amount X Dilution
1	METHANE	0.89	697.36	248.67	94.453	94.453
2	ETHYLENE	1.45	673.47	224.61	122.151	122.151
3	ETHANE	1.65	925.87	258.36	94.509	94.509
			2296.70	731.63	311.112	311.112

Report stored in ASCII file: .\d091024.TX0

CHEMTECH

GC  
MISCELLANEOUS  
DATA

**CHEMTECH** 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#: 20012; NEW YORK LAB ID#: 11376

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: S4436

MATRIX: Water

METHOD: RSK175

- |  | NA | NO | YES |
|--|----|----|-----|
| 1. Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)   |    |    | ✓   |
| 2. GC/MS Tuning Specifications<br>BFB Meet Criteria (NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY<br>ASP CLP, CLP AND NJ)   |    |    | ✓   |
| 3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for<br>8000 Series.   |    |    | ✓   |
| 4. GC/MS Calibration - Initial Calibration performed before sample analysis and<br>continuing calibration performed within 24 hours of sample analysis for 600 series and<br>12 hours for 8000 series. |    |    | ✓   |
| 5. GC/MS Calibration Requirements.   |    |    | ✓   |
| a. Calibration Check Compounds for 8260 and CLP.   |    |    | ✓   |
| b. System Performance Check Compounds for 8260 and CLP   |    |    | ✓   |

8260 CALIBRATION CRITERIA

<u>SPCC Compounds</u>	<u>MIN RF</u>	<u>CCC Compounds</u>
Chloromethane	0.1	1,1-Dichloroethene
1,1-Dichloroethane	0.1	Chloroform
Bromoform	0.1	1,2-Dichloropropane
Chlorobenzene	0.3	Toluene
1,1,2,2-Tetrachloroethane	0.3	Ethylbenzene
Vinyl chloride		

For CCC compounds Initial Calibration Criteria – RSD less than or equal to 30%  
For CCC compounds Continuing Calibration Criteria - %D less than or equal to 20%

- |   |  |  |   |
|---|--|--|---|
| 6. Blank Contamination - If yes, list compounds and concentrations in each blank: |  |  | ✓ |
| 7. Surrogate Recoveries Meet Criteria   |  |  | ✓ |
- If not met, list those compounds and their recoveries which fall outside the acceptable ranges.

**CHEMTECH** 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#: 20012; NEW YORK LAB ID#: 11376

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria ✓

If not met, list those compounds and their recoveries which fall outside the acceptable range.

The MS recoveries met the requirements for all compounds. The MSD recoveries met the acceptable requirements except for ETHYLENE

9. Internal Standard Area/Retention Time Shift Meet Criteria ✓

Comments:

10. Analysis Holding Time Met ✓

If not met, list number of days exceeded for each sample:

Ray Leatha, Keelponee  
QA REVIEW

9/23/06  
Date



**Daily Analysis Runlog For GC/MS #: GCVOA 3**

Start Date: 9/15/04 End Date: 9/15/04 Analyst: [Signature] Review By: [Signature]

<u>STD. NAME</u>	<u>STD REF. #:</u>	<u>STD NAME</u>	<u>STD REF. #:</u>
	MSV1-	Initial Calibration Stds.	MSV1- MSV0-363 MSV0-364 MSV0-367
CCC	MSV1- MSV0-363 MSV0-364 MSV0-367	Spike Std.	MSV1- MSV0-363 MSV0-364 MSV0-367
QC Check Std.	MSV1-	Processing Method	<u>D090803, mtr</u>
Surrogate Std.	MSV1- <u>N/A</u>	QC Batch Number	

SR. #:	Sample ID	Data File Name	Method #:	pH	Run Info.	Comment
1	1000PPM TEL	D090803	Calcs		mul	ok
2	500		4			ok
3	200		5			ok
4	100		6			ok
5	50		7			ok
6	10	Pa-22	8		✓	x
7	vBC090801		9		500ul	ok
8	SH414-02 B		10	<2		ok
9	-04 B		11	<2		ok
10	-05 B		12	<2		ok
11	-01 C		13	<2		or 100x
12	-01 C		14	<2	100x	ok
13	-03 C		15	<2	2x	or 250x
14	-03 C		16	<2	50x	ok
15	-08 CB		17	<2	500ul	ok
16	-07 C		18	<2	↓	or 100x
17	-07 C		19	<2	100x	ok
18	-15 C		20	<2	500ul	ok
19	-13 B		21	<2	↓	or 5x
20	-16 B		22	<2	5x	ok

**Daily Analysis Runlog For GC/MS #: GCVOA 3**

Start Date: 9/10/04 End Date: 9/10/04 Analyst: [Signature] Review By: 102

STD. NAME	STD REF. #:	STD NAME	STD REF. #:
	MSV1-	Initial Calibration Stds.	MSV1- <u>N/A</u>
CCC	MSV1- <small>MSV0-363 MSV0-364 MSV0-367</small>	Spike Std.	MSV1- <small>MSV0-363 MSV0-364 MSV0-367</small>
QC Check Std.	MSV1-	Processing Method	<u>Do 708gas.mtr</u>
Surrogate Std.	MSV1- <u>N/A</u>	QC Batch Number	

SR. #:	Sample ID	Data File Name	Method #:	pH	Run Info.	Comment
1	<u>100ppmvccc</u>	<u>DO7081001</u>	<u>Ubes</u>		<u>70ul</u>	<u>ok</u>
2	<u>VBC0910C1</u>	<u>2</u>			<u>70ul</u>	<u>ok</u>
3	<u>PIL</u>	<u>3</u>				<u>ok</u>
4	<u>S4436-01C</u>	<u>4</u>		<u>&lt;2</u>	<u>500ul</u>	<u>ok</u>
5	<u>-02B</u>	<u>5</u>		<u>&lt;2</u>		<u>ok</u>
6	<u>-03B</u>	<u>6</u>		<u>&lt;2</u>		<u>ok</u>
7	<u>-04B</u>	<u>7</u>		<u>&lt;2</u>		<u>ok</u>
8	<u>-05B</u>	<u>8</u>		<u>&lt;2</u>		<u>ok</u>
9	<u>✓ -06B</u>	<u>9</u>		<u>&lt;2</u>		<u>ok</u>
10	<u>500ppmvccc</u>	<u>10</u>			<u>70ul</u>	<u>ok</u>
11	<u>S4436-07C</u>	<u>11</u>		<u>&lt;2</u>	<u>500ul</u>	<u>rr 5x</u>
12	<u>-07C</u>	<u>12</u>		<u>&lt;2</u>	<u>5x</u>	<u>ok</u>
13	<u>-08B</u>	<u>13</u>		<u>&lt;2</u>	<u>500ul</u>	<u>ok</u>
14	<u>-09C</u>	<u>14</u>		<u>&lt;2</u>		<u>(P) rr Porion</u>
15	<u>-09C</u>	<u>15</u>		<u>&lt;2</u>		<u>rr Porion only</u>
16	<u>-16C</u>	<u>16</u>		<u>&lt;2</u>		<u>not needed</u>
17	<u>-15C</u>	<u>17</u>		<u>&lt;2</u>		<u>ok</u>
18	<u>-12C</u>	<u>18</u>		<u>&lt;2</u>		<u>ok</u>
19	<u>-13C</u>	<u>19</u>		<u>&lt;2</u>		<u>ok</u>
20	<u>✓ -14B</u>	<u>✓ 20</u>	<u>✓</u>	<u>&lt;2</u>	<u>✓</u>	<u>ok</u>

**Daily Analysis Runlog For GC/MS #: GCVOA 3**

Start Date: 9/10/04 End Date: 9/10/04 Analyst: [Signature] Review By: [Signature]

<u>STD. NAME</u>	<u>STD REF. #:</u>	<u>STD NAME</u>	<u>STD REF. #:</u>
	MSV1-	Initial Calibration Stds.	MSV1-
CCC	MSV1- <u>Control</u>	Spike Std.	MSV1-
QC Check Std.	MSV1-	Processing Method	_____
Surrogate Std.	MSV1-	QC Batch Number	_____

<u>SR. #:</u>	<u>Sample ID</u>	<u>Data File Name</u>	<u>Method #:</u>	<u>pH</u>	<u>Run Info.</u>	<u>Comment</u>
1	<u>S4436-10MS</u>	<u>D091021</u>	<u>C0221</u>	<u>&lt;2</u>	<u>500ul</u>	<u>OK</u>
2	<u>S4436-11MSD</u>	<u>22</u>		<u>&lt;2</u>		<u>OK</u>
3	<u>S4436-11MSD</u>	<u>23</u>		<u>&lt;2</u>		<u>OK</u>
4	<u>BS C091061</u>	<u>24</u>			<u>500ul</u>	<u>OK</u>
5	<u>S4436-20C</u>	<u>25</u>		<u>&lt;2</u>	<u>500ul</u>	<u>OK</u>
6	<u>-20C</u>	<u>26</u>		<u>&lt;2</u>	<u>(25x)</u>	<u>OK</u>
7	<u>-19C</u>	<u>27</u>		<u>&lt;2</u>		<u>OK</u>
8	<u>-21</u>	<u>28</u>		<u>&lt;2</u>		<u>OK</u>
9	<u>100ppm CCC</u>	<u>29</u>			<u>500ul</u>	<u>OK</u>
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

**CHEMTECH**

**SHIPPING AND  
RECEIVING  
DOCUMENTATION**



284 Sheffield Street, Mountainside, NJ 07092  
 (908) 789-8900 Fax (908) 789-8922  
 www.chemtech.net

CHEMTECH PROJECT NO. 54143C

COC Number 52402

### CLIENT INFORMATION

REPORT TO BE SENT TO:  
 COMPANY: Parscom's  
 ADDRESS: 100 Summer St 8th Floor  
 CITY: Boston STATE: MA ZIP: 02110  
 ATTENTION: Jennifer Rossman  
 PHONE: 617-457-7900 FAX: 617-457-7979

### PROJECT INFORMATION

PROJECT NAME: Ask handbill  
 PROJECT NO.: 793155 LOCATION: Seneca  
 PROJECT MANAGER: Jennifer Rossman  
 e-mail: Jennifer.Rossman@Parscom.com  
 PHONE: 617-457-7900 FAX: 617-457-7979

### BILLING INFORMATION

BILL TO: \_\_\_\_\_ PO#: \_\_\_\_\_  
 ADDRESS: SAME  
 CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_  
 ATTENTION: \_\_\_\_\_ PHONE: \_\_\_\_\_

### DATA TURNAROUND INFORMATION

FAX: \_\_\_\_\_ DAYS \*  
 HARD COPY: \_\_\_\_\_ DAYS \*  
 EDD: \_\_\_\_\_ DAYS \*  
 \* TO BE APPROVED BY CHEMTECH  
 STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

### DATA DELIVERABLE INFORMATION

RESULTS ONLY  USEPA CLP  
 RESULTS + QC  New York State ASP "B"  
 New Jersey REDUCED  New York State ASP "A"  
 New Jersey CLP  Other \_\_\_\_\_  
 EDD FORMAT

PRESERVATIVES: (3) 1 2 3 4 5 6 7 8 9  
 (4) 1 2 3 4 5 6 7 8 9  
 (5) 1 2 3 4 5 6 7 8 9  
 (6) 1 2 3 4 5 6 7 8 9  
 (7) 1 2 3 4 5 6 7 8 9  
 (8) 1 2 3 4 5 6 7 8 9  
 (9) 1 2 3 4 5 6 7 8 9

CHEMTECH SAMPLE ID	PROJECT IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE	SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS						
				DATE	TIME		1	2	3	4	5	6	7	8	9							
1. 9	ARD 2253	W	X	8-29-04	1130	7	A	E	A	E	B	A	B									
2. 10	ARD 2246 MS	W	X	8-29-04	1130	7	B															
3. 11	ARD 2246 MSD	W	X	8-29-04	1130	7	B															
4. 12	ARD 2247	W	X	8-29-04	1300	7	B															
5. 13	ARD 2249	W	X	8-29-04	1445	7	B															
6. 14	ARD 2258	W	X	8-29-04	1710	7	B															
7. 15	ARD 2250	W	X	8-29-04	0927	7	B															
8. 16	ARD 2246	W	X	8-29-04	1130	7	B															
9. 17	TR 0050	W	X			2																
10. 18	ARD 0046	W	X			2																

### SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RECEIVED BY:	DATE/TIME:
1. <u>[Signature]</u>	8/30/04 1700
2. _____	_____
3. <u>Fed SA</u>	08/19/04 044

RECEIVED BY: \_\_\_\_\_ DATE/TIME: \_\_\_\_\_  
 RECEIVED BY: \_\_\_\_\_ DATE/TIME: \_\_\_\_\_  
 RECEIVED FOR LAB BY: \_\_\_\_\_ DATE/TIME: \_\_\_\_\_



# CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092  
 (908) 789-8900 Fax (908) 789-0922  
 www.chemtech.net

CHEMTECH JOB NO.: 54436  
 CHEMTECH QUOTE NO.:

### CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Parsons  
 ADDRESS: 100 Summer St 8th Fl  
 CITY: Boston STATE: MA ZIP: 02110  
 ATTENTION: Jennifer Rossini  
 PHONE: (617) 457-7900 FAX: (617) 457-7999

### PROJECT INFORMATION

PROJECT NAME: Ash Landfill  
 PROJECT NO.: 74355 LOCATION: Seneca  
 PROJECT MANAGER: J. Rossini  
 E-MAIL: Jennifer.Rossini@parsons.com  
 PHONE: (617) 457-7900 FAX: (617) 457-7999

### BILLING INFORMATION

BILL TO: PO #:  
 ADDRESS: SA ME  
 CITY: STATE: ZIP:

### DATA TURNAROUND INFORMATION

FAX: \_\_\_\_\_ DAYS \*  
 HARD COPY: \_\_\_\_\_ DAYS \*  
 EDD: \_\_\_\_\_ DAYS \*  
 \* TO BE APPROVED BY CHEMTECH  
 \*\* NORMAL TURNAROUND TIME - 14 DAYS

### DATA DELIVERABLE INFORMATION

RESULTS ONLY  USEPA CLP  
 RESULTS + QC  NYS ASP "B"  
 NJ REDUCED  NYS ASP "A"  
 NJ CLP  EDD  
 EDD FORMAT:

ATTENTION: ANALYSIS

PHONE:

1	2	3	4	5	6	7	8	9
10/1/00	10/2/00	10/3/00	10/4/00	10/5/00	10/6/00	10/7/00	10/8/00	10/9/00

CHEMTECH SAMPLE ID PROJECT IDENTIFICATION

1. 19	ARLD 2251
2. 20	TR 2150
3. 21	ARLD 0049
4.	
5.	
6.	
7.	
8.	

SAMPLE MATRIX SAMPLE TYPE SAMPLE COLLECTION DATE TIME

W	GC	GC	8-30-04	0900	7
W	GC	GC	8-30-04	1221	7
W	GC	GC	8-30-04	0830	7

### PRESERVATIVES

A-E	A-E	A-E	A-E	A-E	A-E	A-E	A-E	A-E
1	2	3	4	5	6	7	8	9

### COMMENTS

← Specify Preservatives  
 A - HCl B - HNO<sub>3</sub>  
 C - H<sub>2</sub>SO<sub>4</sub> D - NaOH  
 E - ICE F - Other

### SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	RECEIVED BY:
1. [Signature]	1. [Signature]
RELINQUISHED BY:	RECEIVED BY:
2. [Signature]	2. [Signature]
RELINQUISHED BY:	RECEIVED FOR LAB BY:
3. [Signature]	3. [Signature]

Conditions of bottles or coolers at receipt:  Compliant  Non-Compliant  Temp. of Cooler   
 MeOH extractions requires an additional 4oz. jar for percent solid.

Shipped Via: Client  Hand Delivered  Overnight  Shipment Complete  
 Chemtech  Pickup Up  Overnight  Yes

Page 3 of 7

1 From  
Date 8-30-01

Sender's Name Jean Kossman Phone 617-457-7900

Company Person

Address 100 Seawick St

City Boston State MA ZIP 02110

2 Your Internal Billing Reference 743155-16100

3 To  
Recipient's Name Kurt Phone 908-789-8900

Company Chemtech

Address 201 Sheffield St

City Montclair State NJ ZIP 07092

**4a Express Package Service**

Delivery commitment only to later in some areas.

FedEx Priority Overnight Next business morning

FedEx Standard Overnight Next business morning

FedEx Express Saver Third business day

FedEx 2Day Second business day

FedEx 1Day Freight\* Next business day

FedEx 2Day Freight Second business day

FedEx 3Day Freight Third business day

**4b Express Freight Service**

Delivery commitment only to later in some areas.

FedEx Pak\* Includes FedEx Small Pak, FedEx Large Pak, and FedEx Envelope

Other

**5 Packaging**

FedEx Envelope\*

FedEx Pak\*

**6 Special Handling**

SATURDAY Delivery Available only for FedEx Priority and FedEx 2Day to select ZIP codes.

HOLD Weekday at FedEx Location For available for FedEx Priority and FedEx 2Day to select ZIP codes.

HOLD Saturday at FedEx Location Available only for FedEx Priority and FedEx 2Day to select ZIP codes.

Does this shipment contain dangerous goods?  No  Yes

No  Yes  Yes  Yes

**7 Payment Bill to:**  Sender  Recipient  Third Party  Credit Card  Cash/Check

**8 Release Signature**

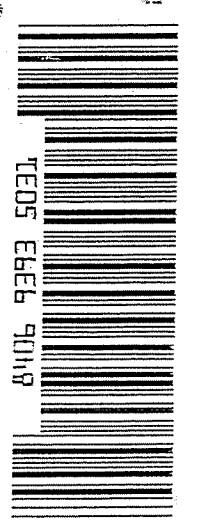
Total Packages 1 Total Weight 2.5 Total Declared Value\* 00

Total Charges 446

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

Questions? Visit our Web site at [fedex.com](http://fedex.com) or call 1.800.Go.FedEx®. 800.463.3339.

Rev. 10/01 \*Part #15767-6/99-1-2001 FedEx-PRINTED IN U.S.A. WCLB/3



840493735031



Tracking Number  
**810693935020**



1 From  
Date 8-30-01  
Sender's Name Wenay Co's Services Phone 617-457-7900  
Company Wenay Co's Services  
Address 600 Summer St 8th Floor  
City Boston State MA ZIP 02110

2 Your Internal Billing Reference 74355-06100  
3 To  
Recipient's Name Art Phone 908-789-8900  
Company Chemicals  
Address 884 Shobert St  
City Milwaukee State WI ZIP 53207

4 Recipient's Address 884 Shobert St  
City Milwaukee State WI ZIP 53207  
5 Barcode 8106 9393 5020  
6 Signature Wenay

0200  
Receipts Copy

7a Express Package Service  
 FedEx Priority Overnight  
 FedEx Standard Overnight  
 FedEx Express Saver  
 FedEx 2Day  
 FedEx 1Day Freight\*  
 FedEx 2Day Freight  
 FedEx 3Day Freight

7b Express Freight Service  
 FedEx Pak\*  
 FedEx Envelope\*  
 FedEx Pak\*  
 Other

8 Special Handling  
 Saturday Delivery  
 Hold Saturday at FedEx Location  
 Hold Saturday at FedEx Location and FedEx 2Day to select ZIP codes  
 Hold Saturday at FedEx Location and FedEx 2Day to select locations

9 Payment Bill to:  
 Sender  
 Recipient  
 Third Party  
 Credit Card  
 Cash/Check

10 Total Packages 1 Total Weight 71 Total Declared Value\* .00  
Total Charges 446

11 Release Signature  
By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.  
Questions? Visit our Web site at [fedex.com](http://fedex.com)  
or call 1.800.Go.FedEx.® 1.800.463.3339.  
Rev. Date 10/01 Your #107672-0189-2001 FedEx PRINTED IN U.S.A. WCSL03

**CHEMTECH**

284 Sheffield Street Mountainside NJ 07092  
Tel: 908-789-8900

**END OF ANALYTICAL RESULTS**

**APPENDIX D**

**ROUND 23 – AUGUST 2004 DATA VALIDATION SHEETS**

SDG S4414  
SDG S4436

**APPENDIX D**  
**ROUND 23 - AUGUST 2004 DATA VALIDATION SHEETS**  
**SDG S4414**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**

**PROJECT NAME/NO.**      ASH LANDFILL  
**SDG:**                      S4414  
**MEDIA:**                  Groundwater  
**FRACTION**                VOC (524.2)

<b>CRITERIA</b>	<b>Did Analyses Meet all criteria as specified in the SOPS?</b>	<b>If no, specify analysis IDs which do not meet criteria</b>	<b>Comments/Qualifying Actions</b>	<b>Qualifiers Added?</b>
<b>Data Completeness, Holding Times, Preservation, &amp; Solids Percentage</b>	YES		All samples were analyzed within 14 days. Temperature of cooler = 4C. Samples were preserved with HCl and pH was below 2 for all samples. Lab case narrative indicates sample preservation and integrity met requirement.	NO
<b>System Monitoring Compounds</b>	YES		All samples and QC samples had system monitoring compound recoveries within the lab specified limits.	NO
<b>Blanks</b>	NO	Acetone & Methylene Chloride	Acetone and methylene chloride were detected at the following concentrations, respectively: VBLK01 10 and 0.5 J ug/L, VBLK02 13 J and 1.5 J ug/L, VBLK03 2.2 J and 0.5 J ug/L, VBLK04 3.1 J and 0.3 J ug/L, VBLK05 4.4 J and 1.2 ug/L. The following qualifiers were added based on the method blank results: methylene chloride in TR2156, TR2149, TR2153, TR2151, TR2152, TR2159, TR2154, TR2160, TR2157, TR2158 was reported as 1.0 U; acetone in TR2151, TR2152, TR2159, TR2154, TR2160 was reported as 5.8 U; methylene chloride in TR2160DL was reported as 10 U; acetone in TR2160DL was reported as 58 U; methylene chloride in TR2152DL, TR2156DL, and TR2159DL was reported as 25 U; acetone in TR2152DL, TR2156DL, and TR2159DL was reported as 140 U; methylene chloride in TR2153DL and TR2151DL was reported as 50 U; acetone in TR2153DL and TR2151DL was reported as 290 U; acetone and methylene chloride results in TR2155 were qualified U. A trip blank (TR0055) was available for this SDG and acetone was detected at 9.7 ug/L and methylene chloride was detected at 0.7 J ug/L. It should be noted that these results were qualified as 9.7 U and 1.0 U, respectively for acetone and methylene chloride based on the method blank results. An equipment rinsate blank (TR0057) was available for this SDG and acetone was detected at 12 ug/L and methylene chloride was detected at 0.5 J ug/L. It should be noted that these results were qualified as 12 U and 1.0 U, respectively for acetone and methylene chloride based on the method blank results.	YES
<b>Matrix Spike/Matrix Spike Duplicates</b>	NO		MS/MSD analyses were conducted for TR2159. MS recoveries exceeded the lab specified limits in 3 out of 79 analytes and MSD recoveries exceeded the lab specified limits in 2 out of 79 analytes. 6 out of 79 analytes had %RPDs above the lab specified limits. No action was taken solely based on the MS/MSD results. LCS results were within 70-130% except for Acetone %Rec=210% and Methylene Chloride %Rec=140%.	NO
<b>GC/MS Instrument Performance Check</b>	YES		RTX624 (75m*0.53mmID*3.0umdf) column was used. Instrument performance check conducted on 8/16/04 9:16, 9/2/04 9:10, 9/2/04 21:24, 9/3/04 21:52, and 9/7/04 18:27 met requirement.	NO
<b>TCL Analytes</b>	NO		Sample and standard ion intensities agree within 20% for all samples with the following exception: methylene chloride identified in TR2154, TR2152, and TR2158 had one or more ion intensities did not agree within 40% of the standard. As methylene chloride results were qualified based on the method blank results, no action was taken based on the MS results. trans-1,2-dichloroethene identified in TR2151, TR2156, TR2159, TR2160, TR2158, and TR2157, 1,2-dichloroethane identified in TR2156, vinyl chloride identified in TR2151, TR2152, and TR2157, 1,1,1-trichloroethane identified in TR2159 and TR2160, had one or more ion intensities did not agree within 40% of the standard, J the detects based on the review of the mass spectrum. Acetone identified in TR2154, TR2156DL, TR2155, TR2153DL, TR2151, TR2151DL, TR2152, TR2152DL, TR2159, TR2159DL, TR2160, TR2160DL, TR0055, had one or more ion intensities did not agree within 80% of the standard. As acetone results were qualified based on the method blank results, no action was taken based on the MS results. Retention times for all samples were within 0.06 RRT units of the standard.	YES
<b>Tentatively Identified Compounds</b>			One or more TICs were detected in TR2154, TR2155, and TR2158. The concentrations range from 0.30 ug/L to 8.4 ug/L.	NO

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**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**

**PROJECT NAME/NO.**      ASH LANDFILL  
**SDG:**                      S4414  
**MEDIA:**                  Groundwater  
**FRACTION**                VOC (524.2)

<b>Reported Quantitation Limits</b>	YES		The lowest calibration standard concentration level was reported as reporting limit.	NO
<b>GC/MS Initial Calibration</b>	NO		Initial calibration was conducted on 8/16/04 from 09:49 to 12:24. All target compounds had %RSD below 20% except that %RSDs for chloroethane, iodomethane, and acetone were above 20% but below 90%. As chloroethane or iodomethane was not detected in any samples in this SDG, no action was taken based on the initial calibration results. As acetone results in this SDG were qualified as nondetects based on the method blank results, no action was taken based on the initial calibration results except that acetone result in TR2155 were qualified UJ. All RRFs were above 0.05 with the exception of the following analytes: tert-butyl alcohol, acrylonitrile, acetone, 2-butanone, t-1,4-dichloro-2-butene, propionitrile, tetrahydrofuran, 1,2-dibromo-3-chloropropane. The above referenced results for all samples in this SDG were qualified (nondetects were rejected and detects were qualified J). Acetone nondetects were rejected. Acetone detects were qualified based on the blank results and therefore no action was taken for acetone detects based on the initial calibration results.	YES
<b>GC/MS Continuing Calibration</b>	NO		Continuing calibration check was conducted on 9/2/04 at 9:43. All target compounds had %Ds below 30% above 0.05 except that %D for iodomethane was above 30% but below 90%. Iodomethane results for TR2156, TR2149, TR2153, TR2151, TR2152, TR2159 were qualified (detects were qualified J and nondetects were qualified UJ). Continuing calibration check was conducted on 9/2/04 at 21:56. All target compounds had %Ds below 30% except that %Ds for iodomethane and naphthalene were above 30% but below 90%. Iodomethane and naphthalene results for TR2154, TR2155, TR2152DL, TR2153DL, TR2156DL, TR2160, TR2157, TR0055, were qualified (detects were qualified J and non-detects were qualified UJ). Continuing calibration check was conducted on 9/3/04 at 22:24. All target compounds had %Ds below 30%. Continuing calibration check was conducted on 9/7/04 at 19:00. All target compounds had %Ds below 30% and RRFs above 0.05 except that %D for iodomethane was above 30% but below 90%. Iodomethane results for TR2159DL and TR2151DL were qualified (detects were qualified J and non-detects were qualified UJ). For all the above continuing calibration checks, RRFs were above 0.05 with the exception of the following analytes: tert-butyl alcohol, acrylonitrile, acetone, 2-butanone, t-1,4-dichloro-2-butene, propionitrile, tetrahydrofuran, 1,2-dibromo-3-chloropropane. The above referenced results for all samples in this SDG were qualified (nondetects were rejected and detects were qualified J). Acetone nondetects were rejected. Acetone detects were qualified based on the blank results and therefore no action was taken for acetone detects based on the CCV results.	YES
<b>Internal Standards</b>	YES		All samples and QC samples met Region II required acceptance criteria.	NO
<b>Field Duplicate</b>	YES		TR2159 and TR2160 are a field duplicate pair. The results of the two are consistent with each other (RPDs below 20%).	NO

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 SDG S4414  
 GROUNDWATER MONITORING - ASH LANDFILL  
 SENECA ARMY DEPOT ACTIVITY

PROJECT NAME/NO. ASH LANDFILL  
 SDG: S4414 (Method 8015)  
 MEDIA: Water

CRITERIA	Did Analyses Meet all criteria as specified in the SOPS?	If no, specify analysis IDs which do not meet criteria	Comments/Qualifying Actions	Qualifiers Added?
Data Completeness, Holding Times, Preservation, & Solids Percentage	YES		All samples were analyzed within 14 days from collection. Temperature of cooler = 4C. Samples were preserved with HCl.	NO
Matrix Spike/Matrix Spike Duplicates	YES		MS/MSD analyses were conducted on TR2159 and the recoveries were within acceptance limits of 70-130%. RPDs were below 20%. LCS sample recoveries were within the limits (70-130%).	NO
Blanks	YES		No MEE compounds were detected in the method blank. No MEE compounds were detected in the field rinsate blank (TR0057).	NO
GC/MS Instrument Performance Check	NA		GC column UPLLOT (30m*0.32mmID) was used.	NO
TCL Analytes	YES		All RTs were within the limits (i.e., 0.06 unit of RT in the initial calibration).	NO
Reported Quantitation Limits	YES		The lowest calibration standard concentration level was reported as reporting limit.	NO
GC/MS Initial Calibration	YES		All target compounds had R2 above 0.995 for the initial calibrations conducted on 9/8/04.	NO
GC/MS Continuing Calibration	YES		Continuing Calibration conducted on 9/8/04 at 12:31 had %Drift<15% within acceptance limits.	NO
Field Duplicate	YES		Field Duplicate pair of TR2159 and TR2160 were analyzed, and the results of the two were consistent with each other (i.e., no MEE were detected in either sample).	NO

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**ROUND 23 - AUGUST 2004 DATA VALIDATION SHEETS**  
**SDG S4414**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**

**PROJECT NAME/NO.**     Ash Landfill  
**SDG:**                    S4414  
**FRACTION:**            metals  
**LAB:**                    Chemtech  
**MEDIA:**                 Groundwater

<b>CRITERIA</b>	<b>Did Analyses Meet all criteria as specified in the SOPS?</b>	<b>If no, specify analysis IDs which do not meet criteria</b>	<b>Comments/Qualifying Actions</b>	<b>Qualifiers Added?</b>
<b>Data Completeness, Holding Times &amp; Preservation</b>	YES		Sample were analyzed within the holding time (i.e., 6 month after collection). Samples were preserved with HNO <sub>3</sub> and ice and cooler temperature was 4C upon receipt.	NO
<b>Calibration</b>	YES		ICV available after calibration and CCV available after every ten samples. The results were within 90%-110%.	NO
<b>Blanks (method blank, prep blank)</b>	YES		ICB and CCB analyzed for metals every ten samples, all samples were less than the RDL. Preparation blank was analyzed for metals (Ca, Mg, Mn, K, N) and results were within RDL limits. An equipment rinsate blank (TR0057) was available. Calcium was not detected and magnesium, manganese, potassium, and sodium were detected below the reporting limit. No action was taken based on the rinsate blank results.	NO
<b>Interference Check Sample</b>	YES		Interference check results were within limits (80-120%).	NO
<b>CRDL Standard</b>	YES		Standard check was conducted at the beginning of the analysis and the results were within the limits (80-120%) for calcium, magnesium, manganese, potassium, and sodium.	NO
<b>Laboratory Control Sample</b>	YES		Aqueous LCS results were within limits (i.e., 80-120%) for all metals.	NO
<b>Duplicates</b>	YES		A lab duplicate (TR2159D) was available for TR2159 and the results met Region II requirement (RPD%<50%). TR2159 and TR2160 is a field duplicate pair. The results of the duplicate samples (TR2159 & TR2160) were generally comparable with each other and all RPDs were below 50%. No action was taken.	NO
<b>Spike Sample Analysis</b>	YES		MS/MSD analyses were conducted for TR2159 and the results were within the limits of 75%-125% except that Ca recovery in the MSD was slightly above 125% (127%). As the Ca concentration in the original sample was above 4 times the spiked concentration, no action was taken. The RPDs were below 25%.	NO
<b>ICP Serial Dilution</b>	NO	Na	ICP Serial Dilution was conducted for TR2159. Region II criteria were met except for Na. J all Na results >1894.7 ug/L as all samples were considered similar.	YES
<b>Detection Limits</b>	YES		IDL's available and less than RDLs.	NO
<b>ICP Linear Range</b>	YES		All concentrations detected were within the ICP Linear Ranges.	NO

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**SDG S4436**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**

**PROJECT NAME/NO.**      ASH LANDFILL  
**SDG:**                      S4436  
**MEDIA:**                  Groundwater  
**FRACTION:**              VOC (8260)

<b>CRITERIA</b>	<b>Did Analyses Meet all criteria as specified in the SOPS?</b>	<b>If no, specify analysis IDs which do not meet criteria</b>	<b>Comments/Qualifying Actions</b>	<b>Qualifiers Added?</b>
<b>Data Completeness, Holding Times, Preservation, &amp; Solids Percentage</b>	YES		All samples were analyzed within 14 days from collection. Temperature of cooler = 4C. Samples preserved with HCl, pH <2.	NO
<b>System Monitoring Compounds</b>	NO	ARD2253 ARD2250	All samples and QC samples had system monitoring compound recoveries within the lab limits and the USACE Shell limits (80-120%) with the following exceptions: 1,2-Dichloroethane-d4 recovery in ARD2253 (123%) was slightly above the lab and Shell limits. All detects in ARD2253 were qualified J. Three out of four system monitoring compounds had recoveries below the lab and Shell limits (Dibromofluoromethane 69%; Toluene-d8 62%; and 4-Bromofluorobenzene 54%) in ARD2250. All detects in ARD2250 were qualified J and nondetects in ARD2250 were qualified UJ.	YES
<b>Matrix Spike/Matrix Spike Duplicates</b>	NO	Trichloroethene RPD>20%	MS/MSD analyses were conducted for ARD2246. All recoveries and RPDs were within the lab specified limits and the USACE Shell limits except that RPD for Trichloroethene was above the lab limit (22% vs. 20%). As the RPD was within the Shell limit (22% vs. 30%), no action was taken. LCS surrogate recovery was within acceptance limits (70-130%).	NO
<b>Blanks</b>	YES		No TCLs were detected in method blanks (VBLK01, VBLK02, VBLK03) No TCLs were detected in either trip blank (ARD0046) or field rinsate blank (ARD0049).	NO
<b>GC/MS Instrument Performance Check</b>	YES		RTX624 (75m*0.53mmID*3.0umdf) column was used. Instrument performance check conducted on 9/2/04 1:01, 9/2/04 13:29, and 9/3/04 15:43 met requirement.	NO
<b>TCL Analytes</b>	NO		Sample and standard relative ion intensities agree within 20% for all samples with the following exceptions: trans-1,2-Dichloroethene identified in ARD2254, ARD2253, ARD2247, ARD2247DL, ARD2250, ARD2250DL, ARD2250DL2, ARD2246, ARD2251, ARD2251DL, cis-1,2-Dichloroethene identified in ARD2254, ARD2254DL, ARD2257, ARD2248, ARD2253, ARD2253DL, ARD2247, ARD2247DL, ARD2249, ARD2250, ARD2250DL, ARD2250DL2, ARD2246, ARD2246DL, ARD2251, ARD2251DL, trichloroethene identified in ARD2253DL, ARD2246DL, 1,1-Dichloroethene identified in ARD2250, ARD2250DL, ARD2246, benzene identified in ARD2246, 1,1,1-Trichloroethene identified in ARD2246, had one or more ion intensities did not agree within 40% of the standard, J the detects based on the review of the mass spectrums. All RTs were within the limits.	YES
<b>Tentatively Identified Compounds</b>	NA		TIC information not reported.	NO
<b>Reported Quantitation Limits</b>	YES		The lowest calibration standard concentration level was reported as reporting limit.	NO
<b>GC/MS Initial Calibration</b>	NO	Acetone	Initial calibration was conducted on 9/2/04 1:40 to 4:55. All target compounds had %RSD below 30% with the exception of acetone. As acetone was not detected in any samples in this SDG, no action was taken. All RRFs were at or greater than 0.05.	NO
<b>GC/MS Continuing Calibration</b>	YES		All target compounds had %D below the Region II limit (25%) and the USACE Shell limit (20%) and all RRFs were above 0.05 during the continuing calibration conducted on 9/2/04 14:08 and 9/3/04 16:22 except that %Ds for trans-1,2-dichloroethene and tetrachloroethene were slightly above the USACE Shell limits (21.6% and 21.2%, respectively) during the CCV conducted on 9/3/04 16:22. Trans-1,2-dichloroethene and tetrachloroethene results for ARD2254DL, ARD2253DL, ARD2247DL, ARD2250DL, ARD2250DL2, ARD2246, ARD2246DL, and ARD2251DL were qualified (detects were qualified J and nondetects were qualified UJ).	YES
<b>Internal Standards</b>	YES		Internal standard recoveries in all samples and QC samples met Region II criteria.	NO
<b>Field Duplicate</b>	YES		A field duplicate pair (ARD2246 and ARD2253) had similar results; the dilute re-analysis was done for both and the dilute results were also consistent with each other (RPDs below 50% or the difference below 2 times the reporting limits when one or both concentrations were below 5 times the reporting limits).	NO

Note:  
It should be noted that the lab was instructed to rename sample ARD2258 collected at 16:10 in the COC as ARD2248.



APPENDIX D  
 ROUND 23 - AUGUST 2004 DATA VALIDATION SHEETS  
 SDG S4436  
 GROUNDWATER MONITORING - ASH LANDFILL  
 SENECA ARMY DEPOT ACTIVITY

PROJECT NAME/NO.      ASH LANDFILL  
 SDG:                         S4436  
 MEDIA:                     Groundwater  
 FRACTION                 VOC (524.2)

CRITERIA	Did Analyses Meet all criteria as specified in the SOPS?	If no, specify analysis IDs which do not meet criteria	Comments/Qualifying Actions	Qualifiers Added?
Data Completeness, Holding Times, Preservation, & Solids Percentage	YES		All samples were analyzed within 14 days from collection. Temperature of cooler was 4C upon receipt. Samples were preserved with HCl and pH was below 2 for all samples.	NO
System Monitoring Compounds	NO	ARD2252	All samples and QC samples had system monitoring compound recoveries within the lab limits except for ARD2252, which had 1,2-dichlorobenzene-d4 recovery above the limits (124% vs 80-120% QC limit). All detects in ARD2252 were qualified J.	YES
Blanks	NO	Acetone Methylene Chloride	Acetone and methylene chloride were detected at the following concentrations, respectively: VBLK01 10 and 0.5 J ug/L, VBLK02 3.1 J and 0.3 J ug/L, VBLK03 4.4 J and 1.2 ug/L. The following qualifiers were added based on the method blank results: methylene chloride in TR0056, ARD2252, and TR2150 was reported as 1.0 U; acetone in TR0056 was reported as 7.4 U; acetone in ARD2252 and TR2150 was reported as 5.8 U; acetone in ARD2252DL was reported as 29 U; methylene chloride in ARD2252DL was reported as 5.0 U. A trip blank (TR0056) was available for this SDG. Although acetone and methylene chloride were detected, the results were qualified as nondetects based on the method blank results. No action was taken based on the trip blank results.	YES
Matrix Spike/Matrix Spike Duplicates	NA		MS/MSD analyses were not conducted for any samples in this SDG. MS/MSD analyses were conducted for a similar sample (TR2159 in S4414). MS recoveries exceeded the lab specified limits in 3 out of 79 analytes and MSD recoveries exceeded the lab specified limits in 2 out of 79 analytes. 6 out of 79 analytes had %RPDs above the lab specified limits. No action was taken solely based on the MS/MSD results. LCS recoveries were within the limits of 70-130% except that bromomethane, acetone, methylene chloride, tert-butyl alcohol, 4-methyl-2-pentanone recoveries in one LCS sample (LFB02) were above the limit of 130% and acetone and methylene chloride recoveries in the other LCS sample were above the limit of 130%.	NO
GC/MS Instrument Performance Check	YES		RTX-624 (75m*0.53mmID*3.0umdf) column was used. Instrument performance check conducted on 8/16/04 9:16, 9/3/04 21:52, and 9/7/04 18:27 met requirement.	NO
TCL Analytes	NO		Sample and standard ion intensities agree within 20% for all samples with the following exception: trans-1,2-dichloroethene identified in ARD2252 had one or more ion intensities did not agree within 40% of the standard, J the result based on the review of the mass spectrum. Acetone identified in ARD2252, ARD2252DL, TR0056, TR2156, methylene chloride identified in TR2156, had one or more ion intensities did not agree within 80% of the standard. As acetone and methylene chloride results were qualified based on the method blank results, no action was taken based on the MS results. Retention times for all samples were within 0.06 RRT units of the standard.	YES
Tentatively Identified Compounds			One or more TICs were detected in TR2150. The concentrations range from 0.56 ug/L to 4.4 ug/L.	
Reported Quantitation Limits	YES		The lowest calibration standard concentration level was reported as reporting limit.	NO
GC/MS Initial Calibration	NO		Initial calibration was conducted on 8/16/04 9:49 - 12:24. All target compounds had %RSDs below 20% except that %RSDs were above 20% for chloroethane, iodomethane, and acetone. As chloroethane or iodomethane was not detected in any samples, no action was taken. Acetone in TR0056 was qualified as 7.4 UJ. RRFs were above 0.05 for all analytes with the exception of tert-butyl alcohol, acrylonitrile, acetone, 2-butanone, t-1,4-dichloro-2-butene, propionitrile, tetrahydrofuran, and 1,2-dibromo-3-chloropropane. The results for the above analytes were qualified (nondetects were rejected and detects were qualified J). Acetone nondetects were rejected. Acetone detects were qualified based on the blank results and therefore no action was taken for acetone detects based on the initial calibration results.	YES
GC/MS Continuing Calibration	NO		Continuing calibration was conducted on 9/3/04 at 22:24 and on 9/7/04 at 19:00. All target compounds had %Ds below 30% except that iodomethane had %D above 30% (48.8%) during CCV conducted on 9/7/04 at 19:00. Iodomethane results for ARD2252DL and TR2150 were qualified UJ. For all the above continuing calibration checks, RRFs were above 0.05 with the exception of the following analytes: tert-butyl alcohol, acrylonitrile, acetone, 2-butanone, t-1,4-dichloro-2-butene, propionitrile, tetrahydrofuran, 1,2-dibromo-3-chloropropane. The above referenced results for all samples in this SDG were qualified (nondetects were rejected and detects were qualified J). Acetone nondetects were rejected. Acetone detects were qualified based on the blank results and therefore no action was taken for acetone detects based on the CCV results.	YES
Internal Standards	YES		Internal Standard recoveries for all samples and QC samples met Region II required acceptance criteria.	NO
Field Duplicate	NA		No field duplicate was available for any samples in this SDG for Method 524.2 analysis.	NO

Note:

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SDG S4436  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY

**PROJECT NAME/NO.**      ASH LANDFILL  
**SDG:**                      S4436  
**MEDIA:**                  Groundwater  
**FRACTION**                VOC (524.2)

It should be noted that the lab was instructed to rename sample ARD2258 collected at 16:10 in the COC was as ARD2248.

**APPENDIX D**  
**ROUND 23 - AUGUST 2004 DATA VALIDATION SHEETS**  
**SDG S4436**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**

**PROJECT NAME/NO.**     ASH LANDFILL  
**SDG:**                    S4436 (Method 8015)  
**MEDIA:**                 Groundwater

CRITERIA	Did Analyses Meet all criteria as specified in the SOPS?	If no, specify analysis IDs which do not meet criteria	Comments/Qualifying Actions	Qualifiers Added?
<b>Data Completeness, Holding Times, Reservation, &amp; Solids Percentage</b>	YES		All samples were analyzed within 14 days from collection. Temperature of cooler = 4C. Samples were preserved with HCl with pH below 2.	NO
<b>Matrix Spike/Matrix Spike Duplicates</b>	NO	Ethylene MSD %Rec>130%	MS/MSD analyses were conducted for ARD2246 and all recoveries were within the limits of 70-130% except that ethylene recovery in the MSD exceeded the limit (133% vs 50-130% QC limit). RPDs were within the limits (20%). No action was taken based solely on the MS/MSD results. LCS recoveries were within the limits (70-130%).	NO
<b>Blanks</b>	YES		No MEE compounds were detected in the field rinsate blank (ARD0049). No MEE compounds were detected in the Method Blank (VBC0908G1).	NO
<b>GC/MS Instrument Performance Check</b>	NA		UPLOT column (30m*0.32mmID) was used.	NO
<b>TCL Analytes</b>	NO	Methane in ARD2253	All RTs were within the limits (i.e., 0.06 unit of RT in the initial calibration) except methane identified in ARD2253 was peaked slightly below the limit. No action was taken.	NO
<b>Reported Quantitation Limits</b>	YES		The lowest calibration standard concentration level was reported as reporting limit.	NO
<b>GC/MS Initial Calibration</b>	YES		All target compounds had %RSD<30% and R2 above 0.995 for the initial calibrations conducted on 9/8/04.	NO
<b>GC/MS Continuing Calibration</b>	YES		Continuing Calibration conducted on 9/10/04 at 11:15 had %Drift within acceptance limit (30%). It should be noted that lab report marked Ethane (%Diff=22%) as outside QC limits. CCV conducted on 9/10/04 at 14:31 had %Drift within acceptance limit (30%). CC conducted on 9/10/04 at 20:18 had %Drift within acceptance limit. It should be noted that lab report marked Ethylene (%Diff=19%) as outside QC limit.	NO
<b>Field Duplicate</b>	NO	Methane	Field Duplicate pair of ARD2246 and ARD2253 were analyzed, and the results of the two were consistent for Ethylene and Ethane. However, methane was detected in ARD2253 (4.5 ug/L), while was not detected in ARD2246. J the methane results in both samples.	YES

Note:  
It should be noted that the lab was instructed to rename sample ARD2258 collected at 16:10 in the COC was as ARD2248.

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**SDG S4436**  
**GROUNDWATER MONITORING - ASH LANDFILL**  
**SENECA ARMY DEPOT ACTIVITY**

**PROJECT NAME/NO.**     Ash Landfill  
**SDG:**                    S4436  
**FRACTION:**            metals  
**LAB:**                    Chemtech  
**MEDIA:**                 Groundwater

<b>CRITERIA</b>	<b>Did Analyses Meet all criteria as specified in the SOPs?</b>	<b>If no, specify analysis IDs which do not meet criteria</b>	<b>Comments/Qualifying Actions</b>	<b>Qualifiers Added?</b>
<b>Data Completeness, Holding Times &amp; Preservation</b>	YES		Sample were analyzed within 28 days after collection. Holding time met criteria. Samples were preserved with ice and HNO <sub>3</sub> . Cooler temperature was 4C upon receipt. pH was below 2.	NO
<b>Calibration</b>	YES		ICV available after calibration and CCV available after every ten samples. The results were within 90%-110%.	NO
<b>Blanks (method blank, prep blank)</b>	YES		ICB and CCB analyzed for metals every ten samples, all samples were less than the RDL. Preparation blank was analyzed for metals (Ca, Mg, Mn, K, N) and results were within RDL limits. A field equipment rinsate blank (ARD0049) was available for this SDG and no TALs were detected above the RDL.	NO
<b>Interference Check Sample</b>	YES		Interference check results were within limits (80-120%).	NO
<b>CRDL Standard</b>	YES		Standard check was conducted at the beginning of the analysis and the results were within the limits (80-120%) for calcium, magnesium, manganese, potassium, and sodium.	NO
<b>Laboratory Control Sample</b>	YES		Aqueous LCS results within limits (i.e., 80-120%) for metals.	NO
<b>Duplicates</b>	YES		A lab duplicate (ARD2246D) was available for ARD2246 and the results met Region II requirement (RPD%<50%). ARD2246 and ARD2253 is a field duplicate pair. The results of the duplicate samples (ARD2246 & ARD2253) were generally comparable with each other and all RPDs were below 50%. No action was taken.	NO
<b>Spike Sample Analysis</b>	NO	Mn	MS/MSD analyses were conducted for ARD2246. The potassium recovery was within the limits of 75%-125%. Calcium, magnesium, and sodium recoveries were in the MS/MSD were outside the limits. As the Ca, Mg, and Na concentrations in the original sample were above 4 times the spiked concentrations, no action was taken for Ca, Mg, and Na. Manganese recoveries in both MS and MSD were below the limit of 75%. The post-digest spike recovery for Mn was still below 75%. As all samples were considered similar, all manganese results in this SDG were qualified (detects were qualified J and nondetects were qualified UJ). RPDs for Mn and K were below 25%.	YES
<b>ICP Serial Dilution</b>	NO	Ca, Mg, Mn, K, Na	ICP Serial Dilution was conducted for ARD2246. Region II criteria (%Difference below 10%) were not met for all Ca (19.2%), Mg (11.1%), Mn (10.7%), K (23.7%), and Na (26.7%). As all sample results (with the exception of ARD0049) were above 10 times the MDL, all sample results were qualified J with the exception of ARD0049.	YES
<b>Detection Limits</b>	YES		IDL's available and less than RDLs.	NO
<b>ICP Linear Range</b>	YES		All concentrations detected were within the ICP Linear Ranges.	NO

Note:  
It should be noted that the lab was instructed to rename sample ARD2258 collected at 16:10 in the COC as ARD2248.

## **APPENDIX E**

### **TOTAL CHLORINATED ETHENES AND TCE EQUIVALENTS**

**APPENDIX E  
CHLORINATED ETHENES AND TCE EQUIVALENTS  
GROUNDWATER MONITORING - ASH LANDFILL  
SENECA ARMY DEPOT ACTIVITY**

Well ID	Molecular Wt.	131.4	96.94	96.94	165.83	62.5	TCE Equivalent					Total TCE Equiv. Aug-04
	Sample ID	TCE	c-DCE	t-DCE	PCE	VC	TCE	c-DCE	t-DCE	PCE	VC	
MW-28	ARD2257	20	18	<0.25	<0.2	<0.11	20	24.4	ND	ND	ND	44.4
MW-31	ARD2256	<0.19	<0.27	<0.25	<0.2	<0.11	ND	ND	ND	ND	ND	ND
MW-32	ARD2255	<0.19	<0.27	<0.25	<0.2	<0.11	ND	ND	ND	ND	ND	ND
MW-36	ARD2258	<0.19	<0.27	<0.25	<0.2	<0.11	ND	ND	ND	ND	ND	ND
MW-44A	ARD2246 / ARD2253	11	260	2.3	<0.2	58	11	352.4	3.1	ND	121.9	488.5
MW-46	ARD2247	18	98	4.9	<0.2	0.64	18	132.8	6.6	ND	1.3	158.8
MW-53	ARD2248	2.4	25	<0.25	<0.2	<0.11	2.4	33.9	ND	ND	ND	36.3
MW-56	ARD2249	<0.19	2.2	<0.25	<0.2	<0.11	ND	3.0	ND	ND	ND	3.0
PT-12A	ARD2250	960	2600	22	<0.2	94	960	3524.2	29.8	ND	197.6	4711.7
PT-17	ARD2254	210	76	0.46	<0.2	<0.11	210	103.0	0.6	ND	ND	313.6
MW-22	ARD2251	77	160	4.4	<0.2	<0.11	77	216.9	6.0	ND	ND	299.8
PT-23	ARD2245	<0.19	<0.27	<0.25	<0.2	<0.11	ND	ND	ND	ND	ND	ND
PT-24	ARD2252	3.4	59	0.4	<0.34	<0.14	3.4	80.0	0.5	ND	ND	83.9
PT-25	ARD2259	<0.19	<0.27	<0.25	<0.2	<0.11	ND	ND	ND	ND	ND	ND
MWT-1	TR2160 / TR2159	22	110	0.8	<0.34	<0.14	22	149.1	1.1	ND	ND	172.2
MWT-2	TR2158	0.8	16	0.6	<0.34	<0.14	0.8	21.7	0.8	ND	ND	23.3
MWT-3	TR2157	5.5	34	1.2	<0.34	0.3	5.5	46.1	1.6	ND	0.6	53.8
MWT-4	TR2156	3.9	62	0.5	<0.34	<0.14	3.9	84.0	0.7	ND	ND	88.6
MWT-5	TR2155	<0.24	5.5	<0.22	<0.34	<0.14	ND	7.5	ND	ND	ND	7.5
MWT-6	TR2154	0.6	18	<0.22	<0.34	<0.14	0.6	24.4	ND	ND	ND	25.0
MWT-7	TR2153	280	32	<0.22	<0.34	<0.14	280	43.4	ND	ND	ND	323.4
MWT-8	TR2152	1.8	150	<0.22	<0.34	1.9	1.8	203.3	ND	ND	4.0	209.1
MWT-9	TR2151	220	120	0.5	<0.34	0.3	220	162.7	0.7	ND	0.6	384.0
MWT-10	TR2150	<0.24	6.1	<0.22	<0.34	<0.14	ND	8.3	ND	ND	ND	8.3
MWT-11	TR2149	0.5	<0.24	<0.22	<0.34	<0.14	0.5	ND	ND	ND	ND	0.5

**Example Calculations** [ TCE Mol. Wt. (131.4 g/mol) / TCE Mol. Wt. ] \* (Detected TCE Conc.) = TCE Equivalent Conc.

[ TCE Mol. Wt. / c-DCE Mol. Wt. (96.94 g/mol) ] \* (Detected c-DCE Conc.) = TCE Equivalent Conc.