00421

GROUNDWATER MONITORING
VALIDATED ANALYTICAL RESULTS FOR THE SECOND QUARTER 1996
OB/OD GROUNDS, SENECA ARMY DEPOT

PREPARED FOR:
U.S. Army Corps of Engineers
Hunstville, Alabama

PREPARED BY:

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October 1996

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TABLE 1

SENECA ARMY DEPOT ACTIVITY
1995/1996 GROUNDWATER MONITORING PROGRAM
GROUNDWATER ELEVATION DATA

Monitoring Well	Elevation at Top of Riser (MSL)	Third Quarter 1995			Fourth Quarter 1995			First Quarter 1996			Second Quarter 1996		
		Date	Depth from Top of Riser (ft.)	Elevation of Water Level (ft.)	Date	Depth from Top of Riser (ft.)	Elevation of Water Level (ft.)	Date	Depth from Top of Riser (ft.)	Elevation of Water Level (ft.)	Date	Depth from Top of Riser (ft.)	Elevation of Water Level (ft.)
OB Grounds													
MW-1	634.22							03/18/96	6.24	627.98	06/24/96	9.43	624.79
MW-4	NA							03/18/96	6.74	NA	06/24/96	8.87	NA
MW-5	637.99							03/18/96	Frozen	Frozen	06/24/96	4.47	633.52
MW-6	630.31							03/18/96	Not Measured	Not Measured	06/24/96	5.37	624.94
MW-7	622.94							03/18/96	Not Measured	Not Measured	06/24/96	6.51	616.43
MW-8	638.78							03/18/96	2.76	636.02	06/24/96	5.02	633.76
MW-9	634.95							03/18/96	Frozen	Frozen	06/24/96	3.38	631.57
MW-10	638.62							03/18/96	Frozen	Frozen	06/24/96	4.38	634.24
MW-11	630.65							03/18/96	Frozen	Frozen	06/24/96	3.69	626.96
MW-12	624.50	09/13/95	5.65	618.85	1/15/96	Frozen	NA	03/18/96	Frozen	Frozen	06/24/96	2.86	621.64
MW-13	627.09	09/13/95	6.47	620.62	1/16/96	2.38	624.71	03/18/96	2.26	624.83	06/24/96	2.83	624.26
MW-14	624.51	09/13/95	7.69	616.82	1/15/96	Frozen	NA	03/18/96	Frozen	Frozen	06/24/96	4.24	620.27
MW-15	621.99							03/18/96	Frozen	Frozen	06/24/96	3.55	618.44
MW-16	622.60							03/18/96	Frozen	Frozen	06/24/96	4.69	617.91
MW-17	624.53							03/18/96	2.82	621.71	06/24/96	2.84	621.69
MW-18	623.95							03/18/96	Frozen	Frozen	06/24/96	3.22	620.73
MW-19	636.34							03/18/96	Frozen	Frozen	06/24/96	4.83	631.51
MW-21	637.88							03/18/96	2.90	634.98	06/24/96	4.26	633.62
MW-22	623.15							03/18/96	Frozen	Frozen	06/24/96	Lock Frozen	Lock Frozen
MW-23	622.87							03/18/96	3.56	619.31	06/24/96	4.84	618.03
MW-24	627.33							03/18/96	3.45	623.88	06/24/96	5.74	621.59
MW-25	623.80							03/18/96	4.64	619.16	06/24/96	8.46	615.34
MW-26	624.31							03/18/96	4.88	619.43	06/24/96	7.22	617.09
MW-27	625.94	09/13/95	7.15	618.79	1/15/96	3.68	622.26	03/18/96	2.93	623.01	06/24/96	4.20	621.74
MW-28	631.90							03/18/96	3.66	628.24	06/24/96	5.10	626.8
MW-29	632.07							03/18/96	3.86	628.21	06/24/96	5.31	626.76
MW-30	628.12							03/18/96	3.67	624.45	06/24/96	4.37	623.75
MW-31	634.57							03/18/96	Not Measured	Not Measured	06/24/96	4.44	630.13
MW-32	634.81							03/18/96	Frozen	Frozen	06/24/96	4.64	630.17
MW-36	640.55							03/18/96	5.67	634.88	06/24/96	7.23	633.32
MW-37	640.81							03/18/96	5.58	635.23	06/24/96	6.92	633.89
MW-38	620.67							03/18/96	2.64	618.03	06/24/96	5.36	615.31
MW-39	620.14							03/18/96	3.60	616.54	06/24/96	6.55	613.59
MW-40	620.46							03/18/96	3.50	616.96	06/24/96	6.88	613.58
OD Grounds - SEAD-45 wells													
MW45-1	625.08	09/13/95	Dry	NA	1/15/96	8.00	617.08	03/18/96	7.95	617.13	06/24/96	7.95	617.13
MW45-2	626.76	09/13/95	Dry	NA	1/15/96	11.98	614.78	03/18/96	11.51	615.25	06/24/96	11.14	615.62
MW45-3	626.45	09/13/95	11.3	615.15	1/15/96	9.24	617.21	03/18/96	7.83	618.62	06/24/96	8.41	618.04
MW45-4	633.04	09/13/95	Dry	NA	1/15/96	7.28	625.76	03/18/96	5.34	627.7	06/24/96	7.65	625.39

TABLE 2

SENECA ARMY DEPOT ACTIVITY
OB GROUNDS SECOND QUARTER 1996 MONITORING PROGRAM
INDICATOR ANALYSIS RESULTS

	MATRIX	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	SITE	OB	OB	OB	OB	OB	OB	OB	OB
	DATE SAMPLED	06/25/96	06/25/96	06/25/96	06/25/96	06/25/96	06/25/96	06/25/96	06/25/96
	ES ID	OB001	OB002	OB003	OB004	OB005	OB006	OB007	OB008
	WELL ID	MW12A	MW12B	MW12C	MW12D	MW13A	MW13B	MW13C	MW13D
	LAB ID	305237	305238	305239	305279	305229	305230	305231	305232
PARAMETER	**UNITS**								
pH	standard units	7.33	7.36	7.32	7.31	6.93	6.96	6.95	6.95
Conductivity	umhos/cm	875	883	883	773	939	944	936	951
Total Organic Carbon	mg/L	1.4	1.4	1.3	1.2	1.7	1.7	1.7	1.7
Total Organic Halides	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

TABLE 2

SENECA ARMY DEPOT ACTIVITY
OB GROUNDS SECOND QUARTER 1996 MONITORING PROGRAM
INDICATOR ANALYSIS RESULTS

	MATRIX	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	SITE	OB	OB	OB	OB	OB	OB	OB	OB	OB
	DATE SAMPLED	06/25/96	06/25/96	06/25/96	06/25/96	06/25/96	06/25/96	06/25/96	06/25/96	06/25/96
	ES ID	OB0009	OB010	OB011	OBO12	OBO34	OB-13	OB014	OB015	OB016
	WELL ID	MW14A	MW14B	MW14C	MW14D	MW14R	MW27A	MW27B	MW27C	MW27D
	LAB ID	305223	305224	305225	305226	305229	305233	305234	305235	305236
PARAMETER	**UNITS**					Field Blank				
pH	standard units	7.1	7.1	7.11	7.1	6.54	7.28	7.28	7.26	7.28
Conductivity	umhos/cm	1100	1010	1080	1090	3.5	869	877	877	883
Total Organic Carbon	mg/L	1.7	1.7	1.5	1.5	<0.5	1.2	1.3	1.3	1.3
Total Organic Halides	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

TABLE 3

SENECA ARMY DEPOT ACTIVITY
OD GROUNDS SECOND QUARTER 1996 MONITORING PROGRAM
INDICATOR ANALYSIS RESULTS

	MATRIX	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	SITE	OD	OD	OD	OD	OD	OD	OD	OD
	DATE SAMPLED	06/25/96	06/25/96	06/25/96	06/25/96	06/25/96	06/24/96	06/24/96	06/24/96
	ES ID	OB025	OB026	OB027	OB028	OB029	OB030	OB031	OB032
	WELL ID	MW45-3A	MW45-3B	MW45-3C	MW45-3D	MW45-4A	MW45-4B	MW45-4C	MW45-4D
	LAB ID	305281	305281	305282	305283	305080	30581	30582	30583
PARAMETER	**UNITS**								
pH	standard units	7.14	7.13	7.14	7.13	7.16	7.22	7.21	7.21
Conductivity	umhos/cm	1360	1340	1360	1340	793	793	793	793
Total Organic Carbon	mg/L	1.1	1.1	1	1	1.1	0.9	0.9	0.8
Total Organic Halides	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

Table 4

OB/OD 1996 Second Quarter Groundwater Monitoring
Validated TAL Metals Analytical Results

WELL ID		MW12	MW13	MW14	MW27	MW14(DU)	MW14(R)	MW45-3	MW45-4
ES ID		OB001	OB005	OB009	OB013	OB033	0B034	OB025	OB029
SITE		OB	OB	OB	OB	OB	OB	OD	OD
MATRIX		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
DATA SAMPLED		06/25/96	06/25/96	06/25/96	06/25/96	06/25/96	06/25/96	06/25/96	06/24/96
SDG No.		59328	59328	59328	59328	59328	59328	59383	59240
COMPOUND	UNITS								
Aluminimum	ug/l	200	63.8	97.1	10.3 U	81.5	10.3 U	45.9 J	10.3 U
Antimony	ug/l	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Arsenic	ug/l	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	4.2 U	2.7 U
Barium	ug/l	97.6	82.8	47.8	86.5	48.3	2.5 U	18.4	22.4 J
Beryllium	ug/l	.1 U	.1 U	.1 U	.1 U	.1 U	.1 U	.3 U	0.1 U
Cadmium	ug/l	.3 U	.3 U	.3 U	.3 U	.3 U	.3 U	.4 U	0.3 U
Calcium	ug/l	76200	138000	152000	84700	156000	65.9 U	196000	113000
Chromium	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	.6 U	1 U
Cobalt	ug/l	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Copper	ug/l	2	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1	1.2 U
Iron	ug/l	236	116	83	23.4 U	61.4	23.4 U	220 J	23.4 U
Lead	ug/l	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.5 U	1.7 U
Magnesium	ug/l	57400	26500	30000	51900	30500	64.5 U	75100	24600
Manganese	ug/l	1.4	5.1	1.1	76.9	.73	.68	11.7	4.7 J
Mercury	ug/l	.1 U	.1 U	.1 U	.1 U	.1 U	.1 U	.1 U	0.1 U
Nickel	ug/l	2	1.6 U	1.6 U	2.6	1.6 U	1.6 U	4.1	1.6 U
Potassium	ug/l	9400 J	1590	1520	8020 J	1520	90.3 U	8100 J	2380 J
Selenium	ug/l	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	3.6 U	2.4 U
Silver	ug/l	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.1 U	1.3 U
Sodium	ug/l	16200	14000	26500	13900	27000	268 U	17600	10900
Thallium	ug/l	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	3.9 U	4.2 U
Vanadium	ug/l	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	.9 U	1.2 U
Zinc	ug/l	5.1	10.1	8	5.4	8.8	.58	8.6	6.7 J
Cyanide	ug/l	5 U	5.4	5 U	5 U	5 U	5 U	5 U	5 U

TABLE 5

SENECA ARMY DEPOT ACTIVITY
SECOND QUARTER 1996 GROUNDWATER MONITORING PROGRAM
HISTORICAL SUMMARY OF OB GROUNDS INDICATOR PARAMETER DATA

Monitoring Well		June 1994	Dec 1994	June 1995	January 1996	March 1996	June 1996
pH							
Upgradient Well:	MW-13	6.97	7.04	7.14	7.13	7.1	6.95
Downgradient Wells:	MW-12	7.3	7.37	7.4	7.18	7.39	7.33
	MW-14	7.07	7.11	7.18	6.75	7.19	7.1
	MW-27	7.28	7.34	7.4	7.26	7.32	7.28
Conductivity							
Upgradient Well:	MW-13	936	886	838	894	920	943
Downgradient Wells:	MW-12	897	911	892	869	844	854
	MW-14	1100	1082	1090	1025	1047	1070
	MW-27	875	953	912	944	889	877
Total Organic Carbon							
Upgradient Well:	MW-13	1.2	1.2	1.2	1.2	1.1	1.7
Downgradient Wells:	MW-12	1.1	1.2	1.3	1.1	1.1	1.3
	MW-14	1	1	1.1	1.0	0.95	1.6
	MW-27	0.6	1	1.1	0.8	0.95	1.3
Total Organic Halides							
Upgradient Well:	MW-13	0.02U	0.03	0.02U	0.02U	<0.02	<0.02
Downgradient Wells:	MW-12	0.02U	0.04	0.02U	0.02U	<0.02	<0.02
	MW-14	0.02U	0.02U	0.02U	0.02U	<0.02	<0.02
	MW-27	0.02U	0.03	0.02U	0.02U	<0.02	<0.02

TABLE 6

SENECA ARMY DEPOT ACTIVITY
SECOND QUARTER 1996 GROUNDWATER MONITORING PROGRAM
HISTORICAL SUMMARY OF OD GROUNDS INDICATOR PARAMETER DATA

Monitoring Well		June 1994	Dec 1994	June 1995	January 1996	March 1996	June 1996
pH							
Upgradient Well:	MW45-4	7.19	7.1	7.24	7.16	7.18	7.2
Downgradient Wells:	MW45-1	-	-	-	-	-	-
	MW45-2	7.05	-	-	-	-	-
	MW45-3	7.32	7.19	7.38	7.18	7.28	7.13
Conductivity							
Upgradient Well:	MW45-4	772	1030	829	891	836	793
Downgradient Wells:	MW45-1	-	-	-	-	-	-
	MW45-2	1488	-	-	-	-	-
	MW45-3	1788	1430	1335	1325	1213	1350
Total Organic Carbon							
Upgradient Well:	MW45-4	0.6	1	0.9	1.1	0.58	0.925
Downgradient Wells:	MW45-1	-	-	-	-	-	-
	MW45-2	0.9	-	-	-	-	-
	MW45-3	0.8	0.8	0.9	0.65	0.78	1.1
Total Organic Halides							
Upgradient Well:	MW45-4	0.02U	0.02U	0.02U	0.02U	<0.02	<0.02
Downgradient Wells:	MW45-1	-	-	-	-	-	-
	MW45-2	0.02U	-	-	-	-	-
	MW45-3	0.02	0.02U	0.02U	0.02U	<0.02	<0.02

Table 7

OB Grounds Second Quarter 1996 Monitoring Program
Students t-Test Statistical Analysis Results

Background Well MW-13	TOC	pH	Specific Cond.	TOX
Intital Mean =	1.19	7.02	909.50	0.01
Initial Variance =	0.14	0.00	704.53	0.00
Sample Size =	16.00	16.00	16.00	16.00

	Compliance Well MW -12	Background Well MW -13	Compliance Well MW -14	Compliance Well MW -27
TOTAL ORGANIC CARBON (TOC)				
t*=	1.32	5.54	3.78	0.91
tc=	3.01	2.60	3.14	2.73
	No Change	**Increase**	**Increase**	**No Change**
pH				
t*=	15.87	-4.11	5.04	17.20
tc=	3.83	3.01	3.01	2.95
	Increase	**No Change**	**Increase**	**Increase**
SPECIFIC CONDUCTANCE				
t*=	-2.02	4.46	7.48	-4.56
tc=	4.43	2.98	4.36	2.91
	No Change	**Increase**	**Increase**	**No Change**
TOTAL ORGANIC HALIDES (TOX)				
t*=	-1.00	-1.00	-1.00	-1.00
tc=	2.60	2.60	2.60	2.60
	No Change	**No Change**	**No Change**	**No Change**

key:
t*>= tc Indicates a statistically significant increase in the indicator parameter
t*<tc Indicates no statistically significant change in the indicator parameter

Table 7

OD GroundsSecond Quarter 1996 Monitoring Program
Students t-Test Statistical Analysis Results

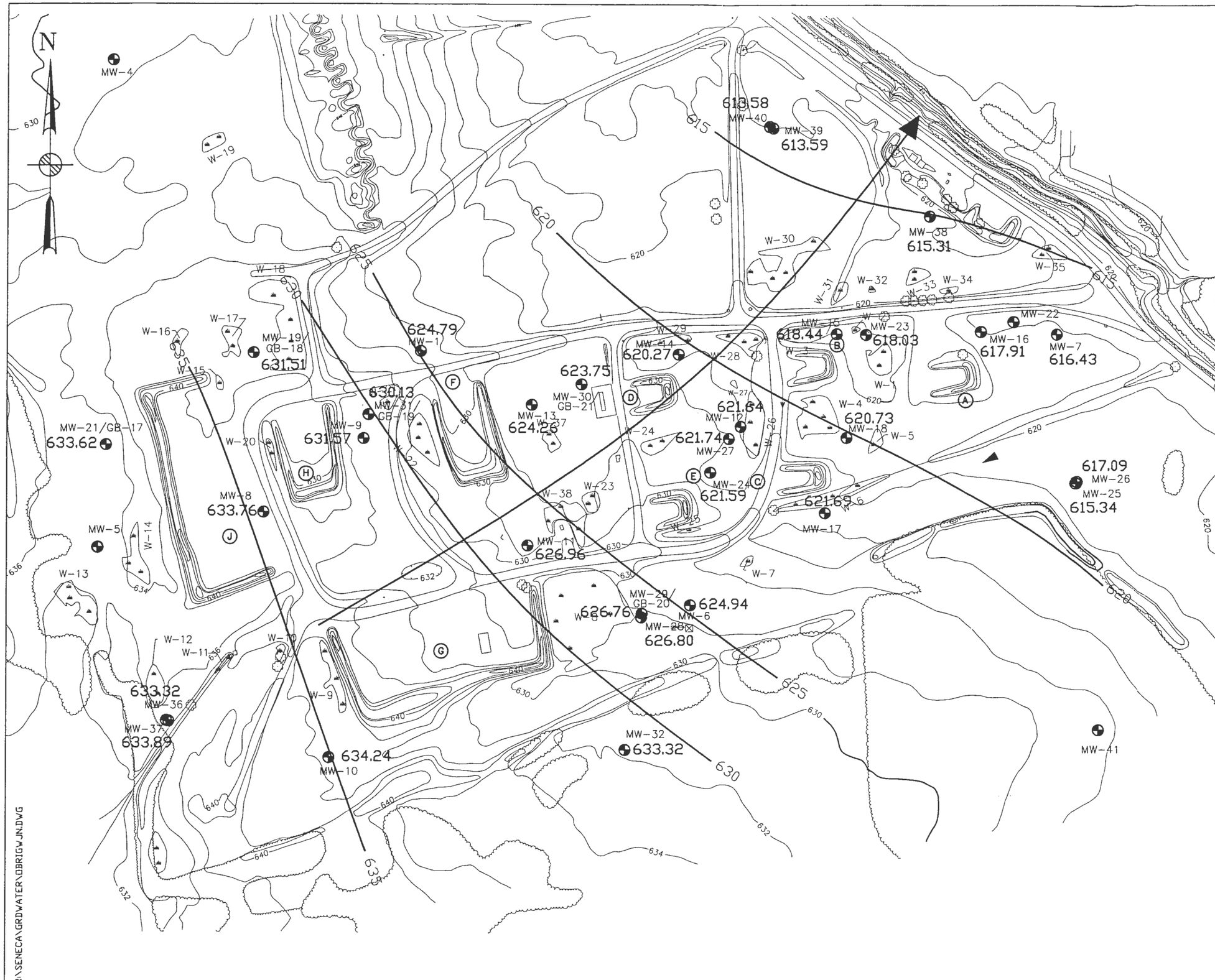
Background Well MW45-4	TOC	pH	Spec Cond.	TOX
Intital Mean =	0.85	7.18	875.08	0.005
Initial Variance =	0.03	0.00	14375.90	0.000
Sample Size =	12.00	12.00	12.00	12

	Compliance Well MW 45-1	Compliance Well MW 45-2	Compliance Well MW 45-3	Background Well MW 45-4
TOTAL ORGANIC CARBON (TOC)				
t*=	0.00	0.00	-1.34	-4.92
tc=	0.00	0.00	3.08	3.08
	Dry	Dry	No Change	No Change
pH				
t*=	0.00	0.00	4.89	0.05
tc=	0.00	0.00	3.27	4.92
	Dry	Dry	Increase	No Change
SPECIFIC CONDUCTANCE				
t*=	0.00	0.00	9.11	-1.13
tc=	0.00	0.00	2.95	2.73
	Dry	Dry	Increase	No Change
TOTAL ORGANIC HALIDES (TOX)				
t*=	0.00	0.00	3.32	3.32
tc=	0.00	0.00	2.72	2.72
	Dry	Dry	Increase	Increase

key:
t*>= tc Indicates a statistically significant increase in the indicator parameter
t*<tc Indicates no statistically significant change in the indicator parameter

FIGURES

Figure 1	OB Grounds Groundwater Elevation Plans
Figure 2	OD Grounds Groundwater Elevation Plans



LEGEND:

- BURNING PAD DESIGNATION
- PAD OR GRID BORING
- GROUND CONTOUR AND ELEVATION
- W-1 WETLAND & DESIGNATION
- UTILITY POLE
- TREE
- BRUSH
- MW-14 620.27 MONITORING WELL & DESIGNATION AND MSL ELEVATION DATUM
- 635 GROUNDWATER CONTOUR LINE (DASHED WHERE INFERRED) MSL DATUM
- ARROW INDICATES PREDOMINANT GROUNDWATER FLOW DIRECTION

100 0 100 200
(feet)

PARSONS

PARSONS ENGINEERING SCIENCE, INC.

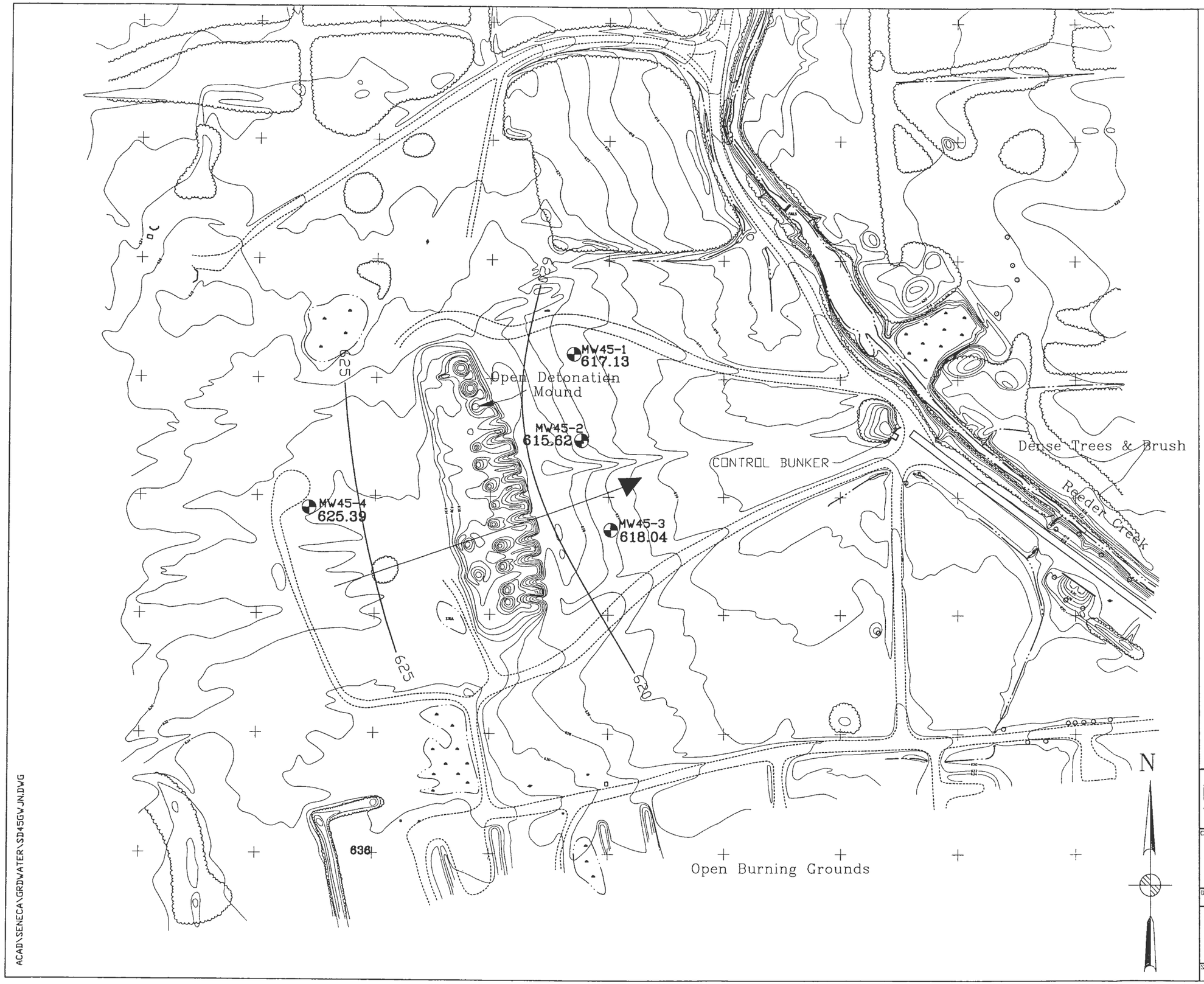
CLIENT/PROJECT TITLE

SENECA ARMY DEPOT ACTIVITY
OB GROUNDS
GROUNDWATER MONITORING PROGRAM

DEPT.	Dwg. No.
ENVIRONMENTAL ENGINEERING	725980-01010

FIGURE 1
GROUNDWATER ELEVATION PLAN
JUNE 24, 1996

SCALE	DATE	REV
1" = 200'	OCTOBER 1996	A



LEGEND

- MINOR WATERWAY
- MAJOR WATERWAY
- FENCE
- UNPAVED ROAD
- BRUSH LINE
- LANDFILL EXTENTS
- RAILROAD
- 760 — GROUND SURFACE ELEVATION CONTOUR
- ROAD SIGN
- DECIDUOUS TREE
- GUIDE POST
- FIRE HYDRANT
- MANHOLE
- COORDINATE GRID (250' GRID)
- POLE
- UTILITY BOX
- MAILBOX/RR SIGNAL
- OVERHEAD UTILITY POLE
- SURVEY MONUMENT
- MW45-1 617.08 — MONITORING WELL & DESIGNATION AND MSL ELEVATION DATUM
- 625 — GROUNDWATER CONTOUR LINE (DASHED WHERE INFERRED)
- ARROW INDICATES PREDOMINANT GROUNDWATER FLOW DIRECTION

100 0 100 200
(feet)

PARSONS
PARSONS ENGINEERING SCIENCE, INC.

CLIENT/PROJECT TITLE
SENECA ARMY DEPOT ACTIVITY
OD GROUNDS
GROUNDWATER MONITORING PROGRAM

DEPT.	Dwg. No.
ENVIRONMENTAL ENGINEERING	725980-01010

FIGURE 2
GROUNDWATER ELEVATION PLAN
JUNE 24, 1996

SCALE	DATE	REV
1" = 200'	OCTOBER 1996	A

ACAD\SENECA\GRDWATER\SD45GWJN.DWG

APPENDIX A

FIELD DATA

OB/OD Second Quarter 1996 Groundwater Monitoring Program

1. Groundwater Sampling Field Notes

2. Chain-of-Custody Forms

1. Groundwater Sampling Field Data

GROUNDWATER ELEVATION REPORT

PARSONS ENGINEERING-SCIENCE, INC.	CLIENT: USACOE	DATE: 6/24/96
PROJECT: Quarterly - 2nd Quarterly		PROJECT NO: 7750 98-01010
LOCATION: OB/OD		INSPECTOR: F.O.

MONITORING EQUIPMENT:

INSTRUMENT	DECTECTOR	BGD	TIME	REMARKS

WATER LEVEL INDICATOR:

INSTRUMENT	CORRECTION FACTOR

COMMENTS:

WELL	TIME	DEPTH TO WATER	DEPTH TO PRODUCT	CORRECTED WATER LEVEL	MEASURED POW	INSTALLED POW	PRODUCT SPEC. GRAV.	WELL STATUS / COMMENTS (Lock?, Well #?, Surface Disturbance?, Riser marked?, Condition of: riser, concrete, protective casing, etc.)
MW-26	0831	7.22						No lock
MW-5	0833	8.46						
MW-16	0840	4.69						
MW-7	1645	6.51						Top of riser crack - broken off
MW-22	—	—						Can't open lock
~~W-35~~	0849	5.36						
MW-23	0853	4.84						
MW-15	0858	3.55						
MW-18	0903	3.22						
MW-12	0910	2.86						
MW-27	0913	4.20						
MW-24	0917	5.74						
MW-6	1633	5.37						
MW-1	0930	5.31						

(ALL DEPTH MEASUREMENTS FROM MARKED LOCATION ON RISER)

[illegible] - [illegible] open lock

H:\ENG\SENECA\GENERIC\APPEND.A\GWRPT.WK3

FIGURE A-18

GROUNDWATER ELEVATION REPORT

PARSONS ENGINEERING-SCIENCE, INC. | CLIENT: U.S.COE | DATE: 6/24/96

PROJECT: Quarterly - 2nd quarter | PROJECT NO: 725098-01010

LOCATION: OB/OD | INSPECTOR: F.U

MONITORING EQUIPMENT:

INSTRUMENT	DECTECTOR	BGD	TIME	REMARKS

WATER LEVEL INDICATOR:

INSTRUMENT	CORRECTION FACTOR

COMMENTS:

WELL	TIME	DEPTH TO WATER	DEPTH TO PRODUCT	CORRECTED WATER LEVEL	MEASURED POW	INSTALLED POW	PRODUCT SPEC. GRAV.	WELL STATUS / COMMENTS (Lock?, Well #?, Surface Disturbance?, Riser marked?, Condition of: riser, concrete, protective casing, etc.)
MW-28	0924	5.1						
MW-11	0930	3.69						
[illegible]	[illegible]	4.64						
[illegible]	0948	4.38						
[illegible]	0954	6.92						
MW-36	0956	7.23						
MW-8	1000	5.02						No lock
MW-5	1008	4.47						
MW-21	1012	4.26						
MW-19	1018	4.83						
MW-31	1022	4.44						
MW-9	1025	3.38						
MW-1	1028	9.43						
~~MW-18~~	~~1032~~	~~4.82~~						

(ALL DEPTH MEASUREMENTS FROM MARKED LOCATION ON RISER)

GROUNDWATER ELEVATION REPORT

PARSONS ENGINEERING-SCIENCE, INC.	CLIENT: USACOE	DATE: 6/24/96
PROJECT: Quarterly ~ 2nd quarter		PROJECT NO: 725098-01010
LOCATION: OB/OD		INSPECTOR: E.O.

MONITORING EQUIPMENT:

INSTRUMENT	DECTECTOR	BGD	TIME	REMARKS

WATER LEVEL INDICATOR:

INSTRUMENT	CORRECTION FACTOR

COMMENTS:

WELL	TIME	DEPTH TO WATER	DEPTH TO PRODUCT	CORRECTED WATER LEVEL	MEASURED POW	INSTALLED POW	PRODUCT SPEC. GRAV.	WELL STATUS / COMMENTS (Lock?, Well #?, Surface Disturbance?, Riser marked?, Condition of: riser, concrete, protective casing, etc.)
MW-13	1037	2.83						
MW-30	1040	4.37						
MW-14	1045	4.24						
[illegible]	1054	6.55						
[illegible]	[illegible]	[illegible]						
[illegible]	1104	8.41						
[illegible] 45-2	1107	11.14						
[illegible] 2	1110	7.45						well knocked over 1[illegible]
[illegible]	1120	7.96						
[illegible]	1125	7.65						
MW-4	1128	8.87						
[illegible]	1140	7.99						
[illegible]	1149	2.84						
MW-11	1655	7.76						

(ALL DEPTH MEASUREMENTS FROM MARKED LOCATION ON RISER)

MW-34 1700 4.81 No pad - pro[illegible] casing sinking

MW-35 1705 5.24

MW-1

Friday 6/21/96 ASH-MW-59

Weather - Cloudy, temps 65°-75° F Ground is saturated

0730 F.O. + K.S. arrive on-site

0730-0830 K.S. Calibrate instruments

0730-0930 F.O. gathers equipment to purge + sample wells. (K.S. Assists)

0930 Mob to Ash Landfill

Begin at MW-59 Well Diameter 2"

Pt. of well - 9.99

Depth to water - 2.0'

1 well volume = .163 x 7.99 = 1.3 gallon

feet of Standing water 7.99

pump intake at 7.5' T.O. Riser

1000-1030 Problems w/ tubing

Time	Pump Rate	cummulative volume	Temp	mS/cm spec. cond	PH	EH	mg/l DO	water level
1031	480 ml/min	Initial	22.73 *	1.10	6.62	390	1.91	—
1036	480 ml/min	0.3 gal	21.1 *	1.18	6.58	359	0.89	2.9'
1039	480 ml/min	0.5 gal	19.97 *	1.23	6.55	351	0.48	2.9
1042	480 ml/min	0.65 gal	20.0 *	1.23	6.54	344	0.34	2.9
1049	"	0.9	19.8 *	1.23	6.54	339	0.23	2.9
1053	"	1.3	15.41	1.43	6.52	334	0.26	2.9
1056	"	1.45	15.32	1.43	6.52	332	.24	2.9
1059	480 ml/hr	1.6	15.24	1.43	6.52	331	.23	2.9

* Temp probe was not in water

Fernando Ortiz 6/21/96

PH ± .1 cond 3% EH-10 mv DO 10%

Time	Pump Rate	Cummulative

Samp. ID AL011

1100 Sampled MW-59 water is clear No odor. Collected 3 - 40ml VOAs (524.2) + HCL

1110-1120 Mob to MW-60

Pt. of well - 10.29

Depth of Water - 2.38'

feet of standing water - 7.91'

1 well volume - .163 x 7.91 = 1.3

Pump Intake at 7.5' From T.O.R

Time	Pump Rate	cumm vol.	Temp	spec cond	PH	EH	DO	water level
1128	280 ml/min	Initial	20.0	0.66	6.87	323	2.01	3.3
1131	310 ml/min	.15	18.2	0.71	6.85	322	1.97	3.5
1135	160 ml/min	.3	18.1	0.731	6.73	320	0.96	3.4
1138	160 ml/min	.5	17.8	.752	6.71	313	0.48	3.3
1141	160 ml/min	.65	17.20	.760	6.7	301	.41	3.3
1144	160 ml/min	.70	17.00	.763	6.7	255	.24	3.3
1147	160 ml/min	.75	17.00	.765	6.7	293	.24	3.28
1151	160 ml/min	.90	17.15	.768	6.7	290	.20	3.28
1155	160 ml/min	1.1	17.15	.767	6.7	288	.20	3.28
1159	160 ml/min	1.25	17.15	.768	6.7	287	.25	3.28
1202	160 ml/min	1.35	17.14	.766	6.7	286	.18	3.28
1205	160 ml/min	1.5	17.10	.768	6.70	286	.17	3.28
1208	160 ml/min	1.65	17.13	.769	6.70	285	.17	3.28

Fernando 6/21/96

(12)

1 1210 Sampled MW-60 [Sample I.D AL012]
Sample is clear, no odor. Collected
3 - 40 ml VOAs (524.2) + HCL

1220 Mob + set up at ~~[illegible]~~ PT-11
Pt. of well - 19.52
Depth to water - 6.1
Ft. of water 13.42
1 well volume = (.163)(13.42) = 2.19
1250 Placed pump in well. Pump Intake - 15' From T.O.R

Time	Pumprate	Cum Vol	Temp	Spec Cond	pH	EH	D.O.	Water Level
1437	80 ml/min	0.9 gal	17.2	.948	6.95	310	5.67	10.1
1441	90 ml/min	1.0	17.5	.940	6.97	310	5.70	10.0
1456	85 ml/min	1.30	17.22	.913	7.03	314	6.43	
1521	85 ml/min							

1300-1400 Purge Well pump well down to Top of screen
1423 Depth to water 5.5' - Start flow water - 800 ml/min
1428 Depth to water 9.1
1507 Air temp (80° F) and low flow is effecting Flow cell water temp. There is a loss of vacuum in the air line - stop pumping
1517 Start pump again - rate retarded. Empty cell

Fred [illegible] 1/25/95

PT-11

(13)

Time	Rate ml/min	Vol	Temp	Spec Cond	pH	Eh	DO	Water level
1525	100	1.6	14.71	.718	6.98	324	6.58	11.0
1530	80 ml	1.75	14.87	.932	6.98	326	6.80	10.8
1535	~80 ml	1.82	17.34	.939	7.01	326	6.73	11.0
1538	~80 ml	1.95	18.12	.935	7.03	326	6.65	11.0

1545 Sampled PT-11 - [SAMP I.D AL021]
, Clear - no odor
Collected 3, 40 ml VOAs (524.2) + HCL
1600 - 1710 Demob + pack Samples for Shipment to lab
1710 - 1830 Delivered samples to Fedex
Trip blank ~~[illegible]~~ from today will be shipped w/ tomorrow's samples.

Fred [illegible] 1/25/96

(14)

Saturday 6/22/96 MW-27

Weather: Cloudy temps 60°-70° F

0740 KS + FO arrive on site

0740 - 0830 Calibrate instruments and gather equipment

0830 Mob - set up on MW-27

Temp blank from yesterday will be placed w/ todays samples & shipped w/ todays samples.

Ft. of well 10.34

Depth to water - 5.68

Ft. of water - 4.66

1 well volume - 0.76 + (.2 for flow cell) = .95 gal

Pump intake - 8.0'

Time	Pump Rate	Cumm vol	Temp (°C)	spec cond (ms/cm)	PH	EH (mv)	DO mg/l	water Level
0900	80 ml/min	[illegible]	17.17	.687	6.94	324	5.20	water near intake - can't measure
0906	70 ml/min	.15	16.4	.687	6.93	321	5.11	"
0912	70 ml/min	.45	15.9	.694	6.92	323	7.64	"
0918	pump shut off - well went dry							8'

total volume removed 0.4 gallons

Demob + mob to MW-36, where rinsate will be collected.

0930 Poured Rinsate (MRD x Aquatec) AL017

Fmmmb 6/22/96

(15)

MW-36, MW-56

1000 Arrive at MW-36

Pt. of 16.58'

Depth to water 3.4'

Ft of water - 13.18'

1 well volume = 2.1 gallons

Pump intake - 11

Time	Pump Rate	Cumm vol	spec cond	Temp	DO	PH	EH	water level
1029	340 ml/min	.4	.761	12.9	0.37	6.88	316	3.65'
1037	340 ml/min	.85	.763	12.2	0.32	6.87	307	3.70'
1044	340 ml/min	1.3	.767	12.8	0.34	6.89	303	3.65
1049	340 ml/min	1.75	.767	12.5	0.30	6.89	300	3.65'
1053	340 ml/min	2.25	.770	12.4	0.29	6.89	297	~~3.65~~ 3.55
1057	340 ml/min	2.65	.772	12.4	0.29	6.9	296	3.6
1103	340 ml/min	3.1	.772	12.3	0.30	6.9	295	3.6

1045 K.S collects bam sample BH-S AL015

Sample is clear no odor 3-VOCs + HCC

1115 Sampled MW-36 (AL005) collected.

~~To~~ Dup (AL016)

1130 Mob + set up on MW-56 AL010

Pt of well = 6.88

water level = 3.24

1 well vol = 0.59 gals.

pump intake - 5.8'

Fmmmb 6/22/96

MW 56 MW

Time	Pump Rate	Cumm Vol	Temp	Spec Cond	PH	EH	DO	Water Level
1146	200 ml/min	.4	16.4	.670	6.81	270	0.59	3.4
1149.	200 ml/min	.5	15.8	.679	6.8	260	0.30	3.4
1152	200 ml/min	.6	15.3	.679	6.8	262	0.25	3.4
1155	200 ml/min	.7	15.2	.678	6.8	263	0.20	3.4
1158	200 ml/min	.8	15.1	.678	6.8	269	0.20	3.4
1201	200 ml/min	.9	15.1	.677	6.8	272	0.20	3.4

1205 Sampled MW-56 (AL010)
Sample is clear no odor 3 VOAs + HCL
1215 - 1315 Stuck in field

1315 FH-D (AL014) kitchen ~~spickett~~ spiggot 3-VOA - HCL
Sample is clear - bubbly with effervescence and sulfur egg odor

1330 FH-S (AL013) outside ~~spickett~~ spiggot
Sample is clear no odor
Aquatec trip blank AL018
MRD trip blank AL018
1330 - 1515 Pack + label samples
1515 offsite to transport samples to Fed ex in Ithaca.
Fed Ex at 1600

Fred O'Brien 6/22/96

MW 27

Sunday 6/23/96
Weather: Sunny temps 65° - 70° F
0745 Arrive on site
0745 - 0850 Calibrate instruments, decon pumps + gather + load equipment
0900 Arrive at MW-27

intake 7.9

Time	Pump Rate	Cumm Vol	Temp	Spec Cond	PH	EH	DO	Water Level
0915	120 ml/min	.25	15.5	.709	6.96	324	5.92	5.76
0925	40 ml/min	.3	15.8	.715	6.96	312	5.97	below top of pump
0932	40 ml/min	.4	16.0	.724	6.99	307	6.32	"

Well determined to be ~~eqa~~ stabilized ~~by~~ (See yesterday's measurements of well on page 14.)
Well went dry (to pump intake - 7.9') after .4 gallons. (removed)
0940 Sampled MW-27 (AL003)
Sample is clear no odor - 3 VOAs + HCL

0950 Mob + set up on MW-30 (AL004)
Pt of well 10.52'
Depth to water - 6.09'
1 well vol. - 0.72 gals
Pump intake - 8.5'

Fred O'Brien 6/23/96

MW-30, PT-19

Time	Pump Rate	Cumm Vol	Temp	Spec Cond	DO	PH	EH	Water Level
1006	280	.3	15.5	0.552	3.94	6.92	300	6.14'
1009	280	.4	15.6	0.535	4.09	6.90	302	6.14'
1012	260	.5	15.0	.522	4.11	6.90	302	6.14'
1015	260	.6	14.8	.522	4.05	6.91	303	6.14
1018	260	.75	14.7	.522	3.90	6.96	303	6.14
1021	260	.9	14.7	.522	3.84	6.91	304	6.14

1025 Collected/Sampled MW-30 (AL005) MS/MSD
Sample is clear, no odor collected 7 - 40ml VOAs + HCL

1035 Mob to PT-19 (AL002)
Pt of well - 11.37'
Depth to water 5.9'
1 well Vol. - .89
Pump intake - 8.4'

Time	Pump Rate	Cumm Vol	Temp	Spec Cond	DO	PH	EH	Water Level
1055	320ml/min	.3	15.4	.634	0.38	6.88	199	6.2
1058	320ml/min	.5	14.5	.679	0.21	6.81	164	6.2
1101	300ml/min	.7	13.9	.788	0.23	6.7	125	6.2
1104	300ml/min	.9	13.8	.824	0.15	6.67	116	6.2
1107	300ml/min	1.1	13.9	.825	0.19	6.66	115	6.2
1110	300ml/min	1.3	13.7	.826	0.19	6.66	114	6.2
1113	300ml/min	1.5	13.6	.828	0.20	6.65	115	6.2

Fmwd O'Brien 6/23/96

1120 Sampled PT-19 (AL002)
Clear, no odor 3-VOAs HCL

1130 Mob to MW-40
Pt of well - 14.71'
Depth to water 4.96'
1 Vol = 1.59 gals
Pump intake 8.7'

1140 Begin purging

Time	Pump Rate	Cumm Vol	Temp	Spec Cond	D.O.	PH	EH	Water Level
1150	80ml/min	0.35	16.53	.570	1.38	7.13	253	5.5'
1201	60ml/min	0.6	16.56	.565	1.30	7.12	258	5.64'
1214	60ml/min	0.75	15.9	.566	1.37	7.11	260	5.74'
1227	50ml/min	1.0	16.0	.561	1.4	7.11	263	5.76'
1238	50ml/min	1.2	15.8	.567	1.3	7.11	264	5.71

1240 Sampled MW-40 (AL006)
Clear no odor 3 VOAs w/ HCL

1250 Mob to MW-48
Depth to w. - 3.28
Pt. of well - 11.5
1 Vol = 1.35
Pump intake - 9.5'
1305 Begin Purging

Fmwd O'Brien 6/23/96

PH ± .1 EH - 10 MW-48 MW-45

Spec Cond - 3% DO 10%

Time	Pump rate	Cumm Vol	Spec Cond	Temp	D.O.	PH	EH	Water Level
1310	340 ml/min	0.5	.623	14.8	0.29	6.87	267	3.43
1313	380 ml/min	0.75	.628	13.8	0.22	6.85	268	3.43
1316	380 ml/min	1.1	.628	13.7	0.18	6.85	268	3.43
1319	380 ml/min	1.4	.627	13.8	0.15	6.86	267	3.43
1322	380 ml/min	1.7	.627	13.7	0.15	6.86	265	3.43
1325	380 ml/min	1.95	.628	13.7	0.15	6.87	265	3.43

1300 Sampled MW-48 (AL009)
Clear, no odor, 3-VOAs + HCL

1335 Mob to MW-45 (AL007)
Pt. of well - 8.34
Depth to Water - 2.89'
1 Vol. = 0.89
Pump intake - 6.0'

1400 Begin purging

Time	Pump rate	Cumm Vol	Spec Cond	Temp	D.O.	PH	EH	Water Level
1400	180 ml/min	.3	.525	18.6	1.63	6.94	268	3.50
1407	160	.45	.629	17.9	0.77	6.87	269	3.53
1410	160	.65	.635	17.5	0.34	6.86	252	3.53
1417	160	.89	.636	16.8	0.34	6.85	237	3.54
1422	160	1.1	.636	16.6	0.26	6.86	239	3.54
1427	160	1.4	.633	16.7	0.19	6.86	242	3.54
1430	160	1.6	.632	16.7	0.18	6.86	242	3.54
1434	160	1.8	.633	16.6	0.18	6.86	243	3.54

Found O'Neill 6/23/96

MW-47

1435 Sampled MW-45 (AL007)
Clear, No odor 3 VOA's w/HCL

1440 Mob to MW-47 (AL008)

Pt. of well - 8.56'
Water - 3.07'
1 Vol = 0.89 gals
Pump intake - 4'
Begin 1542

Time	Pump Rate	Cumm Vol	Spec Cond	Temp	D.O.	PH	EH	Water Level
1545	260 ml/min	.25	.598	18.9	1.39	6.90	279	3.2
1548	260 ml/min	.45	.637	17.0	0.77	6.90	288	3.60
1552	300 ml/min	.7	.658	15.9	0.41	6.75	294	3.65
1555	300 ml/min	.85	.658	15.6	0.3	6.74	298	3.67
1558	300 ml/min	1.1	.658	15.3	0.25	6.74	301	3.67
1602	300 ml/min	1.3	.657	15.1	.19	6.75	303	3.67
1606	300 ml/min	1.6	.657	15.0	.19	6.75	304	3.67
1610	300 ml/min	1.8	.656	15.0	.18	6.75	305	3.67

1615 Sampled MW-47 (AL008)
Slightly cloudy no odor 3 VOAS HCL

1700 F.O. + K.S off site

Found O'Neill 6/23/96

Monday 6/24/96 MW-45-4

Weather: Partly sunny temps 60°-70° F

0730 F.O. + K.S. on site

0745-1230 F.O. - water level measurements at OB/OD.

0745-1215 K.S. - packs samples + calibrates instruments and decons

1220-1310 load up and call office - discrepancy on what samples to collect (indicator parameters)

1310-1400 Mob + set up on MW 45-3 + MW 45-2

1405 Begin Purging MW-45-3

Time	Pump rate	Comm vol	Spec Cond	Temp	pH	EH	D.O.	water level
1415	80 ml/min	.25	1.48	15.2	6.69	335	4.60	—

1420 Well went dry after purging 1 volume.

Recovery rate <150'

1440 Depth to water 11.67

1500 Mob to MW 45-4. (metal + CN + replicas OB029) replicas are 30, 31, 32

Pt. of Well - 9.75'

Depth to water - 7.64'

1 well volume - .34 gal/1 vol

Pump intake - 8.75'

1510 Begin Purging

Fmmb 6/24/96

Time	Pump rate	Comm vol.	Temp	Spec Cond	PH	D.O	EH	Water Level	NTU
1514	200 ml/min	.3	18.3	.829	6.89	.9	302	Below Pump	
1516	120 ml/min	.4	18.0	.829	6.89	.55	298		
1519	140 ml/min	.45	16.8	.830	6.87	.45	297		
1522	140 ml/min	.55	16.7	.829	6.87	.38	298		
1525	140 ml/min	.65	16.0	.824	6.88	.33	295		
1528	140 ml/min	.75	15.9	.808	6.88	.32	294		4.8
1531	140 ml/min	.85	15.6	.808	6.88	.31	294		—
1534	140 ml/min	.95	15.4	.806	6.89	.30	294		—
1537	140 ml/min	1.05	15.4	.806	6.89	.29	294		—

1545 Sampled MW-45-4 (OB029 for indicator parameters, metals + CN) OB030 - OB032 for replicas of TOX, PH + COND, TOC.

NTU Before sampling 1.17 NTU

1553 Metals Sample = 0.67 NTU

1615 Complete Sampling

1630 - 1505 Complete water levels at MW-22, MW-7, MW-6, MW-41, MW 34, MW-35

1740 F.O. + K.S off-site

6/24/96

Tuesday 6/25/96 MW 43-3

Weather:

0745 F.O. + K.S. on-site

0950 K.S calibrates instruments + calls M. Duchesneau

0950 F.O. loads van w/ equipment + decons packs samples

0950-1010 Drop off samples at Bldg 323

1010 - 1 Mob + Set up to purge MW-43-3

Pt. of well - 14.09

Depth to water - 7.86'

1 Vol. of Water - 1.0 gals/vol

Pump intake - 9.86'

Pump placed in well on 6/24/96

1040 Begin purging

Time	pump rate	Cum Vol	Temp	Spec Cond	D.O.	PH	EH	Water Level	Turbidity
1050	60/100	.20	14.74	1.235	4.08	6.91	293	Below Top	1.59
1055	115	.35	14.56	1.235	4.25	6.93	290	"	0.66
1100	100	.45	14.54	1.265	4.37	6.91	290		
1110	120	.60	14.36	1.306	3.98	6.91	286		
1115	120	.80	14.14	1.321	3.81	6.90	286		
1118	140	.95	13.91		Pumping Stopped			No water at intake	

1127 Allow to recover - well recovering at less than minimum pump rate (60 ml/min)

Forward [illegible] 6/25/96

MW-13

1130 Mob to MW-13

Pt. of well - 10.14

Depth to Water - 2.78

1 Vol. of Water - 1.2 gals

Pump intake - 6.5'

1153 Begin pumping

Time	Pump rate	Cum Vol	Temp	Spec Cond	D.O.	PH	EH	Water Level	Turbidity
1158	400	.8	15.46	.928	.30	6.72	289	3.22	[illegible]
1203	400	1.0	14.84	.929	.20	6.71	285	3.22	6.09
1206	400/300	1.3	14.64	.929	.16	6.72	284	3.22	4.50
1209	300/400	1.6	14.64	.929	.17	6.72	283	3.22	3.20
1212	400	2.0	14.59	.928	0.15	6.72	283	3.22	2.57

1220 Sample MW-13 ID * QB005, 6, 7, + 8

Clear - no odor

NTU - 2.07 Below metals

1250 Mob to MW-27

Pt. of well - 15.46'

Depth to Water - 4.18'

1 volume of Water - 1.8* gals

Pump Intake - 6.5'

1305 Begin pumping

Forward [illegible] 6/25/96

MW-27

Time	Cumm Vol	Pump rate	Temp	Spec. Cond.	D.O.	PH	EH	Turbidity	Water Level
1314	.75	340	13.81	.840	0.24	6.97	254	0.94	4.65
1317	1.15	340	13.12	.846	0.24	6.98	252		4.65
1320	1.35	340	13.10	.851	0.21	6.99	252	0.73	4.65
1323	1.65	340	13.10	.849	0.22	6.99	251		4.65
1326	1.90	340	12.91	.848	0.19	7.00	251	0.57	4.65

Sample @ 1330 ID # 08013, 14, 15, + 16

Turbidity Metals Sample - 0.64 NTU MW-27

Sample was clear, no odor.

1410 Mob to MW-12 (after decon)

Pt. of Well 9.11'

Depth to water 7.83' Start Pump 1418 hrs

1 well volume - 1.0 gals

Pump intake placed at 6.5' below T.O.R.

Time	Pump rate	Cumm Vol.	Temp	Spec Cond	D.O.	PH	EH	Turbidity	Water Level
1422	500	.65	15.24	.861	0.43	7.01	242	37.7	3.10
1425	500	1.0	14.77	.861	0.36	7.01	241	28.4	3.10
1428	500	1.40	14.64	.861	0.31	7.02	240	24.0	3.10
1434	500-300	1.90	14.87	0.863	0.28	7.03	239	17.9	3.05
1437	300	2.2	14.87	0.864	0.29	7.02	238	15.2	3.05
1440	300	2.45	14.84	.863	0.28	7.02	237	13.3	3.05
1443	300	2.70	14.79	.864	0.30	7.03	237	10.0	3.05

Sample @ 1445 ID # 08001, 02, 03, + 04

Metals Turbidity - 6.35 NTU's

Clear No odor

Finished on 6/25/96

MW-45-3 MW-14

1530 MW 45-4 10.1

1520 - 1548 Mob + set up on MW 45-3

depth to water - 10.1 will attempt to set pump at bottom of well + see if well maintains a low flow.

1550 Begin purging

Depth to water 9.91

Time	Pump rate	Cumm Vol	Spec cond	D.O.	PH	EH	Turbidity	Temp	Water Level
1556	40 ml/min	.15	1.29	2.79	6.90	244		18.9	10.1
1602	90 ml/min	.3	1.29	1.9	6.84	250		16.0	
1605	90	.35	1.299	2.50	6.84	253		15.34	10.42
1608	90	.40	1.302	3.34	6.84	254	7.95	15.01	
1614	80	.50	1.314	3.57	6.86	256		15.24	10.62
1618	40	.55	1.318	3.63	6.88	257		16.17	10.67
1623	40	.60	1.334	3.60	6.89	257		16.86	

Temp rising due to slow flow in cell

Sample @ 1630 Clear, no odor

1713 - Metals Sample Turbidity = 5.30 NTU

1542 - Setup @ MW-14

Static 4.27 column 6.25'

Pow 10.52 1 gallon/volume

1754 Start Pump

Time	Rate ml/min	Vol	Temp	Spec Cond	DO	pH	Eh	Turb	Water Level
1800	245	.35	16.58	1.070	0.82	6.78	241		4.77
1803	245	.50	15.89	1.070	0.77	6.77	244	18.3	4.80
1806	245	.65	15.56	1.070	0.69	6.77	245		4.80
1809	245	.80	15.37	1.069	0.66	6.77	247	8.28	4.88
1814	245	1.1	15.11	1.067	0.62	6.77	248	8.00	4.90

MW-14

1830 Sampled MW-14 MS/MSD location also DUP + MRD Samples collected

Turbidity - NTU - 2.05 - measured during collection of metals.

1900 Complete sampling MW-14

2000 offsite

6/25/96

Wednesday 6/26/96

Weather: Sunny, temps 55° - 70°F

0730 F.D. + K.S. on site

0730 - 0830 Put up snow fence along drums at Seed-25 per Tom Ensoth's request

0830 Started PPE drum

0830 - Pack samples and ship from Bldg 373

1230 off-site (K.S. packs pumps + rented equipment)

6/26/96

2. Chain-of-Custody Forms

CHAIN-OF-CUSTODY RECORD

PAGE 1 OF 1

PARSONS
ENGINEERING-SCIENCE, INC.
Prudential Center
Boston, MA 02199
Phone: 617-859-2000
Fax: 617-859-2043

JOB NO. 725980-1010
PROJECT Seneca 1/4, Monitoring OB/OD
CONTACT M. Duchesneau

LABORATORY Aquatec
ADDRESS Colchester VT
CONTACT P. Malla

SAMPLE NO.	LABORATORY SAMPLE NO.	SAMPLING DATE	SAMPLING TIME	SAMPLE DEPTH	SAMPLE MATRIX	~~VOA~~ TOC	~~SVOC~~ TOX	METALS	~~PESTPCB~~	CN	~~HERB~~	TPH	pH/Spec Cond			NO. OF CONTAINERS	COMMENTS (Special instructions, cautions, etc.)
OB029		6/24/96	1545		water	2	1	1		1			1			6	
OB030		↓	↓		↓	2	1						1			4	
OB031						2	1						1			4	
OB032						2	1						1			4	
														KKS			
		KKS							KKS								
											KKS						

	VOA Vial	Glass Bottle	Plastic Bottle	Preservative	Container Volume
TOC	X			A E	40 ml
TOX		X		A E	250 ml
METALS			X	A D	1 L
CN			X	A F	1 L
pH/Spec Cond		X		A	250 ml

Sampled and Relinquished by
Sign
Print Mary Smith
Firm Parsons ES
Date 6/25/96 Time 1000

Received by
Sign
Print
Firm
Date Time

Relinquished by
Sign
Print
Firm
Date Time

Received by
Sign
Print
Firm
Date Time

Evidence Samples tampered with? ☐ No ☐ Yes
If Yes, explain in remarks.

PRESERVATION KEY:
A - Ice
B - Filtered
C - Acidified with HCl
D - Acidified with HNO_3
E - Acidified with H_2SO_4
F - NaOH + Ascorbic
G - Other

REMARKS: (Sample storage, nonstandard sample bottles)

Cooler #:

ESB - Form COC1 White - return with data Yellow - lab copy Pink - Sampler copy

CHAIN-OF-CUSTODY RECORD

PARSONS
ENGINEERING-SCIENCE, INC.
Prudential Center
Boston, MA 02199
Phone: 617-859-2000
Fax: 617-859-2043

JOB NO. 725980-0010
PROJECT Seneca Quarterly Monitoring - OB/OD
CONTACT M. Duchesneau

LABORATORY Aquatec Labs
ADDRESS Colchester, VT
CONTACT Polly Malik

SAMPLE NO.	LABORATORY SAMPLE NO.	SAMPLING DATE	SAMPLING TIME	SAMPLE DEPTH	SAMPLE MATRIX	VOA	SVOC	METALS	PESTICIDES	CN	HERB	TPH	PH/SPEC COND.	TOC	TOX	NO. OF CONTAINERS	COMMENTS (Special Instructions, cautions, etc.)
OB013		6/25/96	1330	–	Water			1		1			1	2	1	6	
OB014				–									1	2	1	4	
OB015				–									1	2	1	4	
OB016				–									1	2	1	4	
OB001			1445	–				1		1			1	2	1	6	
OB002				–									1	2	1	4	
OB003				–		1.0	1.6		1.0		1.0	1.0	1	2	1	4	
OB004				–									1	2	1	4	
OB025			1630	–				1		1			1	2	1	6	
OB026				–									1	2	1	4	
OB027				–									1	2	1	4	
OB028				–									1	2	1	4	

	VOA	SVOC	METALS	PESTICIDES	CN	HERB	TPH	PH/SPEC COND.	TOC	TOX
VOA Vial									X	
Glass Bottle										
Plastic Bottle			X		X			X		X
Preservative			A D		A F			A	A E	A E
Container Volume			1 L		1 L			250 ml	40 ml	250 ml

Sampled and Relinquished by
Sign
Print
Firm
Date Time 1200

Received by
Sign
Print
Firm
Date Time

Relinquished by
Sign
Print
Firm
Date Time

Received by
Sign
Print
Firm
Date Time

Evidence Samples tampered with? ☐ No ☐ Yes
If Yes, explain in remarks.

PRESERVATION KEY:
A - Ice
B - Filtered
C - Acidified with HCl
D - Acidified with HNO_3
E - Acidified with H_2SO_4
F - NaOH + Ascorbic
G - Other

REMARKS: (Sample storage, nonstandard sample bottles)

Cooler #:

ESB - Form COC1 White - return with data Yellow - lab copy Pink - Sampler copy

CHAIN-OF-CUSTODY RECORD

PAGE 1 OF 1

PARSONS
ENGINEERING-SCIENCE, INC.
Prudential Center
Boston, MA 02199
Phone: 617-859-2000
Fax: 617-859-2043

JOB NO. 725980-01(.)
PROJECT Seneca Quarterly Monitoring - OB/OD
CONTACT M. Dushe[illegible]

LABORATORY Aquatec Labs
ADDRESS Colchester - VT
CONTACT Polly Malik

SAMPLE NO.	LABORATORY SAMPLE NO.	SAMPLING DATE	SAMPLING TIME	SAMPLE DEPTH	SAMPLE MATRIX	VOA	SVOC	METALS	PESTICIDE	CN	HERB	TPH	PH/spec cond	TOC	TOX	NO. OF CONTAINERS	COMMENTS (Special instructions, cautions, etc.)
OB009		6/25/96	1830	—	water			2		2			1	6	3	14	matrix Spike (ms) msd) except pH/co
OB010		↓	↓	—	↓								1	2	1	4	
OB011				—									1	2	1	4	
OB012				—									1	2	1	4	
OB033			↓	—				1		1						2	
OB034			1700	—				1		1			1	2	1	6	Field blank
OB005		↓	1220	—	↓			1		1			1	2	1	4	
OB006			1220	—									1	2	1	4	
OB007			1220	—									1	2	1	4	
OB008		↓	1220	—	↓								1	2	1	4	

KS

	VOA Vial	Glass Bottle	Plastic Bottle	Preservative	Container Volume
VOA					
SVOC					
METALS			X	A D	1 L
PESTICIDE					
CN			X	A F	1 L
HERB					
TPH					
PH/spec cond		X		A	250 ml
TOC	X			A E	250 ml
TOX				A E	250 ml

Sampled and Relinquished by
Sign
Print Kenny Smith
Firm Parsons ES
Date 1/96 Time 1130

Received by
Sign
Print
Firm
Date Time

Relinquished by
Sign
Print
Firm
Date Time

Received by
Sign
Print
Firm
Date Time

Evidence Samples tampered with? ☐ No ☐ Yes
If Yes, explain in remarks.

PRESERVATION KEY:
A - Ice
B - Filtered
C - Acidified with HCl
D - Acidified with HNO_3
E - Acidified with H_2SO_4
F - NaOH + Ascorbic
G - Other

REMARKS: (Sample storage, nonstandard sample bottles)

Cooler #:

ESB - Form COC1 White - return with data Yellow - lab copy Pink - Sampler copy

CHAIN-OF-CUSTODY RECORD

PARSONS
ENGINEERING-SCIENCE, INC.
Prudential Center
Boston, MA 02199
Phone: 617-859-2000
Fax: 617-859-2043

JOB NO. 725980-01 10
PROJECT Seneca Quarry Monitoring - OB/OD
CONTACT M. Duc[illegible]sneau

LABORATORY MRD
ADDRESS Omaha Ne
CONTACT Sample Custodian

SAMPLE NO.	LABORATORY SAMPLE NO.	SAMPLING DATE	SAMPLING TIME	SAMPLE DEPTH	SAMPLE MATRIX	VOA	SVOC	METALS	PEST/PCB	CN	HERB	TPH	PH/spec cond	TOC	TOX	NO. OF CONTAINERS	COMMENTS (Special Instructions, cautions, etc.)
OB009		6/25/96	1830	—	Water			1		1			1	2	1	6	
OB034		6/25/96	1700	—	Water			1		1			1	2	1	6	Field blank
						R.D.	R.D.		R.D.		R.D.	R.D.					

	VOA	SVOC	METALS	PEST/PCB	CN	HERB	TPH	PH/spec cond	TOC	TOX
VOA Vial									X	
Glass Bottle								X		X
Plastic Bottle			~~X~~		~~X~~					
Preservative			D		F				C	E
Container Volume			1L		1L			250 ml	40 ml	250 mL

Sampled and Relinquished by
Sign Fernando O'[illegible]
Print Fernando O'Loughlin
Firm Parsons ES
Date 6/26/96 Time 1700

Received by
Sign
Print
Firm
Date Time

Relinquished by
Sign
Print
Firm
Date Time

Received by
Sign
Print
Firm
Date Time

Evidence Samples tampered with? ☐ No ☐ Yes
If Yes, explain in remarks.

PRESERVATION KEY:
A - Ice
B - Filtered
C - Acidified with HCl
D - Acidified with HNO_3
E - Acidified with H_2SO_4
F - NaOH ~~+ Ascorbic~~ Ea.
G - Other

REMARKS: (Sample storage, nonstandard sample bottles)
Lims #
4073

Cooler #:

ESB - Form COC1 White - return with data Yellow - lab copy Pink - Sampler copy

APPENDIX B

Laboratory Analytical Packages with QA/QC Data

1. Sample Delivery Group No. 59240

   A. Indicator Analysis Results
   B. TAL Metals Analysis

2. Sample Delivery Group No. 59328

   A. Indicator Analysis Results
   B. TAL Metals Analysis

3. Sample Delivery Group No. 59383

   A. Indicator Analysis Results
   B. TAL Metals Analysis

1. Sample Delivery Group No. 59240

SAMPLE DATA SUMMARY PACKAGE

LAB CODE: INCHVT

CONTRACT NO.: 93206

CASE NO.: 0BAS4

SDG NO.: 59240

Inchcape Testing Services

Inchcape Testing Services
Environmental Laboratories

55 South Park Drive
Colchester, VT 05446
Tel. 802-655-1203
Fax 802-655-1248

July 29, 1996

Mr. Mike Duchesneau
Parsons Engineering Science
101 Huntington Avenue
Prudential Center
Boston, MA 02199

Re: Project Name: OB/ASH Quarterly Monitoring
ITS Project No. 93206
Case No. OBASH, SDG No. 59240

Dear Mr. Duchesneau:

Enclosed are the analytical results for water samples received intact by Inchcape Testing Services Environmental Laboratories on June 22, 24, 25 and 26, 1996. Laboratory numbers and quality control samples were assigned as follows:

Lab ID	Client Sample ID	Date Sampled	Sample Matrix
	Samples Received on June 22, 1996 ETR No. 59240		
304788	AL001	06/21/96	Water
304789	AL012	06/21/96	Water
304790	AL011	06/21/96	Water
	Samples Received on June 24, 1996 ETR No. 59259		
304875	AL014	06/22/96	Water
304876	AL013	06/22/96	Water
304877	AL010	06/22/96	Water
304878	AL005	06/22/96	Water
304879	AL016	06/22/96	Water
304880	AL015	06/22/96	Water
304881	AL017	06/22/96	Water
304882	AL018	06/14/96	Water
	Samples Received on June 25, 1996 ETR No. 59288		
304955	AL006	06/23/96	Water
304956	AL019	06/14/96	Water
304957	AL004	06/23/96	Water
304957MS	AL004MS	06/23/96	Water
304957MD	AL004MSD	06/23/96	Water
304958	AL003	06/23/96	Water

Lab ID	Client Sample ID	Date Sampled	Sample Matrix
	Samples Received on June 25, 1996 ETR No. 59288 (continued)		
304959	AL002	06/23/96	Water
304960	AL009	06/23/96	Water
304961	AL007	06/23/96	Water
304962	AL008	06/23/96	Water
304963	MSB		Liquid
	Samples Received on June 26, 1996 ETR No. 59327		
305080	OB029	06/24/96	Water

I certify that this 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 hardcopy package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

If there are any questions regarding this submittal, please contact Pauline Malik at (802) 655-1203.

Sincerely,

Karen R. Chirgwin

Karen R. Chirgwin
Laboratory Operations Director

Enclosure

93206B10JUL96

Inchcape Testing Services
Environmental Laboratories

55 South Park Drive
Colchester, VT 05446

75 Green Mountain Drive
South Burlington, VT 05403

Analytical Report

Parsons Engineering Science
Prudential Center
Boston, MA 02199

Attention : Mike Duchesneau

Date : 07/25/96
ETR Number : 59327
Project No.: 93206
No. Samples: 1
Arrived : 06/26/96
P.O. Number: *

Page 1

Case:OBASH SDG:59240

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater.
All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/ Parameter	Result
305080	OB029:06/24/96 @1545(Water)	
9050	Conductivity (umhos/cm)	793
9020	Total Organic Halides	<0.02
9040	pH (std. units)	7.16
9060	Total Organic Carbon	1.1

< Last Page >

Submitted By :

Aquatec Inc.

Quality Control Summary

Project No: 93206
SDG No: 59327
Units: mg/L

Parameter	Date Analyzed	Method Preparation Blank	Laboratory Control Sample		
			Reported Value	True Value	Percent Recovery
Conductivity (umhos/cm)	6/26/96	NA	1412	1413	99.9
pH (Std Units)	6/26/96	NA	6.02	6	100.3
Total Organic Carbon	7/17/96	< 0.5	45.9	49.2	93.3
Total Organic Halides	7/1/96	< 0.02	0.1	0.1	100.0

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

ab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

ab Code: INCHVT Case No.: OBASH SAS No.: _____ SDG No.:59240_

OW No.: ILM02.1

EPA Sample No.	Lab Sample ID
_OB029_____	_305080_____

ere ICP interelement corrections applied ? Yes/No YES

ere ICP background corrections applied ? Yes/No YES

If yes - were raw data generated before application of background corrections ? Yes/No NO_

omments:

certify that this data package is in compliance with the terms and onditions of the contract, both technically and for completeness, for ther than the conditions detailed above. Release of the data contained n this hardcopy data package and in the computer-readable data submitted n floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: _____

Date: _____ Title: _____

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

OB029

ab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

ab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59240_

atrix (soil/water): WATER Lab Sample ID: 305080

evel (low/med): LOW__ Date Received: 06/26/96

Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	10.3	U		P_
7440-36-0	Antimony_	2.0	U		P_
7440-38-2	Arsenic__	2.7	U		P_
7440-39-3	Barium___	22.4	B		P_
7440-41-7	Beryllium	0.10	U		P_
7440-43-9	Cadmium__	0.30	U		P_
7440-70-2	Calcium__	113000			P_
7440-47-3	Chromium_	1.0	U		P_
7440-48-4	Cobalt___	1.2	U		P_
7440-50-8	Copper___	1.2	U		P_
7439-89-6	Iron_____	23.4	U		P_
7439-92-1	Lead_____	1.7	U		P_
7439-95-4	Magnesium	24600			P_
7439-96-5	Manganese	4.7	B		P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	1.6	U		P_
7440-09-7	Potassium	2380	B		P_
7782-49-2	Selenium_	2.4	U		P_
7440-22-4	Silver___	1.3	U		P_
7440-23-5	Sodium___	10900			P_
7440-28-0	Thallium_	4.2	U		P_
7440-62-2	Vanadium_	1.2	U		P_
7440-66-6	Zinc_____	6.7	B		P_
_____	Cyanide__	5.0	U		AS

olor Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

olor After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

omments:

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

.b Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

.b Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59240_

ıitial Calibration Source: VENTURES____

›ntinuing Calibration Source: SPEX_____

Concentration Units: ug/L

ınalyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
ıluminum_	26000.0	24460.00	94.1	30200.0	28450.00	94.2	28420.00	94.1	P_
ıntimony_	250.0	255.10	102.0	300.0	299.10	99.7	297.50	99.2	P_
ırsenic__	250.0	251.90	100.8	100.0	97.57	97.6	98.35	98.4	P_
ɜarium___	500.0	502.50	100.5	200.0	198.80	99.4	198.40	99.2	P_
ɜeryllium	500.0	511.80	102.4	100.0	98.58	98.6	98.38	98.4	P_
ɔadmium__	500.0	497.60	99.5	100.0	97.86	97.9	96.68	96.7	P_
ɔalcium__	25000.0	23710.00	94.8	30200.0	28540.00	94.5	28350.00	93.9	P_
ɔhromium_	500.0	506.30	101.3	200.0	197.20	98.6	196.50	98.2	P_
ɔobalt___	500.0	498.20	99.6	200.0	196.50	98.2	195.00	97.5	P_
ɔopper___	500.0	517.20	103.4	200.0	198.50	99.2	199.70	99.8	P_
ɔron_____	25500.0	24260.00	95.1	30200.0	28690.00	95.0	28730.00	95.1	P_
ɜead_____	1000.0	1031.00	103.1	400.0	403.20	100.8	402.10	100.5	P_
ıagnesium	25000.0	23480.00	93.9	30200.0	28410.00	94.1	28360.00	93.9	P_
ıanganese	500.0	503.60	100.7	200.0	195.90	98.0	194.90	97.4	P_
ıercury__	1.8	1.78	98.9	3.0	3.17	105.7	3.21	107.0	CV
ıickel___	500.0	494.40	98.9	200.0	194.20	97.1	196.00	98.0	P_
ɔotassium	25000.0	24160.00	96.6	30200.0	29470.00	97.6	29320.00	97.1	P_
ɜelenium_	250.0	252.10	100.8	100.0	100.20	100.2	98.49	98.5	P_
ɜilver___	500.0	507.90	101.6	100.0	99.04	99.0	98.58	98.6	P_
ɜodium___	25000.0	22940.00	91.8	30200.0	28020.00	92.8	27880.00	92.3	P_
ɔhallium_	250.0	239.10	95.6	100.0	99.74	99.7	96.76	96.8	P_
ɔanadium_	500.0	514.60	102.9	200.0	197.60	98.8	196.30	98.2	P_
ɔinc_____	500.0	510.50	102.1	200.0	200.00	100.0	199.10	99.6	P_
ɔyanide__	120.0	120.00	100.0	150.0	136.00	90.7	137.00	91.3	AS

1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

ab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

ab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59240_

nitial Calibration Source: VENTURES____

ontinuing Calibration Source: SPEX_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum				30200.0	28390.00	94.0	28480.00	94.3	P
Antimony				300.0	297.40	99.1	300.30	100.1	P
Arsenic				100.0	98.32	98.3	99.53	99.5	P
Barium				200.0	198.40	99.2	199.00	99.5	P
Beryllium				100.0	98.38	98.4	99.50	99.5	P
Cadmium				100.0	97.19	97.2	97.65	97.6	P
Calcium				30200.0	28560.00	94.6	28650.00	94.9	P
Chromium				200.0	196.90	98.4	198.60	99.3	P
Cobalt				200.0	196.20	98.1	196.90	98.4	P
Copper				200.0	198.90	99.4	200.30	100.2	P
Iron				30200.0	28720.00	95.1	28980.00	96.0	P
Lead				400.0	403.50	100.9	406.20	101.6	P
Magnesium				30200.0	28390.00	94.0	28660.00	94.9	P
Manganese				200.0	195.20	97.6	196.50	98.2	P
Mercury									NR
Nickel				200.0	195.10	97.6	197.50	98.8	P
Potassium				30200.0	29290.00	97.0	29260.00	96.9	P
Selenium				100.0	99.56	99.6	99.98	100.0	P
Silver				100.0	98.96	99.0	99.50	99.5	P
Sodium				30200.0	27770.00	92.0	27770.00	92.0	P
Thallium				100.0	96.70	96.7	97.46	97.5	P
Vanadium				200.0	196.60	98.3	198.70	99.4	P
Zinc				200.0	199.50	99.8	201.30	100.6	P
Cyanide									NR

1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

ab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

ab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59240_

nitial Calibration Source: VENTURES____

ontinuing Calibration Source: SPEX_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum_				30200.0	28650.00	94.9			P_
Antimony_				300.0	300.60	100.2			P_
Arsenic__				100.0	97.93	97.9			P_
Barium___				200.0	199.30	99.6			P_
Beryllium				100.0	99.32	99.3			P_
Cadmium__				100.0	97.96	98.0			P_
Calcium__				30200.0	28840.00	95.5			P_
Chromium_				200.0	197.90	99.0			P_
Cobalt___				200.0	197.10	98.6			P_
Copper___				200.0	200.20	100.1			P_
Iron_____				30200.0	28990.00	96.0			P_
Lead_____				400.0	407.00	101.8			P_
Magnesium				30200.0	28640.00	94.8			P_
Manganese				200.0	196.80	98.4			P_
Mercury__									NR
Nickel___				200.0	198.20	99.1			P_
Potassium				30200.0	29360.00	97.2			P_
Selenium_				100.0	101.70	101.7			P_
Silver___				100.0	99.20	99.2			P_
Sodium___				30200.0	27930.00	92.5			P_
Thallium_				100.0	99.27	99.3			P_
Vanadium_				200.0	198.20	99.1			P_
Zinc_____				200.0	201.30	100.6			P_
Cyanide__									NR

1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

ab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

ab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59240_

A CRDL Standard Source: VENTURES____

CP CRDL Standard Source: VENTURES____

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
					Initial		Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum				400.0	417.20	104.3	410.50	102.6
Antimony				120.0	121.80	101.5	121.10	100.9
Arsenic				20.0	18.18	90.9	17.29	86.4
Barium				400.0	404.80	101.2	402.00	100.5
Beryllium				10.0	9.78	97.8	9.79	97.9
Cadmium				10.0	10.05	100.5	9.87	98.7
Calcium				10000.0	9919.00	99.2	9925.00	99.2
Chromium				20.0	19.03	95.2	18.72	93.6
Cobalt				100.0	96.71	96.7	95.59	95.6
Copper				50.0	49.78	99.6	49.10	98.2
Iron				200.0	202.70	101.4	198.90	99.4
Lead				6.0	5.83	97.2	7.60	126.7
Magnesium				10000.0	9654.00	96.5	9635.00	96.4
Manganese				30.0	29.57	98.6	29.34	97.8
Mercury	0.2	0.21	105.0					
Nickel				80.0	77.13	96.4	76.68	95.8
Potassium				10000.0	10310.00	103.1	10190.00	101.9
Selenium				10.0	9.55	95.5	9.88	98.8
Silver				20.0	19.39	97.0	18.98	94.9
Sodium				10000.0	9217.00	92.2	9304.00	93.0
Thallium				20.0	17.69	88.4	17.49	87.4
Vanadium				100.0	100.20	100.2	99.91	99.9
Zinc				40.0	39.97	99.9	39.91	99.8

3
BLANKS

ab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

ab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59240_

reparation Blank Matrix (soil/water): WATER

reparation Blank Concentration Units (ug/L or mg/kg): UG/L_

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	10.3	U	10.3	U	10.3	U	10.3	U	10.300	U	P
Antimony	-2.9	B	-4.3	B	2.0	U	2.0	U	-3.900	B	P
Arsenic	2.7	U	2.7	U	2.7	U	-3.2	B	2.700	U	P
Barium	2.5	U	2.5	U	2.5	U	2.5	U	2.500	U	P
Beryllium	0.1	U	0.1	U	0.1	U	0.1	U	0.100	U	P
Cadmium	0.3	U	0.3	U	0.3	U	0.3	U	0.300	U	P
Calcium	65.9	U	65.9	U	65.9	U	65.9	U	65.900	U	P
Chromium	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Cobalt	1.2	U	1.2	U	1.2	U	1.2	U	1.200	U	P
Copper	1.2	U	1.2	U	1.2	U	1.2	U	1.200	U	P
Iron	23.4	U	23.4	U	23.4	U	23.4	U	23.400	U	P
Lead	1.7	U	1.7	U	1.7	U	1.7	U	1.700	U	P
Magnesium	64.5	U	64.5	U	64.5	U	64.5	U	64.500	U	P
Manganese	0.3	U	0.3	U	0.3	U	0.3	U	0.300	U	P
Mercury	0.1	U	0.1	U	0.1	U			0.100	U	CV
Nickel	1.6	U	1.6	U	1.6	U	1.6	U	1.600	U	P
Potassium	90.3	U	90.3	U	90.3	U	90.3	U	90.300	U	P
Selenium	2.4	U	2.5	B	2.4	U	2.4	U	2.400	U	P
Silver	1.3	U	1.3	U	1.3	U	1.3	U	1.300	U	P
Sodium	267.8	U	267.8	U	267.8	U	267.8	U	267.800	U	P
Thallium	4.2	U	4.2	U	4.2	U	4.2	U	4.200	U	P
Vanadium	1.2	U	1.2	U	1.2	U	1.2	U	1.200	U	P
Zinc	0.5	U	0.5	U	0.5	U	0.5	U	0.788	B	P
Cyanide	10.0	U	10.0	U	10.0	U			5.000	U	AS

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3
BLANKS

ab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

ab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59240_

reparation Blank Matrix (soil/water): _____

reparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			10.3	U	10.3	U					P
Antimony			-2.5	B	-2.5	B					P
Arsenic			2.7	U	2.7	U					P
Barium			2.5	U	2.5	U					P
Beryllium			0.1	U	0.1	U					P
Cadmium			0.3	U	0.3	U					P
Calcium			65.9	U	65.9	U					P
Chromium			1.0	U	1.0	U					P
Cobalt			1.2	U	1.2	U					P
Copper			1.2	U	1.2	U					P
Iron			23.4	U	23.4	U					P
Lead			1.7	U	1.7	U					P
Magnesium			64.5	U	64.5	U					P
Manganese			0.3	U	0.3	U					P
Mercury											NR
Nickel			1.6	U	1.6	U					P
Potassium			90.3	U	90.3	U					P
Selenium			2.4	U	2.4	U					P
Silver			1.3	U	1.3	U					P
Sodium			267.8	U	267.8	U					P
Thallium			4.2	U	4.2	U					P
Vanadium			1.2	U	1.2	U					P
Zinc			0.5	U	0.5	U					P
Cyanide											NR

4
ICP INTERFERENCE CHECK SAMPLE

ab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

ab Code: INCHVT Case No.: OBASH_ SAS No: _____ SDG No.: 59240_

CP ID Number: ICP4 TJA 61E ICS Source: VENTURES____

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	%R	Final Found Sol. A	Final Found Sol. AB	%R
Aluminum	500000	491371	465100	464100.0	94.5	467900	468800.0	95.4
Antimony	0	612	-3	620.3	101.4	-1	623.1	101.8
Arsenic	0	104	-1	103.9	99.9	1	104.8	100.8
Barium	0	515	1	505.3	98.1	1	508.3	98.7
Beryllium	0	500	0	487.3	97.5	0	492.4	98.5
Cadmium	0	967	3	950.3	98.3	3	953.6	98.6
Calcium	500000	542514	491500	503500.0	92.8	497800	510400.0	94.1
Chromium	0	501	3	488.3	97.5	4	492.1	98.2
Cobalt	0	484	0	474.6	98.1	0	477.8	98.7
Copper	0	544	2	530.1	97.4	2	535.5	98.4
Iron	200000	194186	175700	182800.0	94.1	177500	185000.0	95.3
Lead	0	48	-1	48.5	101.0	2	51.9	108.1
Magnesium	500000	529600	497500	497700.0	94.0	501800	502600.0	94.9
Manganese	0	498	2	488.0	98.0	2	491.5	98.7
Mercury								
Nickel	0	973	1	939.7	96.6	1	954.4	98.1
Potassium	0	0	-13	-15.0		4	-17.5	
Selenium	0	53	-3	47.6	89.8	-1	49.7	93.8
Silver	0	200	4	205.7	102.8	5	207.4	103.7
Sodium	0	0	98	-21.8		166	13.0	
Thallium	0	98	-1	93.6	95.5	4	99.0	101.0
Vanadium	0	510	3	498.4	97.7	3	503.2	98.7
Zinc	0	1044	17	1020.0	97.7	17	1029.0	98.6

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LABORATORY CONTROL SAMPLE

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59240_

Solid LCS Source: _____

Aqueous LCS Source: VENTURES____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum	51000.0	47320.00	92.8						
Antimony	2000.0	2009.00	100.4						
Arsenic	1050.0	1019.00	97.0						
Barium	500.0	482.30	96.5						
Beryllium	500.0	490.90	98.2						
Cadmium	525.0	497.90	94.8						
Calcium	50000.0	46820.00	93.6						
Chromium	500.0	486.20	97.2						
Cobalt	500.0	475.90	95.2						
Copper	500.0	498.90	99.8						
Iron	50500.0	47670.00	94.4						
Lead	1015.0	1001.00	98.6						
Magnesium	50000.0	46190.00	92.4						
Manganese	500.0	481.50	96.3						
Mercury	1.0	1.06	106.0						
Nickel	500.0	477.10	95.4						
Potassium	50000.0	46210.00	92.4						
Selenium	25.0	22.36	89.4						
Silver	500.0	486.90	97.4						
Sodium	50000.0	46140.00	92.3						
Thallium	50.0	45.87	91.7						
Vanadium	500.0	490.50	98.1						
Zinc	500.0	494.40	98.9						
Cyanide									

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8
STANDARD ADDITION RESULTS

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract:93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.:_____ SDG No.:59240_

Concentration Units: ug/L

EPA Sample No.	An	0 ADD ABS	1 ADD CON	1 ADD ABS	2 ADD CON	2 ADD ABS	3 ADD CON	3 ADD ABS	Final Conc.	r	Q

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9

ICP SERIAL DILUTION

EPA SAMPLE NO.

OB029L

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59240_

Matrix (soil/water): WATER Level (low/med): LOW__

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	10.30	U	51.50	U			P
Antimony	2.00	U	10.00	U			P
Arsenic	2.70	U	13.50	U			P
Barium	22.35	B	23.20	B	3.8		P
Beryllium	0.10	U	0.50	U			P
Cadmium	0.30	U	1.50	U			P
Calcium	112600.00		115100.00		2.2		P
Chromium	1.00	U	5.00	U			P
Cobalt	1.20	U	6.00	U			P
Copper	1.20	U	9.10	B			P
Iron	23.40	U	117.00	U			P
Lead	1.70	U	8.50	U			P
Magnesium	24650.00		25220.00		2.3		P
Manganese	4.70	B	6.67	B	41.9		P
Mercury							NR
Nickel	1.60	U	8.80	B			P
Potassium	2380.00	B	2789.00	B	17.2		P
Selenium	2.40	U	12.00	U			P
Silver	1.30	U	6.50	U			P
Sodium	10890.00		11640.00	B	6.9		P
Thallium	4.20	U	21.00	U			P
Vanadium	1.20	U	6.00	U			P
Zinc	6.67	B	31.21	B	367.9		P

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10
Instrument Detection Limits (Quarterly)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59240_

ICP ID Number: ICP4_TJA_61E Date: 07/01/96

Flame AA ID Number : _____

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.22		200	10.3	P
Antimony	206.84		60	2.0	P
Arsenic	189.04		10	2.7	P
Barium	493.41		200	2.5	P
Beryllium	313.04		5	0.1	P
Cadmium	226.50		5	0.3	P
Calcium	317.93		5000	65.9	P
Chromium	267.72		10	1.0	P
Cobalt	228.62		50	1.2	P
Copper	324.75		25	1.2	P
Iron	271.44		100	23.4	P
Lead	220.35		3	1.7	P
Magnesium	279.08		5000	64.5	P
Manganese	257.61		15	0.3	P
Mercury			0.2		NR
Nickel	231.60		40	1.6	P
Potassium	766.49		5000	90.3	P
Selenium	196.03		5	2.4	P
Silver	328.07		10	1.3	P
Sodium	330.23		5000	267.8	P
Thallium	190.86		10	4.2	P
Vanadium	292.40		50	1.2	P
Zinc	213.86		20	0.5	P

Comments:

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10
Instrument Detection Limits (Quarterly)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59240_

ICP ID Number: _____ Date: 07/01/96

Flame AA ID Number : HG2_PS200___

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury	253.70		0.2	0.1	CV
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

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10
Instrument Detection Limits (Quarterly)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59240_

ICP ID Number: _____ Date: 07/01/96

Flame AA ID Number : PS1214_____

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

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11A
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59240_

ICP ID Number: ICP4 TJA 61E Date: 01/01/96

Analyte	Wave-length (nm)	Interelement Correction Factors for : Al	Ca	Fe	Mg	CO_
Aluminum_	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony_	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic__	189.04	0.0000000	0.0000000	-0.0000390	0.0000000	0.0000000
Barium___	493.41	0.0000000	0.0000000	0.0000400	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium__	226.50	0.0000000	0.0000000	0.0001035	0.0000000	0.0000000
Calcium__	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium_	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt___	228.62	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper___	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron_____	271.44	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead_____	220.35	-0.0000596	-0.0000184	0.0000823	0.0000111	-0.0048710
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Mercury__						
Nickel___	231.60	0.0000000	0.0000000	0.0000000	0.0000000	-0.0011240
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium_	196.03	0.0000000	0.0000000	-0.0001999	0.0000000	-0.0000465
Silver___	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium___	330.23	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium_	190.86	-0.0000100	0.0000000	-0.0000800	0.0000000	0.0049700
Vanadium_	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc_____	213.86	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

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11B
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59240_

ICP ID Number: ICP4 TJA 61E Date: 01/01/96

Analyte	Wave-length (nm)	Interelement Correction Factors for : CR_	MN_	NI_	V__	___
Aluminum_	308.22	0.0000000	0.0000000	0.0000000	0.0264000	
Antimony_	206.84	0.0055040	0.0000000	-0.0002668	-0.0036670	
Arsenic__	189.04	-0.0029900	0.0000000	0.0000000	0.0000000	
Barium___	493.41	0.0000000	0.0000000	0.0000000	0.0000000	
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0011400	
Cadmium__	226.50	0.0000000	0.0000000	-0.0000329	0.0000000	
Calcium__	317.93	0.0000000	0.0000000	0.0000000	0.0000000	
Chromium_	267.72	0.0000000	0.0000704	0.0000000	-0.0000540	
Cobalt___	228.62	0.0000000	0.0000000	0.0000000	0.0000000	
Copper___	324.75	0.0000000	0.0000000	0.0000000	0.0000000	
Iron_____	271.44	0.0000000	0.0000000	0.0000000	0.0000000	
Lead_____	220.35	-0.0001864	0.0000279	0.0002131	-0.0006255	
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	
Mercury__						
Nickel___	231.60	0.0000000	-0.0001310	0.0000000	0.0000000	
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	
Selenium_	196.03	0.0000000	0.0002108	0.0000000	0.0000188	
Silver___	328.07	0.0000000	0.0000000	0.0000000	0.0000000	
Sodium___	330.23	0.0000000	0.0000000	0.0000000	0.0000000	
Thallium_	190.86	0.0003750	-0.0005820	0.0000000	0.0036030	
Vanadium_	292.40	0.0000000	0.0000000	0.0000000	0.0000000	
Zinc_____	213.86	0.0000000	0.0000000	0.0000000	0.0000000	

Comments:

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12
ICP LINEAR RANGES (QUARTERLY)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59240_

ICP ID Number: ICP4 TJA 61E Date: 07/01/96

Analyte	Integ. Time (sec.)	Concentration (ug/L)	M
Aluminum_	10.00	1000000.0	P
Antimony_	10.00	100000.0	P
Arsenic__	10.00	10000.0	P
Barium___	10.00	10000.0	P
Beryllium	10.00	10000.0	P
Cadmium__	10.00	10000.0	P
Calcium__	10.00	500000.0	P
Chromium_	10.00	100000.0	P
Cobalt___	10.00	100000.0	P
Copper___	10.00	100000.0	P
Iron_____	10.00	1000000.0	P
Lead_____	10.00	100000.0	P
Magnesium	10.00	500000.0	P
Manganese	10.00	10000.0	P
Mercury__			NR
Nickel___	10.00	50000.0	P
Potassium	10.00	100000.0	P
Selenium_	10.00	10000.0	P
Silver___	10.00	2000.0	P
Sodium___	10.00	100000.0	P
Thallium_	10.00	10000.0	P
Vanadium_	10.00	100000.0	P
Zinc_____	10.00	10000.0	P

Comments:

U.S. EPA - CLP

13
PREPARATION LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.:_OBASH_ SAS No.: _____ SDG No.:59240_

Method: P_

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
LCSW	07/03/96		100
OB029	07/03/96		100
PBW	07/03/96		100

U.S. EPA - CLP

13
PREPARATION LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.:_OBASH_ SAS No.: _____ SDG No.:59240_

Method: CV

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
LCSW	07/18/96		100
OB029	07/18/96		100
PBW	07/18/96		100

U.S. EPA - CLP

13
PREPARATION LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.:_OBASH_ SAS No.: _____ SDG No.:59240_

Method: AS

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
ICV	06/27/96		250
OB029	06/27/96		250
PBW	06/27/96		250

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ANALYSIS RUN LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:59240_

Instrument ID Number: ICP4 TJA 61E_ Method: P_

Start Date: 07/09/96 End Date: 07/09/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	0846		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
S	1.00	0850		_	_	_	X	X	X	_	X	X	X	_	_	_	X	_	X	_	_	X	_	_	X	X	_
S	1.00	0854		X	_	_	_	_	_	X	_	_	_	X	_	X	_	_	_	X	_	_	X	_	_	_	_
S	1.00	0859		_	X	X	_	_	_	_	_	_	_	_	X	_	_	_	_	_	X	_	_	X	_	_	_
ICV	1.00	0906		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ICB	1.00	0911		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ICSA	1.00	0915		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ICSAB	1.00	0920		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CRI	1.00	0925		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCV	1.00	0929		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCB	1.00	0934		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ZZZZZZ	1.00	0939		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	0943		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	0948		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	5.00	0952		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	0957		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1001		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1006		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1010		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1015		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1019		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
CCV	1.00	1024		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCB	1.00	1028		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
PBW	1.00	1033		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
LCSW	1.00	1037		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
OB029	1.00	1042		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
OB029L	5.00	1046		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ZZZZZZ	1.00	1051		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1055		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1100		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	5.00	1104		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1109		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

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14
ANALYSIS RUN LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:59240_

Instrument ID Number: ICP4 TJA 61E_ Method: P_

Start Date: 07/09/96 End Date: 07/09/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	1113		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCV	1.00	1118		X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	-
CCB	1.00	1123		X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	-
ZZZZZZ	1.00	1127		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1132		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1136		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1141		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1145		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1150		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1154		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1159		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1203		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1208		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCV	1.00	1212		X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	-
CCB	1.00	1217		X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	-
ZZZZZZ	1.00	1221		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1226		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1230		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ICSA	1.00	1235		X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	-
ICSAB	1.00	1240		X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	-
CRI	1.00	1244		X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	-
CCV	1.00	1249		X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	-
CCB	1.00	1253		X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

U.S. EPA - CLP

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ANALYSIS RUN LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:59240_

Instrument ID Number: HG2 PS200____ Method: CV

Start Date: 07/19/96 End Date: 07/19/96

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1427																X									
S0.2	1.00	1429																X									
S0.5	1.00	1430																X									
S1	1.00	1432																X									
S3	1.00	1434																X									
S5	1.00	1436																X									
ICV	1.00	1438																X									
ICB	1.00	1440																X									
CRA	1.00	1441																X									
CCV	1.00	1443																X									
CCB	1.00	1445																X									
PBW	1.00	1447																X									
LCSW	1.00	1449																X									
OB029	1.00	1450																X									
ZZZZZZ	1.00	1452																									
ZZZZZZ	1.00	1454																									
ZZZZZZ	1.00	1456																									
ZZZZZZ	1.00	1458																									
ZZZZZZ	1.00	1500																									
ZZZZZZ	1.00	1501																									
CCV	1.00	1503																X									
CCB	1.00	1505																X									

U.S. EPA - CLP

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ANALYSIS RUN LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:59240_

Instrument ID Number: PS1214_____ Method: AS

Start Date: 07/01/96 End Date: 07/01/96

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1634																									X
S10	1.00	1636																									X
S50	1.00	1638																									X
S100	1.00	1640																									X
S200	1.00	1642																									X
S300	1.00	1644																									X
ICV	1.00	1647																									X
ICB	1.00	1649																									X
CCV	1.00	1651																									X
CCB	1.00	1653																									X
ZZZZZZ	1.00	1655																									
PBW	1.00	1657																									X
ZZZZZZ	1.00	1700																									
OB029	1.00	1702																									X
ZZZZZZ	1.00	1704																									
ZZZZZZ	1.00	1706																									
ZZZZZZ	1.00	1708																									
ZZZZZZ	1.00	1710																									
ZZZZZZ	1.00	1713																									
ZZZZZZ	1.00	1715																									
CCV	1.00	1717																									X
CCB	1.00	1719																									X

2. Sample Delivery Group No. 59328

SAMPLE DATA SUMMARY PACKAGE

LAB CODE: INCHVT

CONTRACT NO.: 93206

CASE NO.: 0BA5H

SDG NO.: 59328

Inchcape Testing Services

Inchcape Testing Services
Environmental Laboratories

55 South Park Drive
Colchester, VT 05446
Tel. 802-655-1203
Fax. 802-655-1248

July 26, 1996

Mr. Mike Duchesneau
Parsons Engineering Science
101 Huntington Avenue
Prudential Center
Boston, MA 02199

Re: Project Name: OB/ASH Quarterly Monitoring
ITS Project No. 93206
Case No. OBASH, SDG No. 59328

Dear Mr. Duchesneau:

Enclosed are the analytical results for water samples received intact by Inchcape Testing Services Environmental Laboratories on June 26, 1996. Laboratory numbers and quality control samples were assigned as follows:

Lab ID	Client Sample ID	Date Sampled	Sample Matrix
	Samples Received on June 26, 1996 ETR No. 59328		
305081	OB030	06/24/96	Water
305082	OB031	06/24/96	Water
305083	OB032	06/24/96	Water
	Samples Received on June 27, 1996 ETR No. 59378		
305223	OB009	06/25/96	Water
305223MS	OB009MS	06/25/96	Water
305223DP	OB009REP	06/25/96	Water
305224	OB010	06/25/96	Water
305225	OB011	06/25/96	Water
305226	OB012	06/25/96	Water
305227	OB033	06/25/96	Water
305228	OB034	06/25/96	Water
305229	OB005	06/25/96	Water
305230	OB006	06/25/96	Water
305231	OB007	06/25/96	Water
305232	OB008	06/25/96	Water
305233	OB013	06/25/96	Water
305234	OB014	06/25/96	Water
305235	OB015	06/25/96	Water
305236	OB016	06/25/96	Water
305237	OB001	06/25/96	Water
305238	OB002	06/25/96	Water
305239	OB003	06/25/96	Water

I certify that this 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 hardcopy package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

If there are any questions regarding this submittal, please contact Pauline Malik at (802) 655-1203.

Sincerely,

Karen R. Chirgwin

Karen R. Chirgwin
Laboratory Operations Director

Enclosure

93206B15JUL96

Inchcape Testing Services
Environmental Laboratories

55 South Park Drive
Colchester, VT 05446

75 Green Mountain Drive
South Burlington, VT 05405

Analytical Report

Parsons Engineering Science
Prudential Center
Boston, MA 02199

Attention : Mike Duchesneau

Date : 07/25/96
ETR Number : 59378
Project No.: 93206
No. Samples: 19
Arrived : 06/27/96
P.O. Number: *

Case:OBASH SDG:59328

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater.
All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/ Parameter		Result
305223	OB009:06/25/96 @1830(Water)		
	9050	Conductivity (umhos/cm)	1100
	9020	Total Organic Halides	<0.02
	9040	pH (std. units)	7.10
	9060	Total Organic Carbon	1.7
305223MS	OB009MS:[MS]06/25/96 @1830(Water)		
	9020	Total Organic Halides	0.10
	9060	Total Organic Carbon	7.2
305223DP	OB009REP:[REP]06/25/96 @1830(Water)		
	9020	Total Organic Halides	<0.02
	9060	Total Organic Carbon	1.7
305224	OB010:06/25/96 @1830(Water)		
	9050	Conductivity (umhos/cm)	1010
	9020	Total Organic Halides	<0.02
	9040	pH (std. units)	7.10
	9060	Total Organic Carbon	1.7
305225	OB011:06/25/96 @1830(Water)		
	9050	Conductivity (umhos/cm)	1080
	9020	Total Organic Halides	<0.02
	9040	pH (std. units)	7.11
	9060	Total Organic Carbon	1.5
305226	OB012:06/25/96 @1830(Water)		
	9050	Conductivity (umhos/cm)	1090
	9020	Total Organic Halides	<0.02
	9040	pH (std. units)	7.10

< Cont. Next Page >

Inchcape Testing Services
Environmental Laboratories

55 South Park Drive
Colchester, VT 05446

75 Green Mountain Drive
South Burlington, VT 05403

Analytical Report

Parsons Engineering Science
Prudential Center
Boston, MA 02199

Attention : Mike Duchesneau

Date : 07/25/96
ETR Number : 59378
Project No.: 93206
No. Samples: 19
Arrived : 06/27/96
P.O. Number: *

Case:OBASH SDG:59328

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater.
All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/ Parameter	Result
305226	OB012:06/25/96 @1830(Water)	
9060	Total Organic Carbon	1.5
305228	OB034:06/25/96 @1700(Water)	
9050	Conductivity (umhos/cm)	3.5
9020	Total Organic Halides	<0.02
9040	pH (std. units)	6.54
9060	Total Organic Carbon	<0.5
305229	OB005:06/25/96 @1220(Water)	
9050	Conductivity (umhos/cm)	939
9020	Total Organic Halides	<0.02
9040	pH (std. units)	6.93
9060	Total Organic Carbon	1.7
305230	OB006:06/25/96 @1220(Water)	
9050	Conductivity (umhos/cm)	944
9020	Total Organic Halides	<0.02
9040	pH (std. units)	6.96
9060	Total Organic Carbon	1.7
305231	OB007:06/25/96 @1220(Water)	
9050	Conductivity (umhos/cm)	936
9020	Total Organic Halides	<0.02
9040	pH (std. units)	6.95
9060	Total Organic Carbon	1.7
305232	OB008:06/25/96 @1220(Water)	
9050	Conductivity (umhos/cm)	951
9020	Total Organic Halides	<0.02

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Inchcape Testing Services
Environmental Laboratories

55 South Park Drive
Colchester, VT 05446

75 Green Mountain Drive
South Burlington, VT 05403

Analytical Report

Parsons Engineering Science
Prudential Center
Boston, MA 02199

Attention : Mike Duchesneau

Date : 07/25/96
ETR Number : 59378
Project No.: 93206
No. Samples: 19
Arrived : 06/27/96
P.O. Number: *

Case:OBASH SDG:59328

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater. All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/ Parameter	Result
305232	OB008:06/25/96 @1220(Water)	
9040	pH (std. units)	6.95
9060	Total Organic Carbon	1.7
305233	OB013:06/25/96 @1330(Water)	
9050	Conductivity (umhos/cm)	869
9020	Total Organic Halides	<0.02
9040	pH (std. units)	7.28
9060	Total Organic Carbon	1.2
305234	OB014:06/25/96 @1330(Water)	
9050	Conductivity (umhos/cm)	877
9020	Total Organic Halides	<0.02
9040	pH (std. units)	7.28
9060	Total Organic Carbon	1.3
305235	OB015:06/25/96 @1330(Water)	
9050	Conductivity (umhos/cm)	877
9020	Total Organic Halides	<0.02
9040	pH (std. units)	7.26
9060	Total Organic Carbon	1.3
305236	OB016:06/25/96 @1330(Water)	
9050	Conductivity (umhos/cm)	883
9020	Total Organic Halides	<0.02
9040	pH (std. units)	7.28
9060	Total Organic Carbon	1.3

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Inchcape Testing Services
Environmental Laboratories

55 South Park Drive
Colchester, VT 05446

75 Green Mountain Drive
South Burlington, VT 05403

Analytical Report

Parsons Engineering Science
Prudential Center
Boston, MA 02199

Attention : Mike Duchesneau

Date : 07/25/96
ETR Number : 59378
Project No.: 93206
No. Samples: 19
Arrived : 06/27/96
P.O. Number: *

Case:OBASH SDG:59328

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater.
All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/ Parameter		Result
305237	OB001:06/25/96 @1445(Water)		
	9050	Conductivity (umhos/cm)	875
	9020	Total Organic Halides	<0.02
	9040	pH (std. units)	7.33
	9060	Total Organic Carbon	1.4
305238	OB002:06/25/96 @1445(Water)		
	9050	Conductivity (umhos/cm)	883
	9020	Total Organic Halides	<0.02
	9040	pH (std. units)	7.36
	9060	Total Organic Carbon	1.4
305239	OB003:06/25/96 @1445(Water)		
	9050	Conductivity (umhos/cm)	883
	9020	Total Organic Halides	<0.02
	9040	pH (std. units)	7.32
	9060	Total Organic Carbon	1.3

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Submitted By : R. Mason McKee

Aquatec Inc.

Inchcape Testing Services
Environmental Laboratories

55 South Park Drive
Colchester, VT 05446

75 Green Mountain Drive
South Burlington, VT 05403

Analytical Report

Parsons Engineering Science
Prudential Center
Boston, MA 02199

Attention : Mike Duchesneau

Date : 07/25/96
ETR Number : 59328
Project No.: 93206
No. Samples: 3
Arrived : 06/26/96
P.O. Number: *

Page 1

Case:OBASH SDG:59328

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater.
All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/ Parameter	Result
305081	OB030:06/24/96 @1545(Water)	
9050	Conductivity (umhos/cm)	793
9020	Total Organic Halides	<0.02
9040	pH (std. units)	7.22
9060	Total Organic Carbon	0.9
305082	OB031:06/24/96 @1545(Water)	
9050	Conductivity (umhos/cm)	793
9020	Total Organic Halides	<0.02
9040	pH (std. units)	7.21
9060	Total Organic Carbon	0.9
305083	OB032:06/24/96 @1545(Water)	
9050	Conductivity (umhos/cm)	793
9020	Total Organic Halides	<0.02
9040	pH (std. units)	7.21
9060	Total Organic Carbon	0.8

< Last Page > Submitted By : Aquatec Inc.

Quality Control Summary

Project No: 93206
SDG No: 59328
Units: mg/L

Parameter	Date Analyzed	Method Preparation Blank	Laboratory Control Sample		
			Reported Value	True Value	Percent Recovery
Conductivity (umhos/cm)	6/26/96	NA	1412	1413	99.9
pH (Std Units)	6/26/96	NA	6.02	6.00	100.3
Total Organic Carbon	7/22/96	< 0.5	45.9	49.2	93.3

Quality Control Summary

Project No: 93206
SDG No: 59328
Units: mg/L

Parameter	Date Analyzed	Method Preparation Blank	Laboratory Control Sample		
			Reported Value	True Value	Percent Recovery
Conductivity (umhos/cm)	6/27/96	NA	1369	1413	96.9
pH (Std Units)	6/27/96	NA	6.03	6	100.5
Total Organic Carbon	7/17/96	< 0.5	53	49.2	107.7
Total Organic Halides	7/2/96	< 0.02	0.103	0.1	103.0

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COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH SAS No.: _____ SDG No.:59328_

SOW No.: ILM02.1

EPA Sample No.	Lab Sample ID
_OB001_____	_305237_____
_OB005_____	_305229_____
_OB009_____	_305223_____
_OB009D_____	_305223DP_____
_OB009S_____	_305223MS_____
_OB013_____	_305233_____
_OB033_____	_305227_____
_OB034_____	_305228_____

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES
If yes - were raw data generated before application of background corrections ? Yes/No NO_

Comments:

I certify that this 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 hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: _____

Date: _____ Title: _____

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

OB001

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59328_

Matrix (soil/water): WATER Lab Sample ID: 305237

Level (low/med): LOW__ Date Received: 06/27/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	200			P
7440-36-0	Antimony_	2.0	U		P
7440-38-2	Arsenic__	2.7	U		P
7440-39-3	Barium___	97.6	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium__	0.30	U		P
7440-70-2	Calcium__	76200			P
7440-47-3	Chromium_	1.0	U		P
7440-48-4	Cobalt___	1.2	U		P
7440-50-8	Copper___	2.0	B		P
7439-89-6	Iron_____	236			P
7439-92-1	Lead_____	1.7	U		P
7439-95-4	Magnesium	57400			P
7439-96-5	Manganese	1.4	B		P
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	2.0	B		P
7440-09-7	Potassium	9400			P
7782-49-2	Selenium_	2.4	U		P
7440-22-4	Silver___	1.3	U		P
7440-23-5	Sodium___	16200			P
7440-28-0	Thallium_	4.2	U		P
7440-62-2	Vanadium_	1.2	U		P
7440-66-6	Zinc_____	5.1	B		P
	Cyanide__	5.0	U		AS

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

OB005

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59328_

Matrix (soil/water): WATER Lab Sample ID: 305229

Level (low/med): LOW__ Date Received: 06/27/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	63.8	B		P_
7440-36-0	Antimony_	2.0	U		P_
7440-38-2	Arsenic__	2.7	U		P_
7440-39-3	Barium___	82.8	B		P_
7440-41-7	Beryllium	0.10	U		P_
7440-43-9	Cadmium__	0.30	U		P_
7440-70-2	Calcium__	138000			P_
7440-47-3	Chromium_	1.0	U		P_
7440-48-4	Cobalt___	1.2	U		P_
7440-50-8	Copper___	1.2	U		P_
7439-89-6	Iron____	116			P_
7439-92-1	Lead____	1.7	U		P_
7439-95-4	Magnesium	26500			P_
7439-96-5	Manganese	5.1	B		P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	1.6	U		P_
7440-09-7	Potassium	1590	B		P_
7782-49-2	Selenium_	2.4	U		P_
7440-22-4	Silver___	1.3	U		P_
7440-23-5	Sodium___	14000			P_
7440-28-0	Thallium_	4.2	U		P_
7440-62-2	Vanadium_	1.2	U		P_
7440-66-6	Zinc____	10.1	B		P_
	Cyanide__	5.4			AS

Color Before: WHITE____ Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

OB009

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59328_

Matrix (soil/water): WATER Lab Sample ID: 305223

Level (low/med): LOW__ Date Received: 06/27/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	97.1	B		P_
7440-36-0	Antimony_	2.0	U		P_
7440-38-2	Arsenic__	2.7	U		P_
7440-39-3	Barium___	47.8	B		P_
7440-41-7	Beryllium	0.10	U		P_
7440-43-9	Cadmium__	0.30	U		P_
7440-70-2	Calcium__	152000			P_
7440-47-3	Chromium_	1.0	U		P_
7440-48-4	Cobalt___	1.2	U		P_
7440-50-8	Copper___	1.2	U		P_
7439-89-6	Iron_____	83.0	B		P_
7439-92-1	Lead_____	1.7	U		P_
7439-95-4	Magnesium	30000			P_
7439-96-5	Manganese	1.1	B		P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	1.6	U		P_
7440-09-7	Potassium	1520	B		P_
7782-49-2	Selenium_	2.4	U		P_
7440-22-4	Silver___	1.3	U		P_
7440-23-5	Sodium___	26500			P_
7440-28-0	Thallium_	4.2	U		P_
7440-62-2	Vanadium_	1.2	U		P_
7440-66-6	Zinc_____	8.0	B		P_
	Cyanide__	5.0	U		AS

Color Before: WHITE____ Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

OB013

ab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

ab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59328_

atrix (soil/water): WATER Lab Sample ID: 305233

evel (low/med): LOW__ Date Received: 06/27/96

Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	10.3	U		P_
7440-36-0	Antimony_	2.0	U		P_
7440-38-2	Arsenic__	2.7	U		P_
7440-39-3	Barium___	86.5	B		P_
7440-41-7	Beryllium	0.10	U		P_
7440-43-9	Cadmium__	0.30	U		P_
7440-70-2	Calcium__	84700			P_
7440-47-3	Chromium_	1.0	U		P_
7440-48-4	Cobalt___	1.2	U		P_
7440-50-8	Copper___	1.2	U		P_
7439-89-6	Iron_____	23.4	U		P_
7439-92-1	Lead_____	1.7	U		P_
7439-95-4	Magnesium	51900			P_
7439-96-5	Manganese	76.9			P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	2.6	B		P_
7440-09-7	Potassium	8020			P_
7782-49-2	Selenium_	2.4	U		P_
7440-22-4	Silver___	1.3	U		P_
7440-23-5	Sodium___	13900			P_
7440-28-0	Thallium_	4.2	U		P_
7440-62-2	Vanadium_	1.2	U		P_
7440-66-6	Zinc_____	5.4	B		P_
_____	Cyanide__	5.0	U		AS

olor Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

olor After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

omments:

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

OB033

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59328_

Matrix (soil/water): WATER Lab Sample ID: 305227

Level (low/med): LOW__ Date Received: 06/27/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	81.5	B		P_
7440-36-0	Antimony_	2.0	U		P_
7440-38-2	Arsenic__	2.7	U		P_
7440-39-3	Barium___	48.3	B		P_
7440-41-7	Beryllium	0.10	U		P_
7440-43-9	Cadmium__	0.30	U		P_
7440-70-2	Calcium__	156000			P_
7440-47-3	Chromium_	1.0	U		P_
7440-48-4	Cobalt___	1.2	U		P_
7440-50-8	Copper___	1.2	U		P_
7439-89-6	Iron_____	61.4	B		P_
7439-92-1	Lead_____	1.7	U		P_
7439-95-4	Magnesium	30500			P_
7439-96-5	Manganese	0.73	B		P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	1.6	U		P_
7440-09-7	Potassium	1520	B		P_
7782-49-2	Selenium_	2.4	U		P_
7440-22-4	Silver___	1.3	U		P_
7440-23-5	Sodium___	27000			P_
7440-28-0	Thallium_	4.2	U		P_
7440-62-2	Vanadium_	1.2	U		P_
7440-66-6	Zinc_____	8.8	B		P_
	Cyanide__	5.0	U		AS

Color Before: WHITE____ Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

OB034

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59328_

Matrix (soil/water): WATER Lab Sample ID: 305228

Level (low/med): LOW__ Date Received: 06/27/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	10.3	U		P_
7440-36-0	Antimony_	2.0	U		P_
7440-38-2	Arsenic__	2.7	U		P_
7440-39-3	Barium___	2.5	U		P_
7440-41-7	Beryllium	0.10	U		P_
7440-43-9	Cadmium__	0.30	U		P_
7440-70-2	Calcium__	65.9	U		P_
7440-47-3	Chromium_	1.0	U		P_
7440-48-4	Cobalt___	1.2	U		P_
7440-50-8	Copper___	1.2	U		P_
7439-89-6	Iron_____	23.4	U		P_
7439-92-1	Lead_____	1.7	U		P_
7439-95-4	Magnesium	64.5	U		P_
7439-96-5	Manganese	0.68	B		P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	1.6	U		P_
7440-09-7	Potassium	90.3	U		P_
7782-49-2	Selenium_	2.4	U		P_
7440-22-4	Silver___	1.3	U		P_
7440-23-5	Sodium___	268	U		P_
7440-28-0	Thallium_	4.2	U		P_
7440-62-2	Vanadium_	1.2	U		P_
7440-66-6	Zinc_____	0.58	B		P_
_____	Cyanide__	5.0	U		AS

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59328_

Initial Calibration Source: VENTURES____

Continuing Calibration Source: SPEX_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum	26000.0	24460.00	94.1	30200.0	28450.00	94.2	28420.00	94.1	P
Antimony	250.0	255.10	102.0	300.0	299.10	99.7	297.50	99.2	P
Arsenic	250.0	251.90	100.8	100.0	97.57	97.6	98.35	98.4	P
Barium	500.0	502.50	100.5	200.0	198.80	99.4	198.40	99.2	P
Beryllium	500.0	511.80	102.4	100.0	98.58	98.6	98.38	98.4	P
Cadmium	500.0	497.60	99.5	100.0	97.86	97.9	96.68	96.7	P
Calcium	25000.0	23710.00	94.8	30200.0	28540.00	94.5	28350.00	93.9	P
Chromium	500.0	506.30	101.3	200.0	197.20	98.6	196.50	98.2	P
Cobalt	500.0	498.20	99.6	200.0	196.50	98.2	195.00	97.5	P
Copper	500.0	517.20	103.4	200.0	198.50	99.2	199.70	99.8	P
Iron	25500.0	24260.00	95.1	30200.0	28690.00	95.0	28730.00	95.1	P
Lead	1000.0	1031.00	103.1	400.0	403.20	100.8	402.10	100.5	P
Magnesium	25000.0	23480.00	93.9	30200.0	28410.00	94.1	28360.00	93.9	P
Manganese	500.0	503.60	100.7	200.0	195.90	98.0	194.90	97.4	P
Mercury	1.8	1.78	98.9	3.0	3.17	105.7	3.21	107.0	CV
Nickel	500.0	494.40	98.9	200.0	194.20	97.1	196.00	98.0	P
Potassium	25000.0	24160.00	96.6	30200.0	29470.00	97.6	29320.00	97.1	P
Selenium	250.0	252.10	100.8	100.0	100.20	100.2	98.49	98.5	P
Silver	500.0	507.90	101.6	100.0	99.04	99.0	98.58	98.6	P
Sodium	25000.0	22940.00	91.8	30200.0	28020.00	92.8	27880.00	92.3	P
Thallium	250.0	239.10	95.6	100.0	99.74	99.7	96.76	96.8	P
Vanadium	500.0	514.60	102.9	200.0	197.60	98.8	196.30	98.2	P
Zinc	500.0	510.50	102.1	200.0	200.00	100.0	199.10	99.6	P
Cyanide	120.0	122.50	102.1	150.0	141.00	94.0	137.00	91.3	AS

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59328_

Initial Calibration Source: VENTURES____

Continuing Calibration Source: SPEX_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum				30200.0	28390.00	94.0	28480.00	94.3	P
Antimony				300.0	297.40	99.1	300.30	100.1	P
Arsenic				100.0	98.32	98.3	99.53	99.5	P
Barium				200.0	198.40	99.2	199.00	99.5	P
Beryllium				100.0	98.38	98.4	99.50	99.5	P
Cadmium				100.0	97.19	97.2	97.65	97.6	P
Calcium				30200.0	28560.00	94.6	28650.00	94.9	P
Chromium				200.0	196.90	98.4	198.60	99.3	P
Cobalt				200.0	196.20	98.1	196.90	98.4	P
Copper				200.0	198.90	99.4	200.30	100.2	P
Iron				30200.0	28720.00	95.1	28980.00	96.0	P
Lead				400.0	403.50	100.9	406.20	101.6	P
Magnesium				30200.0	28390.00	94.0	28660.00	94.9	P
Manganese				200.0	195.20	97.6	196.50	98.2	P
Mercury				3.0	3.21	107.0			CV
Nickel				200.0	195.10	97.6	197.50	98.8	P
Potassium				30200.0	29290.00	97.0	29260.00	96.9	P
Selenium				100.0	99.56	99.6	99.98	100.0	P
Silver				100.0	98.96	99.0	99.50	99.5	P
Sodium				30200.0	27770.00	92.0	27770.00	92.0	P
Thallium				100.0	96.70	96.7	97.46	97.5	P
Vanadium				200.0	196.60	98.3	198.70	99.4	P
Zinc				200.0	199.50	99.8	201.30	100.6	P
Cyanide				150.0	130.00	86.7	143.00	95.3	AS

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59328_

Initial Calibration Source: VENTURES____

Continuing Calibration Source: SPEX_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum				30200.0	28650.00	94.9			P
Antimony				300.0	300.60	100.2			P
Arsenic				100.0	97.93	97.9			P
Barium				200.0	199.30	99.6			P
Beryllium				100.0	99.32	99.3			P
Cadmium				100.0	97.96	98.0			P
Calcium				30200.0	28840.00	95.5			P
Chromium				200.0	197.90	99.0			P
Cobalt				200.0	197.10	98.6			P
Copper				200.0	200.20	100.1			P
Iron				30200.0	28990.00	96.0			P
Lead				400.0	407.00	101.8			P
Magnesium				30200.0	28640.00	94.8			P
Manganese				200.0	196.80	98.4			P
Mercury									NR
Nickel				200.0	198.20	99.1			P
Potassium				30200.0	29360.00	97.2			P
Selenium				100.0	101.70	101.7			P
Silver				100.0	99.20	99.2			P
Sodium				30200.0	27930.00	92.5			P
Thallium				100.0	99.27	99.3			P
Vanadium				200.0	198.20	99.1			P
Zinc				200.0	201.30	100.6			P
Cyanide	120.0	131.00	109.2	150.0	147.00	98.0	150.00	100.0	AS

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59328_

AA CRDL Standard Source: VENTURES____

ICP CRDL Standard Source: VENTURES____

Concentration Units: ug/L

Analyte	CRDL Standard for AA True	Found	%R	CRDL Standard for ICP True	Initial Found	%R	Final Found	%R
Aluminum_				400.0	417.20	104.3	410.50	102.6
Antimony_				120.0	121.80	101.5	121.10	100.9
Arsenic__				20.0	18.18	90.9	17.29	86.4
Barium___				400.0	404.80	101.2	402.00	100.5
Beryllium				10.0	9.78	97.8	9.79	97.9
Cadmium__				10.0	10.05	100.5	9.87	98.7
Calcium__				10000.0	9919.00	99.2	9925.00	99.2
Chromium_				20.0	19.03	95.2	18.72	93.6
Cobalt___				100.0	96.71	96.7	95.59	95.6
Copper___				50.0	49.78	99.6	49.10	98.2
Iron_____				200.0	202.70	101.4	198.90	99.4
Lead_____				6.0	5.83	97.2	7.60	126.7
Magnesium				10000.0	9654.00	96.5	9635.00	96.4
Manganese				30.0	29.57	98.6	29.34	97.8
Mercury__	0.2	0.21	105.0					
Nickel___				80.0	77.13	96.4	76.68	95.8
Potassium				10000.0	10310.00	103.1	10190.00	101.9
Selenium_				10.0	9.55	95.5	9.88	98.8
Silver___				20.0	19.39	97.0	18.98	94.9
Sodium___				10000.0	9217.00	92.2	9304.00	93.0
Thallium_				20.0	17.69	88.4	17.49	87.4
Vanadium_				100.0	100.20	100.2	99.91	99.9
Zinc_____				40.0	39.97	99.9	39.91	99.8

3
BLANKS

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59328_

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L_

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	10.3	U	10.3	U	10.3	U	10.3	U	-11.080	B	P
Antimony	-2.9	B	-4.3	B	2.0	U	2.0	U	-2.780	B	P
Arsenic	2.7	U	2.7	U	2.7	U	-3.2	B	2.700	U	P
Barium	2.5	U	2.5	U	2.5	U	2.5	U	2.500	U	P
Beryllium	0.1	U	0.1	U	0.1	U	0.1	U	0.100	U	P
Cadmium	0.3	U	0.3	U	0.3	U	0.3	U	0.300	U	P
Calcium	65.9	U	65.9	U	65.9	U	65.9	U	65.900	U	P
Chromium	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Cobalt	1.2	U	1.2	U	1.2	U	1.2	U	1.200	U	P
Copper	1.2	U	1.2	U	1.2	U	1.2	U	1.200	U	P
Iron	23.4	U	23.4	U	23.4	U	23.4	U	23.400	U	P
Lead	1.7	U	1.7	U	1.7	U	1.7	U	1.700	U	P
Magnesium	64.5	U	64.5	U	64.5	U	64.5	U	64.500	U	P
Manganese	0.3	U	0.3	U	0.3	U	0.3	U	0.300	U	P
Mercury	0.1	U	0.1	U	0.1	U	0.1	U	0.100	U	CV
Nickel	1.6	U	1.6	U	1.6	U	1.6	U	1.600	U	P
Potassium	90.3	U	90.3	U	90.3	U	90.3	U	90.300	U	P
Selenium	2.4	U	2.5	B	2.4	U	2.4	U	2.400	U	P
Silver	1.3	U	1.3	U	1.3	U	1.3	U	1.300	U	P
Sodium	267.8	U	267.8	U	267.8	U	267.8	U	267.800	U	P
Thallium	4.2	U	4.2	U	4.2	U	4.2	U	4.200	U	P
Vanadium	1.2	U	1.2	U	1.2	U	1.2	U	1.200	U	P
Zinc	0.5	U	0.5	U	0.5	U	0.5	U	0.632	B	P
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	5.000	U	AS

3
BLANKS

ab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

ab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59328_

reparation Blank Matrix (soil/water): WATER

reparation Blank Concentration Units (ug/L or mg/kg): UG/L_

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			10.3	U	10.3	U					P
Antimony			-2.5	B	-2.5	B					P
Arsenic			2.7	U	2.7	U					P
Barium			2.5	U	2.5	U					P
Beryllium			0.1	U	0.1	U					P
Cadmium			0.3	U	0.3	U					P
Calcium			65.9	U	65.9	U					P
Chromium			1.0	U	1.0	U					P
Cobalt			1.2	U	1.2	U					P
Copper			1.2	U	1.2	U					P
Iron			23.4	U	23.4	U					P
Lead			1.7	U	1.7	U					P
Magnesium			64.5	U	64.5	U					P
Manganese			0.3	U	0.3	U					P
Mercury											NR
Nickel			1.6	U	1.6	U					P
Potassium			90.3	U	90.3	U					P
Selenium			2.4	U	2.4	U					P
Silver			1.3	U	1.3	U					P
Sodium			267.8	U	267.8	U					P
Thallium			4.2	U	4.2	U					P
Vanadium			1.2	U	1.2	U					P
Zinc			0.5	U	0.5	U					P
Cyanide			10.0	U					5.000	U	AS

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3
BLANKS

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59328_

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide	10.0	U	10.0	U	10.0	U					AS

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No: _____ SDG No.: 59328_

ICP ID Number: ICP4 TJA 61E ICS Source: VENTURES____

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	%R	Final Found Sol. A	Final Found Sol. AB	%R
Aluminum	500000	491371	465100	464100.0	94.5	467900	468800.0	95.4
Antimony	0	612	-3	620.3	101.4	-1	623.1	101.8
Arsenic	0	104	-1	103.9	99.9	1	104.8	100.8
Barium	0	515	1	505.3	98.1	1	508.3	98.7
Beryllium	0	500	0	487.3	97.5	0	492.4	98.5
Cadmium	0	967	3	950.3	98.3	3	953.6	98.6
Calcium	500000	542514	491500	503500.0	92.8	497800	510400.0	94.1
Chromium	0	501	3	488.3	97.5	4	492.1	98.2
Cobalt	0	484	0	474.6	98.1	0	477.8	98.7
Copper	0	544	2	530.1	97.4	2	535.5	98.4
Iron	200000	194186	175700	182800.0	94.1	177500	185000.0	95.3
Lead	0	48	-1	48.5	101.0	2	51.9	108.1
Magnesium	500000	529600	497500	497700.0	94.0	501800	502600.0	94.9
Manganese	0	498	2	488.0	98.0	2	491.5	98.7
Mercury								
Nickel	0	973	1	939.7	96.6	1	954.4	98.1
Potassium	0	0	-13	-15.0		4	-17.5	
Selenium	0	53	-3	47.6	89.8	-1	49.7	93.8
Silver	0	200	4	205.7	102.8	5	207.4	103.7
Sodium	0	0	98	-21.8		166	13.0	
Thallium	0	98	-1	93.6	95.5	4	99.0	101.0
Vanadium	0	510	3	498.4	97.7	3	503.2	98.7
Zinc	0	1044	17	1020.0	97.7	17	1029.0	98.6

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5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

OB009S

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59328_

Matrix (soil/water): WATER_ Level (low/med): LOW___

% Solids for Sample: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	2084.0000		97.0700	B	2000.00	99.3		P
Antimony	75-125	524.4000		2.0000	U	500.00	104.9		P
Arsenic	75-125	41.9300		2.7000	U	40.00	104.8		P
Barium	75-125	2055.0000		47.7700	B	2000.00	100.4		P
Beryllium	75-125	51.6000		0.1000	U	50.00	103.2		P
Cadmium	75-125	50.1200		0.3000	U	50.00	100.2		P
Calcium									NR
Chromium	75-125	206.7000		1.0000	U	200.00	103.4		P
Cobalt	75-125	498.4000		1.2000	U	500.00	99.7		P
Copper	75-125	265.0000		1.2000	U	250.00	106.0		P
Iron	75-125	1109.0000		82.9900	B	1000.00	102.6		P
Lead	75-125	19.9300		1.7000	U	20.00	99.6		P
Magnesium									NR
Manganese	75-125	502.9000		1.0910	B	500.00	100.4		P
Mercury	75-125	1.0500		0.1000	U	1.00	105.0		CV
Nickel	75-125	500.7000		1.6000	U	500.00	100.1		P
Potassium									NR
Selenium	75-125	10.4400		2.4000	U	10.00	104.4		P
Silver	75-125	51.7700		1.3000	U	50.00	103.5		P
Sodium									NR
Thallium	75-125	51.3800		4.2000	U	50.00	102.8		P
Vanadium	75-125	510.2000		1.2000	U	500.00	102.0		P
Zinc	75-125	516.0000		8.0050	B	500.00	101.6		P
Cyanide	75-125	42.1500		5.0000	U	50.00	84.3		AS

Comments:

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

OB009A

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59328_

Matrix (soil/water) : WATER_ Level (low/med): LOW___

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
Aluminum		2028.00		97.07	B	2000.0	96.5		P
Antimony		509.90		2.00	U	500.0	102.0		P
Arsenic		40.88		2.70	U	40.0	102.2		P
Barium		1999.00		47.77	B	2000.0	97.6		P
Beryllium		49.67		0.10	U	50.0	99.3		P
Cadmium		48.53		0.30	U	50.0	97.1		P
Calcium									NR
Chromium		199.70		1.00	U	200.0	99.8		P
Cobalt		480.80		1.20	U	500.0	96.2		P
Copper		256.70		1.20	U	250.0	102.7		P
Iron		1068.00		82.99	B	1000.0	98.5		P
Lead		19.38		1.70	U	20.0	96.9		P
Magnesium									NR
Manganese		485.10		1.09	B	500.0	96.8		P
Mercury									NR
Nickel		483.00		1.60	U	500.0	96.6		P
Potassium									NR
Selenium		13.66		2.40	U	10.0	136.6		P
Silver									NR
Sodium									NR
Thallium		49.66		4.20	U	50.0	99.3		P
Vanadium		493.00		1.20	U	500.0	98.6		P
Zinc		497.00		8.00	B	500.0	97.8		P
Cyanide									NR

Comments:

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

OB009D

ab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

ab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59328_

atrix (soil/water): WATER Level (low/med): _LOW__

Solids for Sample: __0.0 % Solids for Duplicate: ___0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum_		97.0700	B	85.4900	B	12.7		P
Antimony_		2.0000	U	2.0000	U			P
Arsenic__		2.7000	U	2.7000	U			P
Barium___		47.7700	B	49.6200	B	3.8		P
Beryllium		0.1000	U	0.1000	U			P
Cadmium__		0.3000	U	0.3000	U			P
Calcium__		152500.0000		158900.0000		4.1		P
Chromium_		1.0000	U	1.0000	U			P
Cobalt___		1.2000	U	1.2000	U			P
Copper___		1.2000	U	1.2000	U			P
Iron____		82.9900	B	89.7000	B	7.8		P
Lead____		1.7000	U	1.7000	U			P
Magnesium		30010.0000		31240.0000		4.0		P
Manganese		1.0910	B	1.0390	B	4.9		P
Mercury__		0.1000	U	0.1000	U			CV
Nickel___		1.6000	U	1.6000	U			P
Potassium		1524.0000	B	1569.0000	B	2.9		P
Selenium_		2.4000	U	2.4000	U			P
Silver___		1.3000	U	1.3000	U			P
Sodium___		26510.0000		27700.0000		4.4		P
Thallium_		4.2000	U	4.2000	U			P
Vanadium_		1.2000	U	1.2000	U			P
Zinc____		8.0050	B	5.9190	B	30.0		P
Cyanide__		5.0000	U	5.0000	U			AS

7

LABORATORY CONTROL SAMPLE

ab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

ab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59328_

olid LCS Source: _____

queous LCS Source: VENTURES____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum_	51000.0	47230.00	92.6						
Antimony_	2000.0	2014.00	100.7						
Arsenic__	1050.0	1019.00	97.0						
Barium___	500.0	482.00	96.4						
Beryllium	500.0	492.10	98.4						
Cadmium__	525.0	501.30	95.5						
Calcium__	50000.0	47050.00	94.1						
Chromium_	500.0	488.00	97.6						
Cobalt___	500.0	478.00	95.6						
Copper___	500.0	498.50	99.7						
Iron____	50500.0	47750.00	94.6						
Lead____	1015.0	1006.00	99.1						
Magnesium	50000.0	46310.00	92.6						
Manganese	500.0	483.40	96.7						
Mercury__	1.0	1.06	106.0						
Nickel___	500.0	476.10	95.2						
Potassium	50000.0	46310.00	92.6						
Selenium_	25.0	25.43	101.7						
Silver___	500.0	487.20	97.4						
Sodium___	50000.0	46220.00	92.4						
Thallium_	50.0	47.51	95.0						
Vanadium_	500.0	492.40	98.5						
Zinc____	500.0	494.60	98.9						
Cyanide__									

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8
STANDARD ADDITION RESULTS

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract:93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.:_____ SDG No.:59328_

Concentration Units: ug/L

EPA Sample No.	An	0 ADD ABS	1 ADD CON	1 ADD ABS	2 ADD CON	2 ADD ABS	3 ADD CON	3 ADD ABS	Final Conc.	r	Q

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9

ICP SERIAL DILUTION

EPA SAMPLE NO.

OB009L

ab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

ab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59328_

atrix (soil/water): WATER Level (low/med): LOW__

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	97.07	B	100.20	B	3.2		P
Antimony	2.00	U	10.00	U			P
Arsenic	2.70	U	13.50	U			P
Barium	47.77	B	48.81	B	2.2		P
Beryllium	0.10	U	0.50	U			P
Cadmium	0.30	U	1.50	U			P
Calcium	152500.00		153500.00		0.7		P
Chromium	1.00	U	5.00	U			P
Cobalt	1.20	U	6.00	U			P
Copper	1.20	U	15.13	B			P
Iron	82.99	B	117.00	U	100.0		P
Lead	1.70	U	8.50	U			P
Magnesium	30010.00		30450.00		1.5		P
Manganese	1.09	B	3.49	B	220.2		P
Mercury							NR
Nickel	1.60	U	16.38	B			P
Potassium	1524.00	B	2247.00	B	47.4		P
Selenium	2.40	U	12.00	U			P
Silver	1.30	U	6.50	U			P
Sodium	26510.00		28230.00		6.5		P
Thallium	4.20	U	21.00	U			P
Vanadium	1.20	U	6.00	U			P
Zinc	8.00	B	44.40	B	455.0		P

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Instrument Detection Limits (Quarterly)

ab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

ab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59328_

CP ID Number: ICP4_TJA_61E Date: 07/01/96

lame AA ID Number : _____

rnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.22		200	10.3	P
Antimony	206.84		60	2.0	P
Arsenic	189.04		10	2.7	P
Barium	493.41		200	2.5	P
Beryllium	313.04		5	0.1	P
Cadmium	226.50		5	0.3	P
Calcium	317.93		5000	65.9	P
Chromium	267.72		10	1.0	P
Cobalt	228.62		50	1.2	P
Copper	324.75		25	1.2	P
Iron	271.44		100	23.4	P
Lead	220.35		3	1.7	P
Magnesium	279.08		5000	64.5	P
Manganese	257.61		15	0.3	P
Mercury			0.2		NR
Nickel	231.60		40	1.6	P
Potassium	766.49		5000	90.3	P
Selenium	196.03		5	2.4	P
Silver	328.07		10	1.3	P
Sodium	330.23		5000	267.8	P
Thallium	190.86		10	4.2	P
Vanadium	292.40		50	1.2	P
Zinc	213.86		20	0.5	P

omments:

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Instrument Detection Limits (Quarterly)

ab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

ab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59328_

CP ID Number: _____ Date: 07/01/96

'lame AA ID Number : HG2_PS200___

'urnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury	253.70		0.2	0.1	CV
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

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Instrument Detection Limits (Quarterly)

ab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

ab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59328_

CP ID Number: _____ Date: 07/01/96

lame AA ID Number : PS1214_____

urnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

U.S. EPA - CLP

11A
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

ab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

ab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59328_

CP ID Number: ICP4 TJA 61E Date: 01/01/96

Analyte	Wave-length (nm)	Interelement Correction Factors for : Al	Ca	Fe	Mg	CO_
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.04	0.0000000	0.0000000	-0.0000390	0.0000000	0.0000000
Barium	493.41	0.0000000	0.0000000	0.0000400	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	0.0001035	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.62	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.44	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.35	-0.0000596	-0.0000184	0.0000823	0.0000111	-0.0048710
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Mercury						
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	-0.0011240
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	-0.0001999	0.0000000	-0.0000465
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	330.23	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.86	-0.0000100	0.0000000	-0.0000800	0.0000000	0.0049700
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.86	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

U.S. EPA - CLP

11B
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59328_

ICP ID Number: ICP4 TJA 61E Date: 01/01/96

Analyte	Wave-length (nm)	Interelement Correction Factors for : CR_	MN_	NI_	V__	___
Aluminum_	308.22	0.0000000	0.0000000	0.0000000	0.0264000	
Antimony_	206.84	0.0055040	0.0000000	-0.0002668	-0.0036670	
Arsenic__	189.04	-0.0029900	0.0000000	0.0000000	0.0000000	
Barium___	493.41	0.0000000	0.0000000	0.0000000	0.0000000	
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0011400	
Cadmium__	226.50	0.0000000	0.0000000	-0.0000329	0.0000000	
Calcium__	317.93	0.0000000	0.0000000	0.0000000	0.0000000	
Chromium_	267.72	0.0000000	0.0000704	0.0000000	-0.0000540	
Cobalt___	228.62	0.0000000	0.0000000	0.0000000	0.0000000	
Copper___	324.75	0.0000000	0.0000000	0.0000000	0.0000000	
Iron____	271.44	0.0000000	0.0000000	0.0000000	0.0000000	
Lead____	220.35	-0.0001864	0.0000279	0.0002131	-0.0006255	
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	
Mercury__						
Nickel___	231.60	0.0000000	-0.0001310	0.0000000	0.0000000	
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	
Selenium_	196.03	0.0000000	0.0002108	0.0000000	0.0000188	
Silver___	328.07	0.0000000	0.0000000	0.0000000	0.0000000	
Sodium___	330.23	0.0000000	0.0000000	0.0000000	0.0000000	
Thallium_	190.86	0.0003750	-0.0005820	0.0000000	0.0036030	
Vanadium_	292.40	0.0000000	0.0000000	0.0000000	0.0000000	
Zinc____	213.86	0.0000000	0.0000000	0.0000000	0.0000000	

Comments:

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ICP LINEAR RANGES (QUARTERLY)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59328_

ICP ID Number: ICP4 TJA 61E Date: 07/01/96

Analyte	Integ. Time (sec.)	Concentration (ug/L)	M
Aluminum_	10.00	1000000.0	P
Antimony_	10.00	100000.0	P
Arsenic__	10.00	10000.0	P
Barium___	10.00	10000.0	P
Beryllium	10.00	10000.0	P
Cadmium__	10.00	10000.0	P
Calcium__	10.00	500000.0	P
Chromium_	10.00	100000.0	P
Cobalt___	10.00	100000.0	P
Copper___	10.00	100000.0	P
Iron_____	10.00	1000000.0	P
Lead_____	10.00	100000.0	P
Magnesium	10.00	500000.0	P
Manganese	10.00	10000.0	P
Mercury__			NR
Nickel___	10.00	50000.0	P
Potassium	10.00	100000.0	P
Selenium_	10.00	10000.0	P
Silver___	10.00	2000.0	P
Sodium___	10.00	100000.0	P
Thallium_	10.00	10000.0	P
Vanadium_	10.00	100000.0	P
Zinc_____	10.00	10000.0	P

Comments:

U.S. EPA - CLP

13
PREPARATION LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.:_OBASH_ SAS No.: _____ SDG No.:59328_

Method: P_

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
LCSW1	07/01/96		100
OB001	07/01/96		100
OB005	07/01/96		100
OB009	07/01/96		100
OB009D	07/01/96		100
OB009S	07/01/96		100
OB013	07/01/96		100
OB033	07/01/96		100
OB034	07/01/96		100
PBW1	07/01/96		100

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PREPARATION LOG

ab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

ab Code: INCHVT Case No.:_OBASH_ SAS No.: _____ SDG No.:59328_

ethod: CV

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
LCSW1	07/18/96		100
OB001	07/18/96		100
OB005	07/18/96		100
OB009	07/18/96		100
OB009D	07/18/96		100
OB009S	07/18/96		100
OB013	07/18/96		100
OB033	07/18/96		100
OB034	07/18/96		100
PBW1	07/18/96		100

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PREPARATION LOG

ab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

ab Code: INCHVT Case No.:_OBASH_ SAS No.: _____ SDG No.:59328_

ethod: AS

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
ICV	07/03/96		250
OB001	07/03/96		250
OB013	07/03/96		250
PBW2	07/03/96		250

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ANALYSIS RUN LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:59328_

Instrument ID Number: ICP4 TJA 61E_ Method: P_

Start Date: 07/09/96 End Date: 07/09/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	0846		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
S	1.00	0850		_	_	_	X	X	X	_	X	X	X	_	_	_	X	_	X	_	_	X	_	_	X	X	_
S	1.00	0854		X	_	_	_	_	_	X	_	_	_	X	_	X	_	_	_	X	_	_	X	_	_	_	_
S	1.00	0859		_	X	X	_	_	_	_	_	_	_	_	X	_	_	_	_	_	X	_	_	X	_	_	_
ICV	1.00	0906		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ICB	1.00	0911		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ICSA	1.00	0915		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ICSAB	1.00	0920		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CRI	1.00	0925		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCV	1.00	0929		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCB	1.00	0934		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ZZZZZZ	1.00	0939		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	0943		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	0948		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	5.00	0952		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	0957		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1001		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1006		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1010		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1015		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1019		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
CCV	1.00	1024		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCB	1.00	1028		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ZZZZZZ	1.00	1033		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1037		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1042		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	5.00	1046		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
PBW1	1.00	1051		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
LCSW1	1.00	1055		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
OB009	1.00	1100		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
OB009L	5.00	1104		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
OB009A	1.00	1109		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_

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ANALYSIS RUN LOG

ab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

ab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:59328_

nstrument ID Number: ICP4 TJA 61E_ Method: P_

tart Date: 07/09/96 End Date: 07/09/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
DB009S__	1.00	1113		X	X	X	X	X	X	_	X	X	X	X	X	_	X	_	X	_	X	X	_	X	X	X	_
CCV_____	1.00	1118		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCB_____	1.00	1123		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
DB009D__	1.00	1127		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
DB033___	1.00	1132		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
DB034___	1.00	1136		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
DB005___	1.00	1141		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
DB013___	1.00	1145		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
DB001___	1.00	1150		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ZZZZZZ__	1.00	1154		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ__	1.00	1159		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ__	1.00	1203		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ__	1.00	1208		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
CCV_____	1.00	1212		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCB_____	1.00	1217		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ZZZZZZ__	1.00	1221		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ__	1.00	1226		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ__	1.00	1230		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ICSA____	1.00	1235		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ICSAB___	1.00	1240		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CRI_____	1.00	1244		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCV_____	1.00	1249		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCB_____	1.00	1253		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
				_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

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14
ANALYSIS RUN LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:59328_

Instrument ID Number: HG2 PS200____ Method: CV

Start Date: 07/19/96 End Date: 07/19/96

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1427																X									
S0.2	1.00	1429																X									
S0.5	1.00	1430																X									
S1	1.00	1432																X									
S3	1.00	1434																X									
S5	1.00	1436																X									
ICV	1.00	1438																X									
ICB	1.00	1440																X									
CRA	1.00	1442																X									
CCV	1.00	1443																X									
CCB	1.00	1445																X									
PBW1	1.00	1447																X									
LCSW1	1.00	1449																X									
ZZZZZZ	1.00	1451																									
ZZZZZZ	1.00	1453																									
OB009	1.00	1455																X									
OB009S	1.00	1456																X									
OB009D	1.00	1458																X									
OB033	1.00	1500																X									
OB034	1.00	1502																X									
CCV	1.00	1504																X									
CCB	1.00	1506																X									
OB005	1.00	1508																X									
OB013	1.00	1509																X									
OB001	1.00	1511																X									
ZZZZZZ	1.00	1513																									
ZZZZZZ	1.00	1515																									
ZZZZZZ	1.00	1517																									
ZZZZZZ	1.00	1519																									
ZZZZZZ	1.00	1521																									
ZZZZZZ	1.00	1522																									
CCV	1.00	1524																X									

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14
ANALYSIS RUN LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:59328_

Instrument ID Number: HG2 PS200____ Method: CV

Start Date: 07/19/96 End Date: 07/19/96

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCB	1.00	1526																X									

FORM XIV - IN ILM02.1

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14
ANALYSIS RUN LOG

ab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

ab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:59328_

nstrument ID Number: PS1214_____ Method: AS

tart Date: 07/02/96 End Date: 07/02/96

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	2046																									X
S10	1.00	2048																									X
S50	1.00	2050																									X
S100	1.00	2052																									X
S200	1.00	2054																									X
S300	1.00	2056																									X
ICV	1.00	2059																									X
ICB	1.00	2101																									X
CCV	1.00	2103																									X
CCB	1.00	2105																									X
ZZZZZZ	1.00	2107																									
PBW1	1.00	2109																									X
ZZZZZZ	1.00	2111																									
ZZZZZZ	1.00	2114																									
ZZZZZZ	1.00	2116																									
ZZZZZZ	1.00	2118																									
ZZZZZZ	1.00	2120																									
ZZZZZZ	1.00	2122																									
ZZZZZZ	1.00	2124																									
ZZZZZZ	1.00	2126																									
CCV	1.00	2129																									X
CCB	1.00	2131																									X
ZZZZZZ	1.00	2133																									
ZZZZZZ	1.00	2135																									
ZZZZZZ	1.00	2137																									
ZZZZZZ	1.00	2139																									
ZZZZZZ	1.00	2141																									
ZZZZZZ	1.00	2144																									
ZZZZZZ	1.00	2146																									
OB009	1.00	2148																									X
OB009S	1.00	2150																									X
OB009D	1.00	2152																									X

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14
ANALYSIS RUN LOG

ab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

ab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:59328_

nstrument ID Number: PS1214_____ Method: AS

tart Date: 07/02/96 End Date: 07/02/96

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCV	1.00	2154																									X
CCB	1.00	2156																									X
OB033	1.00	2159																									X
OB034	1.00	2201																									X
OB005	1.00	2203																									X
CCV	1.00	2205																									X
CCB	1.00	2207																									X

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14

ANALYSIS RUN LOG

ab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

ab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:59328_

nstrument ID Number: PS1214_____ Method: AS

tart Date: 07/05/96 End Date: 07/05/96

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	2205																									X
S10	1.00	2207																									X
S50	1.00	2209																									X
S100	1.00	2211																									X
S200	1.00	2213																									X
S300	1.00	2216																									X
ICV	1.00	2218																									X
ICB	1.00	2220																									X
CCV	1.00	2223																									X
CCB	1.00	2225																									X
ZZZZZZ	1.00	2227																									
PBW2	1.00	2229																									X
ZZZZZZ	1.00	2231																									
ZZZZZZ	5.00	2233																									
OB013	1.00	2235																									X
OB001	1.00	2237																									X
ZZZZZZ	1.00	2240																									
ZZZZZZ	1.00	2242																									
ZZZZZZ	1.00	2244																									
ZZZZZZ	1.00	2246																									
CCV	1.00	2248																									X
CCB	1.00	2250																									X

3. Sample Delivery Group No. 59383

SAMPLE DATA SUMMARY PACKAGE

LAB CODE: INCHVT

CONTRACT NO.: 93206

CASE NO.: OBASH

SDG NO.: 59383

Inchcape Testing Services

Inchcape Testing Services
Environmental Laboratories

55 South Park Drive
Colchester, VT 05446
Tel. 802-655-1203
Fax. 802-655-1248

July 26, 1996

Mr. Mike Duchesneau
Parsons Engineering Science
101 Huntington Avenue
Prudential Center
Boston, MA 02199

Re: Project Name: OB/ASH Quarterly Monitoring
ITS Project No. 93206
Case No. OBASH, SDG No. 59383

Dear Mr. Duchesneau:

Enclosed are the analytical results for water samples received intact by Inchcape Testing Services Environmental Laboratories on June 27, 1996. Laboratory numbers and quality control samples were assigned as follows:

Lab ID	Client Sample ID	Date Sampled	Sample Matrix
	Samples Received on June 27, 1996 ETR No. 59383		
305279	OB004	06/25/96	Water
305280	OB025	06/25/96	Water
305281	OB026	06/25/96	Water
305282	OB027	06/25/96	Water
305283	OB028	06/25/96	Water

I certify that this 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 hardcopy package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

If there are any questions regarding this submittal, please contact Pauline Malik at (802) 655-1203.

Sincerely,

Karen R. Chirgwin

Karen R. Chirgwin
Laboratory Operations Director

KRC/din

Enclosure

93206B17JUL96

Inchcape Testing Services
Environmental Laboratories

55 South Park Drive
Colchester, VT 05446

75 Green Mountain Drive
South Burlington, VT 05403

Analytical Report

Parsons Engineering Science
Prudential Center
Boston, MA 02199

Attention : Mike Duchesneau

Date : 07/25/96
ETR Number : 59383
Project No.: 93206
No. Samples: 5
Arrived : 06/27/96
P.O. Number: *

Case:OBASH SDG:59383

Standard analyses were performed in accordance with Methods for Analysis of Water and Wastes, EPA-600/4/79-020, Test Methods for Evaluating Solid Waste, SW-846, or Standard Methods for the Examination of Water and Wastewater.
All results are in mg/l unless otherwise noted.

Lab No./ Method No.	Sample Description/ Parameter	Result
305279	OB004:06/25/96 @1445(Water)	
9050	Conductivity (umhos/cm)	773
9020	Total Organic Halides	<0.02
9040	pH (std. units)	7.31
9060	Total Organic Carbon	1.2
305280	OB025:06/25/96 @1630(Water)	
9050	Conductivity (umhos/cm)	1360
9020	Total Organic Halides	<0.02
9040	pH (std. units)	7.14
9060	Total Organic Carbon	1.1
305281	OB026:06/25/96 @1630(Water)	
9050	Conductivity (umhos/cm)	1340
9020	Total Organic Halides	<0.02
9040	pH (std. units)	7.13
9060	Total Organic Carbon	1.1
305282	OB027:06/25/96 @1630(Water)	
9050	Conductivity (umhos/cm)	1360
9020	Total Organic Halides	<0.02
9040	pH (std. units)	7.14
9060	Total Organic Carbon	1.0
305283	OB028:06/25/96 @1630(Water)	
9050	Conductivity (umhos/cm)	1340
9020	Total Organic Halides	<0.02
9040	pH (std. units)	7.13
9060	Total Organic Carbon	1.0

< Last Page > Submitted By : Aquatec Inc.

Quality Control Summary

Project No: 93206
SDG No: 59383
Units: mg/L

Parameter	Date Analyzed	Method Preparation Blank	Laboratory Control Sample		
			Reported Value	True Value	Percent Recovery
Conductivity (umhos/cm)	6/27/96	NA	1369	1413	96.9
pH (Std Units)	6/27/96	NA	6	6.00	100.0
Total Organic Carbon	7/22/96	< 0.5	45.9	49.2	93.3
Total Organic Halides	7/1/96	< 0.02	0.1	0.1	100.0

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COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH SAS No.: _____ SDG No.:59383_

SOW No.: ILM02.1

EPA Sample No.	Lab Sample ID
_OB025_____	_305280_____

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES

If yes - were raw data generated before application of background corrections ? Yes/No NO_

Comments:

I certify that this 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 hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: _____

Date: _____ Title: _____

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

OB025

ab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

ab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59383_

latrix (soil/water): WATER Lab Sample ID: 305280

evel (low/med): LOW__ Date Received: 06/27/96

Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	45.9	B		P_
7440-36-0	Antimony_	2.0	U		P_
7440-38-2	Arsenic__	4.2	U		P_
7440-39-3	Barium___	18.4	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.40	U		P_
7440-70-2	Calcium__	196000			P_
7440-47-3	Chromium_	0.60	U		P_
7440-48-4	Cobalt___	1.2	U		P_
7440-50-8	Copper___	1.0	B		P_
7439-89-6	Iron_____	220			P_
7439-92-1	Lead_____	1.5	U		P_
7439-95-4	Magnesium	75100			P_
7439-96-5	Manganese	11.7	B		P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	4.1	B		P_
7440-09-7	Potassium	8100			P_
7782-49-2	Selenium_	3.6	U		P_
7440-22-4	Silver___	1.1	U		P_
7440-23-5	Sodium___	17600			P_
7440-28-0	Thallium_	3.9	U		P_
7440-62-2	Vanadium_	0.90	U		P_
7440-66-6	Zinc_____	8.6	B		P_
	Cyanide__	5.0	U		AS

olor Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

olor After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

omments:

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2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

ab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

ab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59383_

nitial Calibration Source: VENTURES____

'ontinuing Calibration Source: SPEX_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum	26000.0	26130.00	100.5	30200.0	30750.00	101.8	30820.00	102.1	P
Antimony	250.0	258.00	103.2	300.0	310.90	103.6	309.40	103.1	P
Arsenic	250.0	253.30	101.3	100.0	99.27	99.3	102.60	102.6	P
Barium	500.0	503.80	100.8	200.0	203.10	101.6	203.30	101.6	P
Beryllium	500.0	517.00	103.4	100.0	101.50	101.5	101.20	101.2	P
Cadmium	500.0	499.40	99.9	100.0	99.42	99.4	98.52	98.5	P
Calcium	25000.0	25290.00	101.2	30200.0	30700.00	101.7	30590.00	101.3	P
Chromium	500.0	506.20	101.2	200.0	202.50	101.2	202.40	101.2	P
Cobalt	500.0	500.30	100.1	200.0	200.40	100.2	200.00	100.0	P
Copper	500.0	518.60	103.7	200.0	204.10	102.0	208.00	104.0	P
Iron	25500.0	25820.00	101.3	30200.0	30800.00	102.0	30770.00	101.9	P
Lead	1000.0	1044.00	104.4	400.0	416.40	104.1	414.20	103.6	P
Magnesium	25000.0	25020.00	100.1	30200.0	30580.00	101.3	30470.00	100.9	P
Manganese	500.0	509.10	101.8	200.0	204.20	102.1	203.90	102.0	P
Mercury	1.8	1.78	98.9	3.0	3.17	105.7	3.21	107.0	CV
Nickel	500.0	496.20	99.2	200.0	199.70	99.8	199.00	99.5	P
Potassium	25000.0	25210.00	100.8	30200.0	31310.00	103.7	31370.00	103.9	P
Selenium	250.0	249.90	100.0	100.0	101.00	101.0	101.30	101.3	P
Silver	500.0	510.80	102.2	100.0	101.20	101.2	102.50	102.5	P
Sodium	25000.0	24510.00	98.0	30200.0	30520.00	101.1	29980.00	99.3	P
Thallium	250.0	241.10	96.4	100.0	97.92	97.9	98.52	98.5	P
Vanadium	500.0	515.80	103.2	200.0	201.70	100.8	201.00	100.5	P
Zinc	500.0	513.00	102.6	200.0	206.30	103.2	205.50	102.8	P
Cyanide	120.0	122.50	102.1	150.0	141.00	94.0	137.00	91.3	AS

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59383_

Initial Calibration Source: VENTURES____

Continuing Calibration Source: SPEX_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum				30200.0	31140.00	103.1			P
Antimony				300.0	312.00	104.0			P
Arsenic				100.0	99.29	99.3			P
Barium				200.0	204.60	102.3			P
Beryllium				100.0	102.10	102.1			P
Cadmium				100.0	99.27	99.3			P
Calcium				30200.0	30830.00	102.1			P
Chromium				200.0	204.90	102.4			P
Cobalt				200.0	201.60	100.8			P
Copper				200.0	210.70	105.4			P
Iron				30200.0	30920.00	102.4			P
Lead				400.0	415.30	103.8			P
Magnesium				30200.0	30730.00	101.8			P
Manganese				200.0	205.80	102.9			P
Mercury									NR
Nickel				200.0	201.20	100.6			P
Potassium				30200.0	31750.00	105.1			P
Selenium				100.0	99.93	99.9			P
Silver				100.0	102.30	102.3			P
Sodium				30200.0	30420.00	100.7			P
Thallium				100.0	99.06	99.1			P
Vanadium				200.0	202.60	101.3			P
Zinc				200.0	207.30	103.6			P
Cyanide				150.0	130.00	86.7			AS

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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2B
CRDL STANDARD FOR AA AND ICP

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59383_

AA CRDL Standard Source: VENTURES____

ICP CRDL Standard Source: VENTURES____

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	True	Initial Found	%R	Final Found	%R
Aluminum				400.0	459.40	114.8	599.70	149.9
Antimony				120.0	124.30	103.6	124.30	103.6
Arsenic				20.0	22.29	111.4	20.41	102.0
Barium				400.0	401.60	100.4	405.10	101.3
Beryllium				10.0	9.95	99.5	9.99	99.9
Cadmium				10.0	9.97	99.7	10.21	102.1
Calcium				10000.0	10420.00	104.2	10660.00	106.6
Chromium				20.0	19.66	98.3	20.09	100.4
Cobalt				100.0	96.16	96.2	97.13	97.1
Copper				50.0	50.12	100.2	51.20	102.4
Iron				200.0	261.50	130.8	323.00	161.5
Lead				6.0	6.95	115.8	6.10	101.7
Magnesium				10000.0	10140.00	101.4	10380.00	103.8
Manganese				30.0	29.55	98.5	29.82	99.4
Mercury	0.2	0.21	105.0					
Nickel				80.0	77.14	96.4	77.16	96.4
Potassium				10000.0	10740.00	107.4	10850.00	108.5
Selenium				10.0	5.92	59.2	8.31	83.1
Silver				20.0	20.18	100.9	18.93	94.6
Sodium				10000.0	9619.00	96.2	9784.00	97.8
Thallium				20.0	20.12	100.6	22.19	111.0
Vanadium				100.0	99.27	99.3	99.97	100.0
Zinc				40.0	40.01	100.0	40.63	101.6

3
BLANKS

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59383_

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L_

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum_	12.8	U	12.8	U	17.1	B	32.1	B	12.800	U	P
Antimony_	2.0	U	2.0	U	2.0	U	2.0	U	2.000	U	P
Arsenic__	4.2	U	4.2	U	4.2	U	4.2	U	4.200	U	P
Barium___	3.8	U	3.8	U	3.8	U	3.8	U	3.800	U	P
Beryllium	0.3	U	0.3	U	0.3	U	0.3	U	0.300	U	P
Cadmium__	0.4	U	0.4	U	0.4	U	0.4	U	0.400	U	P
Calcium__	71.6	U	71.6	U	71.6	U	71.6	U	71.600	U	P
Chromium_	0.6	U	0.6	U	0.6	U	0.6	U	0.600	U	P
Cobalt___	1.2	U	1.2	U	1.2	U	1.2	U	1.200	U	P
Copper___	0.7	U	0.7	U	0.7	U	0.8	B	0.700	U	P
Iron_____	15.9	U	15.9	U	15.9	U	16.4	B	15.900	U	P
Lead_____	1.5	U	1.5	U	1.5	U	1.5	U	1.500	U	P
Magnesium	79.0	U	79.0	U	79.0	U	79.0	U	79.000	U	P
Manganese	0.5	U	0.5	U	0.5	U	0.5	U	0.500	U	P
Mercury__	0.1	U	0.1	U	0.1	U			0.100	U	CV
Nickel___	1.3	U	1.3	U	1.3	U	1.3	U	1.300	U	P
Potassium	113.4	U	113.4	U	113.4	U	113.4	U	113.400	U	P
Selenium_	3.6	U	3.6	U	3.6	U	3.6	U	3.600	U	P
Silver___	1.1	U	1.1	U	1.1	U	1.1	U	1.100	U	P
Sodium___	262.6	U	262.6	U	332.4	B	262.6	U	262.600	U	P
Thallium_	3.9	U	3.9	U	3.9	U	3.9	U	3.900	U	P
Vanadium_	0.9	U	0.9	U	0.9	U	0.9	U	0.900	U	P
Zinc_____	1.4	U	1.4	U	1.4	U	1.4	U	1.400	U	P
Cyanide__	10.0	U	10.0	U	10.0	U	10.0	U	5.000	U	AS

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ICP INTERFERENCE CHECK SAMPLE

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No: _____ SDG No.: 59383_

ICP ID Number: ICP5 TJA 61E ICS Source: VENTURES____

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	%R	Final Found Sol. A	Final Found Sol. AB	%R
Aluminum_	500000	495871	514400	501300.0	101.1	523700	507100.0	102.3
Antimony_	0	585	-3	594.6	101.6	-2	596.7	102.0
Arsenic__	0	91	-1	89.2	98.0	-5	92.5	101.6
Barium___	0	496	1	501.5	101.1	1	504.1	101.6
Beryllium	0	474	0	473.6	99.9	0	479.3	101.1
Cadmium__	0	903	1	901.3	99.8	2	905.4	100.3
Calcium__	500000	472229	482200	471800.0	99.9	485400	475200.0	100.6
Chromium_	0	481	5	471.9	98.1	5	482.1	100.2
Cobalt___	0	459	1	457.4	99.7	1	462.2	100.7
Copper___	0	513	-6	519.9	101.3	-5	529.6	103.2
Iron_____	200000	189214	185400	190900.0	100.9	186900	192000.0	101.5
Lead_____	0	49	0	49.2	100.4	1	49.1	100.2
Magnesium	500000	492114	513200	495300.0	100.6	517700	498300.0	101.3
Manganese	0	495	24	494.3	99.9	24	502.6	101.5
Mercury__								
Nickel___	0	911	0	899.4	98.7	-1	911.9	100.1
Potassium	0	0	-6	48.4		-4	70.8	
Selenium_	0	47	1	45.1	96.0	-5	50.0	106.4
Silver___	0	204	5	205.8	100.9	4	207.7	101.8
Sodium___	0	0	117	-157.3		-80	124.2	
Thallium_	0	89	-3	85.6	96.2	-5	89.1	100.1
Vanadium_	0	484	0	486.2	100.5	0	488.9	101.0
Zinc_____	0	982	18	988.5	100.7	18	996.2	101.4

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LABORATORY CONTROL SAMPLE

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59383_

Solid LCS Source: _____

Aqueous LCS Source: VENTURES____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum	51000.0	51680.00	101.3						
Antimony	2000.0	2074.00	103.7						
Arsenic	1050.0	1045.00	99.5						
Barium	500.0	480.40	96.1						
Beryllium	500.0	491.40	98.3						
Cadmium	525.0	494.70	94.2						
Calcium	50000.0	50650.00	101.3						
Chromium	500.0	483.10	96.6						
Cobalt	500.0	474.50	94.9						
Copper	500.0	497.50	99.5						
Iron	50500.0	50940.00	100.9						
Lead	1015.0	999.30	98.5						
Magnesium	50000.0	50390.00	100.8						
Manganese	500.0	487.60	97.5						
Mercury	1.0	1.06	106.0						
Nickel	500.0	468.20	93.6						
Potassium	50000.0	49200.00	98.4						
Selenium	25.0	27.29	109.2						
Silver	500.0	488.30	97.7						
Sodium	50000.0	50930.00	101.9						
Thallium	50.0	45.32	90.6						
Vanadium	500.0	489.10	97.8						
Zinc	500.0	489.50	97.9						
Cyanide									

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8

STANDARD ADDITION RESULTS

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract:93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.:_____ SDG No.:59383_

Concentration Units: ug/L

EPA Sample No.	An	0 ADD ABS	1 ADD CON	1 ADD ABS	2 ADD CON	2 ADD ABS	3 ADD CON	3 ADD ABS	Final Conc.	r	Q

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ICP SERIAL DILUTION

EPA SAMPLE NO.

OB025L

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59383_

Matrix (soil/water): WATER Level (low/med): LOW__

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	45.89	B	64.00	U	100.0		P
Antimony	2.00	U	10.00	U			P
Arsenic	4.20	U	21.00	U			P
Barium	18.37	B	19.00	U	100.0		P
Beryllium	0.30	U	1.50	U			P
Cadmium	0.40	U	2.00	U			P
Calcium	196300.00		199600.00		1.7		P
Chromium	0.60	U	3.00	U			P
Cobalt	1.20	U	6.00	U			P
Copper	1.03	B	3.50	U	100.0		P
Iron	219.80		228.20	B	3.8		P
Lead	1.50	U	7.50	U			P
Magnesium	75060.00		74980.00		0.1		P
Manganese	11.67	B	12.53	B	7.4		P
Mercury							NR
Nickel	4.14	B	6.50	U	100.0		P
Potassium	8102.00		8100.00	B	0.0		P
Selenium	3.60	U	18.00	U			P
Silver	1.10	U	5.50	U			P
Sodium	17550.00		16970.00	B	3.3		P
Thallium	3.90	U	19.50	U			P
Vanadium	0.90	U	4.50	U			P
Zinc	8.62	B	10.60	B	23.0		P

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Instrument Detection Limits (Quarterly)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59383_

ICP ID Number: ICP5_TJA_61E Date: 07/01/96

Flame AA ID Number : _____

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	237.31		200	12.8	P
Antimony	206.84		60	2.0	P
Arsenic	189.04		10	4.2	P
Barium	493.41		200	3.8	P
Beryllium	313.04		5	0.3	P
Cadmium	226.50		5	0.4	P
Calcium	317.93		5000	71.6	P
Chromium	267.72		10	0.6	P
Cobalt	228.61		50	1.2	P
Copper	324.75		25	0.7	P
Iron	271.44		100	15.9	P
Lead	220.35		3	1.5	P
Magnesium	279.08		5000	79.0	P
Manganese	294.92		15	0.5	P
Mercury			0.2		NR
Nickel	231.60		40	1.3	P
Potassium	766.49		5000	113.4	P
Selenium	196.03		5	3.6	P
Silver	328.07		10	1.1	P
Sodium	330.23		5000	262.6	P
Thallium	190.86		10	3.9	P
Vanadium	292.40		50	0.9	P
Zinc	213.85		20	1.4	P

Comments:

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Instrument Detection Limits (Quarterly)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59383_

ICP ID Number: _____ Date: 07/01/96

Flame AA ID Number : HG2_PS200___

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury	253.70		0.2	0.1	CV
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

omments:

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Instrument Detection Limits (Quarterly)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59383_

ICP ID Number: _____ Date: 07/01/96

Flame AA ID Number : PS1214_____

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

omments:

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11A
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59383_

ICP ID Number: ICP5 TJA 61E Date: 04/22/96

Analyte	Wave-length (nm)	Interelement Correction Factors for : Al	Ca	Fe	Mg	CD_
Aluminum_	237.31	0.0000000	0.0000000	-0.0004721	0.0000000	0.0000000
Antimony_	206.84	0.0000000	0.0000000	0.0000310	0.0000000	0.0000000
Arsenic__	189.04	0.0000000	0.0000000	-0.0000520	0.0000000	0.0000000
Barium___	493.41	0.0000000	0.0000000	0.0000040	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium__	226.50	-0.0000020	0.0000000	0.0001380	0.0000000	0.0000000
Calcium__	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium_	267.72	0.0000000	0.0000000	0.0000000	0.0000000	-0.0002050
Cobalt___	228.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0002010
Copper___	324.75	0.0000000	0.0000000	-0.0000580	0.0000000	0.0000000
Iron_____	271.44	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead_____	220.35	0.0004860	0.0000000	0.0000960	0.0000080	0.0000000
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	294.92	0.0000000	0.0000000	0.0004730	0.0000000	0.0000000
Mercury__						
Nickel___	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium_	196.03	0.0000000	0.0000000	-0.0000210	0.0000080	0.0000000
Silver___	328.07	0.0000080	0.0000070	0.0000150	0.0000020	0.0000000
Sodium___	330.23	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium_	190.86	-0.0000080	0.0000000	-0.0000650	0.0000000	0.0000000
Vanadium_	292.40	0.0000000	0.0000000	0.0000250	0.0000000	0.0000000
Zinc_____	213.85	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

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11B
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59383_

ICP ID Number: ICP5 TJA 61E Date: 04/22/96

Analyte	Wave-length (nm)	Interelement Correction Factors for : CO_	CR_	MN_	NI_	TI_
Aluminum_	237.31	0.0010260	-0.0001500	0.0004560	0.0000000	0.0000000
Antimony_	206.84	0.0000000	0.0106760	0.0000000	-0.0010930	0.0009800
Arsenic__	189.04	0.0000000	0.0000130	-0.0000260	0.0000000	0.0000000
Barium___	493.41	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0006000
Cadmium__	226.50	0.0000190	0.0000000	0.0000000	-0.0001420	0.0001100
Calcium__	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium_	267.72	0.0000000	0.0000000	0.0000200	0.0000000	0.0000000
Cobalt___	228.61	0.0000000	0.0000760	0.0000000	0.0001550	0.0021800
Copper___	324.75	-0.0006200	0.0000000	0.0000000	0.0000000	0.0000000
Iron_____	271.44	0.0834400	0.0000000	-0.0010430	-0.0005400	0.0000000
Lead_____	220.35	-0.0032100	-0.0000200	0.0000000	0.0001830	0.0002200
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	294.92	0.0000000	-0.0001100	0.0000000	0.0000000	0.0000000
Mercury__						
Nickel___	231.60	0.0005300	0.0000000	-0.0000770	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium_	196.03	0.0003320	0.0000000	0.0003360	0.0000000	0.0000000
Silver___	328.07	0.0000000	0.0000450	0.0001060	0.0000000	0.0004400
Sodium___	330.23	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium_	190.86	0.0031500	0.0003050	-0.0053100	0.0000000	0.0003200
Vanadium_	292.40	0.0000000	-0.0014900	-0.0000760	0.0000000	0.0005480
Zinc_____	213.85	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

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11B
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59383_

ICP ID Number: ICP5 TJA 61E Date: 04/22/96

Analyte	Wave-length (nm)	Interelement Correction Factors for : V__	ZN_	___	___	___
Aluminum_	237.31	-0.0041100	0.0000000			
Antimony_	206.84	-0.0107300	0.0002410			
Arsenic__	189.04	-0.0010590	0.0000000			
Barium___	493.41	0.0000420	0.0000000			
Beryllium	313.04	0.0000000	0.0000000			
Cadmium__	226.50	0.0000000	0.0000000			
Calcium__	317.93	0.0000000	0.0000000			
Chromium_	267.72	0.0000000	0.0000000			
Cobalt___	228.61	0.0000000	0.0000000			
Copper___	324.75	-0.0001320	0.0000000			
Iron_____	271.44	0.0076000	0.0000000			
Lead_____	220.35	0.0000000	0.0000000			
Magnesium	279.08	0.0000000	0.0000000			
Manganese	294.92	0.0048700	0.0000000			
Mercury__						
Nickel___	231.60	-0.0001520	0.0000000			
Potassium	766.49	0.0000000	0.0000000			
Selenium_	196.03	0.0001120	0.0000000			
Silver___	328.07	0.0004460	0.0000000			
Sodium___	330.23	0.0000000	-0.1301000			
Thallium_	190.86	0.0018800	0.0000000			
Vanadium_	292.40	0.0000000	0.0000000			
Zinc_____	213.85	-0.0054500	0.0000000			

omments:

12
ICP LINEAR RANGES (QUARTERLY)

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.: 59383_

ICP ID Number: ICP5 TJA 61E Date: 07/01/96

Analyte	Integ. Time (sec.)	Concentration (ug/L)	M
Aluminum	10.00	1000000.0	P
Antimony	10.00	100000.0	P
Arsenic	10.00	10000.0	P
Barium	10.00	50000.0	P
Beryllium	10.00	50000.0	P
Cadmium	10.00	20000.0	P
Calcium	10.00	500000.0	P
Chromium	10.00	100000.0	P
Cobalt	10.00	50000.0	P
Copper	10.00	100000.0	P
Iron	10.00	1000000.0	P
Lead	10.00	100000.0	P
Magnesium	10.00	1000000.0	P
Manganese	10.00	50000.0	P
Mercury			NR
Nickel	10.00	50000.0	P
Potassium	10.00	100000.0	P
Selenium	10.00	10000.0	P
Silver	10.00	2000.0	P
Sodium	10.00	100000.0	P
Thallium	10.00	5000.0	P
Vanadium	10.00	50000.0	P
Zinc	10.00	5000.0	P

Comments:

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PREPARATION LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.:_OBASH_ SAS No.: _____ SDG No.:59383_

Method: P_

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
LCSW	07/11/96		100
OB025	07/11/96		100
PBW	07/11/96		100

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13
PREPARATION LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.:_OBASH_ SAS No.: _____ SDG No.:59383_

Method: CV

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
LCSW	07/18/96		100
OB025	07/18/96		100
PBW	07/18/96		100

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13
PREPARATION LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.:_OBASH_ SAS No.: _____ SDG No.:59383_

Method: AS

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
ICV	07/01/96		250
OB025	07/01/96		250
PBW	07/01/96		250

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14.

ANALYSIS RUN LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:59383_

Instrument ID Number: ICP5 TJA 61E_ Method: P_

Start Date: 07/18/96 End Date: 07/18/96

EPA Sample No.	D/F	Time	% R	Analytes																						
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1752		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
S	1.00	1755		X	_	_	_	_	_	X	_	_	_	X	_	X	_	_	_	X	_	_	X	_	_	_	_
S	1.00	1800		_	X	X	_	_	_	_	_	_	_	_	X	_	_	_	_	_	X	_	_	X	_	_	_
S	1.00	1804		_	_	_	X	X	X	_	X	X	X	_	_	_	X	_	X	_	_	X	_	_	X	X	_
ICV	1.00	1809		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ICB	1.00	1813		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ICSA	1.00	1818		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ICSAB	1.00	1822		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CRI	1.00	1827		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCV	1.00	1831		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCB	1.00	1836		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ZZZZZZ	1.00	1840		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1844		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1849		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	5.00	1853		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
PBW	1.00	1858		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
LCSW	1.00	1902		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
OB025	1.00	1906		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
OB025L	5.00	1911		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ZZZZZZ	1.00	1915		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1919		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
CCV	1.00	1924		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCB	1.00	1928		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ZZZZZZ	1.00	1933		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1937		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1941		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1946		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.00	1950		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	5.00	1954		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ICSA	1.00	1959		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ICSAB	1.00	2003		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CRI	1.00	2008		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_

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ANALYSIS RUN LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:59383_

Instrument ID Number: ICP5 TJA 61E_ Method: P_

Start Date: 07/18/96 End Date: 07/18/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCV	1.00	2012		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCB	1.00	2017		X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_

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ANALYSIS RUN LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:59383_

Instrument ID Number: HG2 PS200____ Method: CV

Start Date: 07/19/96 End Date: 07/19/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1427																X									
S0.2	1.00	1429																X									
S0.5	1.00	1430																X									
S1	1.00	1432																X									
S3	1.00	1434																X									
S5	1.00	1436																X									
ICV	1.00	1438																X									
ICB	1.00	1440																X									
CRA	1.00	1441																X									
CCV	1.00	1443																X									
CCB	1.00	1445																X									
PBW	1.00	1447																X									
LCSW	1.00	1449																X									
ZZZZZZ	1.00	1450																									
OB025	1.00	1452																X									
ZZZZZZ	1.00	1454																									
ZZZZZZ	1.00	1456																									
ZZZZZZ	1.00	1458																									
ZZZZZZ	1.00	1500																									
ZZZZZZ	1.00	1501																									
CCV	1.00	1503																X									
CCB	1.00	1505																X									

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ANALYSIS RUN LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:59383_

Instrument ID Number: PS1214_____ Method: AS

Start Date: 07/02/96 End Date: 07/02/96

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	2046		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S10	1.00	2048		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S50	1.00	2050		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S100	1.00	2052		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S200	1.00	2054		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S300	1.00	2056		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
ICV	1.00	2059		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
ICB	1.00	2101		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
CCV	1.00	2103		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
CCB	1.00	2105		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
ZZZZZZ	1.00	2107		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PBW	1.00	2109		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
ZZZZZZ	1.00	2112		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	2114		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	2116		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	2118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	2120		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	2122		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	2124		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	2127		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCV	1.00	2129		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
CCB	1.00	2131		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
ZZZZZZ	1.00	2133		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	2135		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	2137		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	2139		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	2142		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	2144		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OB025	1.00	2146		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
ZZZZZZ	1.00	2148		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	2150		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	2152		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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ANALYSIS RUN LOG

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 93206_____

Lab Code: INCHVT Case No.: OBASH_ SAS No.: _____ SDG No.:59383_

Instrument ID Number: PS1214_____ Method: AS

Start Date: 07/02/96 End Date: 07/02/96

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCV	1.00	2155																									X
CCB	1.00	2157																									X