46 -61

GP Work Order # 9910024

SAMPLE ANALYSIS REPORT

Prepared For:

SENECA ARMY DEPOT ACTIVITY
BUILDING 123
ROMULUS, NY 14541-5001

BURN PAN ASH GPL-99-07

Prepared By:

GPL Laboratories, LLLP
202 Perry Parkway
Gaithersburg, MD 20877

November 29, 1999

William L. Lodi for
Yemane Yohannes, Laboratory Director

TOTAL # OF PAGES : 54

GPL LABORATORIES, LLLP
ANALYTICAL RESULTS

Project: BURN PAN ASH GPL-99-07

SENECA ARMY DEPOT ACTIVITY
BUILDING 123
ROMULUS, NY 14541-5001
Atten: TOM GRESEK

GPL LABORATORIES, LLLP
202 Perry Parkway
Gaithersburg, MD 20877

Atten: Client Services
Phone: (301) 926-6802

Certified by:_____

SAMPLE IDENTIFICATION

GP ID	Client ID
9910024-01A	93099-1 2 3
9910024-01B	
9910024-01C	
9910024-02A	93099-4 5 6
9910024-02B	
9910024-02C	
9910024-03A	93099-7 8 9
9910024-03B	
9910024-03C	
9910024-04A	93099-10 11 12
9910024-04B	
9910024-04C	
9910024-05A	93099-13 14 15
9910024-05B	
9910024-05C	
9910024-06A	93099-16 17 18
9910024-06B	
9910024-06C	
9910024-07A	93099-19 20 21
9910024-07B	
9910024-07C	
9910024-08A	93099-22 23 24
9910024-08B	
9910024-08C	

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-01C
Client ID: 93099-1 2 3
Collected: 09/30/99
Dilution: 1

Matrix: SOLID
Method: SW846 8270C
Units: ug/Kg

Analyst: JMS
Analyzed: 10/11/99
Prepared: 10/07/99

SEMIVOLATILE TARGET COMPOUNDS

Parameter	Result	Rep.Lim.	Qualifier
bis(2-Chloroethyl)ether	BQL	340	
Phenol	BQL	340	
2-Chlorophenol	BQL	340	
1,3-Dichlorobenzene	BQL	340	
1,4-Dichlorobenzene	BQL	340	
1,2-Dichlorobenzene	BQL	340	
2,2'-oxybis(1-chloropropane)	BQL	340	
2-Methylphenol	BQL	340	
Hexachloroethane	BQL	340	
N-Nitroso-di-n-propylamine	BQL	340	
4-Methylphenol	BQL	340	
Nitrobenzene	BQL	340	
Isophorone	BQL	340	
2-Nitrophenol	BQL	340	
2,4-Dimethylphenol	BQL	340	
bis(2-Chloroethoxy)methane	BQL	340	
2,4-Dichlorophenol	BQL	340	
1,2,4-Trichlorobenzene	BQL	340	
Naphthalene	260	340	J
4-Chloroaniline	BQL	340	
Hexachlorobutadiene	BQL	340	
4-Chloro-3-methylphenol	BQL	340	
2-Methylnaphthalene	1600	340	
Hexachlorocyclopentadiene	BQL	340	
2,4,6-Trichlorophenol	BQL	340	
2,4,5-Trichlorophenol	BQL	1700	
2-Chloronaphthalene	BQL	340	
2-Nitroaniline	BQL	340	
Acenaphthylene	BQL	340	
Dimethylphthalate	BQL	340	
2,6-Dinitrotoluene	BQL	340	
Acenaphthene	BQL	340	

MARKED AS DRUM #2

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-01C
Client ID: 93099-1 2 3
Collected: 09/30/99
Dilution: 1

Matrix: SOLID
Method: SW846 8270C
Units: ug/Kg

Analyst: JMS
Analyzed: 10/11/99
Prepared: 10/07/99

SEMIVOLATILE TARGET COMPOUNDS

Parameter	Result		Rep.Lim.	Qualifier
3-Nitroaniline		BQL	1700	
2,4-Dinitrophenol		BQL	1700	
Dibenzofuran		BQL	340	
2,4-Dinitrotoluene		BQL	340	
4-Nitrophenol		BQL	1700	
Fluorene		BQL	340	
4-Chlorophenyl-phenylether		BQL	340	
Diethylphthalate		BQL	340	
4-Nitroaniline		BQL	1700	
4,6-Dinitro-2-methylphenol		BQL	1700	
N-nitrosodiphenylamine		BQL	340	
4-Bromophenyl-phenylether		BQL	340	
Hexachlorobenzene		BQL	340	
Pentachlorophenol		BQL	1700	
Phenanthrene	2000		340	
Anthracene		BQL	340	
Carbazole		BQL	340	
di-n-Butylphthalate	1300		340	
Fluoranthene	230		340	J
Pyrene	680		340	
Butylbenzylphthalate		BQL	340	
3,3'-Dichlorobenzidine		BQL	670	
Benzo[a]anthracene		BQL	340	
Chrysene		BQL	340	
bis(2-Ethylhexyl)phthalate	1600		340	
di-n-Octylphthalate		BQL	340	
Benzo[b]fluoranthene		BQL	340	
Benzo[k]fluoranthene		BQL	340	
Benzo[a]pyrene		BQL	340	
Indeno[1,2,3-cd]pyrene		BQL	340	
Dibenz[a,h]anthracene		BQL	340	
Benzo[g,h,i]perylene		BQL	340	

MARKED AS DRUM #2

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-02C
Client ID: 93099-4 5 6
Collected: 09/30/99
Dilution: 1

Matrix: SOLID
Method: SW846 8270C
Units: ug/Kg

Analyst: JMS
Analyzed: 10/12/99
Prepared: 10/07/99

SEMIVOLATILE TARGET COMPOUNDS

Parameter	Result	Rep.Lim.	Qualifier
bis(2-Chloroethyl)ether	BQL	430	
Phenol	BQL	430	
2-Chlorophenol	BQL	430	
1,3-Dichlorobenzene	BQL	430	
1,4-Dichlorobenzene	BQL	430	
1,2-Dichlorobenzene	BQL	430	
2,2'-oxybis(1-chloropropane)	BQL	430	
2-Methylphenol	BQL	430	
Hexachloroethane	BQL	430	
N-Nitroso-di-n-propylamine	BQL	430	
4-Methylphenol	BQL	430	
Nitrobenzene	BQL	430	
Isophorone	BQL	430	
2-Nitrophenol	BQL	430	
2,4-Dimethylphenol	BQL	430	
bis(2-Chloroethoxy)methane	BQL	430	
2,4-Dichlorophenol	BQL	430	
1,2,4-Trichlorobenzene	BQL	430	
Naphthalene	BQL	430	
4-Chloroaniline	BQL	430	
Hexachlorobutadiene	BQL	430	
4-Chloro-3-methylphenol	BQL	430	
2-Methylnaphthalene	BQL	430	
Hexachlorocyclopentadiene	BQL	430	
2,4,6-Trichlorophenol	BQL	430	
2,4,5-Trichlorophenol	BQL	2200	
2-Chloronaphthalene	BQL	430	
2-Nitroaniline	BQL	430	
Acenaphthylene	BQL	430	
Dimethylphthalate	BQL	430	
2,6-Dinitrotoluene	BQL	430	
Acenaphthene	BQL	430	

MARKED AS DRUM #3

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-02C
Client ID: 93099-4 5 6
Collected: 09/30/99
Dilution: 1

Matrix: SOLID
Method: SW846 8270C
Units: ug/Kg

Analyst: JMS
Analyzed: 10/12/99
Prepared: 10/07/99

SEMIVOLATILE TARGET COMPOUNDS

Parameter	Result	Rep.Lim.	Qualifier
3-Nitroaniline	BQL	2200	
2,4-Dinitrophenol	BQL	2200	
Dibenzofuran	BQL	430	
2,4-Dinitrotoluene	BQL	430	
4-Nitrophenol	BQL	2200	
Fluorene	BQL	430	
4-Chlorophenyl-phenylether	BQL	430	
Diethylphthalate	BQL	430	
4-Nitroaniline	BQL	2200	
4,6-Dinitro-2-methylphenol	BQL	2200	
N-nitrosodiphenylamine	BQL	430	
4-Bromophenyl-phenylether	BQL	430	
Hexachlorobenzene	BQL	430	
Pentachlorophenol	BQL	2200	
Phenanthrene	BQL	430	
Anthracene	BQL	430	
Carbazole	BQL	430	
di-n-Butylphthalate	BQL	430	
Fluoranthene	BQL	430	
Pyrene	BQL	430	
Butylbenzylphthalate	BQL	430	
3,3'-Dichlorobenzidine	BQL	860	
Benzo[a]anthracene	BQL	430	
Chrysene	BQL	430	
bis(2-Ethylhexyl)phthalate	860	430	
di-n-Octylphthalate	BQL	430	
Benzo[b]fluoranthene	BQL	430	
Benzo[k]fluoranthene	BQL	430	
Benzo[a]pyrene	BQL	430	
Indeno[1,2,3-cd]pyrene	BQL	430	
Dibenz[a,h]anthracene	BQL	430	
Benzo[g,h,i]perylene	BQL	430	

MARKED AS DRUM #3

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-03C
Client ID: 93099-7 8 9
Collected: 09/30/99
Dilution: 1

Matrix: SOLID
Method: SW846 8270C
Units: ug/Kg

Analyst: JMS
Analyzed: 10/12/99
Prepared: 10/07/99

SEMIVOLATILE TARGET COMPOUNDS

Parameter	Result	Rep.Lim.	Qualifier
bis(2-Chloroethyl)ether	BQL	330	
Phenol	280	330	J
2-Chlorophenol	BQL	330	
1,3-Dichlorobenzene	BQL	330	
1,4-Dichlorobenzene	BQL	330	
1,2-Dichlorobenzene	BQL	330	
2,2'-oxybis(1-chloropropane)	BQL	330	
2-Methylphenol	BQL	330	
Hexachloroethane	BQL	330	
N-Nitroso-di-n-propylamine	BQL	330	
4-Methylphenol	85	330	J
Nitrobenzene	BQL	330	
Isophorone	BQL	330	
2-Nitrophenol	BQL	330	
2,4-Dimethylphenol	BQL	330	
bis(2-Chloroethoxy)methane	BQL	330	
2,4-Dichlorophenol	BQL	330	
1,2,4-Trichlorobenzene	BQL	330	
Naphthalene	140	330	J
4-Chloroaniline	BQL	330	
Hexachlorobutadiene	BQL	330	
4-Chloro-3-methylphenol	BQL	330	
2-Methylnaphthalene	300	330	J
Hexachlorocyclopentadiene	BQL	330	
2,4,6-Trichlorophenol	BQL	330	
2,4,5-Trichlorophenol	BQL	1700	
2-Chloronaphthalene	BQL	330	
2-Nitroaniline	BQL	330	
Acenaphthylene	62	330	J
Dimethylphthalate	BQL	330	
2,6-Dinitrotoluene	710	330	
Acenaphthene	BQL	330	

MARKED AS DRUM #4

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-03C
Client ID: 93099-7 8 9
Collected: 09/30/99
Dilution: 1

Matrix: SOLID
Method: SW846 8270C
Units: ug/Kg

Analyst: JMS
Analyzed: 10/12/99
Prepared: 10/07/99

SEMIVOLATILE TARGET COMPOUNDS

Parameter	Result		Rep.Lim.	Qualifier
3-Nitroaniline		BQL	1700	
2,4-Dinitrophenol		BQL	1700	
Dibenzofuran		BQL	330	
2,4-Dinitrotoluene	10000		330	D+
4-Nitrophenol		BQL	1700	
Fluorene		BQL	330	
4-Chlorophenyl-phenylether		BQL	330	
Diethylphthalate		BQL	330	
4-Nitroaniline		BQL	1700	
4,6-Dinitro-2-methylphenol		BQL	1700	
N-nitrosodiphenylamine	480		330	
4-Bromophenyl-phenylether		BQL	330	
Hexachlorobenzene		BQL	330	
Pentachlorophenol		BQL	1700	
Phenanthrene	490		330	
Anthracene		BQL	330	
Carbazole	160		330	J
di-n-Butylphthalate	12000		330	D+
Fluoranthene		BQL	330	
Pyrene	340		330	
Butylbenzylphthalate		BQL	330	
3,3'-Dichlorobenzidine		BQL	660	
Benzo[a]anthracene		BQL	330	
Chrysene		BQL	330	
bis(2-Ethylhexyl)phthalate	2000		330	
di-n-Octylphthalate		BQL	330	
Benzo[b]fluoranthene		BQL	330	
Benzo[k]fluoranthene		BQL	330	
Benzo[a]pyrene		BQL	330	
Indeno[1,2,3-cd]pyrene		BQL	330	
Dibenz[a,h]anthracene		BQL	330	
Benzo[g,h,i]perylene		BQL	330	

MARKED AS DRUM #4

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-04C
Client ID: 93099-10 11 12
Collected: 09/30/99
Dilution: 1

Matrix: SOLID
Method: SW846 8270C
Units: ug/Kg

Analyst: JMS
Analyzed: 10/12/99
Prepared: 10/07/99

SEMIVOLATILE TARGET COMPOUNDS

Parameter	Result	Rep.Lim.	Qualifier
bis(2-Chloroethyl)ether	BQL	350	
Phenol	BQL	350	
2-Chlorophenol	BQL	350	
1,3-Dichlorobenzene	BQL	350	
1,4-Dichlorobenzene	BQL	350	
1,2-Dichlorobenzene	BQL	350	
2,2'-oxybis(1-chloropropane)	BQL	350	
2-Methylphenol	BQL	350	
Hexachloroethane	BQL	350	
N-Nitroso-di-n-propylamine	BQL	350	
4-Methylphenol	BQL	350	
Nitrobenzene	BQL	350	
Isophorone	BQL	350	
2-Nitrophenol	BQL	350	
2,4-Dimethylphenol	BQL	350	
bis(2-Chloroethoxy)methane	BQL	350	
2,4-Dichlorophenol	BQL	350	
1,2,4-Trichlorobenzene	BQL	350	
Naphthalene	BQL	350	
4-Chloroaniline	BQL	350	
Hexachlorobutadiene	BQL	350	
4-Chloro-3-methylphenol	BQL	350	
2-Methylnaphthalene	BQL	350	
Hexachlorocyclopentadiene	BQL	350	
2,4,6-Trichlorophenol	BQL	350	
2,4,5-Trichlorophenol	BQL	1800	
2-Chloronaphthalene	BQL	350	
2-Nitroaniline	BQL	350	
Acenaphthylene	BQL	350	
Dimethylphthalate	BQL	350	
2,6-Dinitrotoluene	BQL	350	
Acenaphthene	BQL	350	

MARKED AS DRUM # 5

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-04C
Client ID: 93099-10 11 12
Collected: 09/30/99
Dilution: 1

Matrix: SOLID
Method: SW846 8270C
Units: ug/Kg

Analyst: JMS
Analyzed: 10/12/99
Prepared: 10/07/99

SEMIVOLATILE TARGET COMPOUNDS

Parameter	Result		Rep.Lim.	Qualifier
3-Nitroaniline		BQL	1800	
2,4-Dinitrophenol		BQL	1800	
Dibenzofuran		BQL	350	
2,4-Dinitrotoluene		BQL	350	
4-Nitrophenol		BQL	1800	
Fluorene		BQL	350	
4-Chlorophenyl-phenylether		BQL	350	
Diethylphthalate		BQL	350	
4-Nitroaniline		BQL	1800	
4,6-Dinitro-2-methylphenol		BQL	1800	
N-nitrosodiphenylamine		BQL	350	
4-Bromophenyl-phenylether		BQL	350	
Hexachlorobenzene		BQL	350	
Pentachlorophenol		BQL	1800	
Phenanthrene	23		350	J
Anthracene		BQL	350	
Carbazole		BQL	350	
di-n-Butylphthalate	1200		350	
Fluoranthene		BQL	350	
Pyrene		BQL	350	
Butylbenzylphthalate		BQL	350	
3,3'-Dichlorobenzidine		BQL	700	
Benzo[a]anthracene		BQL	350	
Chrysene		BQL	350	
bis(2-Ethylhexyl)phthalate	1300		350	
di-n-Octylphthalate		BQL	350	
Benzo[b]fluoranthene		BQL	350	
Benzo[k]fluoranthene		BQL	350	
Benzo[a]pyrene		BQL	350	
Indeno[1,2,3-cd]pyrene		BQL	350	
Dibenz[a,h]anthracene		BQL	350	
Benzo[g,h,i]perylene		BQL	350	

MARKED AS DRUM #5

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-05C
Client ID: 93099-13 14 15
Collected: 09/30/99
Dilution: 1

Matrix: SOLID
Method: SW846 8270C
Units: ug/Kg

Analyst: JMS
Analyzed: 10/12/99
Prepared: 10/07/99

SEMIVOLATILE TARGET COMPOUNDS

Parameter	Result	Rep.Lim.	Qualifier
bis(2-Chloroethyl)ether	BQL	340	
Phenol	BQL	340	
2-Chlorophenol	BQL	340	
1,3-Dichlorobenzene	BQL	340	
1,4-Dichlorobenzene	BQL	340	
1,2-Dichlorobenzene	BQL	340	
2,2'-oxybis(1-chloropropane)	BQL	340	
2-Methylphenol	BQL	340	
Hexachloroethane	BQL	340	
N-Nitroso-di-n-propylamine	BQL	340	
4-Methylphenol	BQL	340	
Nitrobenzene	BQL	340	
Isophorone	BQL	340	
2-Nitrophenol	BQL	340	
2,4-Dimethylphenol	BQL	340	
bis(2-Chloroethoxy)methane	BQL	340	
2,4-Dichlorophenol	BQL	340	
1,2,4-Trichlorobenzene	BQL	340	
Naphthalene	34	340	J
4-Chloroaniline	BQL	340	
Hexachlorobutadiene	BQL	340	
4-Chloro-3-methylphenol	BQL	340	
2-Methylnaphthalene	BQL	340	
Hexachlorocyclopentadiene	BQL	340	
2,4,6-Trichlorophenol	BQL	340	
2,4,5-Trichlorophenol	BQL	1700	
2-Chloronaphthalene	BQL	340	
2-Nitroaniline	BQL	340	
Acenaphthylene	BQL	340	
Dimethylphthalate	BQL	340	
2,6-Dinitrotoluene	BQL	340	
Acenaphthene	BQL	340	

MARKED AS DRUM # 6

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-05C
Client ID: 93099-13 14 15
Collected: 09/30/99
Dilution: 1

Matrix: SOLID
Method: SW846 8270C
Units: ug/Kg

Analyst: JMS
Analyzed: 10/12/99
Prepared: 10/07/99

SEMIVOLATILE TARGET COMPOUNDS

Parameter	Result		Rep.Lim.	Qualifier
3-Nitroaniline		BQL	1700	
2,4-Dinitrophenol		BQL	1700	
Dibenzofuran		BQL	340	
2,4-Dinitrotoluene		BQL	340	
4-Nitrophenol		BQL	1700	
Fluorene		BQL	340	
4-Chlorophenyl-phenylether		BQL	340	
Diethylphthalate		BQL	340	
4-Nitroaniline		BQL	1700	
4,6-Dinitro-2-methylphenol		BQL	1700	
N-nitrosodiphenylamine		BQL	340	
4-Bromophenyl-phenylether		BQL	340	
Hexachlorobenzene		BQL	340	
Pentachlorophenol		BQL	1700	
Phenanthrene		BQL	340	
Anthracene		BQL	340	
Carbazole		BQL	340	
di-n-Butylphthalate		BQL	340	
Fluoranthene		BQL	340	
Pyrene		BQL	340	
Butylbenzylphthalate		BQL	340	
3,3'-Dichlorobenzidine		BQL	670	
Benzo[a]anthracene		BQL	340	
Chrysene		BQL	340	
bis(2-Ethylhexyl)phthalate	660		340	
di-n-Octylphthalate		BQL	340	
Benzo[b]fluoranthene		BQL	340	
Benzo[k]fluoranthene		BQL	340	
Benzo[a]pyrene		BQL	340	
Indeno[1,2,3-cd]pyrene		BQL	340	
Dibenz[a,h]anthracene		BQL	340	
Benzo[g,h,i]perylene		BQL	340	

MARKED AS DRUM # 6

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-06C
Client ID: 93099-16 17 18
Collected: 09/30/99
Dilution: 1

Matrix: SOLID
Method: SW846 8270C
Units: ug/Kg

Analyst: JMS
Analyzed: 10/12/99
Prepared: 10/07/99

SEMIVOLATILE TARGET COMPOUNDS

Parameter	Result	Rep.Lim.	Qualifier
bis(2-Chloroethyl)ether	BQL	360	
Phenol	BQL	360	
2-Chlorophenol	BQL	360	
1,3-Dichlorobenzene	BQL	360	
1,4-Dichlorobenzene	BQL	360	
1,2-Dichlorobenzene	BQL	360	
2,2'-oxybis(1-chloropropane)	BQL	360	
2-Methylphenol	BQL	360	
Hexachloroethane	BQL	360	
N-Nitroso-di-n-propylamine	BQL	360	
4-Methylphenol	BQL	360	
Nitrobenzene	BQL	360	
Isophorone	BQL	360	
2-Nitrophenol	BQL	360	
2,4-Dimethylphenol	BQL	360	
bis(2-Chloroethoxy)methane	BQL	360	
2,4-Dichlorophenol	BQL	360	
1,2,4-Trichlorobenzene	BQL	360	
Naphthalene	41	360	J
4-Chloroaniline	BQL	360	
Hexachlorobutadiene	BQL	360	
4-Chloro-3-methylphenol	BQL	360	
2-Methylnaphthalene	BQL	360	
Hexachlorocyclopentadiene	BQL	360	
2,4,6-Trichlorophenol	BQL	360	
2,4,5-Trichlorophenol	BQL	1800	
2-Chloronaphthalene	BQL	360	
2-Nitroaniline	BQL	360	
Acenaphthylene	BQL	360	
Dimethylphthalate	BQL	360	
2,6-Dinitrotoluene	BQL	360	
Acenaphthene	BQL	360	

MARKED AS DRUM # 7

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-06C
Client ID: 93099-16 17 18
Collected: 09/30/99
Dilution: 1

Matrix: SOLID
Method: SW846 8270C
Units: ug/Kg

Analyst: JMS
Analyzed: 10/12/99
Prepared: 10/07/99

SEMIVOLATILE TARGET COMPOUNDS

Parameter	Result		Rep.Lim.	Qualifier
3-Nitroaniline		BQL	1800	
2,4-Dinitrophenol		BQL	1800	
Dibenzofuran		BQL	360	
2,4-Dinitrotoluene		BQL	360	
4-Nitrophenol		BQL	1800	
Fluorene		BQL	360	
4-Chlorophenyl-phenylether		BQL	360	
Diethylphthalate		BQL	360	
4-Nitroaniline		BQL	1800	
4,6-Dinitro-2-methylphenol		BQL	1800	
N-nitrosodiphenylamine		BQL	360	
4-Bromophenyl-phenylether		BQL	360	
Hexachlorobenzene		BQL	360	
Pentachlorophenol		BQL	1800	
Phenanthrene	29		360	J
Anthracene		BQL	360	
Carbazole		BQL	360	
di-n-Butylphthalate	920		360	
Fluoranthene		BQL	360	
Pyrene		BQL	360	
Butylbenzylphthalate		BQL	360	
3,3'-Dichlorobenzidine		BQL	720	
Benzo[a]anthracene		BQL	360	
Chrysene		BQL	360	
bis(2-Ethylhexyl)phthalate	250		360	J
di-n-Octylphthalate		BQL	360	
Benzo[b]fluoranthene		BQL	360	
Benzo[k]fluoranthene		BQL	360	
Benzo[a]pyrene		BQL	360	
Indeno[1,2,3-cd]pyrene		BQL	360	
Dibenz[a,h]anthracene		BQL	360	
Benzo[g,h,i]perylene		BQL	360	

MARKED AS DRUM # 7

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-07C
Client ID: 93099-19 20 21
Collected: 09/30/99
Dilution: 1

Matrix: SOLID
Method: SW846 8270C
Units: ug/Kg

Analyst: JMS
Analyzed: 10/12/99
Prepared: 10/07/99

SEMIVOLATILE TARGET COMPOUNDS

Parameter	Result	Rep.Lim.	Qualifier
bis(2-Chloroethyl)ether	BQL	330	
Phenol	BQL	330	
2-Chlorophenol	BQL	330	
1,3-Dichlorobenzene	BQL	330	
1,4-Dichlorobenzene	BQL	330	
1,2-Dichlorobenzene	BQL	330	
2,2'-oxybis(1-chloropropane)	BQL	330	
2-Methylphenol	BQL	330	
Hexachloroethane	BQL	330	
N-Nitroso-di-n-propylamine	BQL	330	
4-Methylphenol	BQL	330	
Nitrobenzene	BQL	330	
Isophorone	BQL	330	
2-Nitrophenol	BQL	330	
2,4-Dimethylphenol	BQL	330	
bis(2-Chloroethoxy)methane	BQL	330	
2,4-Dichlorophenol	BQL	330	
1,2,4-Trichlorobenzene	BQL	330	
Naphthalene	130	330	J
4-Chloroaniline	BQL	330	
Hexachlorobutadiene	BQL	330	
4-Chloro-3-methylphenol	BQL	330	
2-Methylnaphthalene	BQL	330	
Hexachlorocyclopentadiene	BQL	330	
2,4,6-Trichlorophenol	BQL	330	
2,4,5-Trichlorophenol	BQL	1700	
2-Chloronaphthalene	BQL	330	
2-Nitroaniline	BQL	330	
Acenaphthylene	BQL	330	
Dimethylphthalate	BQL	330	
2,6-Dinitrotoluene	BQL	330	
Acenaphthene	BQL	330	

MARKED AS DRUM # 8

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-07C
Client ID: 93099-19 20 21
Collected: 09/30/99
Dilution: 1

Matrix: SOLID
Method: SW846 8270C
Units: ug/Kg

Analyst: JMS
Analyzed: 10/12/99
Prepared: 10/07/99

SEMIVOLATILE TARGET COMPOUNDS

Parameter	Result	Rep.Lim.	Qualifier
3-Nitroaniline	BQL	1700	
2,4-Dinitrophenol	BQL	1700	
Dibenzofuran	BQL	330	
2,4-Dinitrotoluene	BQL	330	
4-Nitrophenol	BQL	1700	
Fluorene	BQL	330	
4-Chlorophenyl-phenylether	BQL	330	
Diethylphthalate	BQL	330	
4-Nitroaniline	BQL	1700	
4,6-Dinitro-2-methylphenol	BQL	1700	
N-nitrosodiphenylamine	BQL	330	
4-Bromophenyl-phenylether	BQL	330	
Hexachlorobenzene	BQL	330	
Pentachlorophenol	BQL	1700	
Phenanthrene	60	330	J
Anthracene	BQL	330	
Carbazole	BQL	330	
di-n-Butylphthalate	48	330	J
Fluoranthene	BQL	330	
Pyrene	BQL	330	
Butylbenzylphthalate	BQL	330	
3,3'-Dichlorobenzidine	BQL	660	
Benzo[a]anthracene	BQL	330	
Chrysene	BQL	330	
bis(2-Ethylhexyl)phthalate	640	330	
di-n-Octylphthalate	BQL	330	
Benzo[b]fluoranthene	BQL	330	
Benzo[k]fluoranthene	BQL	330	
Benzo[a]pyrene	BQL	330	
Indeno[1,2,3-cd]pyrene	BQL	330	
Dibenz[a,h]anthracene	BQL	330	
Benzo[g,h,i]perylene	BQL	330	

MARKED AS DRUM #8

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-08C
Client ID: 93099-22 23 24
Collected: 09/30/99
Dilution: 1

Matrix: SOLID
Method: SW846 8270C
Units: ug/Kg

Analyst: JMS
Analyzed: 10/12/99
Prepared: 10/07/99

SEMIVOLATILE TARGET COMPOUNDS

Parameter	Result	Rep.Lim.	Qualifier
bis(2-Chloroethyl)ether	BQL	3500	
Phenol	BQL	3500	
2-Chlorophenol	BQL	3500	
1,3-Dichlorobenzene	BQL	3500	
1,4-Dichlorobenzene	BQL	3500	
1,2-Dichlorobenzene	BQL	3500	
2,2'-oxybis(1-chloropropane)	BQL	3500	
2-Methylphenol	BQL	3500	
Hexachloroethane	BQL	3500	
N-Nitroso-di-n-propylamine	BQL	3500	
4-Methylphenol	BQL	3500	
Nitrobenzene	BQL	3500	
Isophorone	BQL	3500	
2-Nitrophenol	BQL	3500	
2,4-Dimethylphenol	BQL	3500	
bis(2-Chloroethoxy)methane	BQL	3500	
2,4-Dichlorophenol	BQL	3500	
1,2,4-Trichlorobenzene	BQL	3500	
Naphthalene	570	3500	J
4-Chloroaniline	BQL	3500	
Hexachlorobutadiene	BQL	3500	
4-Chloro-3-methylphenol	BQL	3500	
2-Methylnaphthalene	1400	3500	J
Hexachlorocyclopentadiene	BQL	3500	
2,4,6-Trichlorophenol	BQL	3500	
2,4,5-Trichlorophenol	BQL	17000	
2-Chloronaphthalene	BQL	3500	
2-Nitroaniline	BQL	3500	
Acenaphthylene	BQL	3500	
Dimethylphthalate	BQL	3500	
2,6-Dinitrotoluene	BQL	3500	
Acenaphthene	BQL	3500	

MARKED AS DRUM # 9

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-08C
Client ID: 93099-22 23 24
Collected: 09/30/99
Dilution: 1

Matrix: SOLID
Method: SW846 8270C
Units: ug/Kg

Analyst: JMS
Analyzed: 10/12/99
Prepared: 10/07/99

SEMIVOLATILE TARGET COMPOUNDS

Parameter	Result		Rep.Lim.	Qualifier
3-Nitroaniline		BQL	17000	
2,4-Dinitrophenol		BQL	17000	
Dibenzofuran		BQL	3500	
2,4-Dinitrotoluene		BQL	3500	
4-Nitrophenol		BQL	17000	
Fluorene	440		3500	J
4-Chlorophenyl-phenylether		BQL	3500	
Diethylphthalate		BQL	3500	
4-Nitroaniline		BQL	17000	
4,6-Dinitro-2-methylphenol		BQL	17000	
N-nitrosodiphenylamine		BQL	3500	
4-Bromophenyl-phenylether		BQL	3500	
Hexachlorobenzene		BQL	3500	
Pentachlorophenol		BQL	17000	
Phenanthrene	2300		3500	J
Anthracene		BQL	3500	
Carbazole		BQL	3500	
di-n-Butylphthalate	2500		3500	J
Fluoranthene		BQL	3500	
Pyrene	1000		3500	J
Butylbenzylphthalate		BQL	3500	
3,3'-Dichlorobenzidine		BQL	6900	
Benzo[a]anthracene		BQL	3500	
Chrysene		BQL	3500	
bis(2-Ethylhexyl)phthalate	2500		3500	J
di-n-Octylphthalate		BQL	3500	
Benzo[b]fluoranthene		BQL	3500	
Benzo[k]fluoranthene		BQL	3500	
Benzo[a]pyrene		BQL	3500	
Indeno[1,2,3-cd]pyrene		BQL	3500	
Dibenz[a,h]anthracene		BQL	3500	
Benzo[g,h,i]perylene		BQL	3500	

Marked AS DRUM # 9

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-01 DRUM # 2
Client ID: 93099-1 2 3
Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result		Rep.Lim.	Units	Dil.	Prepared	Analyzed By
DRO	CAL LUFT	1300		170	mg/Kg	100	10/07/99	10/19/99 HH
Flash point	SW846 1010		N	100	deg. C			10/08/99 DVC

GP ID: 9910024-02 DRUM #3
Client ID: 93099-4 5 6
Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result		Rep.Lim.	Units	Dil.	Prepared	Analyzed By
DRO	CAL LUFT	8.3		2.2	mg/Kg	1	10/07/99	10/13/99 HH
Flash point	SW846 1010		N	100	deg. C			10/08/99 DVC

GP ID: 9910024-03 DRUM #4
Client ID: 93099-7 8 9
Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result		Rep.Lim.	Units	Dil.	Prepared	Analyzed By
DRO	CAL LUFT	130		17	mg/Kg	10	10/07/99	10/19/99 HH
Flash point	SW846 1010	35		100	deg. C			10/08/99 DVC

GP ID: 9910024-04 DRUM #5
Client ID: 93099-10 11 12
Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result		Rep.Lim.	Units	Dil.	Prepared	Analyzed By
DRO	CAL LUFT	25		1.8	mg/Kg	1	10/07/99	10/13/99 HH
Flash point	SW846 1010		N	100	deg. C			10/08/99 DVC

GP ID: 9910024-05 DRUM #6
Client ID: 93099-13 14 15
Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result		Rep.Lim.	Units	Dil.	Prepared	Analyzed By
DRO	CAL LUFT	10		1.7	mg/Kg	1	10/07/99	10/13/99 HH
Flash point	SW846 1010		N	100	deg. C			10/08/99 DVC

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-06 DRUM # 7
Client ID: 93099-16 17 18
Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result		Rep.Lim.	Units	Dil.	Prepared	Analyzed By
DRO	CAL LUFT	26		1.8	mg/Kg	1	10/07/99	10/13/99 HH
Flash point	SW846 1010		N	100	deg. C			10/08/99 DVC

GP ID: 9910024-07 DRUM #8
Client ID: 93099-19 20 21
Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result		Rep.Lim.	Units	Dil.	Prepared	Analyzed By
DRO	CAL LUFT	13		1.7	mg/Kg	1	10/07/99	10/13/99 HH
Flash point	SW846 1010		N	100	deg. C			10/08/99 DVC

GP ID: 9910024-08 DRUM #9
Client ID: 93099-22 23 24
Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result		Rep.Lim.	Units	Dil.	Prepared	Analyzed By
DRO	CAL LUFT	470		88	mg/Kg	1	10/07/99	10/19/99 HH
Flash point	SW846 1010		N	100	deg. C			10/08/99 DVC

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-01C
Client ID: 93099-1 2 3
Collected: 09/30/99
Dilution: 1

Matrix: SOLID
Method: SW-846 8330
Units: ug/Kg

Analyst: L/H
Analyzed: 11/08/99
Prepared: 10/11/99

LIQUID CHROMATOGRAPHY TARGET COMPOUNDS

Parameter	Result	Rep.Lim.	Qualifier
1,3,5-Trinitrobenzene	BQL	230	
1,3-Dinitrobenzene	BQL	230	
2,4,6-Trinitrotoluene	BQL	230	
2,4-Dinitrotoluene	2000	230	
2,6-Dinitrotoluene	BQL	230	
2-Amino-4,6-dinitrotoluene	BQL	230	
2-Nitrotoluene	BQL	450	
3-Nitrotoluene	BQL	450	
4-Amino-2,6-dinitrotoluene	BQL	230	
4-Nitrotoluene	BQL	450	
HMX	BQL	450	
Nitrobenzene	BQL	230	
RDX	BQL	450	
Tetryl	BQL	450	

DRUM # 2

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-01
Client ID: 93099-1 2 3

Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Nitroglycerin	8330M	BQL	4545.5	ug/Kg	1	10/29/99	11/08/99 LM
Nitroguanidine	HPLC	BQL	125.0	ug/kg	1	10/11/99	11/08/99 LM

DRUM #2

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-02C
Client ID: 93099-4 5 6
Collected: 09/30/99
Dilution: 1

Matrix: SOLID
Method: SW-846 8330
Units: ug/Kg

Analyst: L/H
Analyzed: 11/08/99
Prepared: 10/11/99

LIQUID CHROMATOGRAPHY TARGET COMPOUNDS

Parameter	Result	Rep.Lim.	Qualifier
1,3,5-Trinitrobenzene	BQL	210	
1,3-Dinitrobenzene	BQL	210	
2,4,6-Trinitrotoluene	BQL	210	
2,4-Dinitrotoluene	BQL	210	
2,6-Dinitrotoluene	BQL	210	
2-Amino-4,6-dinitrotoluene	BQL	210	
2-Nitrotoluene	BQL	420	
3-Nitrotoluene	BQL	420	
4-Amino-2,6-dinitrotoluene	BQL	210	
4-Nitrotoluene	BQL	420	
HMX	BQL	420	
Nitrobenzene	BQL	210	
RDX	BQL	420	
Tetryl	BQL	420	

DRUM #3

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-02
Client ID: 93099-4 5 6

Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Nitroglycerin	8330M	BQL	4166.7	ug/Kg	1	10/29/99	11/08/99 LM
Nitroguanidine	HPLC	BQL	125.0	ug/kg	1	10/11/99	11/08/99 LM

DRUM #3

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-03C
Client ID: 93099-7 8 9
Collected: 09/30/99
Dilution: 1

Matrix: SOLID
Method: SW-846 8330
Units: ug/Kg

Analyst: L/H
Analyzed: 11/08/99
Prepared: 10/11/99

LIQUID CHROMATOGRAPHY TARGET COMPOUNDS

Parameter	Result	Rep.Lim.	Qualifier
1,3,5-Trinitrobenzene	BQL	230	
1,3-Dinitrobenzene	BQL	230	
2,4,6-Trinitrotoluene	BQL	230	
2,4-Dinitrotoluene	6500	230	
2,6-Dinitrotoluene	BQL	230	
2-Amino-4,6-dinitrotoluene	BQL	230	
2-Nitrotoluene	BQL	450	
3-Nitrotoluene	BQL	450	
4-Amino-2,6-dinitrotoluene	BQL	230	
4-Nitrotoluene	BQL	450	
HMX	BQL	450	
Nitrobenzene	BQL	230	
RDX	BQL	450	
Tetryl	BQL	450	

DRUM #4

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-03
Client ID: 93099-7 8 9

Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Nitroglycerin	8330M	BQL	4545.5	ug/Kg	1	10/29/99	11/08/99 LM
Nitroguanidine	HPLC	BQL	108.7	ug/kg	1	10/11/99	11/08/99 LM

DRUM #4

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-04C
Client ID: 93099-10 11 12
Collected: 09/30/99
Dilution: 1

Matrix: SOLID
Method: SW-846 8330
Units: ug/Kg

Analyst: L/H
Analyzed: 11/08/99
Prepared: 10/11/99

LIQUID CHROMATOGRAPHY TARGET COMPOUNDS

Parameter	Result	Rep.Lim.	Qualifier
1,3,5-Trinitrobenzene	BQL	250	
1,3-Dinitrobenzene	BQL	250	
2,4,6-Trinitrotoluene	BQL	250	
2,4-Dinitrotoluene	BQL	250	
2,6-Dinitrotoluene	BQL	250	
2-Amino-4,6-dinitrotoluene	BQL	250	
2-Nitrotoluene	BQL	500	
3-Nitrotoluene	BQL	500	
4-Amino-2,6-dinitrotoluene	BQL	250	
4-Nitrotoluene	BQL	500	
HMX	BQL	500	
Nitrobenzene	BQL	250	
RDX	BQL	500	
Tetryl	BQL	500	

DRUM #5

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-04
Client ID: 93099-10 11 12

Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result		Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Nitroglycerin	8330M		BQL	5000.0	ug/Kg	1	10/29/99	11/08/99 LM
Nitroguanidine	HPLC		BQL	119.0	ug/kg	1	10/11/99	11/08/99 LM

DRUM #5

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-05C
Client ID: 93099-13 14 15
Collected: 09/30/99
Dilution: 1

Matrix: SOLID
Method: SW-846 8330
Units: ug/Kg

Analyst: L/H
Analyzed: 11/08/99
Prepared: 10/11/99

LIQUID CHROMATOGRAPHY TARGET COMPOUNDS

Parameter	Result	Rep.Lim.	Qualifier
1,3,5-Trinitrobenzene	BQL	220	
1,3-Dinitrobenzene	BQL	220	
2,4,6-Trinitrotoluene	BQL	220	
2,4-Dinitrotoluene	BQL	220	
2,6-Dinitrotoluene	BQL	220	
2-Amino-4,6-dinitrotoluene	BQL	220	
2-Nitrotoluene	BQL	430	
3-Nitrotoluene	BQL	430	
4-Amino-2,6-dinitrotoluene	BQL	220	
4-Nitrotoluene	BQL	430	
HMX	BQL	430	
Nitrobenzene	BQL	220	
RDX	BQL	430	
Tetryl	BQL	430	

DRUM #6

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-05
Client ID: 93099-13 14 15

Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Nitroglycerin	8330M	BQL	4347.8	ug/Kg	1	10/29/99	11/08/99 LM
Nitroguanidine	HPLC	BQL	104.2	ug/kg	1	10/11/99	11/08/99 LM

DRUM #6

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-06C
Client ID: 93099-16 17 18
Collected: 09/30/99
Dilution: 1

Matrix: SOLID
Method: SW-846 8330
Units: ug/Kg

Analyst: L/H
Analyzed: 11/08/99
Prepared: 10/11/99

LIQUID CHROMATOGRAPHY TARGET COMPOUNDS

Parameter	Result	Rep.Lim.	Qualifier
1,3,5-Trinitrobenzene	BQL	240	
1,3-Dinitrobenzene	BQL	240	
2,4,6-Trinitrotoluene	BQL	240	
2,4-Dinitrotoluene	BQL	240	
2,6-Dinitrotoluene	BQL	240	
2-Amino-4,6-dinitrotoluene	BQL	240	
2-Nitrotoluene	BQL	480	
3-Nitrotoluene	BQL	480	
4-Amino-2,6-dinitrotoluene	BQL	240	
4-Nitrotoluene	BQL	480	
HMX	BQL	480	
Nitrobenzene	BQL	240	
RDX	BQL	480	
Tetryl	BQL	480	

DRUM #7

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-06
Client ID: 93099-16 17 18

Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result		Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Nitroglycerin	8330M		BQL	4761.9	ug/Kg	1	10/29/99	11/08/99 LM
Nitroguanidine	HPLC		BQL	113.6	ug/kg	1	10/11/99	11/08/99 LM

DRUM # 7

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-07C
Client ID: 93099-19 20 21
Collected: 09/30/99
Dilution: 1

Matrix: SOLID
Method: SW-846 8330
Units: ug/Kg

Analyst: L/H
Analyzed: 11/08/99
Prepared: 10/11/99

LIQUID CHROMATOGRAPHY TARGET COMPOUNDS

Parameter	Result	Rep.Lim.	Qualifier
1,3,5-Trinitrobenzene	BQL	250	
1,3-Dinitrobenzene	BQL	250	
2,4,6-Trinitrotoluene	BQL	250	
2,4-Dinitrotoluene	BQL	250	
2,6-Dinitrotoluene	BQL	250	
2-Amino-4,6-dinitrotoluene	BQL	250	
2-Nitrotoluene	BQL	500	
3-Nitrotoluene	BQL	500	
4-Amino-2,6-dinitrotoluene	BQL	250	
4-Nitrotoluene	BQL	500	
HMX	BQL	500	
Nitrobenzene	BQL	250	
RDX	BQL	500	
Tetryl	BQL	500	

DRUM # 8

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-07
Client ID: 93099-19 20 21

Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Nitroglycerin	8330M	BQL	5000.0	ug/Kg	1	10/29/99	11/08/99 LM
Nitroguanidine	HPLC	BQL	125.0	ug/kg	1	10/11/99	11/08/99 LM

DRUM #8

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-08C
Client ID: 93099-22 23 24
Collected: 09/30/99
Dilution: 1

Matrix: SOLID
Method: SW-846 8330
Units: ug/Kg

Analyst: L/H
Analyzed: 11/08/99
Prepared: 10/11/99

LIQUID CHROMATOGRAPHY TARGET COMPOUNDS

Parameter	Result	Rep.Lim.	Qualifier
1,3,5-Trinitrobenzene	BQL	230	
1,3-Dinitrobenzene	BQL	230	
2,4,6-Trinitrotoluene	BQL	230	
2,4-Dinitrotoluene	BQL	230	
2,6-Dinitrotoluene	BQL	230	
2-Amino-4,6-dinitrotoluene	7800	230	
2-Nitrotoluene	BQL	450	
3-Nitrotoluene	BQL	450	
4-Amino-2,6-dinitrotoluene	BQL	230	
4-Nitrotoluene	BQL	450	
HMX	BQL	450	
Nitrobenzene	BQL	230	
RDX	BQL	450	
Tetryl	BQL	450	

DRUM #9

GPL LABORATORIES, LLLP
ORGANIC ANALYSIS RESULTS

GP ID: 9910024-08
Client ID: 93099-22 23 24

Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Nitroglycerin	8330M	BQL	4545.5	ug/Kg	1	10/29/99	11/08/99 LM
Nitroguanidine	HPLC	BQL	108.7	ug/kg	1	10/11/99	11/08/99 LM

DRUM #9

GPL LABORATORIES, LLLP
METALS ANALYSIS RESULTS

GP ID: 9910024-01
Client ID: 93099-1 2 3

Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed	By
Mercury	SW846 7471	0.04	0.03	MG/KG	1	10/13/99	10/14/99	LCM
Silver	SW846 6010	5.2	4.8	MG/KG	20	10/06/99	10/13/99	DDH
Aluminum	SW846 6010	20500	317	MG/KG	20	10/06/99	10/13/99	DDH
Arsenic	SW846 6010	23.1	7.9	MG/KG	20	10/06/99	10/13/99	DDH
Barium	SW846 6010	4880	7.9	MG/KG	20	10/06/99	10/13/99	DDH
Beryllium	SW846 6010	BQL	4.8	MG/KG	20	10/06/99	10/13/99	DDH
Calcium	SW846 6010	38600	794	MG/KG	20	10/06/99	10/13/99	DDH
Cadmium	SW846 6010	39.8	4.8	MG/KG	20	10/06/99	10/13/99	DDH
Cobalt	SW846 6010	21.3	7.9	MG/KG	20	10/06/99	10/13/99	DDH
Chromium	SW846 6010	404	7.9	MG/KG	20	10/06/99	10/13/99	DDH
Copper	SW846 6010	590	7.9	MG/KG	20	10/06/99	10/13/99	DDH
Iron	SW846 6010	78500	159	MG/KG	20	10/06/99	10/13/99	DDH
Potassium	SW846 6010	10500	794	MG/KG	20	10/06/99	10/13/99	DDH
Magnesium	SW846 6010	8260	397	MG/KG	20	10/06/99	10/13/99	DDH
Manganese	SW846 6010	769	7.9	MG/KG	20	10/06/99	10/13/99	DDH
Sodium	SW846 6010	2010	1590	MG/KG	20	10/06/99	10/13/99	DDH
Nickel	SW846 6010	336	7.9	MG/KG	20	10/06/99	10/13/99	DDH
Lead	SW846 6010	17200	4.8	MG/KG	20	10/06/99	10/13/99	DDH
Antimony	SW846 6010	BQL	7.9	MG/KG	20	10/06/99	10/13/99	DDH
Selenium	SW846 6010	BQL	7.9	MG/KG	20	10/06/99	10/13/99	DDH
Thallium	SW846 6010	BQL	15.9	MG/KG	20	10/06/99	10/13/99	DDH
Vanadium	SW846 6010	25.8	7.9	MG/KG	20	10/06/99	10/13/99	DDH
Zinc	SW846 6010	13600	23.8	MG/KG	20	10/06/99	10/13/99	DDH

DRUM # 2

GPL LABORATORIES, LLLP
METALS ANALYSIS RESULTS

GP ID: 9910024-02
Client ID: 93099-4 5 6

Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Mercury	SW846 7471	BQL	0.04	MG/KG	1	10/13/99	10/14/99 LCM
Silver	SW846 6010	1.6	0.72	MG/KG	2	10/06/99	10/13/99 DDH
Aluminum	SW846 6010	72800	47.8	MG/KG	2	10/06/99	10/13/99 DDH
Arsenic	SW846 6010	14.4	1.2	MG/KG	2	10/06/99	10/13/99 DDH
Barium	SW846 6010	1710	1.2	MG/KG	2	10/06/99	10/13/99 DDH
Beryllium	SW846 6010	BQL	0.72	MG/KG	2	10/06/99	10/13/99 DDH
Calcium	SW846 6010	51500	120	MG/KG	2	10/06/99	10/13/99 DDH
Cadmium	SW846 6010	27.3	0.72	MG/KG	2	10/06/99	10/13/99 DDH
Cobalt	SW846 6010	43.8	1.2	MG/KG	2	10/06/99	10/13/99 DDH
Chromium	SW846 6010	324	1.2	MG/KG	2	10/06/99	10/13/99 DDH
Copper	SW846 6010	1450	1.2	MG/KG	2	10/06/99	10/13/99 DDH
Iron	SW846 6010	78400	23.9	MG/KG	2	10/06/99	10/13/99 DDH
Potassium	SW846 6010	8300	120	MG/KG	2	10/06/99	10/13/99 DDH
Magnesium	SW846 6010	11700	59.8	MG/KG	2	10/06/99	10/13/99 DDH
Manganese	SW846 6010	2820	1.2	MG/KG	2	10/06/99	10/13/99 DDH
Sodium	SW846 6010	3190	239	MG/KG	2	10/06/99	10/13/99 DDH
Nickel	SW846 6010	119	1.2	MG/KG	2	10/06/99	10/13/99 DDH
Lead	SW846 6010	2000	0.72	MG/KG	2	10/06/99	10/13/99 DDH
Antimony	SW846 6010	3.9	1.2	MG/KG	2	10/06/99	10/13/99 DDH
Selenium	SW846 6010	BQL	1.2	MG/KG	2	10/06/99	10/13/99 DDH
Thallium	SW846 6010	7.4	2.4	MG/KG	2	10/06/99	10/13/99 DDH
Vanadium	SW846 6010	22.4	1.2	MG/KG	2	10/06/99	10/13/99 DDH
Zinc	SW846 6010	3370	3.6	MG/KG	2	10/06/99	10/13/99 DDH

DRUM #3

GPL LABORATORIES, LLLP
METALS ANALYSIS RESULTS

GP ID: 9910024-03
Client ID: 93099-7 8 9

Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result		Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Mercury	SW846 7471		BQL	0.03	MG/KG	1	10/13/99	10/14/99 LCM
Silver	SW846 6010		BQL	5.8	MG/KG	20	10/06/99	10/13/99 DDH
Aluminum	SW846 6010	97600		386	MG/KG	20	10/06/99	10/13/99 DDH
Arsenic	SW846 6010	17.5		9.6	MG/KG	20	10/06/99	10/13/99 DDH
Barium	SW846 6010	590		9.6	MG/KG	20	10/06/99	10/13/99 DDH
Beryllium	SW846 6010		BQL	5.8	MG/KG	20	10/06/99	10/13/99 DDH
Calcium	SW846 6010	34300		965	MG/KG	20	10/06/99	10/13/99 DDH
Cadmium	SW846 6010	7.3		5.8	MG/KG	20	10/06/99	10/13/99 DDH
Cobalt	SW846 6010	125		9.6	MG/KG	20	10/06/99	10/13/99 DDH
Chromium	SW846 6010	11000		9.6	MG/KG	20	10/06/99	10/13/99 DDH
Copper	SW846 6010	590		9.6	MG/KG	20	10/06/99	10/13/99 DDH
Iron	SW846 6010	156000		193	MG/KG	20	10/06/99	10/13/99 DDH
Potassium	SW846 6010	2200		965	MG/KG	20	10/06/99	10/13/99 DDH
Magnesium	SW846 6010	81600		483	MG/KG	20	10/06/99	10/13/99 DDH
Manganese	SW846 6010	1960		9.6	MG/KG	20	10/06/99	10/13/99 DDH
Sodium	SW846 6010		BQL	1930	MG/KG	20	10/06/99	10/13/99 DDH
Nickel	SW846 6010	5500		9.6	MG/KG	20	10/06/99	10/13/99 DDH
Lead	SW846 6010	279		5.8	MG/KG	20	10/06/99	10/13/99 DDH
Antimony	SW846 6010		BQL	9.6	MG/KG	20	10/06/99	10/13/99 DDH
Selenium	SW846 6010		BQL	9.6	MG/KG	20	10/06/99	10/13/99 DDH
Thallium	SW846 6010		BQL	19.3	MG/KG	20	10/06/99	10/13/99 DDH
Vanadium	SW846 6010	77.4		9.6	MG/KG	20	10/06/99	10/13/99 DDH
Zinc	SW846 6010	3520		29.0	MG/KG	20	10/06/99	10/13/99 DDH

DRUM #4

GPL LABORATORIES, LLLP
METALS ANALYSIS RESULTS

GP ID: 9910024-04
Client ID: 93099-10 11 12

Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Mercury	SW846 7471	0.13	0.03	MG/KG	1	10/13/99	10/14/99 LCM
Silver	SW846 6010	BQL	5.1	MG/KG	20	10/06/99	10/13/99 DDH
Aluminum	SW846 6010	25800	339	MG/KG	20	10/06/99	10/13/99 DDH
Arsenic	SW846 6010	14.3	8.5	MG/KG	20	10/06/99	10/13/99 DDH
Barium	SW846 6010	358	8.5	MG/KG	20	10/06/99	10/13/99 DDH
Beryllium	SW846 6010	BQL	5.1	MG/KG	20	10/06/99	10/13/99 DDH
Calcium	SW846 6010	66200	847	MG/KG	20	10/06/99	10/13/99 DDH
Cadmium	SW846 6010	31.3	5.1	MG/KG	20	10/06/99	10/13/99 DDH
Cobalt	SW846 6010	14.8	8.5	MG/KG	20	10/06/99	10/13/99 DDH
Chromium	SW846 6010	89.7	8.5	MG/KG	20	10/06/99	10/13/99 DDH
Copper	SW846 6010	478	8.5	MG/KG	20	10/06/99	10/13/99 DDH
Iron	SW846 6010	79100	169	MG/KG	20	10/06/99	10/13/99 DDH
Potassium	SW846 6010	44300	847	MG/KG	20	10/06/99	10/13/99 DDH
Magnesium	SW846 6010	15600	423	MG/KG	20	10/06/99	10/13/99 DDH
Manganese	SW846 6010	926	8.5	MG/KG	20	10/06/99	10/13/99 DDH
Sodium	SW846 6010	2670	1690	MG/KG	20	10/06/99	10/13/99 DDH
Nickel	SW846 6010	125	8.5	MG/KG	20	10/06/99	10/13/99 DDH
Lead	SW846 6010	27300	5.1	MG/KG	20	10/06/99	10/13/99 DDH
Antimony	SW846 6010	9.0	8.5	MG/KG	20	10/06/99	10/13/99 DDH
Selenium	SW846 6010	BQL	8.5	MG/KG	20	10/06/99	10/13/99 DDH
Thallium	SW846 6010	BQL	16.9	MG/KG	20	10/06/99	10/13/99 DDH
Vanadium	SW846 6010	46.1	8.5	MG/KG	20	10/06/99	10/13/99 DDH
Zinc	SW846 6010	4970	25.4	MG/KG	20	10/06/99	10/13/99 DDH

DRUM #5

GPL LABORATORIES, LLLP
METALS ANALYSIS RESULTS

GP ID: 9910024-05
Client ID: 93099-13 14 15

Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result		Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Mercury	SW846 7471		BQL	0.03	MG/KG	1	10/13/99	10/14/99 LCM
Silver	SW846 6010		BQL	5.6	MG/KG	20	10/06/99	10/13/99 DDH
Aluminum	SW846 6010	17800		375	MG/KG	20	10/06/99	10/13/99 DDH
Arsenic	SW846 6010	38.3		9.4	MG/KG	20	10/06/99	10/13/99 DDH
Barium	SW846 6010	850		9.4	MG/KG	20	10/06/99	10/13/99 DDH
Beryllium	SW846 6010		BQL	5.6	MG/KG	20	10/06/99	10/13/99 DDH
Calcium	SW846 6010	75000		937	MG/KG	20	10/06/99	10/13/99 DDH
Cadmium	SW846 6010	9.1		5.6	MG/KG	20	10/06/99	10/13/99 DDH
Cobalt	SW846 6010	13.2		9.4	MG/KG	20	10/06/99	10/13/99 DDH
Chromium	SW846 6010	319		9.4	MG/KG	20	10/06/99	10/13/99 DDH
Copper	SW846 6010	2740		9.4	MG/KG	20	10/06/99	10/13/99 DDH
Iron	SW846 6010	53000		187	MG/KG	20	10/06/99	10/13/99 DDH
Potassium	SW846 6010	27200		937	MG/KG	20	10/06/99	10/13/99 DDH
Magnesium	SW846 6010	23300		468	MG/KG	20	10/06/99	10/13/99 DDH
Manganese	SW846 6010	2590		9.4	MG/KG	20	10/06/99	10/13/99 DDH
Sodium	SW846 6010	7000		187D	MG/KG	20	10/06/99	10/13/99 DDH
Nickel	SW846 6010	103		9.4	MG/KG	20	10/06/99	10/13/99 DDH
Lead	SW846 6010	522		5.6	MG/KG	20	10/06/99	10/13/99 DDH
Antimony	SW846 6010	2130		9.4	MG/KG	20	10/06/99	10/13/99 DDH
Selenium	SW846 6010		BQL	9.4	MG/KG	20	10/06/99	10/13/99 DDH
Thallium	SW846 6010		BQL	18.7	MG/KG	20	10/06/99	10/13/99 DDH
Vanadium	SW846 6010	25.3		9.4	MG/KG	20	10/06/99	10/13/99 DDH
Zinc	SW846 6010	5110		28.1	MG/KG	20	10/06/99	10/13/99 DDH

DRUM #6

GPL LABORATORIES, LLLP
METALS ANALYSIS RESULTS

GP ID: 9910024-06
Client ID: 93099-16 17 18

Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Mercury	SW846 7471	0.58	0.04	MG/KG	1	10/13/99	10/14/99 LCM
Silver	SW846 6010	BQL	5.8	MG/KG	20	10/06/99	10/13/99 DDH
Aluminum	SW846 6010	24700	390	MG/KG	20	10/06/99	10/13/99 DDH
Arsenic	SW846 6010	14.9	9.7	MG/KG	20	10/06/99	10/13/99 DDH
Barium	SW846 6010	469	9.7	MG/KG	20	10/06/99	10/13/99 DDH
Beryllium	SW846 6010	BQL	5.8	MG/KG	20	10/06/99	10/13/99 DDH
Calcium	SW846 6010	51300	974	MG/KG	20	10/06/99	10/13/99 DDH
Cadmium	SW846 6010	71.6	5.8	MG/KG	20	10/06/99	10/13/99 DDH
Cobalt	SW846 6010	11.2	9.7	MG/KG	20	10/06/99	10/13/99 DDH
Chromium	SW846 6010	92.4	9.7	MG/KG	20	10/06/99	10/13/99 DDH
Copper	SW846 6010	600	9.7	MG/KG	20	10/06/99	10/13/99 DDH
Iron	SW846 6010	60300	195	MG/KG	20	10/06/99	10/13/99 DDH
Potassium	SW846 6010	37700	974	MG/KG	20	10/06/99	10/13/99 DDH
Magnesium	SW846 6010	11700	487	MG/KG	20	10/06/99	10/13/99 DDH
Manganese	SW846 6010	770	9.7	MG/KG	20	10/06/99	10/13/99 DDH
Sodium	SW846 6010	3670	1950	MG/KG	20	10/06/99	10/13/99 DDH
Nickel	SW846 6010	122	9.7	MG/KG	20	10/06/99	10/13/99 DDH
Lead	SW846 6010	27200	5.8	MG/KG	20	10/06/99	10/13/99 DDH
Antimony	SW846 6010	26.5	9.7	MG/KG	20	10/06/99	10/13/99 DDH
Selenium	SW846 6010	BQL	9.7	MG/KG	20	10/06/99	10/13/99 DDH
Thallium	SW846 6010	BQL	19.5	MG/KG	20	10/06/99	10/13/99 DDH
Vanadium	SW846 6010	36.1	9.7	MG/KG	20	10/06/99	10/13/99 DDH
Zinc	SW846 6010	24600	29.2	MG/KG	20	10/06/99	10/13/99 DDH

DRUM # 7

GPL LABORATORIES, LLLP
METALS ANALYSIS RESULTS

GP ID: 9910024-07
Client ID: 93099-19 20 21

Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result		Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Mercury	SW846 7471		BQL	0.03	MG/KG	1	10/13/99	10/14/99 LCM
Silver	SW846 6010		BQL	5.8	MG/KG	20	10/06/99	10/13/99 DDH
Aluminum	SW846 6010	159000		385	MG/KG	20	10/06/99	10/13/99 DDH
Arsenic	SW846 6010		BQL	9.6	MG/KG	20	10/06/99	10/13/99 DDH
Barium	SW846 6010	367		9.6	MG/KG	20	10/06/99	10/13/99 DDH
Beryllium	SW846 6010		BQL	5.8	MG/KG	20	10/06/99	10/13/99 DDH
Calcium	SW846 6010	10500		963	MG/KG	20	10/06/99	10/13/99 DDH
Cadmium	SW846 6010		BQL	5.8	MG/KG	20	10/06/99	10/13/99 DDH
Cobalt	SW846 6010	65.9		9.6	MG/KG	20	10/06/99	10/13/99 DDH
Chromium	SW846 6010	4260		9.6	MG/KG	20	10/06/99	10/13/99 DDH
Copper	SW846 6010	245		9.6	MG/KG	20	10/06/99	10/13/99 DDH
Iron	SW846 6010	22400		193	MG/KG	20	10/06/99	10/13/99 DDH
Potassium	SW846 6010	3530		963	MG/KG	20	10/06/99	10/13/99 DDH
Magnesium	SW846 6010	251000		481	MG/KG	20	10/06/99	10/13/99 DDH
Manganese	SW846 6010	934		9.6	MG/KG	20	10/06/99	10/13/99 DDH
Sodium	SW846 6010	4560		1930	MG/KG	20	10/06/99	10/13/99 DDH
Nickel	SW846 6010	1850		9.6	MG/KG	20	10/06/99	10/13/99 DDH
Lead	SW846 6010	135		5.8	MG/KG	20	10/06/99	10/13/99 DDH
Antimony	SW846 6010		BQL	9.6	MG/KG	20	10/06/99	10/13/99 DDH
Selenium	SW846 6010		BQL	9.6	MG/KG	20	10/06/99	10/13/99 DDH
Thallium	SW846 6010		BQL	19.3	MG/KG	20	10/06/99	10/13/99 DDH
Vanadium	SW846 6010	49.9		9.6	MG/KG	20	10/06/99	10/13/99 DDH
Zinc	SW846 6010	3300		28.9	MG/KG	20	10/06/99	10/13/99 DDH

DRUM # 8

GPL LABORATORIES, LLLP
METALS ANALYSIS RESULTS

GP ID: 9910024-08
Client ID: 93099-22 23 24

Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Mercury	SW846 7471	0.06	0.03	MG/KG	1	10/13/99	10/14/99 LCM
Silver	SW846 6010	BQL	56.8	MG/KG	200	10/06/99	10/13/99 DDH
Aluminum	SW846 6010	20900	3790	MG/KG	200	10/06/99	10/13/99 DDH
Arsenic	SW846 6010	BQL	94.7	MG/KG	200	10/06/99	10/13/99 DDH
Barium	SW846 6010	4680	94.7	MG/KG	200	10/06/99	10/13/99 DDH
Beryllium	SW846 6010	BQL	56.8	MG/KG	200	10/06/99	10/13/99 DDH
Calcium	SW846 6010	12800	9470	MG/KG	200	10/06/99	10/13/99 DDH
Cadmium	SW846 6010	1170	56.8	MG/KG	200	10/06/99	10/13/99 DDH
Cobalt	SW846 6010	BQL	94.7	MG/KG	200	10/06/99	10/13/99 DDH
Chromium	SW846 6010	717	94.7	MG/KG	200	10/06/99	10/13/99 DDH
Copper	SW846 6010	318	94.7	MG/KG	200	10/06/99	10/13/99 DDH
Iron	SW846 6010	177000	1890	MG/KG	200	10/06/99	10/13/99 DDH
Potassium	SW846 6010	BQL	9470	MG/KG	200	10/06/99	10/13/99 DDH
Magnesium	SW846 6010	BQL	4730	MG/KG	200	10/06/99	10/13/99 DDH
Manganese	SW846 6010	780	94.7	MG/KG	200	10/06/99	10/13/99 DDH
Sodium	SW846 6010	28900	18900	MG/KG	200	10/06/99	10/13/99 DDH
Nickel	SW846 6010	1060	94.7	MG/KG	200	10/06/99	10/13/99 DDH
Lead	SW846 6010	16100	56.8	MG/KG	200	10/06/99	10/13/99 DDH
Antimony	SW846 6010	BQL	94.7	MG/KG	200	10/06/99	10/13/99 DDH
Selenium	SW846 6010	BQL	94.7	MG/KG	200	10/06/99	10/13/99 DDH
Thallium	SW846 6010	BQL	189	MG/KG	200	10/06/99	10/13/99 DDH
Vanadium	SW846 6010	BQL	94.7	MG/KG	200	10/06/99	10/13/99 DDH
Zinc	SW846 6010	225000	284	MG/KG	200	10/06/99	10/13/99 DDH

DRUM # 9

GPL LABORATORIES, LLLP
WET CHEMISTRY ANALYSIS RESULTS

GP ID: 9910024-01
Client ID: 93099-1 2 3

DRUM #2

Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Percent Solids	CLP / D2216	98.4		%			10/07/99 MH
Reactive Cyanide	SW846 7.3.3	BQL	0.025	mg/Kg	1	10/07/99	10/08/99 DCB
Nitrocellulose	IAAP	117	37.7	mg/Kg	1	10/25/99	11/02/99 DCB
pH	SW846 9045C	10.7	0.001	pH	1	10/08/99	10/08/99 DT
Reactive Sulfide	SW846 7.3.4	BQL	10.0	mg/Kg	1		10/08/99 DT
Sulfate	MCAWW 375.4	1250	60.8	mg/kg	25	10/25/99	10/25/99 AS

GP ID: 9910024-02
Client ID: 93099-4 5 6

DRUM #3

Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Percent Solids	CLP / D2216	77.4		%			10/07/99 MH
Reactive Cyanide	SW846 7.3.3	BQL	0.025	mg/Kg	1	10/07/99	10/08/99 DCB
Nitrocellulose	IAAP	45.3	41.9	mg/Kg	1	10/11/99	10/15/99 DCB
pH	SW846 9045C	10.3	0.001	pH	1	10/08/99	10/08/99 DT
Reactive Sulfide	SW846 7.3.4	BQL	10.0	mg/Kg	1		10/08/99 DT
Sulfate	MCAWW 375.4	884	25.1	mg/kg	2	10/25/99	10/25/99 AS

GP ID: 9910024-03
Client ID: 93099-7 8 9

DRUM #4

Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Percent Solids	CLP / D2216	99.6		%			10/07/99 MH
Reactive Cyanide	SW846 7.3.3	BQL	0.025	mg/Kg	1	10/07/99	10/08/99 DCB
Nitrocellulose	IAAP	64.5	35.4	mg/Kg	1	10/11/99	10/15/99 DCB
pH	SW846 9045C	10.6	0.001	pH	1	10/08/99	10/08/99 DT
Reactive Sulfide	SW846 7.3.4	10.0	10.0	mg/Kg	1		10/08/99 DT
Sulfate	MCAWW 375.4	806	38.2	mg/kg	4	10/25/99	10/25/99 AS

GPL LABORATORIES, LLLP
WET CHEMISTRY ANALYSIS RESULTS

GP ID: 9910024-04
Client ID: 93099-10 11 12

DRUM #5

Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Percent Solids	CLP / D2216	94.5		%			10/07/99 MH
Reactive Cyanide	SW846 7.3.3	BQL	0.025	mg/Kg	1	10/07/99	10/08/99 DCB
Nitrocellulose	IAAP	79.8	35.6	mg/Kg	1	10/11/99	10/15/99 DCB
pH	SW846 9045C	10.5	0.001	pH	1	10/08/99	10/08/99 DT
Reactive Sulfide	SW846 7.3.4	BQL	10.0	mg/Kg	1		10/08/99 DT
Sulfate	MCAWW 375.4	15800	504	mg/kg	50	10/25/99	10/25/99 AS

GP ID: 9910024-05
Client ID: 93099-13 14 15

DRUM #6

Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Percent Solids	CLP / D2216	98.0		%			10/07/99 MH
Reactive Cyanide	SW846 7.3.3	BQL	0.025	mg/Kg	1	10/07/99	10/08/99 DCB
Nitrocellulose	IAAP	59.1	29.9	mg/Kg	1	10/11/99	10/15/99 DCB
pH	SW846 9045C	12.1	0.001	pH	1	10/08/99	10/08/99 DT
Reactive Sulfide	SW846 7.3.4	BQL	10.0	mg/Kg	1		10/08/99 DT
Sulfate	MCAWW 375.4	16000	509	mg/kg	50	10/25/99	10/25/99 AS

GP ID: 9910024-06
Client ID: 93099-16 17 18

DRUM #7

Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Percent Solids	CLP / 02216	91.7		%			10/07/99 MH
Reactive Cyanide	SW846 7.3.3	BQL	0.025	mg/Kg	1	10/07/99	10/08/99 DCB
Nitrocellulose	IAAP	81.9	34.1	mg/Kg	1	10/11/99	10/15/99 DCB
pH	SW846 9045C	10.5	0.001	pH	1	10/08/99	10/08/99 DT
Reactive Sulfide	SW846 7.3.4	BQL	10.0	mg/Kg	1		10/08/99 DT
Sulfate	MCAWW 375.4	18000	520	mg/kg	50	10/25/99	10/25/99 AS

GPL LABORATORIES, LLLP
WET CHEMISTRY ANALYSIS RESULTS

GP ID: 9910024-07
Client ID: 93099-19 20 21

DRUM #8

Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Percent Solids	CLP / D2216	99.9		%			10/07/99 MH
Reactive Cyanide	SW846 7.3.3	BQL	0.025	mg/Kg	1	10/07/99	10/08/99 DCB
Nitrocellulose	IAAP	60.0	35.0	mg/Kg	1	10/11/99	10/15/99 DCB
pH	SW846 9045C	10.8	0.001	pH	1	10/08/99	10/08/99 DT
Reactive Sulfide	SW846 7.3.4	BQL	10.0	mg/Kg	1		10/08/99 DT
Sulfate	MCAWW 375.4	2690	230	mg/kg	25	10/25/99	10/25/99 AS

GP ID: 9910024-08
Client ID: 93099-22 23 24

DRUM #9

Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Percent Solids	CLP / D2216	96.0		%			10/07/99 MH
Reactive Cyanide	SW846 7.3.3	BQL	0.025	mg/Kg	1	10/07/99	10/08/99 DCB
Nitrocellulose	IAAP	347	36.4	mg/Kg	1	10/11/99	10/15/99 DCB
pH	SW846 9045C	8.98	0.001	pH	1	10/08/99	10/08/99 DT
Reactive Sulfide	SW846 7.3.4	BQL	10.0	mg/Kg	1		10/08/99 DT
Sulfate	MCAWW 375.4	447	50.7	mg/kg	5	10/25/99	10/25/99 AS

GPL LABORATORIES, LLLP
WET CHEMISTRY ANALYSIS RESULTS

GP ID: 9910024-01
Client ID: 93099-1 2 3 DRUM #1
Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Perchlorate	IC/GP-METHOD	0.532	0.075	mg/Kg	1	10/14/99	10/14/99 HH

GP ID: 9910024-02
Client ID: 93099-4 5 6 DRUM #2
Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Perchlorate	IC/GP-METHOD	BQL	0.095	mg/Kg	1	10/14/99	10/15/99 HH

GP ID: 9910024-03
Client ID: 93099-7 8 9 DRUM #4
Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Perchlorate	IC/GP-METHOD	0.233	0.072	mg/Kg	1	10/14/99	10/15/99 HH

GP ID: 9910024-04
Client ID: 93099-10 11 12 DRUM #5
Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Perchlorate	IC/GP-METHOD	BQL	0.076	mg/Kg	1	10/14/99	10/15/99 HH

GP ID: 9910024-05
Client ID: 93099-13 14 15 DRUM #6
Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Perchlorate	IC/GP-METHOD	BQL	0.076	mg/Kg	1	10/14/99	10/15/99 HH

GP ID: 9910024-06
Client ID: 93099-16 17 18 DRUM #7
Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Perchlorate	IC/GP-METHOD	BQL	0.080	mg/Kg	1	10/14/99	10/15/99 HH

GPL LABORATORIES, LLLP
WET CHEMISTRY ANALYSIS RESULTS

GP ID: 9910024-07
Client ID: 93099-19 20 21

DRUM #8

Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Perchlorate	IC/GP-METHOD	BQL	0.075	mg/Kg	1	10/14/99	10/15/99 HH

GP ID: 9910024-08
Client ID: 93099-22 23 24

DRUM #9

Matrix: SOLID
Collected: 09/30/99

Parameter	Method	Result	Rep.Lim.	Units	Dil.	Prepared	Analyzed By
Perchlorate	IC/GP-METHOD	42.3	1.47	mg/Kg	20	10/14/99	10/15/99 HH

GPL LABORATORIES, LLLP

Possible notes and definitions for this report:

BQL = Below Quantitation Limit

J = Value is less than the reporting limits but greater than zero

P = Indicates that there is greater than 25% difference for detected pesticide/Aroclor results between the two GC columns

B = Indicates that the compound was found in the associated blank

E = Indicates that the concentration exceeded the calibration range of the instrument

U = Indicates that the compound was analyzed for but not detected, number indicates the detection limit

D = Indicates that the compound was found in an analysis at a secondary dilution factor

***** = Value obtained from a 1:5 dilution

+ = Value obtained from a 1:10 dilution

= Value obtained from a 1:20 dilution

= = Value obtained from a 1:25 dilution

^ = Value obtained from a 1:50 dilution

~ = Value obtained from a 1:100 dilution

! = Value obtained from a 1:250 dilution

@ = Value obtained from a 1:125 dilution (medium level)

$ = Value obtained from a 1:500 dilution

& = Value obtained from a 1:1000 dilution

N = Flashpoint not observed; heated to specified limit

R = Flammable at room temperature

TNTC = Too numerous to count

B.P. = Detection limit taken from boiling point

F.F. = Sample gave off flammable fumes

GPL LABORATORIES, LLLP Work Order: 9910-024

METHODS OF ANALYSES USED IN THIS WORK ORDER OR SAMPLE DELIVERY GROUP

Volatile Analyses
EPA 624 ___
EPA 602 ___
EPA 524.2 ___
5030B/8260B ___
5035/8260B ___
5030B/8021B ___
5035/8021B ___
5030B/8015B mod. (GRO) ___
OLM03.2 ___
OLM04.1 ___
OLC02.1 ___
RSK-175 mod. (Gases) ___
Other ___

Semivolatile Analyses
3510B/8270C (sep.funnel) ___
3520B/8270C (liq.liq.extr) ___
3540B/8270C (soxhlet ex) ___
3550B/8270C (sonic. extr) ✓
3580A/8270C (waste dil.) ___
EPA 625 ___
EPA 525.2 ___
OLM03.2 ___
OLM04.1 ___
OLC02.1 ___
Other ___

GC-ECD Analyses
3510B/8081A (sep.funnel) ___
3520B/8081A (liq.liq.extr) ___
3540B/8081A (soxhlet ex) ___
3550B/8081A (sonic. extr) ___
3580A/8081A (waste dil.) ___
3510B/8082 (sep.funnel) ___
3520B/8082 (liq.liq.extr) ___
3540B/8082 (soxhlet ex) ___
3550B/8082 (sonic. extr) ___
3580A/8082 (waste dil.) ___
8151A ___ OLM04.1 ___
8011 ___ OLC02.1 ___
EPA 515 ___ CAD 4.0 ___
EPA 608 ___ MUS 3.1 ___
EPA 508 ___ Other ___
EPA 504 ___
OLM03.2 ___

HPLC Analyses
8310 ___
8315A ___
8330 ✓
8331 ___
8330m ✓
UW22 ___
LW18 ___

IC Analyses
EPA 300.0 ___
UT03 ___
9056 ___
Am.Perch ___
VFA ___
Other ___

Metals Analyses
3005A/6010B ___
3010A/6010B ___
3050B/6010B ✓
7470A ___
7471A ✓
Other ___

GC-FID
8015 ___
8015m ___
8141 ___
TT8 ___
UL04 ___
Other ___
8015m(DRO) ___

Wet Chemistry Analyses

5050 ___	1010 ___	110.2 ___	325.3 ___	360.1 ___
9010B ___	1030 ___	120.1 ___	330.5 ___	365.2 ___
9012A ___	1312 ___	130.2 ___	335.1 ___	365.3 ___
9020B ___	1320 ___	150.1 ___	335.2 ___	375.4 ✓
9023 ___	9041A ___	160.1 ___	340.2 ___	376.1 ___
9024 ___	9045C ✓	160.2 ___	350.2 ___	405.1 ___
9025 ___	9050A ___	160.3 ___	350.3 ___	410.2 ___
9026 ___	SW846, 7.1 ___	180.1 ___	351.3 ___	413.1 ___
9027 ___	SW846, 7.2 ___	305.1 ___	353.3 ___	415.2 ___
9071A ___	SW846, 7.3.3 ✓	310.1 ___	354.1 ___	418.1 ___
	7.3.4 ✓			420.1 ___
				425.1 ___

2310B ___	4500 CL~C ___	ASTM 515/4183 ___	ASA#9 29-4 ___
2320B ___	4500 F~C ___	ASTM D129 ___	IAAP ✓
2340B ___	5210B ___	ASTM 2216 ✓	Other ___
4500 Br~B ___	5220D ___	ASTM D240 ___	IC-GP ✓
4500 CO2 C ___	5310C ___	ASTM D808 ___	
4500 CN B,C,G ___	4500 Cl~G ___		

Signature: _____ Date: 11/25/99

GPL LABORATORIES, LLLP

202 Perry Parkway
Gaithersburg, MD 20877
(301) 926-6802
Fax (301) 840-1209

Contract #/Billing Reference: GPL-97-097

ONE of TWO Pgs.

Project: BURN PAN ASH
Client: SENECA ARMY DEPOT ACTIVITY
Send Results To: TOM GRASEK
Address: 5786 RTE 96
ROMULUS, NY 14541
Phone: 607 869-1532

Sample ID#	Date Sampled	Time Sampled	Sample Matrix	Sampler's Initials	TPH (ORC)	PERCHLORATE	TAL METALS	TCLP / CORR	NITROCELL	SULFATE	NITROGUANDINE	EXPL	BIAS	Lab Cooler No. / CLIENT COMMENTS
Turnaround Time														
# of Containers					4	4	4							
Container Type					[illegible]	[illegible]	[illegible]							
Preservative Used					NONE	NONE	NONE							
93099-1	9-30	10:00	SOLID	TG	X									
93099-2	9-30	10:00		TG		X								
93099-3	9-30	10:00		TG			X							
93099-4	9-30	10:10		TG	X									
93099-5	9-30	10:10		TG		X								
93099-6	9-30	10:10		TG			X							
93099-7	9-30	10:15		TG	X									
93099-8	9-30	10:15		TG		X								
93099-9	9-30	10:15		TG			X							
93099-10	9-30	10:20		TG	X									
93099-11	9-30	10:20		TG		X								
93099-12	9-30	10:20	↓	TG			X							

Relinquished By:	Date/Time	Received By:	Relinquished By:	Received for Laboratory By:	Date/Time
TOM GRASEK	9-30			C Lyon	10/1/97 12:40

Relinquished By:	Date/Time	Received By:	Date/Time	Shipper:	Airbill No.:

Relinquished By:	Date/Time	Received By:	Lab Comments:	Temp:
				14.0

G.P. W.O. 9910024

5

GPL LABORATORIES, LLLP

202 Perry Parkway
Gaithersburg, MD 20877
(301) 926-6802
Fax (301) 840-1209

Contract #/Billing Reference: GPL-99-097

Project: BURN PAN ASH

Client: SENECA ARMY DEPOT ACTIVITY

Send Results To: TOM GRASEK

Address: 5786 RTE 96
ROMULUS NY 14541

Phone: 607-869-1552

Turnaround Time				
# of Containers	4	4	4	
Container Type	8	8	4	
Preservative Used	NONE	NONE	NONE	
Type of Analysis	TPH (DRO) PEACHCRLATE/TAL METALS	IGNIT/CORR NITROCELL/SULFATE	NITROGUANADINE NG/EXPL./BNA	Lab Cooler No.

Sample ID#	Date Sampled	Time Sampled	Sample Matrix	Sampler's Initials	TPH (DRO) PEACHCRLATE/TAL METALS	IGNIT/CORR NITROCELL/SULFATE	NITROGUANADINE NG/EXPL./BNA	CLIENT COMMENTS
93099-13	9-30	10:25	SOLID	TG	X			
93099-14	9-30	10:25	↓	TG		X		
93099-15	9-30	10:25	↓	TG			X	
93099-16	9-30	10:30	↓	TG	X			
93099-17	9-30	10:30	↓	TG		X		
93099-18	9-30	10:30	↓	TG			X	
93099-19	9-30	10:35	↓	TG	X			
93099-20	9-30	10:35	↓	TG		X		
93099-21	9-30	10:35	↓	TG			X	
93099-22	9-30	10:40	↓	TG	X			
93099-23	9-30	10:40	↓	TG		X		
93099-24	9-30	10:40	↓	TG			X	

Relinquished By:	Date/Time	Received By:	Relinquished By:	Received for Laboratory By:	Date/Time
Tom Grasek	9-30			C Kyon	10/05/99 12:50 pm

Relinquished By:	Date/Time	Received By:	Date/Time	Shipper:	Airbill No.:

Relinquished By:	Date/Time	Received By:	Lab Comments:	Temp:
				14.0

G.P. W.O. 9910024

GPL Laboratories, LLLP

SAMPLE RECEIPT CHECKLIST

W.O. No: 9910025 Carrier Name: Fed ex

Client Name: SENECA Prepared (Logged In) By: X / 10/05/99 (Initials / Date)

Date Received: 10/05/99 Project: Buffalo Pan Asy

Time Received: 12:50 pm Site: _____

Received By: Lyons VOA Holding Blank I.D. No: _____

	YES	NO		YES	NO
Airbill/Manifest Present? No. ____	___	X	Trip Blanks Received? No. of Sets ____	___	X
Shipping Container in Good Condition?	X	___	VOA Vials Have Zero Headspace?	___	X
Custody Seals Present on Shipping Container? Condition: Good X Broken ___	X	___	Preservatives Added to Sample?	___	X
Chain-of-Custody Present?	X	___	pH Check Required? Performed By? ____	___	X
Chain-of-Custody Agrees with Sample Labels?	X	___	Ice Present in Shipping Container?	~~X~~	~~N/A~~
Chain-of-Custody Signed?	X	___			
Packing Present in Shipping Container? Type of Packing Box	X	___			
Custody seals on Sample Bottles? Condition: Good ___ Broken ___	___	X			
Total Number of Sample Bottles 24					
Total Number of Samples 8					
Samples Intact?	X	___	Project Manager Contacted? Name: Lisa		
Sufficient Sample Volume for Indicated Test?	X	___	Date Contacted: 10/5/99		

Container #	Temperature
01	15.0
	10/5/99
10	

Any NO response must be detailed in the comments section below. If items are not applicable to particular samples or contracts, they should be marked N/A/

COMMENTS: NO ICE PRESENT IN COOLER.

Checklist Completed By: _____

Date: 10/5/99

sent to Michelle

GPL Laboratories, LLLP

12-7-99

202 Perry Parkway - Gaithersburg, MD 20877

(301) 926-6802 - FAX (301) 840-1209

Date: November 30, 1999

INVOICE

To: Seneca Army Depot Activity
Building 123
5786 State Route 96
Romulus, NY 14541-5001
Attn: Tom Gresek

Invoice no.: 99-2095
Project: SENECA_ARMY_DEP
Date Received: 10/05/1999

Remit To: GPL Laboratories, LLLP
202 Perry Pkwy.
Gaithersburg, MD 20877

GP Work Order No.: 9910024

Charges for Analytical Services

Client ID	Parameter	Date Sampled	Matrix	Unit Cost
93099-1 2 3	DRO, SOIL	09/30/99	SOLID	$ 75.00
93099-1 2 3	Metals, TAL,soi	09/30/99	SOLID	120.00
93099-1 2 3	Perchlorate	09/30/99	SOLID	100.00
93099-1 2 3	Flash Point	09/30/99	SOLID	35.00
93099-1 2 3	Nitrocellulose	09/30/99	SOLID	100.00
93099-1 2 3	Sulfate	09/30/99	SOLID	30.00
93099-1 2 3	pH	09/30/99	SOLID	10.00
93099-1 2 3	Explosives	09/30/99	SOLID	150.00
93099-1 2 3	Nitroguanidine + Ng	09/30/99	SOLID	150.00
93099-1 2 3	Semivolatiles	09/30/99	SOLID	250.00
93099-4 5 6	DRO, SOIL	09/30/99	SOLID	75.00
93099-4 5 6	Metals, TAL,soi	09/30/99	SOLID	120.00
93099-4 5 6	Perchlorate	09/30/99	SOLID	100.00
93099-4 5 6	Flash Point	09/30/99	SOLID	35.00
93099-4 5 6	Nitrocellulose	09/30/99	SOLID	100.00
93099-4 5 6	Sulfate	09/30/99	SOLID	30.00
93099-4 5 6	pH	09/30/99	SOLID	10.00
93099-4 5 6	Explosives	09/30/99	SOLID	150.00
93099-4 5 6	Nitroguanidine + Ng	09/30/99	SOLID	150.00
93099-4 5 6	Semivolatiles	09/30/99	SOLID	250.00
93099-7 8 9	DRO, SOIL	09/30/99	SOLID	75.00
93099-7 8 9	Metals, TAL,soi	09/30/99	SOLID	120.00
93099-7 8 9	Perchlorate	09/30/99	SOLID	100.00
93099-7 8 9	Flash Point	09/30/99	SOLID	35.00
93099-7 8 9	Nitrocellulose	09/30/99	SOLID	100.00
93099-7 8 9	Sulfate	09/30/99	SOLID	30.00
93099-7 8 9	pH	09/30/99	SOLID	10.00
93099-7 8 9	Explosives	09/30/99	SOLID	150.00
93099-7 8 9	Nitroguanidine + Ng	09/30/99	SOLID	150.00
93099-7 8 9	Semivolatiles	09/30/99	SOLID	250.00
93099-10 11 12	DRO, SOIL	09/30/99	SOLID	75.00
93099-10 11 12	Metals, TAL,soi	09/30/99	SOLID	120.00
93099-10 11 12	Perchlorate	09/30/99	SOLID	100.00
93099-10 11 12	Flash Point	09/30/99	SOLID	35.00

Date: November 30, 1999

INVOICE

Invoice no.: 99-2095
Project: SENECA_ARMY_DEP

Charges for Analytical Services

Client ID	Parameter	Date Sampled	Matrix	Unit Cost
93099-10 11 12	Nitrocellulose	09/30/99	SOLID	100.00
93099-10 11 12	Sulfate	09/30/99	SOLID	30.00
93099-10 11 12	pH	09/30/99	SOLID	10.00
93099-10 11 12	Explosives	09/30/99	SOLID	150.00
93099-10 11 12	Nitroguanidine + Ng	09/30/99	SOLID	150.00
93099-10 11 12	Semivolatiles	09/30/99	SOLID	250.00
93099-13 14 15	DRO, SOIL	09/30/99	SOLID	75.00
93099-13 14 15	Metals, TAL,soi	09/30/99	SOLID	120.00
93099-13 14 15	Perchlorate	09/30/99	SOLID	100.00
93099-13 14 15	Flash Point	09/30/99	SOLID	35.00
93099-13 14 15	Nitrocellulose	09/30/99	SOLID	100.00
93099-13 14 15	Sulfate	09/30/99	SOLID	30.00
93099-13 14 15	pH	09/30/99	SOLID	10.00
93099-13 14 15	Explosives	09/30/99	SOLID	150.00
93099-13 14 15	Nitroguanidine + Ng	09/30/99	SOLID	150.00
93099-13 14 15	Semivolatiles	09/30/99	SOLID	250.00
93099-16 17 18	DRO, SOIL	09/30/99	SOLID	75.00
93099-16 17 18	Metals, TAL,soi	09/30/99	SOLID	120.00
93099-16 17 18	Perchlorate	09/30/99	SOLID	100.00
93099-16 17 18	Flash Point	09/30/99	SOLID	35.00
93099-16 17 18	Nitrocellulose	09/30/99	SOLID	100.00
93099-16 17 18	Sulfate	09/30/99	SOLID	30.00
93099-16 17 18	pH	09/30/99	SOLID	10.00
93099-16 17 18	Explosives	09/30/99	SOLID	150.00
93099-16 17 18	Nitroguanidine + Ng	09/30/99	SOLID	150.00
93099-16 17 18	Semivolatiles	09/30/99	SOLID	250.00
93099-19 20 21	DRO, SOIL	09/30/99	SOLID	75.00
93099-19 20 21	Metals, TAL,soi	09/30/99	SOLID	120.00
93099-19 20 21	Perchlorate	09/30/99	SOLID	100.00
93099-19 20 21	Flash Point	09/30/99	SOLID	35.00
93099-19 20 21	Nitrocellulose	09/30/99	SOLID	100.00
93099-19 20 21	Sulfate	09/30/99	SOLID	30.00
93099-19 20 21	pH	09/30/99	SOLID	10.00
93099-19 20 21	Explosives	09/30/99	SOLID	150.00
93099-19 20 21	Nitroguanidine + Ng	09/30/99	SOLID	150.00
93099-19 20 21	Semivolatiles	09/30/99	SOLID	250.00
93099-22 23 24	DRO, SOIL	09/30/99	SOLID	75.00
93099-22 23 24	Metals, TAL,soi	09/30/99	SOLID	120.00
93099-22 23 24	Perchlorate	09/30/99	SOLID	100.00
93099-22 23 24	Flash Point	09/30/99	SOLID	35.00
93099-22 23 24	Nitrocellulose	09/30/99	SOLID	100.00
93099-22 23 24	Sulfate	09/30/99	SOLID	30.00
93099-22 23 24	pH	09/30/99	SOLID	10.00

Date: November 30, 1999

INVOICE

Invoice no.: 99-2095
Project: SENECA_ARMY_DEP

Charges for Analytical Services

Client ID	Parameter	Date Sampled	Matrix	Unit Cost
93099-22 23 24	Explosives	09/30/99	SOLID	150.00
93099-22 23 24	Nitroguanidine + Ng	09/30/99	SOLID	150.00
93099-22 23 24	Semivolatiles	09/30/99	SOLID	$ 250.00

TOTAL DUE $ 8,160.00

Project: BURN PAN ASH GPL-99-097

RELEASE AUTHORIZATION: JH

NET DUE 30 DAYS
PLEASE INDICATE INVOICE NUMBER ON CHECK

A service charge equal to the lesser of one and one-half percent (1 1/2%) per month or the maximum rate permitted by law is added to all unpaid balances

ORDER FOR SUPPLIES OR SERVICES

PAGE 1 OF 7

1. CONTRACT/PURCH. ORDER/ AGREEMENT NO.	2. DELIVERY ORDER/ CALL NO.	3. DATE OF ORDER/CALL	4. REQ / PURCH. REQUEST NO.	5. PRIORITY
DAAA34-00-P-0001		1999Oct01	W25G1V-9263-7000	DO-C9

6. ISSUED BY CODE DAAA34

SENECA ARMY DEPOT ACTIVITY
5786 STATE ROUTE 96

ROMULUS, NY 14541-5001

7. ADMINISTERED BY (If other than 6) CODE O92

SENECA ARMY DEPOT ACTIVITY
MICHELE DOWNING
607-869-1341

FAX 607-869-1252, NY 14541-5001

8. DELIVERY FOB
[X] DEST
[ ] OTHER
(See Schedule if other)

9. CONTRACTOR CODE 032922192 FACILITY 1G7J1

GPL LABORATORIES, LLLP
ATTN DAVID HOWELL
202 PERRY PARKWAY

GAITHERSBURG, MD 20877

10. DELIVER TO FOB POINT BY (Date)
1999Nov05

11. MARK IF BUSINESS IS
[ ] SMALL
[ ] SMALL DISADVANTAGED
[ ] WOMEN-OWNED

12. DISCOUNT TERMS
Net 30

13. MAIL INVOICES TO THE ADDRESS IN BLOCK
See Block 14

14. SHIP TO CODE DAAA34

SENECA ARMY DEPOT ACTIVITY
ATTN: Receiving Warehouse (Bldg 114)
5786 STATE ROUTE 96

ROMULUS, NY 14541-5001

15. PAYMENT WILL BE MADE BY CODE DAAA34

VISA
USA I.M.P.A.C.
MICHELE D. DOWNING

EXPIRES 02/01, NY

MARK ALL PACKAGES AND PAPERS WITH IDENTIFICATION NUMBERS IN BLOCKS 1 AND 2.

16. TYPE OF ORDER

DELIVERY/ CALL		This delivery order/call is issued on another Govt. agency or in accordance with and subject to terms and conditions of above numbered contract.
PURCHASE	X	Reference your quote dated — Furnish the following on terms specified herein.

ACCEPTANCE. THE CONTRACTOR HEREBY ACCEPTS THE OFFER REPRESENTED BY THE NUMBERED PURCHASE ORDER AS IT MAY PREVIOUSLY HAVE BEEN OR IS NOW MODIFIED, SUBJECT TO ALL OF THE TERMS AND CONDITIONS SET FORTH, AND AGREES TO PERFORM THE SAME.

NAME OF CONTRACTOR	SIGNATURE	TYPED NAME AND TITLE	DATE SIGNED (YYYYMMMDD)

[ ] If this box is marked, supplier must sign Acceptance and return the following number of copies:

17. ACCOUNTING AND APPROPRIATION DATA/ LOCAL USE

AA 97X4930AAPSX62000000000000000025CZ000000AW3A10926370005WAJWDS36237 $ 8,160.00

18. ITEM NO.	19. SCHEDULE OF SUPPLIES/ SERVICES	20. QUANTITY ORDERED/ ACCEPTED*	21. UNIT	22. UNIT PRICE	23. AMOUNT
	SEE SCHEDULE				

* *If quantity accepted by the Government is same as quatity ordered, indicate by X. If different, enter actual quantity accepted below quantity ordered and encircle*

24. UNITED STATES OF AMERICA
BY: Michele D Downing
CONTRACTING / ORDERING OFFICER

25. TOTAL $8,160.00
29. DIFFERENCES

26. QUANTITY IN COLUMN 20 HAS BEEN
[ ] INSPECTED [ ] RECEIVED [ ] ACCEPTED, AND CONFORMS TO THE CONTRACT EXCEPT AS NOTED

DATE — SIGNATURE OF AUTHORIZED GOVT. REP.

27. SHIP NO.
[ ] PARTIAL
[ ] FINAL

28. DO VOUCHER NO.

30. INITIALS

31. PAYMENT
[ ] COMPLETE
[ ] PARTIAL
[ ] FINAL

32. PAID BY

33. AMOUNT VERIFIED CORRECT FOR

34. CHECK NUMBER

35. BILL OF LADING NO.

36. I certify this account is correct and proper for payment.

DATE — SIGNATURE AND TITLE OF CERTIFYING OFFICER

37. RECEIVED AT	38. RECEIVED BY	39. DATE RECEIVED (YYYYMMMDD)	40. TOTAL CONTAINERS	41. S/R ACCOUNT NO.	42. S/R VOUCHER NO.

DD Form 1155, JAN 1998 (EG) PREVIOUS EDITION MAY BE USED.

SECTION B Supplies or Services and Prices

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001		1.00	Job	$8,160.00	$8,160.00

Service: Testing of Burn Pan Residue
FFP - 8 - 55 gallon drums.
(Reference Vendor's Proposal # GPL-99-097)

NOTE: The MATRIX for all of the following is SOLID and the # of SAMPLES is
8.

Parameter	Method	Unit Price	Ext. Price
TPH (DRO)	8015m	$75.00	$600.00
Ignitability/Flashpoint	1010	$35.00	$280.00
Corrosivity	9040	$10.00	$80.00
Nitocellulose	I AAP	$100.00	$800.00
Nitroquanadine + Nitroglycerin	8330m	$150.00	$1200.00
Explosives	8330	$150.00	$1200.00
Perchlorate	I C	$100.00	$800.00
BNAs (incl. phthalates)	8270c	$250.00	$2000.00
TAL Metals (23)	6010B/7000	$120.00	$960.00
Sulfate	9038	$30.00	$240.00

PURCHASE REQUEST NUMBER W25G1V-9263-7000
PROJECT DEH

	NET AMT	$8,160.00
ACRN AA Funded Amount		$8,160.00

CLAUSES INCORPORATED BY FULL TEXT

Invoices are to be sent to:

Seneca Army Depot Activity
5786 State Route 96
Attn: Tom Grasek, Bldg 123
Romulus, NY 14541-5001

Failure to send invoices to the Point of Contact (POC) may result in a delay of payment.

Vendor representative must contact POC prior to beginning work and upon completion.

Failure to contact POC may result in a delay of payment.

POC: Tom Grasek, 607-869-1532

FAX #: 607-869-1362

JO: 5WAJWD CC: W3A10
(DEH)

SECTION G Contract Administration Data

ACCOUNTING AND APPROPRIATION DATA

CONTRACT ACRN	FUNDING DATA	COST CODE	AMOUNT
AA	97X4930AAPSX62000000000000000025CZ0000 00AW3A10926370005WAJWDS36237		$8,160.00

FUNDING ACRN	JOB ORDER NO	JOB ORDER QTY	JOB ORDER AMOUNT

CLAUSES INCORPORATED BY REFERENCE:

252.201-7000	Contracting Officer's Representative	DEC 1991
52.228-5	Insurance - Work On A Government Installation	JAN 1997
52.252-2	Clauses Incorporated By Reference	FEB 1998
52.203-7	Anti-Kickback Procedures	JUL 1995
52.203-6	Restrictions On Subcontractor Sales To The Government	JUL 1995
52.203-5	Covenant Against Contingent Fees	APR 1984
52.203-3	Gratuities	APR 1984
52.222-44	Fair Labor Standards And Service Contract Act - Price Adjustment	MAY 1989
52.222-41	Service Contract Act Of 1965, As Amended	MAY 1989
52.222-36	Affirmative Action For Workers With Disabilities	JUN 1998
52.222-26	Equal Opportunity	FEB 1999
52.222-4	Contract Work Hours and Safety Standards Act - Overtime Compensation	JUL 1995
52.222-3	Convict Labor	AUG 1996
52.223-3	Hazardous Material Identification And Material Safety Data	JAN 1997
52.223-6	Drug Free Workplace	JAN 1997
52.232-11	Extras	APR 1984
52.232-8	Discounts For Prompt Payment	MAY 1997
52.232-5	Payments under Fixed-Price Construction Contracts	MAY 1997
52.232-1	Payments	APR 1984
52.233-3	Protest After Award	AUG 1996
52.233-1	Disputes	DEC 1998
52.245-4	Government-Furnished Property (Short Form)	APR 1984
52.246-1	Contractor Inspection Requirements	APR 1984
52.247-34	F.O.B. Destination	NOV 1991
52.246-4	Inspection Of Services--Fixed Price	AUG 1996
52.232-23	Assignment Of Claims	JAN 1986
52.243-1 Alt II	Changes--Fixed-Price (Aug 1987) - Alternate II	APR 1984

52.243-1 Alt I	Changes--Fixed Price (Aug 1987) - Alternate I	APR 1984
52.243-1	Changes--Fixed Price	AUG 1987
252.243-7001	Pricing Of Contract Modifications	DEC 1991
52.249-1	Termination For Convenience Of The Government (Fixed Price) (Short Form)	APR 1984
52.249-4	Termination For Convenience Of The Government (Services) (Short Form)	APR 1984
52.249-8	Default (Fixed-Price Supply & Service)	APR 1984

CLAUSES INCORPORATED BY FULL TEXT

SEDA 1 CLAUSE (PO's):

DELIVERIES TO SENECA ARMY DEPOT ACTIVITY (SEDA)
Shipping and receiving hours at SEDA are at the following times, Monday thru Thursday (except Federal holidays). The shipping and receiving department is closed on alternating Fridays. In an effort to save companies time it is requested that you contact the depot prior to attempting any deliveries on Fridays.

0700 hours – 0915 hours
0930 hours – 1130 hours
1200 hours – 1400 hours

No deliveries will be accepted after 1400 hours.

SHIPMENT MARKINGS – IMPORTANT
Past experience shows a number of shipments received at this depot with incorrect or no markings at all. Contractors are requested to exercise more care when applying the purchase order number to shipping containers and packing slips. Deficiencies of this nature not only cause added administrative workload, BUT DELAY IN PAYMENT AS WELL. If items are drop shipped from a supplier, you must ensure the proper Government order number is annotated on the packing slip by your supplier.

PACKAGING MARKING
Each line item is to be packaged individually and will be identified by placing the following information on the outside of each package and on the individual packing slips:
a. Purchase Order Number (Block 1 of DD Form 1155)
b. Purchase Request Number (Block 4 of DD Form 1155)
c. Part Number or National Stock Number (Block 19 of DD Form 1155)
d. Item Number and Nomenclature (Block 19 of DD Form 1155)
e. Quantity and Unit of Issue (Blocks 20 & 21 of DD Form 1155)
f. Applicable shelf-life limitations and required storage conditions.
g. Applicable Warranty Information.
Kits will be packaged individually, identified, and include a content listing.

TAX EXEMPTION CERTIFICATION
In accordance with the supremacy clause of the United States Constitution and Federal Acquisition Regulation 29.302(a), Seneca Army Depot Activity, as an instrumentality of the United States Government, is generally immune from taxation by state and local jurisdictions. It is suggested that you retain a copy of this purchase order and this notice as documentary evidence that SEDA is immune from state and local taxation. If your state requires

certification other than this form, or should you have questions concerning the parameters of immunity from taxation, contact the person identified in block 15, DD Form 1155.

SECURITY INSPECTION
All vehicles operated by contractors and commercial carriers will be subject to inspection by depot Security personnel prior to departing any controlled area of SEDA.

INVOICES
An invoice is a written request for payment under the contract for supplies delivered or for services rendered. In order to be proper, an invoice must include the following (as applicable):
a. Invoice date;
b. Name of contractor;
c. Contract number (including order number, if any), contract line item number, contract description of supplies or services, quantity, contract unit of measure, unit price, and extended total;
d. Shipment number and date of shipment (bill of lading number and weight of shipment will be shown for shipments on government bills of lading);
e. Name and address to which payment is to be sent (which must be the same as that in the contract or on a proper notice of assignment;
f. Name (where practicable), title, phone number and mailing address of person to be notified in event of a defective invoice; and
g. Any other information or documentation required by other provisions of the contract (such as evident of shipment).

FOB DESTINATION – CONTRACTING OFFICER'S NOTE

FAR Clause 52.232-28 Electronic Funds Transfer Payment methods (Apr 1989) is a part of this contract.

To obtain the proper forms for Electronic Funds Transfer, contact the payment office at Rock Island, IL. Phone number is **888-332-7742 (Toll Free).**

Should there be any questions regarding payment of invoices, please call the payment office at Defense Finance and Accounting Services, Rock Island, IL. The number to call is:
888-332-7742 (Toll Free)
Fax is 309-782-9994

!!!! IMPORTANT !!!! !!!! IMPORTANT !!!! !!!! IMPORTANT !!!!

The following is in accordance with FAR Part 32 (32.905(e)) which states, in part:

> A proper invoice must include the items listed in subparagraphs (e) (1) through (e) (8) of this section. If the invoice does not comply with these requirements, then the contractor must be notified of the defect within seven (7) days.....after receipt of the invoice at the designated billing office. The reason that the invoice is not a proper invoice must be specified.
>
> (e) (6) specifically states:
>
> > Name and address of the contractor official to whom payment is to be sent (must be the same as that in the contract or on a proper notice of assignment.)

It will be assumed by the government that the "Remit To" address of the contractor is the same as the "Mail To" address (shown in block #9 of the purchase order) unless otherwise indicated on the purchase order. If the contractor submits an invoice with a Remit To" address that does not show on the purchase order, the invoice will not be considered as "Proper and will be returned to the contractor for corrections.

Sole Source Justification: GPL laboratories was the only lab which could analyze for the presents of explosive residues within the time frame needed for SEDA to meets its RCRA hazardous waste TSDF permits requirements for treating of hazardous materials.

To: DAVE HOWELL

GPL FAX 919-859-0270

DAVE,

We have eight 55 gallon drums of burn pan residue. The residue is a solid and is mainly ash with some pieces of wood and metal.

The burn pan was operated in the following manner:

Propellant and/or items to be burned was placed on top of saw dust and wood. Sometimes a small amount (½ gallon) of kerosene was poured over the sawdust. An igniter was used to start the burn.

After the burn and cool down period the remains left in the pan are swept up and placed into the drums.

List of propellants that may have been burned is part of this FAX, but the majority was M6.

One of our last burns was aircraft flares, NSN 1370-01-073-6281

We need to determine if there is any propellant left and be able to determine where the ash residue may be disposed of. (hazardous waste or not) Please quote a price for all tests you deem necessary to make this determination.

Also need to know if you take Govt credit card VISA

Any questions you might have please call me Tom Grasek at 607-869-1532.

Fax 607-869-1362

I have included information on aircraft flare although I could not locate a MSDS for it

FROM: SENECA ARMY DEPOT ACTIVITY

BATT 2:65

********** -COMM.JOURNAL- ********** DATE SEP-17-1999 ***** TIME 14:36 *** P.01

MODE = MEMORY TRANSMISSION START=SEP-17 14:29 END=SEP-17 14:30

FILE NO.= 148

NO.	COM	ABBR/NTWK	STATION NAME/ TELEPHONE NO.	PAGES	PRG.NO.	PROGRAM NAME
001	OK	#	6691985902?0	002/002		

-SENECA ENG/ENV-

********** 16078691362- ********** - ***** - ********** -

DATA CARD RETRIEVAL 19Mar99 10:48:58

* * * * AMMUNITION DATA CARD * * * *

NSN	1370010736281L434
NOMENCLATURE	FLARE, 0, RR-119B/, ALE-28 ACFT
LOT NUMBER	LOW83B014-002
MANUFACTURER	THIOKOL CORP
NET QUANTITY	25461
PACKING	
CONTRACT/ORDER NUM	78C3004
DRAWING NUMBER	9311623
DRAWING TAB	
DRAWING REV	F
SPEC NUM	MIL-F-63107
SPEC REV	B
SPEC AMEND	
DATE STARTED	02/11/83
DATE COMPLETED	03/04/83
DATE INSPECTED	03/24/83
LINE	
ZONE WEIGHT	
CHARGE WEIGHT	
INDEX OF POWDER	
MAX PACK DEPTH	
PROD PACK DEPTH	
EXPLOSIVE WT PKG	
TEXT SAMP	
TS-SENT-TO-PG	
TS-DATE-SHIPPED	/ /
TS-MODE-SHIPPED	
DOT NOMENCLATURE	
HAZARD CLASS	
GOV'T QA ACTIVITY	LOW
DISPOSITION	A
GOV'T INSPECTOR	KENNETH D. PARKER
DATE SIGNED	/ /

REMARKS ********************

50 CTG/METAL CONTAINER 2 METAL CONTAINER/WIREBOUND BOX.
SENT TO LONGHORN AAP

COMPONENTS ********************

COMPONENT	DRAWING NO.	MANUFACTURER	DATE	LOT NUMBER	QTY
CONTAINER,0,METAL	8865541-C		UNK	SCF82J	UNK
CASE,0,CARTRIDGE	9311624-C		UNK	LEW82J001-028	9176
CASE,0,CARTRIDGE	9311624-C		UNK	LEW82K001-029	16335
PISTON,0,0	9311628		UNK	MOR82G	UNK
BOX,0,WIREBOUND	9313718		UNK	GSB	UNK
PISTON,0,CUSHION	9342951		UNK	CFB83A	16838
PISTON,0,CUSHION	9342951		UNK	CFB83B	8673
PELLET,0,ASSY	9342955		UNK	LOW83A057-002	UNK
O RING,0,END CAP	9344021		UNK	AXX82M	UNK
CAP,0,END	9344022		UNK	MOR82J001026A	UNK
O RING,0,IGNITION	9347384		UNK	SEU82H	UNK
CAP,0,PROTECTIVE	MIL-C-5501		UNK	PSA82E	UNK

[Exit Back To Start]

COMPOSITION AND PROPERTIES OF PROPELLANTS

	M1	M2	M5	M6	M7	M8	M9	M10	M31	M30	IMR	M18
Nitrocellulose (NC), %	85.00	77.45	81.95	87.00	54.6	52.15	57.75	98.00	20.00	28.00	100.00	80.00
% Nitrogen in NC	13.15	13.25	13.25	13.15	–	13.25	–	13.15	12.60	12.60	13.15	13.15
Nitroglycerin, %	–	19.50	15.00	–	35.5	43.00	40.00	–	19.00	22.50	–	10.00
Barium nitrate, %	–	1.40	1.40	–	–	–	–	–	–	–	–	–
Potassium nitrate, %	–	0.75	0.75	–	–	1.25	1.50	–	–	–	–	–
Potassium sulfate, %	–	–	–	1.0	–	–	–	1.00a	–	–	1.00a	–
Lead carbonate, %	–	–	–	–	–	–	–	–	–	–	–	–
Nitroguanidine, %	–	–	–	–	–	–	–	–	54.70	47.70	–	–
Dinitrotoluene, %	10.00	–	–	10.00	–	–	–	–	–	–	8.00b	–
Dibutylphthalate, %	5.00	–	3.00	–	–	–	–	–	4.50	–	–	9.00
Diethylphthalate, %	–	–	–	–	–	3.00	–	–	54.70	47.70	–	–
Diphenylamine, %	1.00a	–	–	1.00a	–	1.00	–	–	–	–	0.70	1.00
Ethyl centralite, %	–	0.60	0.60	–	0.9	–	0.75	–	1.50	1.50	–	–
Graphite, %	–	0.30	0.30	–	–	–	–	0.10b	–	0.10b	–	–
Cryolite, %	–	–	–	–	–	–	–	–	0.30	0.30	–	–
Potassium Perchlorate,%	–	–	–	–	7.8	–	–	–	–	–	–	–
Carbon Black, %	–	–	–	–	1.2	–	–	–	–	–	–	–
Ethyl alcohol (residual)%	0.75	2.30	2.30	0.90	–	0.40	–	1.50	0.30	0.30	1.50	0.50
Water (residual), %	0.50	0.70	0.70	0.50	–	–	–	0.50	–	–	1.00	–
Isochoric flame temp Tv,K	2,417	3,319	3,245	2,570	–	3,695	–	3,000	2,599	3,040	2,835	2,577

a – Added
b – Glaze Added
c – Ball Propellant

NOTE:

"Ethyl Centralite" or "Centralite I" (a stabilizer) is symmetrical diethyldiphenylurea.

"Methyl Centralite" or Centralite II" (not included in this submission) is symmetrical dimethyldiphenylurea.

"Cryolite" is sodium aluminum flouride (Na_3AlF_6)

PURCHASE REQUEST & COMMITMENT
(ADSM-LOA-KIE-ZZZ-UM)

DOC IDENT	DEP CODE	DOCUMENT NO.	INPUT CD	PERF ACT	FUND CD	DEL PT	PROJECT	IPD	LVL MGT	INT PROC	PROC STAT	MO REPT
1-3	19	20-33	35	50	51-52	53-55	56-58	59-60	61	62	70	71

NATIONAL/NATO STOCK NO.	BUYER	QUANTITY	U/I	P/R DATE	UNIT COST	TOTAL COST	RDD
4-18	36-37	38-42	43-44	45-49		73-80	

DMD	PCN	SIG	MGR	STRAT	AUTHORITY FOR PURCHASE	LP AUTH	APPROVING AUTHORITY
					ROBIN D. SULLIVAN (Signature of Accountable Officer)		(Signature)

DESCRIPTION:
REQUEST FOR SERVICE: Testing of Body Fat Percentage — 5 - 55 gal. drums
See ATTACHED FOR ADDT INFORMATION

SVC: [illegible] Laboratories, LLP, 202 Perry Parkway, Gaithersburg, MD 20877 (David Howell)

GL: [illegible] COST: SWADWD EOR: 1502 POC: Tom Gralek

ACCEPTS VISA

FUND CITATION:
[illegible] $6160.00

FUNDS AVAILABLE AND COMMITTED:
FOR: WILLIAM R. SCHULSKI, GM-14
(Signature Finance & Accounting Officer)

PROCUREMENT HISTORY

P.R. NUMBER	P.O. NUMBER	CALL NO.	BC	P.O. DATE	VENDOR	PR/A	UNIT COST	DLV DATE	QTY REC'D	DATE REC'D

AWARD ACTION

DOC IDENT	SUFFIX CD	INPUT CD	QUANTITY	ADM CD	CONTRACT/PURCHASE ORDER NO	CALL/ORDER NO	VENDOR NO	CONTRACT DATE
1-3	34	35	36-40	41	42-47	48-51	52-57	58-61

DELIVERY DATE	MTHLY REPT CD	MONTHLY ACTION CODES				PROC MTHD CD	FOB SITE: DEST	FOB SITE: ORIG	FOB SITE: OTHER	PRC ANAL CODE	TRANSF ADM
62-64	65	66	67	68	69	70	71	71	71	72	

TOTAL COST	U/I	UNIT COST	DO RATING	TYPE OF ORDER: DELIVERY	TYPE OF ORDER: PURCHASE	TYPE OF QUOTATION: ORAL	TYPE OF QUOTATION: WRITTEN	TYPE OF QUOTATION: OTHER
73 — 80								

VENDOR NAME	VENDOR ADDRESS

CITY	STATE/ZIP CODE	PHONE	FACILITY CODE	TYPE BUSINESS: SMALL	TYPE BUSINESS: LARGE

DISCOUNT TERMS	DELIVERY: DEST	DELIVERY: ORIGIN	DELIVERY: OTHER	INSPECTION/ACCEPTANCE

QUOTE REQUESTED	QUOTE RECEIVED	VENDOR	UNIT PRICE	DEL	FOB	DISC	TERMS

REMARKS/SPECIAL INSTRUCTIONS:

GPL

GPL LABORATORIES, LLLP
202 Perry Parkway
Gaithersburg, MD 20877
(301) 926-6802
Fax (301) 840-1209

919-859-8070

Analytical Quote

Proposal # : GPL-99-097

Date : September 20, 1999

Client : Mr. Tom Gresek
Seneca Army Depot

Quoted by : David Howell

Project Mgr. : Ken Ives
Project : Drum Residue
Phone : 607-869-1532
Fax : 607-869-1362

GPL shall provide the following laboratory services. Any changes in your specified requirements for this project may change prices quoted below.

Parameter	Method	Matrix	# Samples	Unit Price	Ext. Price
TPH (DRO)	8015m	solid	8	$ 75.	$ 600.00
Ignitability/Flashpoint	1010	solid	8	$ 35.	$ 280.00
Corrosivity	9040	solid	8	$ 10.	$ 80.00
Nitocellulose	IAAP	solid	8	$100.	$ 800.00
Nitroquanadine + Nitroglycerin	8330m	solid	8	$150.00	$1200.00
Explosives	8330	solid	8	$150.00	$1200.00
Perchlorate	IC	solid	8	$100.00	$ 800.00
BNAs (incl. phthalates)	8270c	solid	8	$250.00	$2,000.00
TAL Metals (23)	8010B/7000	solids	8	$120.00	$ 960.00
Sulfate	9038	solids	8	$ 30.00	$ 240.00
				Total:	$8,160.00

Project Specific Requirements:

Turnaround Time : **3 weeks faxed form 1 data with hard copy to follow**
Data Deliverables : **GPL level IV, Data forms + QC Smmary**
Estimated Start Date : **September, 1999**
Containers and Coolers : **no charge**
Quotation Expiration : **12/1/99**

Receipt of samples from the above referenced client shall constitute your acceptance of GPL terms and conditions.

David Howell
Vice President of Sales

926-3700

GPL Laboratories, LLLP.

5908 Heatherstone Drive
Raleigh, NC 27606
Phone: 919-859-8040

Date: Monday, September 20, 1999

To: Seneca Army Depot
Mr. Tom Gresek
Fax: 607-869-1362

From: David Howell
Fax: 919-859-0270

Pages: 1

Subject: **Drum Residue**

I am enclosing an analytical quotation for the disposal criteria you requested. Please review this and let me know if you need to add anything to these analyses for characterization.

I will discuss this with you in more detail later this afternoon if you are available.

Thank you

GPL

GPL LABORATORIES, LLLP
202 Perry Parkway
Gaithersburg, MD 20877
(301) 926-6802
Fax (301) 840-1209

919-859-8040

Analytical Quote

Proposal # : GPL-99-097

Date : September 20, 1999

Client : Mr. Tom Gresek
Seneca Army Depot

Quoted by : David Howell

Project Mgr. : Ken Ives
Project : Drum Residue
Phone : 607-869-1532
Fax : 607-869-1362

GPL shall provide the following laboratory services. Any changes in your specified requirements for this project may change prices quoted below.

Parameter	Method	Matrix	# Samples	Unit Price	Ext. Price
TPH (DRO)	8015m	solid	8	$ 75.	$ 600.00
Ignitability/Flashpoint	1010	solid	8	$ 35.	$ 280.00
Corrosivity	9040	solid	8	$ 10.	$ 80.00
Nitocellulose	IAAP	solid	8	$100.	$ 800.00
Nitroquanadine + Nitroglycerin	8330m	solid	8	$150.00	$1200.00
Explosives	8330	soild	8	$150.00	$1200.00
Perchlorate	IC	solid	8	$100.00	$ 800.00
BNAs (incl. phthalates)	8270c	solid	8	$250.00	$2,000.00
TAL Metals (23)	6010B/7000	solids	8	$120.00	$ 960.00
Sulfate	9038	solids	8	$ 30.00	$ 240.00
				Total:	$8,160.00

Project Specific Requirements:

Turnaround Time : **3 weeks faxed form 1 data with hard copy to follow**
Data Deliverables : **GPL level IV, Data forms + QC Smmary**
Estimated Start Date : **September, 1999**
Containers and Coolers : **no charge**
Quotation Expiration : **12/1/99**

Receipt of samples from the above referenced client shall constitute your acceptance of GPL terms and conditions.

David Howell
Vice President of Sales

GPL Laboratories, LLLP.
5908 Heatherstone Drive
Raleigh, NC 27606
Phone: 919-859-8040

Date: Monday, September 20, 1999

To: Seneca Army Depot
Mr. Tom Gresek
Fax: 607-869-1362

From: David Howell
Fax: 919-859-0270

Pages: 1

Subject: **Drum Residue**

I am enclosing an analytical quotation for the disposal criteria you requested. Please review this and let me know if you need to add anything to these analyses for characterization.

I will discuss this with you in more detail later this afternoon if you are available.

Thank you

GPL Laboratories, LLLP

BOTTLE PREPARATION REQUEST

Quote No: GPL-99-097 Date/Time of Request: 9/28/99 (1515) Requested By: B. Lock

Date Required by Client: 9/29/99 Method of Shipment: FEDEX

Shipment Address: SENECA Army Depot Activity
5786 State Route 96
Building 123
Romulus, NY 14541-5001
ATTEN: Tom Gresek (607) 869-1532

No. of Bottles	Bottle Size / Type	Required Preservative	Lot #	Parameters
10	8 oz. WM Amb	NONE		TPH(DRO) / Perchlorate / TAL Metals
10	8 oz. WM	NONE		IGNIT / Corr / NitroCell / Sulfate
10	8 oz. WM	NONE		Nitroguanadine / NG / Expl. / BNA's

Other Requirements:

EPA Cleaned Bottles: Lev I (QC Cert) ✓ Lev II (EPA Clean) _____

Bottle Labels: Blank _____ Parameter/Preservative _____ No_____
(Label as shown above)

Coolers: Yes ✓ No _____ Ice Packs: Yes_____ No _____

Chain of Custody Forms: Yes ✓ No_____ Custody Seals: Yes ✓ No_____

Trip Blanks (1 set/2 vials per cooler, VOA only): Yes_____ # of Sets_____ No_____

Comments: _____

EPA Lev I QC Cert / Lot No: 324893

Date Bottles Prepared: 9-28-99 Prepared By: Dino Turner

Number of Coolers Boxes: 1 coolers Number of Ice Packs: _____

Date Shipped: 9-28-99 Courier: Fedex Shipped By: Dino Turner

GPL LABORATORIES, LLLP

202 Perry Parkway
Gaithersburg, MD 20877
(301) 926-6802
Fax (301) 840-1209

Contract #/Billing Reference: GPL-99-097

ONE of TWO Pgs.

Project: BURN PAN ASH
Client: SENECA ARMY DEPOT ACTIVITY
Send Results To: TOM GRASEK
Address: 5786 RTE 96
ROMULUS, NY 14541
Phone: 607 869-1532

Sample ID#	Date Sampled	Time Sampled	Sample Matrix	Sampler's Initials	TPH (DRO)	PERCHLORATE	TAL METALS	IGNITABILITY/CORR	NITRO CELL	SULFATE	NITROGUANIDINE	NG/EGDN	BNAs	Lab Cooler No.	CLIENT COMMENTS
93099-1	9-30	10:00	SOLID	TG	X										
93099-2	9-30	10:00		TG		X									
93099-3	9-30	10:00		TG			X								
93099-4	9-30	10:10		TG	X										
93099-5	9-30	10:10		TG		X									
93099-6	9-30	10:10		TG			X								
93099-7	9-30	10:15		TG	X										
93099-8	9-30	10:15		TG		X									
93099-9	9-30	10:15		TG			X								
93099-10	9-30	10:20		TG	X										
93099-11	9-30	10:20		TG		X									
93099-12	9-30	10:20		TG			X								

Turnaround Time:
# of Containers: 4 4 4
Container Type: ~~[illegible]~~ ~~[illegible]~~ ~~[illegible]~~
Preservative Used: NONE NONE NONE

Relinquished By:	Date/Time	Received By:	Relinquished By:	Received for Laboratory By:	Date/Time
TOM GRASEK	9-30				
Relinquished By:	Date/Time	Received By:	Date/Time / Shipper:	Airbill No.:	
Relinquished By:	Date/Time	Received By:	Lab Comments:	Temp:	

G.P. W.O. _____

GPL LABORATORIES, LLLP

202 Perry Parkway
Gaithersburg, MD 20877
(301) 926-6802
Fax (301) 840-1209

Contract #/Billing Reference: GPL-99-097

Two of Two Pgs.

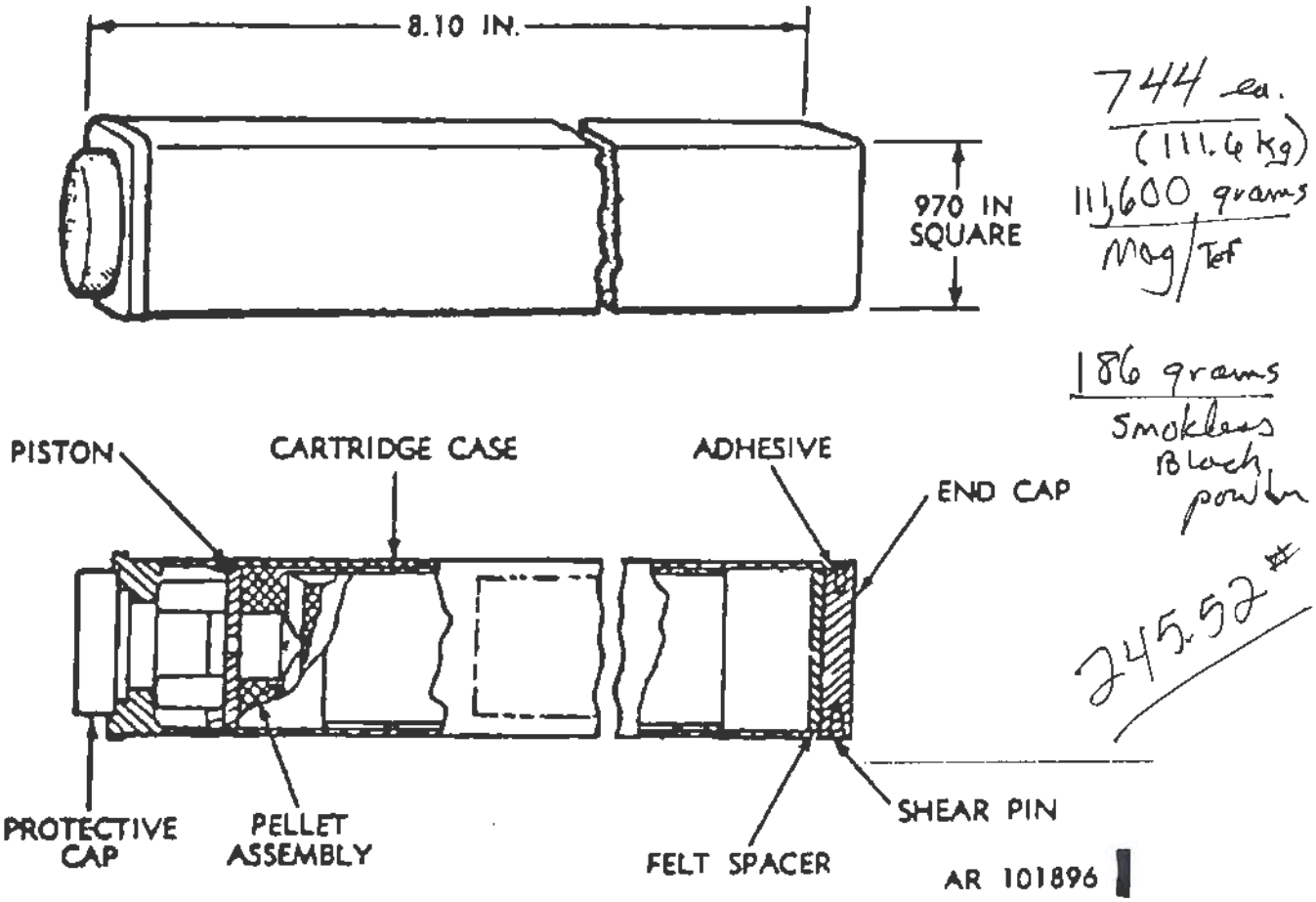
Project: BURN PAN ASH
Client: SENECA ARMY DEPOT ACTIVITY
Send Results To: TOM GRASEK
Address: 5786 RTE 96
ROMULUS NY 14541
Phone: 607-869-1532

Sample ID#	Date Sampled	Time Sampled	Sample Matrix	Sampler's Initials	TPH (8015) PERCHLORATE	IGNIT / CORR	NITROCELL / SULFATE	NITROGUANADINE: NG / EXPL.	BNA's	Lab Cooler No.	CLIENT COMMENTS
				Turnaround Time							
				# of Containers							
				Container Type	4	4	4				
				Preservative Used	NONE	NONE	NONE				
93099-13	9-30	10:25	SOLID	TG	X						
93099-14	9-30	10:25		TG		X					
93099-15	9-30	10:25		TG			X				
93099-16	9-30	10:30		TG	X						
93099-17	9-30	10:30		TG		X					
93099-18	9-30	10:30		TG			X				
93099-19	9-30	10:35		TG	X						
93099-20	9-30	10:35		TG		X					
93099-21	9-30	10:35		TG			X				
93099-22	9-30	10:40		TG	X						
93099-23	9-30	10:40		TG		X					
93099-24	9-30	10:40		TG			X				

Relinquished By:	Date/Time	Received By:	Relinquished By:	Received for Laboratory By:	Date/Time
TOM GRASEK	9-30				
Relinquished By:	Date/Time	Received By:	Date/Time	Shipper:	Airbill No.:
Relinquished By:	Date/Time	Received By:	Lab Comments:		Temp:

G.P. W.O. _____

FLARE, AIRCRAFT: COUNTERMEASURE, M206



744 ea.
(111.6 kg)
111,600 grams
Mag/Tef

186 grams
Smokeless
Black
powder

245.52 #

Type Classification:

Std LCC-A.

Use:

The flares are dispensed from aircraft to decoy infrared seeking missile threats away from aircraft.

Description:

The flare consists of an aluminum case which houses the flare pellet, piston, and end cap. The flare is approximately 8 inches long and has a square .97 x .97-inch cross-section and weighs approximately 0.43 pounds per unit. The payload composition consists of magnesium, teflon and a binder.

Functioning:

The flanged base of the cartridge case has a preformed hole to enable insertion of the M796 impulse cartridge. The impulse cartridge is fired by an electrical impulse. Expanding hot gas, developed by the impulse cartridge, causes the piston to expel the flare pellet from the cartridge case; simultaneously, the flare pellet is ignited.

FAX 919-859-0270
To: DAVE HOWELL
GPL

FAX 607-869-1362
From, TOM GRASEK
SENECA ARMY DEPOT ACTIVITY

I WAS TOLD THAT THIS WAS THE FLARES THAT WERE BURNED.

Tabulated Data:

NSN	1370-01-048-2138
Weight loaded	0.43 lb
Length	8.10 in.
Width	0.97 in.
Height	0.97 in.
Method of Actuation	Dispensed from Impulse Charge M796
Body Material	Aluminum
Color	Anodized metallic yellow/brown
Pyrotechnic charge:	
Type	Magnesium/teflon (pellet form)
Weight	150 grams (5.3 oz)
Expelling charge:	
Type	Hercules Bulls Eye smokeless powder
Weight	0.25 grams
Packing	100 per box (2 metal cans of 50 each)
Packing box:	
Weight	67 lb
Dimensions	14-1/2 in. x 13 in. x 11 in.
Cube	1.3 cu ft

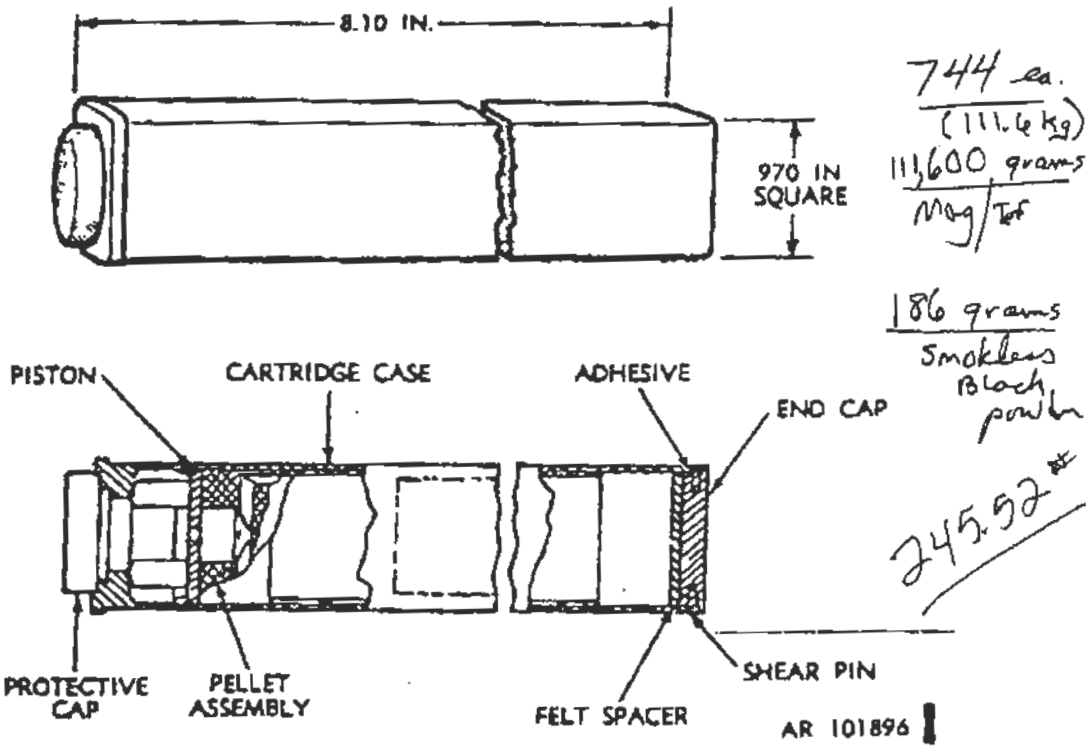
Shipping and Storage Data:

Quantity-distance class	1.3
Storage compatibility group	G
DOT shipping class	B
DOT markings	SPECIAL FIRE-WORKS HANDLE CAREFULLY KEEP FIRE AWAY
DODAC	1370-L410
Drawing number	9311623

References:

TM 9-1095-206-13&P

FLARE, AIRCRAFT: COUNTERMEASURE, M206



744 ea.
(111.6 kg)
111,600 grams
Mag/Tef

186 grams
Smokeless
Black
powder

245.52#

Type Classification:

Std LCC-A.

Use:

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FAX 919-859-0270

TO: DAVE HOWELL

GPL

FAX 607-869-1362

FROM, TOM GRASEK

SENECA ARMY DEPOT ACTIVITY

I WAS TOLD THAT THIS WAS THE FLARES THAT WERE BURNED.

********** -COMM.JOURNAL- ********** DATE SEP-17-1999 ***** TIME 14:46 *** P.01
MODE = MEMORY TRANSMISSION START=SEP-17 14:45 END=SEP-17 14:46
FILE NO.= 152
NO. COM ABBR/NTWK STATION NAME/ TELEPHONE NO. PAGES PRG.NO. PROGRAM NAME
001 OK S 6691985902?0 002/002
-SENECA ENG/ENV-
********** 16078691362- ***** - ********** -

COMPOSITION AND PROPERTIES OF PROPELLANTS

CAD

	M1	M2	M5	M6	M7	M8	M9	M10	M31	M30	IMR	M18
Nitrocellulose (NC), %	85.00	77.45	81.95	87.00	54.6	52.15	57.75	98.00	20.00	28.00	100.00	80.00
% Nitrogen in NC	13.15	13.25	13.25	13.15	–	13.25	–	13.15	12.60	12.60	13.15	13.15
Nitroglycerin, %	–	19.50	15.00	–	35.5	43.00	40.00	–	19.00	22.50	–	10.00
Barium nitrate, %	–	1.40	1.40	–	–	–	–	–	–	–	–	–
Potassium nitrate, %	–	0.75	0.75	–	–	1.25	1.50	–	–	–	–	–
Potassium sulfate, %	–	–	–	1.0	–	–	–	1.00a	–	–	1.00a	–
Lead carbonate, %	–	–	–	–	–	–	–	–	–	–	–	–
Nitroguanidine, %	–	–	–	–	–	–	–	–	54.70	47.70	–	–
Dinitrotoluene, %	10.00	–	–	10.00	–	–	–	–	–	–	8.00b	–
Dibutylphthalate, %	5.00	–	3.00	–	–	–	–	–	4.5p	–	–	9.00
Diethylphthalate, %	–	–	–	–	–	3.00	–	–	54.70	47.70	–	–
Diphenylamine, %	1.00a	–	–	1.00a	–	1.00	–	–	–	–	0.70	1.00
Ethyl centralite, %	–	0.60	0.60	–	0.9	–	0.75	–	1.50	1.50	–	–
Graphite, %	–	0.30	0.30	–	–	–	–	0.10b	–	0.10b	–	–
Cryolite, %	–	–	–	–	–	–	–	–	0.30	0.30	–	–
Potassium Perchlorate,%	–	–	–	–	7.8	–	–	–	–	–	–	–
Carbon Black, %	–	–	–	–	1.2	–	–	–	–	–	–	–
Ethyl alcohol (residual)%	0.75	2.30	2.30	0.90	–	0.40	–	1.50	0.30	0.30	1.50	0.50
Water (residual), %	0.50	0.70	0.70	0.50	–	–	–	0.50	–	–	1.00	–
Isochoric flame temp Tv,K	2,417	3,319	3,245	2,570	–	3,695	–	3,000	2,599	3,040	2,835	2,577

a - Added
b - Glaze Added
c - Ball Propellant

NOTE:

"Ethyl Centralite" or "Centralite I" (a stabilizer) is symmetrical diethyidiphenylurea.

"Methyl Centralite" or Centralite II" (not included in this submission) is symmetrical dimethyldiphenylurea.

"Cryolite" is sodium aluminum flouride (Na_3AlF_6)

GPL Laboratories, LLLP

GPL

202 Perry Parkway
Gaithersburg, MD 20877

PHONE: (301) 926-6802
FAX: (301) 840-1209

TELECOPY COVER SHEET

DATE: 6-21-99 TIME: _____

Telecopy to: ~~Denise Ray~~

From: Ken Ives

Message: Quote we discussed. FAX 919-859-0270

DAVE HOWELL
919-859-8040
left message 9-16-99

Number of sheets (including cover sheet): 2

RECEIVING OPERATOR INFORMATION

Sending operator phone number: *(301) 926-6802*
GPL Laboratories telecopy number: *(301) 840-1209*

SERVICES SENDING OPERATOR INFORMATION

TELECOPY NUMBER: (607) 869-5492
Verification Number: _____
Verification per (Name): _____

Management Data Response for NSN 1370-01-073-6281

Name: FLARE,AIRCRAFT
A ADP: 0 CC: N DML: G ESDC: HMIC: P

PC	SOS Phrase	AAC Statement	QUP	UI	Unit Price UI Conv	SLC Factor	CIIC	RC	MGMT CTL OOU	JTC
DA	B14	C	Z	EA	128.00	4			DK1XKX-	
DF	FG5	C	Z	EA	128.00	4		N	--H---N	

Reference Number Data Response for NSN 1370-01-073-6281

Item Name: FLARE,AIRCRAFT
TYPE II: M INC: 20284 HCC:

Part Number	CAGE	ISC	RNCC	RNVC	DAC	RNAAC	SADC
114362	19113	5	3	2	2	SB	
1370-L434	99999	5	6	9	9	BF	

Freight Data Response for NSN 1370-01-073-6281

Item Name: FLARE,AIRCRAFT

IC	ACTY	NMFC ITEM NUMBER	SUB	UFC ITEM NUMBER	RV	HMC
	SU	064300	B	38440	1	DH

LTL	LCL	WCC	TCC	SHC	ADC	ACC	ASH
M	D	403	J	4	A	3	4

National Freight Motor Description
EXPLOSIVES NOI/AMMO/FIREWORKS SUB2

Supplier Data Response for NSN 1370-01-073-6281

Item Name: FLARE,AIRCRAFT

CAGE Code: 99999 Status: M Type: A CAO: S2303A ADP: SC1012

Company Name and Address:
DEPARTMENT OF DEFENSE AMMUNITION CODE ASSIGNED AND PROMULGATED BY
CATALOGING DIV DEFENSE LOGISTICS SERVICES CENTER

BATTLE CREEK MI 49016 Phone:
UNITED STATES FAX:

RPLM Code: ASSOC Code: AFFIL Code:
SIZE: Primary Business: Type of Business: Women Owned:
SIC Codes:

Characteristics Data Response for NSN 1370-01-073-6281

Item Name: FLARE,AIRCRAFT

MRC	Requirement Statement	Clear Text Reply
NAME	ITEM NAME	FLARE,AIRCRAFT
ABHP	OVERALL LENGTH	4.990 INCHES NOMINAL
ABMK	OVERALL WIDTH	2.005 INCHES NOMINAL
AMWN	MODEL NUMBER	RR 119/B ALE-28
APGF	DESIGN TYPE	GUIDE
ASGA	SUSPENSION BAND	NOT INCLUDED
ASGB	BOMBARDIER GLARE SHIELD	NOT INCLUDED
DDAC	DOD AMMUNITION CODE	1370-L434
EXWT	NET EXPLOSIVE WEIGHT	1.5000000 SHIPBOARD POUNDS AND 1.5000000 STORAGE POUNDS AND 1.5000000 TRANSPORTATION POUNDS
GRWT	GROSS WEIGHT	81.0 SHIPPING CONTAINER POUNDS AND 25017.0 PALLET POUNDS
HMCC	HAZARDOUS MATERIAL CLASSIFICATION CODE	1.3 DEPARTMENT OF DEFENSE HAZARD CLASS DIVISION AND J DEPARTMENT OF TRANSPORTATION CLASS AND G STORAGE COMPATIBILITY GROUP
PKNH	PACKAGE NOMINAL OVERALL HEIGHT	12.50 INCHES SHIPPING CONTAINER
PKNL	PACKAGE NOMINAL OVERALL LENGTH	34.50 INCHES SHIPPING CONTAINER
PKNL	PACKAGE NOMINAL OVERALL LENGTH	34.03 INCHES ARMY PALLET
PKNW	PACKAGE NOMINAL OVERALL WIDTH	14.50 INCHES SHIPPING CONTAINER
PKNW	PACKAGE NOMINAL OVERALL WIDTH	614.50 INCHES ARMY PALLET
QTSC	QUANTITY PER SHIPPING CONTAINER	26
SERN	UN ORGANIZATION SERIAL NUMBER	0093

TECHNICAL MANUAL

GENERAL INSTRUCTIONS FOR DISPOSAL OF CONVENTIONAL MUNITIONS

(ATOS)

THIS PUBLICATION SUPERSEDES T.O. 11A-1-42 DATED 1 MARCH 1979.

Published under authority of the Secretary of the Air Force

15 JULY 1997

Table 6-12. Pyrotechnics (Cont)

ITEM	NOMENCLATURE	IDENTIFICATION NUMBER	DISPOSAL PARAGRAPH
	WARNING • Personnel and equipment will not be allowed in an area 152.5 meters (500 feet) downwind and 61 meters (200 feet) either side of the disposal area during disposal operations. • The following protective equipment will be readily available for all personnel. The protective mask will be worn when smoke is present and the gloves will be worn when handling leaking or contaminated munitions. 1. Protective mask (M17A1 or equivalent). 2. Butyl rubber gloves. 3. Container of water (for personal use). • Charges will be handled carefully to avoid damage to seals. Damaged seals can allow leakage of the liquid which is highly corrosive to personnel and equipment. **NOTE** Personnel exposed to FM will accomplish self-aid in accordance with procedures includes in section V.		
3	Charge CXU-1/B CXU-2/B CXU-3/B	 Part No. 4374366-1 Part No. 4374363-1 Part No. 1302A5100	 3-6 3-6 3-6
4	Countermeasures Chaff Cartridge and Package	RR-136/AL RR-141/AL RR-170/AL RR-180/AL MJU-6/B	3-6 3-6 3-6 3-6 6-42
5	Countermeasures Flare Package (IR) ~L434	RR-119/AL	3-6
6	Fire Starter		3-6
	WARNING The fuze blocks for the MK6, MK24, and MK45 flares contain fiberglass which crystalizes when burned. Use gloves to prevent contamination of the skin during police-up operations. If skin becomes contaminated, wash thoroughly with water.		

SECTION III

METHODS OF DISPOSAL

3-1. GENERAL.

NOTE

- Disposal by burying or dumping in wells, marshes, streams, inland waterways, waste places or pits is not authorized.
- Munitions with compatible characteristics and similar disposal procedures may be disposed of in the same operation.

3-2. Disposal may be accomplished by burning, detonation, static firing or demilitarization. General procedures for each disposal method are included in this section. Specific procedures and additional requirements, if necessary, are listed in sections VI through IX.

3-3. BURNING.

WARNING

- Burning high explosives when initiators of any description are included will almost certainly result in a detonation.
- In a disposal-by-burning operation, the possibility of a detonation must be considered.
- Mixing of bulk explosives will not be permitted during burning operations.
- Since explosives contain their own oxidizer, burning explosives cannot be extinguished by smothering.

CAUTION

Disposal by open burning will not be undertaken when wind velocity exceeds 24 kph (15 mph).

NOTE

Open burning of munitions may violate state or local air pollution laws. Contact the base Bio-Environmental Engineer for additional information.

3-4. Disposal by burning may be accomplished on the surface, in a pit, in a trench or in a burning furnace, in accordance with the following paragraphs. Munitions to be burned will be examined carefully to make certain that no removable detonators or blasting caps are included. All removable detonators, blasting caps, etc., will be removed from munitions to be burned to avoid unexpected detonation. Sites will not be left unattended during burning, but will be observed from the specified safety distance.

3-5. SURFACE BURNING. Surface burning is an expeditious method of disposing of munitions such as noninitiating high-explosives and solid propellants. The applicable table in sections VI through IX will be referred to for information pertaining to disposal of a specific item. Surface burning operations will not be repeated at the same burning site within a 24 hour period. Generally, surface burning procedures are as follows:

NOTE

Items may be removed from containers and stacked or containers may be stacked.

a. Stack items/containers in a pile on the surface.

WARNING

Volatile flammable liquid will not be used to facilitate burning.

NOTE

- Volatile flammable liquid is a liquid whose vapor can be ignited at or below temperatures of 100°F, i.e., ether, acetone, gasoline, ethyl alcohol, methyl alcohol, benzene, Desoclean 110, zylene, amyl acetate, napalm and JP-4.
- Motor oil or fuel oil may be poured over the material to assist combustion. Oil may be added either as layers are constructed or after all munitions have been laid. Used motor oil may be used.

b. Pour motor/fuel oil over entire pile, if applicable.

c. Prepare ignition train in accordance with section IV.

d. Effect ignition in accordance with section IV.

e. Inspect the pit for unburned or partially burned munitions. Inspection will not be performed until at least 12 hours after the fire has burned out. The inspection will be performed by one qualified person with a second qualified person acting as a safety backup.

3-6. PIT/TRENCH BURNING. Pits or trenches will be utilized if the possibility of propulsion exists or to limit fragmentation if detonation should occur. Pits or trenches will not be reused within a 24 hour period. The applicable table in sections VI through IX will be referred to for additional information pertaining to disposal of a specific munition. Generally, pit/trench burning procedures are as follows:

a. Dig a pit/trench at least 1.22 metors (four feet) deep with sides sloping enough to prevent cave-in. Size of the pit or length and width of the trench will be determined by the quantity of material being disposed of and by safety distances established for the burning site.

b. Place combustible material, such as scrap wood, in the bottom of the pit at least 0.31 meter (one foot) deep.

c. Place munitions on combustible material, ensuring that the combustible material extends beyond the layer of munitions. Layers of combustible material and munitions will be formed as necessary, allowing an air space of not less than 0.31 meter (one foot) between the top layer of munition and the top of the pit/trench.

WARNING

Volatile flammable liquids will not be used to facilitate burning.

NOTE

Volatile flammable liquid is a liquid whose vapor can be ignited at or below temperatures of 100°F; i.e., ether, acetone, gasoline, ethyl alcohol, methyl alcohol, benzene, Desoclean 110, xylene, amyl acetate, napalm and JP-4.

NOTE

Plastic sheeting (NSN 8135-00-579-6487 or equivalent) may be used if needed to line the bottom of the burning pit to prevent motor/fuel oil from soaking into the ground too rapidly. Motor oil or fuel oil may be poured over the material to assist combustion. Oil may be added either as layers are constructed or after all munitions have been layed. Used motor oil may be used.

d. Pour motor/fuel oil over entire pile, if applicable.

e. Prepare ignition train in accordance with section IV.

f. Effect ignition in accordance with section IV.

g. Inspect the pit for unburned or partially burned munitions. Inspection will not be performed until at least 12 hours after the fire has burned out. The inspection will be performed by one qualified person with a second qualified person acting as a safety backup.

3-7. BURNING FURNACE. A burning furnace (figure 3-1) may be constructed if quantities of munitions to be disposed of warrant a permanent burning site. A furnace is considered a safer, more expeditious method of burning such items as small arms ammunition, delay elements, primer detonator, etc. Location of the burning furnace will be determined by approved site safety distance.

NOTE

- Previously constructed and approved burning furnaces presently in use need not be reconstructed or modified to comply with AF drawings for new furnaces.
- The burning furnace will be constructed in a controlled area, and users will take precautions necessary to ensure against pilferage of munitions residue.

3-8. BURNING FURNACE CONSTRUCTION. Furnaces will be constructed in accordance with official AF drawings. Aperature cards of these drawings may be obtained from 00-ALC/LIWC Hill AFB, UT 84056-5816. Site requirements, other than the furnace itself, are as follows:

a. The barricade shown per item 1, furnace installation, will be built of reinforced concrete. The barricade shown per item 2, furnace installation (AF drawing), will be built of rammed earth or sandbags sloped to prevent slipping. A reinforced concrete barricade is recommended; however, if earth/sand is used, the side facing the furnace will

GPL LABORATORIES, LLLP Work Order: 9910-024

METHODS OF ANALYSES USED IN THIS WORK ORDER OR SAMPLE DELIVERY GROUP

Volatile Analyses
EPA 624 ___
EPA 602 ___
EPA 524.2 ___
5030B/8260B ___
5035/8260B ___
5030B/8021B ___
5035/8021B ___
5030B/8015B mod. (GRO) ___
OLM03.2 ___
OLM04.1 ___
OLC02.1 ___
RSK-175 mod. (Gases) ___
Other ___

Semivolatile Analyses
3510B/8270C (sep.funnel) ___
3520B/8270C (liq.liq.extr) ___
3540B/8270C (soxhlet ex) ___
3550B/8270C (sonic. extr) ✓
3580A/8270C (waste dil.) ___
EPA 625 ___
EPA 525.2 ___
OLM03.2 ___
OLM04.1 ___
OLC02.1 ___
Other ___

GC-ECD Analyses
3510B/8081A (sep.funnel) ___
3520B/8081A (liq.liq.extr) ___
3540B/8081A (soxhlet ex) ___
3550B/8081A (sonic. extr) ___
3580A/8081A (waste dil.) ___
3510B/8082 (sep.funnel) ___
3520B/8082 (liq.liq.extr) ___
3540B/8082 (soxhlet ex) ___
3550B/8082 (sonic. extr) ___
3580A/8082 (waste dil.) ___
8151A ___ OLM04.1 ___
8011 ___ OLC02.1 ___
EPA 515 ___ CAD 4.0 ___
EPA 608 ___ MUS 3.1 ___
EPA 508 ___ Other ___
EPA 504 ___
OLM03.2 ___

HPLC Analyses
8310 ___
8315A ___
8330 ✓
8331 ___
8330m ✓
UW22 ___
LW18 ___

IC Analyses
EPA 300.0 ___
UT03 ___
9056 ___
Am.Perch ___
VFA ___
Other ___

Metals Analyses
3005A/6010B ___
3010A/6010B ___
3050B/6010B ✓
7470A ___
7471A ✓
Other ___

GC-FID
8015 ___
8015m ___
8141 ___
TT8 ___
UL04 ___
Other ___
8015m(DRO) ___

Wet Chemistry Analyses

5050 ___
9010B ___
9012A ___
9020B ___
9023 ___
9024 ___
9025 ___
9026 ___
9027 ___
9071A ___

1010 ___
1030 ___
1312 ___
1320 ___
9041A ___
9045C ✓
9050A ___
SW846, 7.1 ___
SW846, 7.2 ___
SW846, 7.3 3 ✓
7.3.4 ✓

110.2 ___
120.1 ___
130.2 ___
150.1 ___
160.1 ___
160.2 ___
160.3 ___
180.1 ___
305.1 ___
310.1 ___

325.3 ___
330.5 ___
335.1 ___
335.2 ___
340.2 ___
350.2 ___
350.3 ___
351.3 ___
353.3 ___
354.1 ___

360.1 ___
365.2 ___
365.3 ___
375.4 ✓
376.1 ___
405.1 ___
410.2 ___
413.1 ___
415.2 ___
418.1 ___
420.1 ___
425.1 ___

2310B ___
2320B ___
2340B ___
4500 Br-B ___
4500 CO2 C ___
4500 CN B,C,G ___

4500 CL-C ___
4500 F-C ___
5210B ___
5220D ___
5310C ___
4500 Cl-G ___

ASTM 515/4183 ___
ASTM D129 ___
ASTM 2216 ✓
ASTM D240 ___
ASTM D808 ___

ASA#9 29-4 ___
IAAP ✓
Other ___
IC-GP ✓

Signature: _____ Date: 11/25/99

GPL LABORATORIES, LLLP

202 Perry Parkway
Gaithersburg, MD 20877
(301) 926-6802
Fax (301) 840-1209

Contract #/Billing Reference: GPL-99-097

ONE of TWO Pgs.

Project: BURN PAN ASH
Client: SENECA ARMY DEPOT ACTIVITY
Send Results To: TOM GRASEK
Address: 5786 RTE 96
ROMULUS, NY 14541
Phone: 607 869-1532

Sample ID#	Date Sampled	Time Sampled	Sample Matrix	Sampler's Initials	TPH (ORG)	PERCHLORATE	TAL METALS	TCLP / CORR	NITROCELL	SULFATE	NITROGUANDINE	NG	EPA	BNAs	Lab Cooler No.	CLIENT COMMENTS
Turnaround Time																
# of Containers						4	4	4								
Container Type						~~NONE~~	~~NONE~~	~~NONE~~								
Preservative Used						NONE	NONE	NONE								
93099-1	9-30	10:00	SOLID	TC	X											
93099-2	9-30	10:00		TC		X										
93099-3	9-30	10:00		TC			X									
93099-4	9-30	10:10		TC	X											
93099-5	9-30	10:10		TC		X										
93099-6	9-30	10:10		TC			X									
93099-7	9-30	10:15		TC	X											
93099-8	9-30	10:15		TC		X										
93099-9	9-30	10:15		TC			X									
93099-10	9-30	10:20		TC	X											
93099-11	9-30	10:20		TC		X										
93099-12	9-30	10:20		TC			X									

Relinquished By:	Date/Time	Received By:	Relinquished By:	Received for Laboratory By:	Date/Time
TOM GRASEK	9-30			C. Lyon	10/5/99 12:30
Relinquished By:	Date/Time	Received By:	Date/Time	Shipper:	Airbill No.:
Relinquished By:	Date/Time	Received By:	Lab Comments:		Temp:
					14.0

G.P. W.O. 99100 2Y

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GPL LABORATORIES, LLLP

202 Perry Parkway
Gaithersburg, MD 20877
(301) 926-6802
Fax (301) 840-1209

Contract #/Billing Reference: GPL-99-097

Two of Two Pgs.

Project: BURN PAN ASH
Client: SENECA ARMY DEPOT ACTIVITY
Send Results To: TOM GRASEK
Address: 5786 RTE 96
ROMULUS NY 14541
Phone: 607-869-1532

Sample ID#	Date Sampled	Time Sampled	Sample Matrix	Sampler's Initials	TPH (ORO) PEACH/CHLATE	IGN. T	TAL METALS	CORR	NITROCELL	SULFATE	N. TRO	JANADNS:	NC	EXPL.	BNA's	CLIENT COMMENTS
93099-13	9-30	10:25	SOLID	TG	X											
93099-14	9-30	10:25		TG		X										
93099-15	9-30	10:25		TG			X									
93099-16	9-30	10:30		TG	X											
93099-17	9-30	10:30		TG		X										
93099-18	9-30	10:30		TG			X									
93099-19	9-30	10:35		TG	X											
93099-20	9-30	10:35		TG		X										
93099-21	9-30	10:35		TG			X									
93099-22	9-30	10:40		TG	X											
93099-23	9-30	10:40		TG		X										
93099-24	9-30	10:40		TG			X									

Turnaround Time
# of Containers: 1 4 4
Container Type: G P P
Preservative Used: NONE NONE NONE
Type of Analysis
Lab Cooler No.

Relinquished By:	Date/Time	Received By:	Relinquished By:	Received for Laboratory By:	Date/Time
TOM GRASEK	9-30			C Kyon	10/05/99 12:30

Relinquished By:	Date/Time	Received By:	Date/Time	Shipper:	Airbill No.:

Relinquished By:	Date/Time	Received By:	Lab Comments:	Temp:
				14.0

G.P. W.O. 99-09-04

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GPI. Laboratories, LLLP

SAMPLE RECEIPT CHECKLIST

W.O. No: 9910024 Carrier Name: Fed ex

Client Name: SENECA Prepared (Logged In) By: X / 10/05/99 (Initials / Date)

Date Received: 10/05/99 Project: Burnt Fan Rd

Time Received: 12:50 pm Site: _____

Received By: Lyons VOA Holding Blank I.D. No: _____

	YES	NO		YES	NO
Airbill/Manifest Present? No. _____	___	X	Trip Blanks Received? No. of Sets _____	___	X
Shipping Container in Good Condition?	X	___	VOA Vials Have Zero Headspace?	___	X
Custody Seals Present on Shipping Container? Condition: Good Y Broken ___	X	___	Preservatives Added to Sample?	___	X
Chain-of-Custody Present?	Y	___	pH Check Required? Performed By? _____	___	X
Chain-of-Custody Agrees with Sample Labels?	Y	___	Ice Present in Shipping Container?	X	N/A
Chain-of-Custody Signed?	X	___			
Packing Present in Shipping Container? Type of Packing Box	X	___			
Custody seals on Sample Bottles? Condition: Good ___ Broken ___	___	X			
Total Number of Sample Bottles 24					
Total Number of Samples 8					
Samples Intact?	X	___	Project Manager Contacted? Name: Lorie		
Sufficient Sample Volume for Indicated Test?	X	___	Date Contacted: 10/25/99		

Container #	Temperature
01	18.0
	10/5/99
1.0	

Any NO response must be detailed in the comments section below. If items are not applicable to particular samples or contracts, they should be marked N/A/

COMMENTS: NO ICE PRESENT IN COOLER.

Checklist Completed By: _____

Date: 10/05/99

SEMIVOLATILE QC

GPL Laboratories, LLLP

CASE NARRATIVE

SEMI-VOLATILE

Client	:	SENECA_ARMY_DEP
Work Order	:	99-10-024
SDG	:	N/A
Date	:	10/27/99

1. Eight soil samples were received on 10/05/99. These samples were extracted and analyzed for semivolatile organic compounds using USEPA method 8270C.

2. QC was shared with work order #9910032. Matrix spike and duplicate analysis was performed on sample OU3-PT2-FL08(12.5). Two spike recoveries were outside of the QC limits.

4. Due to the analytes present in sample 93099789, which were above the calibration range, it was analyzed at a DF=1 and a DF=10. Sample 93099222324 was extracted to a final volume of 10ML due to the nature o the sample.

5. Samples 93099456 and 93099131415 required re-extraction due to surro recoveries outside of QC limits, below ten percent. The re-extraction show the same results which indicates it is due to the sample's matrix. Both analyses are included. The modified sample ID's for the re-extractions are 93099456RE and 93099131415RE respectively.

6. Continuing calibrations analyzed on 10/8/99, 10/11/99 and 10/27/99 had n-octylphthalate at 35.4%,43.5% and 22.6% respectively. Re-analyses we not performed since the response was higher than the curve and it was no present in any of the samples run on the associated days.

7. Due to a software limitation, some results on the Form II are manually produced.

10/27/99

11/02/99

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: GPL_LABORATORIES Contract: SENECA_ARMY_DE

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Level: (low/med) LOW

	CLIENT SAMPLE NO.	S1 (2FP) #	S2 (PHL) #	S3 (NBZ) #	S4 (FBP) #	S5 (TBP) #	S6 (TPH) #	TOT OUT
01	SBLKA	83	87	81	84	146	95	0
02	93099123	34	46	43	54	26	59	0
03	93099456	21*	29*	31*	33	9*	14*	5
04	93099789	62	72	64	70	102	94	0
05	93099101112	51	63	52	60	29	86	0
06	93099789DL	64 6*	79 8*	72 7*	89 9*	54 5*	75 8*	6 D
07	93099131415	15*	23*	27*	29	3*	3*	5
08	93099161718	53	64	57	64	29	60	0
09	93099192021	52	66	46	67	31	37	0
10	93099222324	48 5*	47 5*	54 5*	62 6*	42 4*	33 9*	6 D
11	93099456RE	20*	29*	34*	32	8*	12*	5
12	93099131415RE	11*	17*	19*	17*	2*	1*	6
13	SBLKB	81	91	77	90	125	105	0

2 and 10/30/19

				QC LIMITS
S1	(2FP)	=	2-Fluorophenol	(33-110)
S2	(PHL)	=	Phenol-d5	(30-119)
S3	(NBZ)	=	Nitrobenzene-d5	(34-113)
S4	(FBP)	=	2-Fluorobiphenyl	(24-120)
S5	(TBP)	=	2,4,6 Tribromophenol	(23-160)
S6	(TPH)	=	Terphenyl-d14	(20-152)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: GPL_LABORATORIES Contract: PARSONS_SPRI

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix Spike - EPA Sample No.: OU3PT2FL08125 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	4000	0.0	3700	93	68 - 104
2-Chlorophenol	4000	0.0	3600	90	53 - 116
1,4-Dichlorobenzene	4000	0.0	2800	70	19 - 90
N-Nitroso-di-n-propylamine	4000	0.0	3900	98	70 - 139
1,2,4-Trichlorobenzene	4000	0.0	3100	78	50 - 104
4-Chloro-3-methylphenol	4000	0.0	5500	138 *	74 - 118
Acenaphthene	4000	0.0	3800	95	64 - 107
2,4-Dinitrotoluene	4000	0.0	6000	150	69 - 151
4-Nitrophenol	4000	0.0	5900	148 *	54 - 139
Pentachlorophenol	4000	0.0	3800	95	41 - 154
Pyrene	4000	0.0	3700	93	63 - 139

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	4000	3500	88	6	35	68 - 104
2-Chlorophenol	4000	3400	85	6	50	53 - 116
1,4-Dichlorobenzene	4000	2800	70	0	27	19 - 90
N-Nitroso-di-n-propylamine	4000	3400	85	14	38	70 - 139
1,2,4-Trichlorobenzene	4000	3100	78	0	23	50 - 104
4-Chloro-3-methylphenol	4000	4600	115	18	33	74 - 118
Acenaphthene	4000	3400	85	11	19	64 - 107
2,4-Dinitrotoluene	4000	4700	118	24	47	69 - 151
4-Nitrophenol	4000	4600	115	25	50	54 - 139
Pentachlorophenol	4000	3500	88	8	47	41 - 154
Pyrene	4000	3700	93	0	36	63 - 139

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 11 outside limits

Spike Recovery: 2 out of 22 outside limits

COMMENTS: _____

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKA

Lab Name: GPL_LABORATORIES Contract: SENECA_ARM

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID: P03667.D Lab Sample ID: SBLK-713

Instrument ID: HP#P Date Extracted: 10/07/99

Matrix: (soil/water) SOIL Date Analyzed: 10/08/99

Level: (low/med) LOW Time Analyzed: 18:44

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

	Client Sample NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	93099123	9910024-01C	P03686.D	10/11/99
02	93099456	9910024-02C	P03687.D	10/12/99
03	93099789	9910024-03C	P03688.D	10/12/99
04	93099101112	9910024-04C	P03689.D	10/12/99
05	93099789DL	9910024-03CDL	P03700.D	10/12/99
06	93099131415	9910024-05C	P03701.D	10/12/99
07	93099161718	9910024-06C	P03702.D	10/12/99
08	93099192021	9910024-07C	P03703.D	10/12/99
09	93099222324	9910024-08C	P03704.D	10/12/99

COMMENTS:

4B

EPA SAMPLE NO.

SEMIVOLATILE METHOD BLANK SUMMARY

SBLKB

Lab Name: GPL_LABORATORIES Contract: SENECA_ARM

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID: P03868.D Lab Sample ID: SBLK-733

Instrument ID: HP#P Date Extracted: 10/15/99

Matrix: (soil/water) SOIL Date Analyzed: 10/27/99

Level: (low/med) LOW Time Analyzed: 18:18

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

	Client Sample NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	93099456RE	9910024-02CRE	P03855.D	10/26/99
02	93099131415RE	9910024-05CRE	P03856.D	10/27/99

COMMENTS:

5B-8270

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: GPL_LABORATORIES Contract: SENECA_A

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID: P03621.D DFTPP Injection Date: 10/06/99

Instrument ID: HP#P DFTPP Injection Time: 14:36

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	57.8
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	59.1
70	Less than 2.0% of mass 69	0.5 (0.8)1
127	40.0 - 60.0% of mass 198	43.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	29.7
365	Greater than 1.0% of mass 198	4.4
441	Present, but less than mass 443	10.1
442	40.0 - 110.0% of mass 198	82.4
443	17.0 - 23.0% of mass 442	16.4 (20.0)2

1-Value is % mass 69 2-Value is % mass 442

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

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	P03623.D	10/06/99	15:58
02	SSTD160	SSTD160	P03624.D	10/06/99	16:47
03	SSTD010	SSTD010	P03625.D	10/06/99	17:33
04	SSTD020	SSTD020	P03626.D	10/06/99	18:21
05	SSTD080	SSTD080	P03627.D	10/06/99	19:08
06	SSTD120	SSTD120	P03628.D	10/06/99	19:56

5B-8270

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: GPL_LABORATORIES Contract: SENECA_A

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID: P03656.D DFTPP Injection Date: 10/08/99

Instrument ID: HP#P DFTPP Injection Time: 09:38

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	56.0
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	63.6
70	Less than 2.0% of mass 69	0.2 (0.3)1
127	40.0 - 60.0% of mass 198	41.9
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	5.7
275	10.0 - 30.0% of mass 198	25.0
365	Greater than 1.0% of mass 198	3.7
441	Present, but less than mass 443	10.1
442	40.0 - 110.0% of mass 198	71.6
443	17.0 - 23.0% of mass 442	13.5 (18.8)2

1-Value is % mass 69 2-Value is % mass 442

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

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	P03657.D	10/08/99	09:59
02	SBLKA	SBLK-713	P03667.D	10/08/99	18:44

5B-8270

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: GPL_LABORATORIES Contract: SENECA_A

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID: P03675.D DFTPP Injection Date: 10/11/99

Instrument ID: HP#P DFTPP Injection Time: 14:38

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	58.6
68	Less than 2.0% of mass 69	0.3 (0.4)1
69	Mass 69 Relative abundance	62.2
70	Less than 2.0% of mass 69	0.2 (0.3)1
127	40.0 - 60.0% of mass 198	41.1
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	5.9
275	10.0 - 30.0% of mass 198	29.6
365	Greater than 1.0% of mass 198	3.6
441	Present, but less than mass 443	7.8
442	40.0 - 110.0% of mass 198	75.2
443	17.0 - 23.0% of mass 442	15.7 (20.8)2

1-Value is % mass 69 2-Value is % mass 442

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

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	P03676.D	10/11/99	15:31
02	93099123	9910024-01C	P03686.D	10/11/99	23:31
03	93099456	9910024-02C	P03687.D	10/12/99	00:18
04	93099789	9910024-03C	P03688.D	10/12/99	01:06
05	93099101112	9910024-04C	P03689.D	10/12/99	01:53

5B-8270

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: GPL_LABORATORIES Contract: SENECA_A

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID: P03695.D DFTPP Injection Date: 10/12/99

Instrument ID: HP#P DFTPP Injection Time: 11:49

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	51.1
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	62.4
70	Less than 2.0% of mass 69	0.4 (0.6)1
127	40.0 - 60.0% of mass 198	41.2
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	21.1
365	Greater than 1.0% of mass 198	1.9
441	Present, but less than mass 443	7.8
442	40.0 - 110.0% of mass 198	52.6
443	17.0 - 23.0% of mass 442	9.5 (18.1)2

1-Value is % mass 69 2-Value is % mass 442

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

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	P03696.D	10/12/99	12:10
02	93099789DL	9910024-03CDL	P03700.D	10/12/99	15:17
03	93099131415	9910024-05C	P03701.D	10/12/99	16:05
04	93099161718	9910024-06C	P03702.D	10/12/99	16:52
05	93099192021	9910024-07C	P03703.D	10/12/99	17:39
06	93099222324	9910024-08C	P03704.D	10/12/99	18:26

5B-8270

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: GPL_LABORATORIES Contract: SENECA_A

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID: P03833.D DFTPP Injection Date: 10/25/99

Instrument ID: HP#P DFTPP Injection Time: 15:57

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	57.2
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	62.6
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	40.0 - 60.0% of mass 198	42.2
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.4
275	10.0 - 30.0% of mass 198	26.5
365	Greater than 1.0% of mass 198	3.2
441	Present, but less than mass 443	8.0
442	40.0 - 110.0% of mass 198	49.3
443	17.0 - 23.0% of mass 442	9.6 (19.5)2

1-Value is % mass 69 2-Value is % mass 442

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

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	P03834.D	10/25/99	16:22
02	SSTD160	SSTD160	P03835.D	10/25/99	17:11
03	SSTD010	SSTD010	P03836.D	10/25/99	18:01
04	SSTD020	SSTD020	P03837.D	10/25/99	18:51
05	SSTD080	SSTD080	P03838.D	10/25/99	19:40
06	SSTD120	SSTD120	P03839.D	10/25/99	20:30

5B-8270

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: GPL_LABORATORIES Contract: SENECA_A

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID: P03841.D DFTPP Injection Date: 10/26/99

Instrument ID: HP#P DFTPP Injection Time: 12:18

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	57.4
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	58.2
70	Less than 2.0% of mass 69	0.2 (0.3)1
127	40.0 - 60.0% of mass 198	43.2
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	26.4
365	Greater than 1.0% of mass 198	3.7
441	Present, but less than mass 443	4.4
442	40.0 - 110.0% of mass 198	63.0
443	17.0 - 23.0% of mass 442	11.6 (18.4)2

1-Value is % mass 69 2-Value is % mass 442

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

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	P03842.D	10/26/99	12:39
02	93099456RE	9910024-02CRE	P03855.D	10/26/99	23:13
03	93099131415	9910024-05CRE	P03856.D	10/27/99	00:00

5B-8270

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: GPL_LABORATORIES Contract: SENECA_A

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID: P03863.D DFTPP Injection Date: 10/27/99

Instrument ID: HP#P DFTPP Injection Time: 14:25

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	54.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	55.4
70	Less than 2.0% of mass 69	0.1 (0.2)1
127	40.0 - 60.0% of mass 198	41.5
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.2
275	10.0 - 30.0% of mass 198	28.0
365	Greater than 1.0% of mass 198	4.5
441	Present, but less than mass 443	9.4
442	40.0 - 110.0% of mass 198	69.7
443	17.0 - 23.0% of mass 442	13.6 (19.5)2

1-Value is % mass 69 2-Value is % mass 442

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

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	P03864.D	10/27/99	14:46
02	SBLKB	SBLK-733	P03868.D	10/27/99	18:18

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL_LABORATORIES Contract: SENECA_ARMY_DE

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID (Standard): P03657.D Date Analyzed: 10/08/99

Instrument ID: HP#P Time Analyzed: 09:59

	IS1(DCB) AREA	#	RT	#	IS2(NPT) AREA	#	RT	#	IS3(ANT) AREA	#	RT	#
12 HOUR STD	231562		12.40		776677		15.28		503785		19.07	
UPPER LIMIT	463124		12.90		1553354		15.78		1007570		19.57	
LOWER LIMIT	115781		11.90		388339		14.78		251893		18.57	
CLIENT SAMPLE ID												
01 SBLKA	312356		12.40		1035049		15.29		655903		19.07	

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10
IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL_LABORATORIES Contract: SENECA_ARMY_DE

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID (Standard): P03657.D Date Analyzed: 10/08/99

Instrument ID: HP#P Time Analyzed: 09:59

		IS4(PHN)			IS5(CRY)			IS6(PRY)		
		AREA	#	RT	#	AREA	#	RT	#	AREA	#	RT	#
12 HOUR STD		1132322		21.22		1204637		25.22		759378		29.68	
UPPER LIMIT		2264644		21.72		2409274		25.72		1518756		30.18	
LOWER LIMIT		566161		20.72		602319		24.72		379689		29.18	
	CLIENT SAMPLE ID												
01	SBLKA	1348826		21.23		1119525		25.22		751127		29.69	

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10
IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL_LABORATORIES Contract: SENECA_ARMY_DE

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID (Standard): P03676.D Date Analyzed: 10/11/99

Instrument ID: HP#P Time Analyzed: 15:31

		IS1(DCB)			IS2(NPT)			IS3(ANT)		
		AREA	#	RT	#	AREA	#	RT	#	AREA	#	RT	#
	12 HOUR STD	195250		12.42		660656		15.31		488105		19.09	
	UPPER LIMIT	390500		12.92		1321312		15.81		976210		19.59	
	LOWER LIMIT	97625		11.92		330328		14.81		244053		18.59	
	CLIENT SAMPLE ID												
01	93099123	275815		12.42		1233824		15.30		840729		19.10	
02	93099456	250497		12.41		1007076		15.30		707355		19.08	
03	93099789	252949		12.41		1038954		15.30		769915		19.09	
04	93099101112	225389		12.41		883435		15.29		672960		19.07	

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10
IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL_LABORATORIES Contract: SENECA_ARMY_DE

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID (Standard): P03676.D Date Analyzed: 10/11/99

Instrument ID: HP#P Time Analyzed: 15:31

		IS4(PHN)			IS5(CRY)			IS6(PRY)	
		AREA	#	RT	#	AREA	#	RT	#
	12 HOUR STD	1107505		21.24		1168522	25.23	687482	29.71
	UPPER LIMIT	2215010		21.74		2337044	25.73	1374964	30.21
	LOWER LIMIT	553753		20.74		584261	24.73	343741	29.21
	CLIENT SAMPLE ID								
01	93099123	1125527		21.26		1069456	25.23	683938	29.70
02	93099456	1341529		21.23		824276	25.22	506579	29.69
03	93099789	1558183		21.23		1003822	25.22	675136	29.70
04	93099101112	1384564		21.23		927738	25.22	580789	29.70

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10
IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL_LABORATORIES Contract: SENECA_ARMY_DE

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID (Standard): P03696.D Date Analyzed: 10/12/99

Instrument ID: HP#P Time Analyzed: 12:10

		IS1(DCB)			IS2(NPT)			IS3(ANT)		
		AREA	#	RT	#	AREA	#	RT	#	AREA	#	RT	#
	12 HOUR STD	322940		12.20		1118567		15.09		617756		18.90	
	UPPER LIMIT	645880		12.70		2237134		15.59		1235512		19.40	
	LOWER LIMIT	161470		11.70		559284		14.59		308878		18.40	
	CLIENT SAMPLE ID												
01	93099789DL	341839		12.20		1162222		15.08		662186		18.90	
02	93099131415	383931		12.19		1346670		15.08		767529		18.91	
03	93099161718	388841		12.21		1329063		15.09		767290		18.91	
04	93099192021	335460		12.21		1171236		15.08		674227		18.91	
05	93099222324	418794		12.20		1359452		15.09		1016895		18.91	

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10
IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL_LABORATORIES Contract: SENECA_ARMY_DE

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID (Standard): P03696.D Date Analyzed: 10/12/99

Instrument ID: HP#P Time Analyzed: 12:10

		IS4(PHN)			IS5(CRY)			IS6(PRY)	
		AREA	#	RT	#	AREA	#	RT	#
	12 HOUR STD	1090767		21.09		1131813		24.99		1085830		29.26	
	UPPER LIMIT	2181534		21.59		2263626		25.49		2171660		29.76	
	LOWER LIMIT	545384		20.59		565907		24.49		542915		28.76	
	CLIENT SAMPLE ID												
01	93099789DL	1163557		21.09		1204997		24.98		1253459		29.27	
02	93099131415	1357585		21.08		1338179		24.99		1382092		29.27	
03	93099161718	1405026		21.09		1332733		25.00		1248720		29.28	
04	93099192021	1244155		21.09		1264910		24.99		1191044		29.27	
05	93099222324	1762828		21.09		1097881		24.99		853461		29.29	

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10
IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL_LABORATORIES Contract: SENECA_ARMY_DE

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID (Standard): P03842.D Date Analyzed: 10/26/99

Instrument ID: HP#P Time Analyzed: 12:39

		IS1(DCB) AREA	#	RT	#	IS2(NPT) AREA	#	RT	#	IS3(ANT) AREA	#	RT	#
	12 HOUR STD	180342		12.58		639245		15.49		375803		19.24	
	UPPER LIMIT	360684		13.08		1278490		15.99		751606		19.74	
	LOWER LIMIT	90171		12.08		319623		14.99		187902		18.74	
	CLIENT SAMPLE ID												
01	93099456RE	181714		12.58		690051		15.49		526341		19.24	
02	93099131415	210903		12.58		821985		15.50		539860		19.24	

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10
IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL_LABORATORIES Contract: SENECA_ARMY_DE

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID (Standard): P03842.D Date Analyzed: 10/26/99

Instrument ID: HP#P Time Analyzed: 12:39

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	12 HOUR STD	668816		21.36		772562		25.45		764617		30.14	
	UPPER LIMIT	1337632		21.86		1545124		25.95		1529234		30.64	
	LOWER LIMIT	334408		20.86		386281		24.95		382309		29.64	
	CLIENT SAMPLE ID												
01	93099456RE	1267446		21.37		1140246		25.44		687024		30.14	
02	93099131415	1229646		21.36		1217224		25.45		763307		30.15	

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10
IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL_LABORATORIES Contract: SENECA_ARMY_DE

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID (Standard): P03864.D Date Analyzed: 10/27/99

Instrument ID: HP#P Time Analyzed: 14:46

	IS1(DCB) AREA	#	RT	#	IS2(NPT) AREA	#	RT	#	IS3(ANT) AREA	#	RT	#
12 HOUR STD	399154		12.44		1352209		15.34		743442		19.12	
UPPER LIMIT	798308		12.94		2704418		15.84		1486884		19.62	
LOWER LIMIT	199577		11.94		676105		14.84		371721		18.62	
CLIENT SAMPLE ID												
01 SBLKB	470379		12.43		1623883		15.32		941431		19.11	

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10
IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GPL_LABORATORIES Contract: SENECA_ARMY_DE

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID (Standard): P03864.D Date Analyzed: 10/27/99

Instrument ID: HP#P Time Analyzed: 14:46

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
12 HOUR STD		1241144		21.27		1088025		25.31		909644		29.84	
UPPER LIMIT		2482288		21.77		2176050		25.81		1819288		30.34	
LOWER LIMIT		620572		20.77		544013		24.81		454822		29.34	
CLIENT SAMPLE ID													
01	SBLKB	1637591		21.27		1335970		25.29		1165054		29.83	

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10
IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

Response Factor Report 5972

Method : C:\HPCHEM\1\METHODS\8270CPB.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Wed Oct 06 20:50:09 1999
Response via : Initial Calibration

Calibration Files
50 =P03623.D 160 =P03624.D 10 =P03625.D
20 =P03626.D 80 =P03627.D 120 =P03628.D

		Compound	50	160	10	20	80	120	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------			ISTD	----------			
2)	T	N-Nitrosodimethylam	0.768	0.850	0.908	0.860	0.792	0.856	0.839	6.04
3)	S	2-Fluorophenol	1.119	1.291	1.378	1.313	1.211	1.319	1.272	7.25
4)	T	Aniline	1.222	1.535	1.836	1.704	1.281	1.428	1.501	15.93
5)	T	bis(2-Chloroethyl)e	1.171	1.371	1.225	1.316	1.274	1.408	1.294	6.89
6)	S	Phenol-d5	1.442	1.651	1.746	1.714	1.540	1.741	1.639	7.52
7)	MC	Phenol	1.423	1.671	1.601	1.672	1.499	1.768	1.606	7.86
8)	M	2-Chlorophenol	1.259	1.413	1.294	1.423	1.294	1.431	1.352	5.76
9)	T	1,3-Dichlorobenzene	1.405	1.654	1.592	1.717	1.478	1.656	1.584	7.53
10)	MC	1,4-Dichlorobenzene	1.419	1.677	1.742	1.641	1.597	1.709	1.631	7.10
11)	T	1,2-Dichlorobenzene	1.393	1.620	1.558	1.658	1.497	1.680	1.568	6.94
12)	T	Benzyl alcohol	0.757	0.828	0.782	0.864	0.784	0.848	0.810	5.20
13)	T	2,2'-oxybis(1-chlor	2.457	2.615	2.997	2.830	2.515	2.763	2.696	7.59
14)	T	2-Methylphenol	1.146	1.283	1.115	1.170	1.130	1.283	1.188	6.40
15)	T	Hexachloroethane	0.574	0.664	0.617	0.681	0.626	0.647	0.635	6.01
16)	MP	N-Nitroso-di-n-prop	0.828	0.939	0.860	0.937	0.839	0.948	0.892	6.20
17)	T	4-Methylphenol	1.093	1.246	1.232	1.232	1.133	1.272	1.202	5.78
18)	I	Naphthalene-d8	----------			ISTD	----------			
19)	S	Nitrobenzene-d5	0.405	0.468	0.466	0.446	0.426	0.478	0.448	6.28
20)	T	Nitrobenzene	0.349	0.406	0.386	0.399	0.390	0.421	0.392	6.23
21)	T	Isophorone	0.696	0.810	0.890	0.826	0.781	0.840	0.807	8.12
22)	TC	2-Nitrophenol	0.211	0.250	0.200	0.250	0.238	0.260	0.235	10.18
23)	T	2,4-Dimethylphenol	0.312	0.396	0.344	0.388	0.365	0.403	0.368	9.53
24)	T	Benzoic Acid	0.175	0.266		0.182	0.232	0.269	0.225	19.89
25)	T	bis(2-Chloroethoxy)	0.398	0.471	0.459	0.497	0.447	0.480	0.459	7.46
26)	TC	2,4-Dichlorophenol	0.321	0.383	0.343	0.387	0.356	0.393	0.364	7.85
27)	M	1,2,4-Trichlorobenz	0.372	0.440	0.401	0.463	0.420	0.453	0.425	8.07
28)	T	Naphthalene	1.004	1.213	1.191	1.207	1.115	1.240	1.162	7.58
29)	T	4-Chloroaniline	0.519	0.640	0.595	0.639	0.572	0.628	0.599	7.93
30)	TC	Hexachlorobutadiene	0.258	0.303	0.312	0.329	0.295	0.317	0.303	8.09
31)	MC	4-Chloro-3-methylph	0.268	0.333	0.294	0.304	0.315	0.336	0.308	8.26
32)	T	2-Methylnaphthalene	0.673	0.798	0.768	0.788	0.742	0.824	0.765	6.97
33)	T	1-Methylnaphthalene	0.771	0.929	0.912	0.876	0.869	0.957	0.886	7.35
34)	I	Acenaphthene-d10	----------			ISTD	----------			
35)	TP	Hexachlorocyclopent	0.412	0.446	0.389	0.525	0.443	0.470	0.447	10.60
36)	TC	2,4,6-Trichlorophen	0.441	0.467	0.485	0.534	0.455	0.469	0.475	6.86
37)	T	2,4,5-Trichlorophen	0.482	0.521	0.522	0.572	0.474	0.522	0.515	6.78
38)	S	2-Fluorobiphenyl	1.451	1.469	1.614	1.762	1.411	1.487	1.532	8.59
39)	T	2-Chloronaphthalene	1.148	1.202	1.415	1.408	1.156	1.233	1.260	9.61
40)	T	2-Nitroaniline	0.325	0.399	0.309	0.385	0.367	0.406	0.365	10.91
41)	T	Acenaphthylene	1.484	1.812	1.935	2.012	1.559	1.658	1.743	12.08

(#) = Out of Range

Response Factor Report 5972

Method : C:\HPCHEM\1\METHODS\8270CPB.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Wed Oct 06 20:50:09 1999
Response via : Initial Calibration

Calibration Files
50 =P03623.D 160 =P03624.D 10 =P03625.D
20 =P03626.D 80 =P03627.D 120 =P03628.D

		Compound	50	160	10	20	80	120	Avg	%RSD
42)	T	Dimethylphthalate	1.391	1.622	1.535	1.707	1.583	1.669	1.585	7.11
43)	T	2,6-Dinitrotoluene	0.313	0.415	0.300	0.383	0.387	0.420	0.370	13.81
44)	MC	Acenaphthene	1.097	1.237	1.168	1.302	1.178	1.247	1.205	5.98
45)	T	3-Nitroaniline	0.312	0.420	0.281	0.386	0.384	0.437	0.370	16.51
46)	TP	2,4-Dinitrophenol	0.128	0.270		0.130	0.239	0.285	0.211	36.15
47)	T	Dibenzofuran	1.591	1.840	1.755	1.958	1.731	1.878	1.792	7.18
48)	M	2,4-Dinitrotoluene	0.426	0.585	0.362	0.483	0.576	0.606	0.507	19.49
49)	MP	4-Nitrophenol	0.181	0.231		0.182	0.211	0.233	0.208	12.16
50)	T	Fluorene	1.262	1.555	1.329	1.598	1.514	1.641	1.483	10.31
51)	T	4-Chlorophenyl-phen	0.683	0.823	0.748	0.815	0.768	0.834	0.779	7.40
52)	T	Diethylphthalate	1.311	1.684	1.465	1.639	1.641	1.766	1.584	10.50
53)	T	4-Nitroaniline	0.331	0.488	0.335	0.410	0.453	0.496	0.419	17.46
54)	S	2,4,6 Tribromopheno	0.285	0.398	0.260	0.321	0.378	0.406	0.341	18.04
55)	I	Phenanthrene-d10	----------	----------	ISTD	----------	----------	----------		
56)	T	4,6-Dinitro-2-methy	0.150	0.207		0.145	0.188	0.217	0.181	18.00
57)	TC	n-Nitrosodiphenylam	0.501	0.572	0.554	0.619	0.512	0.555	0.552	7.75
58)	T	1,2-Diphenylhydrazi	0.665	0.712	0.754	0.847	0.651	0.714	0.724	9.81
59)	T	4-Bromophenyl-pheny	0.211	0.228	0.254	0.259	0.221	0.234	0.234	8.05
60)	T	Hexachlorobenzene	0.286	0.314	0.350	0.372	0.300	0.314	0.323	10.03
61)	MC	Pentachlorophenol	0.184	0.232		0.212	0.226	0.236	0.218	9.61
62)	T	Benzidine	0.021	0.165		0.042	0.058	0.079	0.073	76.48
63)	T	Phenanthrene	1.087	1.193	1.184	1.282	1.162	1.238	1.191	5.59
64)	T	Anthracene	1.026	1.188	1.204	1.236	1.151	1.240	1.172	7.11
65)	T	Carbazole	0.922	1.115	1.126	1.205	1.059	1.130	1.093	8.76
66)	T	Di-n-butylphthalate	1.424	1.608	1.559	1.653	1.610	1.659	1.569	5.81
67)	TC	Fluoranthene	1.278	1.431	1.417	1.490	1.433	1.456	1.401	5.74
68)	I	Chrysene-d12	----------	----------	ISTD	----------	----------	----------		
69)	M	Pyrene	1.238	1.413	1.372	1.480	1.375	1.446	1.387	6.06
70)	S	Terphenyl-d14	1.045	1.170	1.227	1.242	1.169	1.194	1.174	5.96
71)	T	Butylbenzylphthalat	0.613	0.731	0.697	0.746	0.699	0.745	0.705	7.06
72)	T	3,3'-Dichlorobenzid	0.429	0.504	0.536	0.534	0.507	0.525	0.506	7.92
73)	T	Benzo[a]anthracene	1.131	1.284	1.309	1.408	1.258	1.312	1.284	7.05
74)	T	Chrysene	1.104	1.211	1.287	1.343	1.211	1.254	1.235	6.59
75)	T	bis(2-Ethylhexyl)ph	0.811	0.952	0.837	0.980	0.934	0.983	0.916	8.08
76)	I	Perylene-d12	----------	----------	ISTD	----------	----------	----------		
77)	TC	Di-n-octylphthalate	1.422	1.595	1.431	1.607	1.603	1.658	1.553	6.44
78)	T	Benzo[b]fluoranthen	1.283	1.399	1.410	1.467	1.409	1.458	1.404	4.68
79)	T	Benzo[k]fluoranthen	1.239	1.263	1.393	1.417	1.341	1.331	1.331	5.26
80)	TC	Benzo[a]pyrene	1.081	1.179	1.215	1.259	1.207	1.201	1.191	5.03
81)	T	Indeno[1,2,3-cd]pyr	1.260	1.163	1.143	1.355	1.240	1.259	1.237	6.18
82)	T	Dibenz[a,h]anthrace	1.039	1.019	1.006	1.176	1.057	1.084	1.064	5.81

(#) = Out of Range

Method : C:\HPCHEM\1\METHODS\8270CPB.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Wed Oct 06 20:50:09 1999
Response via : Initial Calibration

Calibration Files
50 =P03623.D 160 =P03624.D 10 =P03625.D
20 =P03626.D 80 =P03627.D 120 =P03628.D

	Compound	50	160	10	20	80	120	Avg	%RSD
83) T	Benzo[g,h,i]perylen	1.032	0.929	0.971	1.127	0.962	1.021	1.007	6.97

Evaluate Continuing Calibration Report

Data File : J:\GCMSDATA\P\OCT0899\P03657.D Vial: 2
Acq On : 8 Oct 1999 9:59 Operator: JMS
Sample : SSTD050 Inst : 5972
Misc : SSTD050 HP#P JMS Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8270CPB.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Fri Oct 08 10:41:44 1999
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	113	0.00
2	T	N-Nitrosodimethylamine	0.839	0.815	2.9	120	0.00
3	S	2-Fluorophenol	1.272	1.186	6.8	120	0.00
4	T	Aniline	1.501	0.968	35.5#	90	0.00
5	T	bis(2-Chloroethyl)ether	1.294	1.578	-21.9	152#	0.00
6	S	Phenol-d5	1.639	1.503	8.3	118	0.00
7	MC	Phenol	1.606	1.548	3.6	123	0.00
8	M	2-Chlorophenol	1.352	1.320	2.4	119	0.00
9	T	1,3-Dichlorobenzene	1.584	1.518	4.2	122	0.00
10	MC	1,4-Dichlorobenzene	1.631	1.569	3.8	125	0.00
11	T	1,2-Dichlorobenzene	1.568	1.471	6.2	119	0.00
12	T	Benzyl alcohol	0.810	0.724	10.6	108	0.00
13	T	2,2'-oxybis(1-chloropropane	2.696	2.565	4.9	118	0.00
14	T	2-Methylphenol	1.188	1.154	2.9	114	0.00
15	T	Hexachloroethane	0.635	0.618	2.7	122	0.00
16	MP	N-Nitroso-di-n-propylamine	0.892	0.837	6.2	114	0.00
17	T	4-Methylphenol	1.202	1.109	7.7	114	0.00
18	I	Naphthalene-d8	1.000	1.000	0.0	107	0.00
19	S	Nitrobenzene-d5	0.448	0.460	-2.7	122	0.00
20	T	Nitrobenzene	0.392	0.396	-1.0	121	0.00
21	T	Isophorone	0.807	0.802	0.6	123	0.00
22	TC	2-Nitrophenol	0.235	0.246	-4.7	124	0.00
23	T	2,4-Dimethylphenol	0.368	0.368	0.0	126	0.00
24	T	Benzoic Acid	0.225	0.243	-8.0	149	0.00
25	T	bis(2-Chloroethoxy)methane	0.459	0.463	-0.9	124	0.00
26	TC	2,4-Dichlorophenol	0.364	0.373	-2.5	124	0.00
27	M	1,2,4-Trichlorobenzene	0.425	0.422	0.7	122	0.00
28	T	Naphthalene	1.162	1.164	-0.2	124	0.00
29	T	4-Chloroaniline	0.599	0.641	-7.0	132	0.00
30	TC	Hexachlorobutadiene	0.303	0.297	2.0	123	0.00
31	MC	4-Chloro-3-methylphenol	0.308	0.309	-0.3	123	0.00
32	T	2-Methylnaphthalene	0.765	0.777	-1.6	124	0.00
33	T	1-Methylnaphthalene	0.886	0.890	-0.5	124	0.00
34	I	Acenaphthene-d10	1.000	1.000	0.0	121	0.00
35	TP	Hexachlorocyclopentadiene	0.447	0.496	-11.0	146	0.00
36	TC	2,4,6-Trichlorophenol	0.475	0.461	2.9	126	0.00
37	T	2,4,5-Trichlorophenol	0.515	0.515	0.0	129	0.00
38	S	2-Fluorobiphenyl	1.532	1.458	4.8	121	0.00
39	T	2-Chloronaphthalene	1.260	1.177	6.6	124	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\GCMSDATA\P\OCT0899\P03657.D Vial: 2
Acq On : 8 Oct 1999 9:59 Operator: JMS
Sample : SSTD050 Inst : 5972
Misc : SSTD050 HP#P JMS Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8270CPB.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Fri Oct 08 10:41:44 1999
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40	T	2-Nitroaniline	0.365	0.402	-10.1	150	0.00
41	T	Acenaphthylene	1.743	1.777	-2.0	145	0.00
42	T	Dimethylphthalate	1.585	1.499	5.4	130	0.00
43	T	2,6-Dinitrotoluene	0.370	0.382	-3.2	147	0.00
44	MC	Acenaphthene	1.205	1.202	0.2	132	0.00
45	T	3-Nitroaniline	0.370	0.434	-17.3	168#	0.00
46	TP	2,4-Dinitrophenol	0.211	0.294	-39.3#	279#	0.00
47	T	Dibenzofuran	1.792	1.765	1.5	134	0.00
48	M	2,4-Dinitrotoluene	0.507	0.607	-19.7	172#	0.00
49	MP	4-Nitrophenol	0.208	0.255	-22.6	170#	0.00
50	T	Fluorene	1.483	1.526	-2.9	146	0.00
51	T	4-Chlorophenyl-phenylether	0.779	0.816	-4.7	144	0.00
52	T	Diethylphthalate	1.584	1.569	0.9	145	0.00
53	T	4-Nitroaniline	0.419	0.541	-29.1#	198#	0.00
54	S	2,4,6 Tribromophenol	0.341	0.411	-20.5	175#	0.00
55	I	Phenanthrene-d10	1.000	1.000	0.0	151#	0.00
56	T	4,6-Dinitro-2-methylphenol	0.181	0.208	-14.9	209#	0.00
57	TC	n-Nitrosodiphenylamine	0.552	0.503	8.9	152#	0.00
58	T	1,2-Diphenylhydrazine	0.724	0.631	12.8	143	0.00
59	T	4-Bromophenyl-phenylether	0.234	0.209	10.7	149	0.00
60	T	Hexachlorobenzene	0.323	0.299	7.4	158#	0.00
61	MC	Pentachlorophenol	0.218	0.206	5.5	168#	0.00
62	T	Benzidine	0.073	0.003#	95.9#	20#	0.00
63	T	Phenanthrene	1.191	1.156	2.9	160#	0.00
64	T	Anthracene	1.172	1.184	-1.0	176#	0.00
65	T	Carbazole	1.093	1.197	-9.5	196#	0.00
66	T	Di-n-butylphthalate	1.569	1.552	1.1	164#	0.00
67	TC	Fluoranthene	1.401	1.469	-4.9	173#	0.00
68	I	Chrysene-d12	1.000	1.000	0.0	156#	0.00
69	M	Pyrene	1.387	1.403	-1.2	177#	0.00
70	S	Terphenyl-d14	1.174	1.182	-0.7	176#	0.00
71	T	Butylbenzylphthalate	0.705	0.663	6.0	169#	0.00
72	T	3,3'-Dichlorobenzidine	0.506	0.298	41.1#	108	0.00
73	T	Benzo[a]anthracene	1.284	1.286	-0.2	177#	0.00
74	T	Chrysene	1.235	1.236	-0.1	174#	0.00
75	T	bis(2-Ethylhexyl)phthalate	0.916	0.898	2.0	173#	0.00
76	I	Perylene-d12	1.000	1.000	0.0	108	0.00
77	TC	Di-n-octylphthalate	1.553	2.102	-35.4#	160#	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\GCMSDATA\P\OCT0899\P03657.D Vial: 2
Acq On : 8 Oct 1999 9:59 Operator: JMS
Sample : SSTD050 Inst : 5972
Misc : SSTD050 HP#P JMS Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8270CPB.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Fri Oct 08 10:41:44 1999
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
78	T	Benzo[b]fluoranthene	1.404	1.504	-7.1	127	0.00
79	T	Benzo[k]fluoranthene	1.331	1.559	-17.1	136	0.00
80	TC	Benzo[a]pyrene	1.191	1.215	-2.0	122	0.00
81	T	Indeno[1,2,3-cd]pyrene	1.237	1.020	17.5	88	0.00
82	T	Dibenz[a,h]anthracene	1.064	0.882	17.1	92	0.00
83	T	Benzo[g,h,i]perylene	1.007	0.841	16.5	88	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 1
P03657.D 8270CPB.M Fri Oct 08 10:44:01 1999 RPT1 Page 3

Evaluate Continuing Calibration Report

Data File : J:\GCMSDATA\P\OCT1199\P03676.D Vial: 2
Acq On : 11 Oct 1999 15:31 Operator: JMS
Sample : SSTD050 Inst : 5972
Misc : SSTD050 HP#P JMS Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8270CPB.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Mon Oct 11 16:20:37 1999
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	95	0.00
2	T	N-Nitrosodimethylamine	0.839	0.809	3.6	101	0.00
3	S	2-Fluorophenol	1.272	1.147	9.8	98	0.00
4	T	Aniline	1.501	1.830	-21.9	143	0.00
5	T	bis(2-Chloroethyl)ether	1.294	1.830	-41.4#	149	0.00
6	S	Phenol-d5	1.639	1.540	6.0	102	0.00
7	MC	Phenol	1.606	1.541	4.0	103	0.00
8	M	2-Chlorophenol	1.352	1.390	-2.8	105	0.00
9	T	1,3-Dichlorobenzene	1.584	1.524	3.8	103	0.00
10	MC	1,4-Dichlorobenzene	1.631	1.591	2.5	107	0.00
11	T	1,2-Dichlorobenzene	1.568	1.514	3.4	104	0.00
12	T	Benzyl alcohol	0.810	0.593	26.8#	75	0.00
13	T	2,2'-oxybis(1-chloropropane	2.696	2.715	-0.7	105	0.00
14	T	2-Methylphenol	1.188	1.163	2.1	97	0.00
15	T	Hexachloroethane	0.635	0.670	-5.5	111	0.00
16	MP	N-Nitroso-di-n-propylamine	0.892	0.865	3.0	100	0.00
17	T	4-Methylphenol	1.202	1.185	1.4	103	0.00
18	I	Naphthalene-d8	1.000	1.000	0.0	91	0.00
19	S	Nitrobenzene-d5	0.448	0.460	-2.7	103	0.00
20	T	Nitrobenzene	0.392	0.390	0.5	102	0.00
21	T	Isophorone	0.807	0.789	2.2	103	0.00
22	TC	2-Nitrophenol	0.235	0.252	-7.2	109	0.00
23	T	2,4-Dimethylphenol	0.368	0.339	7.9	99	0.00
24	T	Benzoic Acid	0.225	0.247	-9.8	128	0.00
25	T	bis(2-Chloroethoxy)methane	0.459	0.455	0.9	104	0.00
26	TC	2,4-Dichlorophenol	0.364	0.383	-5.2	108	0.00
27	M	1,2,4-Trichlorobenzene	0.425	0.432	-1.6	106	0.00
28	T	Naphthalene	1.162	1.124	3.3	102	0.00
29	T	4-Chloroaniline	0.599	0.492	17.9	86	0.00
30	TC	Hexachlorobutadiene	0.303	0.328	-8.3	116	0.00
31	MC	4-Chloro-3-methylphenol	0.308	0.370	-20.1#	125	0.00
32	T	2-Methylnaphthalene	0.765	0.787	-2.9	107	0.00
33	T	1-Methylnaphthalene	0.886	0.927	-4.6	109	0.00
34	I	Acenaphthene-d10	1.000	1.000	0.0	117	0.00
35	TP	Hexachlorocyclopentadiene	0.447	0.419	6.3	119	0.00
36	TC	2,4,6-Trichlorophenol	0.475	0.475	0.0	126	0.00
37	T	2,4,5-Trichlorophenol	0.515	0.570	-10.7	138	0.00
38	S	2-Fluorobiphenyl	1.532	1.372	10.4	111	0.00
39	T	2-Chloronaphthalene	1.260	1.153	8.5	118	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\GCMSDATA\P\OCT1199\P03676.D Vial: 2
Acq On : 11 Oct 1999 15:31 Operator: JMS
Sample : SSTD050 Inst : 5972
Misc : SSTD050 HP#P JMS Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8270CPB.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Mon Oct 11 16:20:37 1999
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40	T	2-Nitroaniline	0.365	0.415	-13.7	150	0.00
41	T	Acenaphthylene	1.743	1.620	7.1	128	0.00
42	T	Dimethylphthalate	1.585	1.598	-0.8	135	0.00
43	T	2,6-Dinitrotoluene	0.370	0.407	-10.0	152#	0.00
44	MC	Acenaphthene	1.205	1.174	2.6	125	0.00
45	T	3-Nitroaniline	0.370	0.441	-19.2	165#	0.00
46	TP	2,4-Dinitrophenol	0.211	0.299	-41.7#	274#	0.00
47	T	Dibenzofuran	1.792	1.847	-3.1	136	0.00
48	M	2,4-Dinitrotoluene	0.507	0.591	-16.6	162#	0.00
49	MP	4-Nitrophenol	0.208	0.233	-12.0	151#	0.00
50	T	Fluorene	1.483	1.551	-4.6	144	0.00
51	T	4-Chlorophenyl-phenylether	0.779	0.797	-2.3	137	0.00
52	T	Diethylphthalate	1.584	1.626	-2.7	145	0.00
53	T	4-Nitroaniline	0.419	0.527	-25.8#	186#	0.00
54	S	2,4,6 Tribromophenol	0.341	0.421	-23.5	173#	0.00
55	I	Phenanthrene-d10	1.000	1.000	0.0	147	0.00
56	T	4,6-Dinitro-2-methylphenol	0.181	0.217	-19.9	213#	0.00
57	TC	n-Nitrosodiphenylamine	0.552	0.527	4.5	155#	0.00
58	T	1,2-Diphenylhydrazine	0.724	0.675	6.8	150	0.00
59	T	4-Bromophenyl-phenylether	0.234	0.223	4.7	156#	0.00
60	T	Hexachlorobenzene	0.323	0.309	4.3	160#	0.00
61	MC	Pentachlorophenol	0.218	0.184	15.6	147	0.00
62	T	Benzidine	0.073	0.001#	98.6#	7#	0.00
63	T	Phenanthrene	1.191	1.182	0.8	160#	0.00
64	T	Anthracene	1.172	1.146	2.2	166#	0.00
65	T	Carbazole	1.093	1.126	-3.0	180#	0.00
66	T	Di-n-butylphthalate	1.569	1.471	6.2	152#	0.00
67	TC	Fluoranthene	1.401	1.412	-0.8	163#	0.00
68	I	Chrysene-d12	1.000	1.000	0.0	151#	0.00
69	M	Pyrene	1.387	1.376	0.8	168#	0.00
70	S	Terphenyl-d14	1.174	1.119	4.7	162#	0.00
71	T	Butylbenzylphthalate	0.705	0.657	6.8	162#	0.00
72	T	3,3'-Dichlorobenzidine	0.506	0.277	45.3#	98	0.00
73	T	Benzo[a]anthracene	1.284	1.253	2.4	167#	0.00
74	T	Chrysene	1.235	1.177	4.7	161#	0.00
75	T	bis(2-Ethylhexyl)phthalate	0.916	0.851	7.1	159#	0.00
76	I	Perylene-d12	1.000	1.000	0.0	98	0.00
77	TC	Di-n-octylphthalate	1.553	2.229	-43.5#	153#	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\GCMSDATA\P\OCT1199\P03676.D Vial: 2
Acq On : 11 Oct 1999 15:31 Operator: JMS
Sample : SSTD050 Inst : 5972
Misc : SSTD050 HP#P JMS Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8270CPB.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Mon Oct 11 16:20:37 1999
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
78	T	Benzo[b]fluoranthene	1.404	1.539	-9.6	117	0.00
79	T	Benzo[k]fluoranthene	1.331	1.515	-13.8	120	0.00
80	TC	Benzo[a]pyrene	1.191	1.186	0.4	107	0.00
81	T	Indeno[1,2,3-cd]pyrene	1.237	1.188	4.0	92	0.00
82	T	Dibenz[a,h]anthracene	1.064	1.001	5.9	94	0.00
83	T	Benzo[g,h,i]perylene	1.007	0.944	6.3	90	0.00

Evaluate Continuing Calibration Report

Data File : J:\GCMSDATA\P\OCT1299\P03696.D Vial: 2
Acq On : 12 Oct 1999 12:10 Operator: JMS
Sample : SSTD050 Inst : 5972
Misc : SSTD050 HP#P JMS Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8270CPB.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Tue Oct 12 13:00:39 1999
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	158#	0.00
2	T	N-Nitrosodimethylamine	0.839	0.800	4.6	164#	0.00
3	S	2-Fluorophenol	1.272	1.270	0.2	179#	0.00
4	T	Aniline	1.501	1.255	16.4	162#	0.00
5	T	bis(2-Chloroethyl)ether	1.294	1.355	-4.7	183#	0.00
6	S	Phenol-d5	1.639	1.573	4.0	172#	0.00
7	MC	Phenol	1.606	1.542	4.0	171#	0.00
8	M	2-Chlorophenol	1.352	1.342	0.7	168#	0.00
9	T	1,3-Dichlorobenzene	1.584	1.597	-0.8	179#	0.00
10	MC	1,4-Dichlorobenzene	1.631	1.635	-0.2	182#	0.00
11	T	1,2-Dichlorobenzene	1.568	1.527	2.6	173#	0.00
12	T	Benzyl alcohol	0.810	0.767	5.3	160#	0.00
13	T	2,2'-oxybis(1-chloropropane	2.696	2.161	19.8	139	0.00
14	T	2-Methylphenol	1.188	1.167	1.8	161#	0.00
15	T	Hexachloroethane	0.635	0.615	3.1	169#	0.00
16	MP	N-Nitroso-di-n-propylamine	0.892	0.868	2.7	166#	0.00
17	T	4-Methylphenol	1.202	1.168	2.8	168#	0.00
18	I	Naphthalene-d8	1.000	1.000	0.0	154#	0.00
19	S	Nitrobenzene-d5	0.448	0.408	8.9	155#	0.00
20	T	Nitrobenzene	0.392	0.374	4.6	165#	0.00
21	T	Isophorone	0.807	0.739	8.4	164#	0.00
22	TC	2-Nitrophenol	0.235	0.217	7.7	158#	0.00
23	T	2,4-Dimethylphenol	0.368	0.358	2.7	177#	0.00
24	T	Benzoic Acid	0.225	0.167	25.8#	147	0.00
25	T	bis(2-Chloroethoxy)methane	0.459	0.435	5.2	168#	0.00
26	TC	2,4-Dichlorophenol	0.364	0.351	3.6	168#	0.00
27	M	1,2,4-Trichlorobenzene	0.425	0.403	5.2	167#	0.00
28	T	Naphthalene	1.162	1.115	4.0	171#	0.00
29	T	4-Chloroaniline	0.599	0.564	5.8	167#	0.00
30	TC	Hexachlorobutadiene	0.303	0.271	10.6	161#	0.00
31	MC	4-Chloro-3-methylphenol	0.308	0.298	3.2	171#	0.00
32	T	2-Methylnaphthalene	0.765	0.725	5.2	166#	0.00
33	T	1-Methylnaphthalene	0.886	0.831	6.2	166#	0.00
34	I	Acenaphthene-d10	1.000	1.000	0.0	148	0.00
35	TP	Hexachlorocyclopentadiene	0.447	0.306	31.5#	110	0.00
36	TC	2,4,6-Trichlorophenol	0.475	0.489	-2.9	165#	0.00
37	T	2,4,5-Trichlorophenol	0.515	0.513	0.4	158#	0.00
38	S	2-Fluorobiphenyl	1.532	1.603	-4.6	164#	0.00
39	T	2-Chloronaphthalene	1.260	1.282	-1.7	166#	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\GCMSDATA\P\OCT1299\P03696.D Vial: 2
Acq On : 12 Oct 1999 12:10 Operator: JMS
Sample : SSTD050 Inst : 5972
Misc : SSTD050 HP#P JMS Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8270CPB.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Tue Oct 12 13:00:39 1999
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40	T	2-Nitroaniline	0.365	0.348	4.7	159#	0.00
41	T	Acenaphthylene	1.743	1.699	2.5	170#	0.00
42	T	Dimethylphthalate	1.585	1.537	3.0	164#	0.00
43	T	2,6-Dinitrotoluene	0.370	0.366	1.1	173#	0.00
44	MC	Acenaphthene	1.205	1.242	-3.1	168#	0.00
45	T	3-Nitroaniline	0.370	0.367	0.8	174#	0.00
46	TP	2,4-Dinitrophenol	0.211	0.117	44.5#	136	0.00
47	T	Dibenzofuran	1.792	1.820	-1.6	170#	0.00
48	M	2,4-Dinitrotoluene	0.507	0.489	3.6	170#	0.00
49	MP	4-Nitrophenol	0.208	0.167	19.7	137	0.00
50	T	Fluorene	1.483	1.431	3.5	168#	0.00
51	T	4-Chlorophenyl-phenylether	0.779	0.782	-0.4	170#	0.00
52	T	Diethylphthalate	1.584	1.488	6.1	168#	0.00
53	T	4-Nitroaniline	0.419	0.408	2.6	183#	0.00
54	S	2,4,6 Tribromophenol	0.341	0.339	0.6	177#	0.00
55	I	Phenanthrene-d10	1.000	1.000	0.0	145	0.00
56	T	4,6-Dinitro-2-methylphenol	0.181	0.157	13.3	152#	0.00
57	TC	n-Nitrosodiphenylamine	0.552	0.580	-5.1	168#	0.00
58	T	1,2-Diphenylhydrazine	0.724	0.743	-2.6	162#	0.00
59	T	4-Bromophenyl-phenylether	0.234	0.247	-5.6	170#	0.00
60	T	Hexachlorobenzene	0.323	0.346	-7.1	176#	0.00
61	MC	Pentachlorophenol	0.218	0.176	19.3	138	0.00
62	T	Benzidine	0.073	0.006#	91.8#	43#	0.00
63	T	Phenanthrene	1.191	1.176	1.3	157#	0.00
64	T	Anthracene	1.172	1.166	0.5	167#	0.00
65	T	Carbazole	1.093	1.100	-0.6	173#	0.00
66	T	Di-n-butylphthalate	1.569	1.570	-0.1	160#	0.00
67	TC	Fluoranthene	1.401	1.438	-2.6	163#	0.00
68	I	Chrysene-d12	1.000	1.000	0.0	146	0.00
69	M	Pyrene	1.387	1.430	-3.1	169#	0.00
70	S	Terphenyl-d14	1.174	1.251	-6.6	175#	0.00
71	T	Butylbenzylphthalate	0.705	0.720	-2.1	172#	0.00
72	T	3,3'-Dichlorobenzidine	0.506	0.459	9.3	157#	0.00
73	T	Benzo[a]anthracene	1.284	1.277	0.5	165#	0.00
74	T	Chrysene	1.235	1.235	0.0	164#	0.00
75	T	bis(2-Ethylhexyl)phthalate	0.916	0.946	-3.3	171#	0.00
76	I	Perylene-d12	1.000	1.000	0.0	155#	0.00
77	TC	Di-n-octylphthalate	1.553	1.566	-0.8	170#	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\GCMSDATA\P\OCT1299\P03696.D Vial: 2
Acq On : 12 Oct 1999 12:10 Operator: JMS
Sample : SSTD050 Inst : 5972
Misc : SSTD050 HP#P JMS Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8270CPB.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Tue Oct 12 13:00:39 1999
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
78	T	Benzo[b]fluoranthene	1.404	1.323	5.8	159#	0.00
79	T	Benzo[k]fluoranthene	1.331	1.317	1.1	164#	0.00
80	TC	Benzo[a]pyrene	1.191	1.112	6.6	159#	0.00
81	T	Indeno[1,2,3-cd]pyrene	1.237	1.471	-18.9	181#	0.00
82	T	Dibenz[a,h]anthracene	1.064	1.223	-14.9	182#	0.00
83	T	Benzo[g,h,i]perylene	1.007	1.174	-16.6	176#	0.00

Quantitation Report (QT Reviewed)

Data File : J:\GCMSDATA\P\OCT1299\P03696.D Vial: 2
Acq On : 12 Oct 1999 12:10 Operator: JMS
Sample : SSTD050 Inst : 5972
Misc : SSTD050 HP#P JMS Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 12 12:59 1999 Quant Results File: 8270CPB.RES

Quant Method : C:\HPCHEM\1\METHODS\8270CPB.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Tue Oct 12 12:54:03 1999
Response via : Initial Calibration
DataAcq Meth : 8270CPB

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	12.20	152	322940	40.00	ug/ml	0.00
18) Naphthalene-d8	15.09	136	1118567	40.00	ug/ml	0.00
34) Acenaphthene-d10	18.90	164	617756	40.00	ug/ml	0.00
55) Phenanthrene-d10	21.09	188	1090767	40.00	ug/ml	0.00
68) Chrysene-d12	24.99	240	1131813	40.00	ug/ml	0.00
76) Perylene-d12	29.26	264	1085830	40.00	ug/ml	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	9.25	112	512625	49.91	ug/ml	0.00
Spiked Amount 200.000	Range 19 - 118		Recovery = 24.95%			
6) Phenol-d5	11.22	99	634872	47.97	ug/ml	0.00
Spiked Amount 200.000	Range 24 - 117		Recovery = 23.98%#			
19) Nitrobenzene-d5	13.42	82	569899	45.47	ug/ml	0.00
Spiked Amount 100.000	Range 48 - 106		Recovery = 45.47%#			
38) 2-Fluorobiphenyl	17.45	172	1237816	52.31	ug/ml	0.00
Spiked Amount 100.000	Range 51 - 108		Recovery = 52.31%			
54) 2,4,6 Tribromophenol	20.14	330	262124	49.73	ug/ml	0.00
Spiked Amount 200.000	Range 38 - 153		Recovery = 24.86%#			
70) Terphenyl-d14	22.99	244	1769183	53.24	ug/ml	0.00
Spiked Amount 100.000	Range 20 - 165		Recovery = 53.24%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	5.94	74	323005	47.68	ug/ml	100
4) Aniline	11.44	93	506546	41.80	ug/ml	100
5) bis(2-Chloroethyl)ether	11.52	93	547154	52.37	ug/ml	100
7) Phenol	11.24	94	622478	48.02	ug/ml	100
8) 2-Chlorophenol	11.72	128	541827	49.63	ug/ml	100
9) 1,3-Dichlorobenzene	12.07	146	644698	50.42	ug/ml	100
10) 1,4-Dichlorobenzene	12.23	146	659958	50.13	ug/ml	100
11) 1,2-Dichlorobenzene	12.58	146	616245	48.69	ug/ml	100
12) Benzyl alcohol	12.41	108	309592	47.31	ug/ml	100
13) 2,2'-oxybis(1-chloropropan	12.69	45	872497	40.08	ug/ml	100
14) 2-Methylphenol	12.59	108	471111	49.13	ug/ml	100
15) Hexachloroethane	13.36	117	248142	48.41	ug/ml	100
16) N-Nitroso-di-n-propylamine	12.98	70	350586	48.68	ug/ml	100
17) 4-Methylphenol	12.91	108	471508	48.58	ug/ml	100
20) Nitrobenzene	13.46	77	523128	47.75	ug/ml	100
21) Isophorone	13.96	82	1033704	45.80	ug/ml	100
22) 2-Nitrophenol	14.17	139	303523	46.24	ug/ml	100
23) 2,4-Dimethylphenol	14.13	107	500790	48.65	ug/ml	100
24) Benzoic Acid	14.23	105	232940m	37.04	ug/ml	
25) bis(2-Chloroethoxy)methane	14.35	93	608542	47.43	ug/ml	100

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

Response Factor Report 5972

Method : C:\HPCHEM\1\METHODS\8270CPB.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Tue Oct 26 11:57:42 1999
Response via : Initial Calibration

Calibration Files
50 =P03834.D 160 =P03835.D 10 =P03836.D
20 =P03837.D 80 =P03838.D 120 =P03839.D

		Compound	50	160	10	20	80	120	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)	T	N-Nitrosodimethylam	0.791	0.746	0.752	0.796	0.829	0.806	0.787	4.11
3)	S	2-Fluorophenol	1.379	1.230	1.343	1.350	1.378	1.274	1.326	4.56
4)	T	Aniline	0.791	0.683	1.395	1.158	0.911	0.782	0.953	28.44
5)	T	bis(2-Chloroethyl)e	1.375	1.397	1.373	1.290	1.489	1.406	1.388	4.61
6)	S	Phenol-d5	1.758	1.547	1.735	1.608	1.745	1.601	1.666	5.44
7)	MC	Phenol	1.729	1.548	1.629	1.594	1.696	1.590	1.631	4.23
8)	M	2-Chlorophenol	1.456	1.325	1.350	1.409	1.451	1.334	1.387	4.25
9)	T	1,3-Dichlorobenzene	1.778	1.611	1.654	1.629	1.745	1.652	1.678	4.01
10)	MC	1,4-Dichlorobenzene	1.830	1.645	1.653	1.627	1.814	1.668	1.706	5.32
11)	T	1,2-Dichlorobenzene	1.697	1.602	1.605	1.580	1.738	1.665	1.648	3.79
12)	T	Benzyl alcohol	0.943	0.815	0.868	0.844	0.884	0.842	0.866	5.13
13)	T	2,2'-oxybis(1-chlor	2.533	2.179	2.445	2.397	2.508	2.288	2.391	5.68
14)	T	2-Methylphenol	1.245	1.164	1.218	1.182	1.297	1.239	1.224	3.89
15)	T	Hexachloroethane	0.773	0.693	0.753	0.728	0.725	0.692	0.727	4.45
16)	MP	N-Nitroso-di-n-prop	0.938	0.858	0.924	0.876	0.952	0.877	0.904	4.27
17)	T	4-Methylphenol	1.218	1.125	1.214	1.113	1.269	1.203	1.190	5.02
18)	I	Naphthalene-d8	----------ISTD----------							
19)	S	Nitrobenzene-d5	0.503	0.507	0.522	0.491	0.494	0.511	0.505	2.25
20)	T	Nitrobenzene	0.440	0.442	0.429	0.435	0.456	0.453	0.442	2.33
21)	T	Isophorone	0.832	0.813	0.860	0.798	0.835	0.857	0.833	2.90
22)	TC	2-Nitrophenol	0.236	0.239	0.220	0.223	0.247	0.244	0.235	4.66
23)	T	2,4-Dimethylphenol	0.347	0.363	0.382	0.333	0.370	0.373	0.361	5.06
24)	T	Benzoic Acid	0.184	0.276	0.140	0.172	0.258	0.291	0.220	28.49
25)	T	bis(2-Chloroethoxy)	0.449	0.456	0.456	0.458	0.466	0.481	0.461	2.48
26)	TC	2,4-Dichlorophenol	0.359	0.343	0.339	0.343	0.342	0.360	0.348	2.73
27)	M	1,2,4-Trichlorobenz	0.430	0.424	0.444	0.394	0.431	0.418	0.424	3.98
28)	T	Naphthalene	1.197	1.195	1.166	1.145	1.184	1.204	1.182	1.88
29)	T	4-Chloroaniline	0.524	0.539	0.584	0.565	0.553	0.566	0.555	3.82
30)	TC	Hexachlorobutadiene	0.318	0.325	0.320	0.301	0.311	0.308	0.314	2.77
31)	MC	4-Chloro-3-methylph	0.310	0.324	0.329	0.311	0.327	0.344	0.324	3.91
32)	T	2-Methylnaphthalene	0.815	0.794	0.767	0.762	0.793	0.820	0.792	3.01
33)	T	1-Methylnaphthalene	0.854	0.854	0.867	0.799	0.859	0.873	0.851	3.13
34)	I	Acenaphthene-d10	----------ISTD----------							
35)	TP	Hexachlorocyclopent	0.345	0.394	0.249	0.287	0.395	0.371	0.340	17.60
36)	TC	2,4,6-Trichlorophen	0.476	0.435	0.492	0.450	0.486	0.449	0.465	5.01
37)	T	2,4,5-Trichlorophen	0.551	0.484	0.494	0.485	0.524	0.511	0.508	5.15
38)	S	2-Fluorobiphenyl	1.550	1.436	1.598	1.511	1.596	1.445	1.523	4.70
39)	T	2-Chloronaphthalene	1.340	1.254	1.386	1.290	1.389	1.275	1.322	4.38
40)	T	2-Nitroaniline	0.432	0.441	0.409	0.406	0.439	0.450	0.430	4.16
41)	T	Acenaphthylene	1.822	1.619	1.822	1.676	1.754	1.662	1.726	4.99

(#) = Out of Range

Response Factor Report 5972

Method : C:\HPCHEM\1\METHODS\8270CPB.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Tue Oct 26 11:57:42 1999
Response via : Initial Calibration

Calibration Files
50 =P03834.D 160 =P03835.D 10 =P03836.D
20 =P03837.D 80 =P03838.D 120 =P03839.D

		Compound	50	160	10	20	80	120	Avg	%RSD
42)	T	Dimethylphthalate	1.654	1.614	1.620	1.497	1.642	1.650	1.613	3.65
43)	T	2,6-Dinitrotoluene	0.422	0.437	0.355	0.391	0.441	0.439	0.414	8.28
44)	MC	Acenaphthene	1.276	1.247	1.288	1.209	1.317	1.247	1.264	2.99
45)	T	3-Nitroaniline	0.414	0.444	0.380	0.350	0.416	0.447	0.409	9.17
46)	TP	2,4-Dinitrophenol	0.089	0.255		0.056	0.188	0.259	0.170	55.32
47)	T	Dibenzofuran	2.014	1.894	1.909	1.836	1.973	1.918	1.924	3.24
48)	M	2,4-Dinitrotoluene	0.620	0.702	0.503	0.536	0.603	0.665	0.605	12.44
49)	MP	4-Nitrophenol	0.240	0.333	0.162	0.205	0.265	0.307	0.252	25.27
50)	T	Fluorene	1.539	1.604	1.379	1.364	1.573	1.599	1.510	7.27
51)	T	4-Chlorophenyl-phen	0.813	0.790	0.759	0.732	0.791	0.771	0.776	3.65
52)	T	Diethylphthalate	1.724	1.856	1.590	1.437	1.685	1.802	1.682	9.01
53)	T	4-Nitroaniline	0.473	0.557	0.356	0.403	0.452	0.488	0.455	15.35
54)	S	2,4,6 Tribromopheno	0.489	0.582	0.395	0.412	0.523	0.522	0.487	14.70
55)	I	Phenanthrene-d10	----------ISTD----------							
56)	T	4,6-Dinitro-2-methy	0.144	0.228		0.109	0.208	0.219	0.181	28.85
57)	TC	n-Nitrosodiphenylam	0.546	0.519	0.608	0.593	0.596	0.544	0.568	6.36
58)	T	1,2-Diphenylhydrazi	0.834	0.714	0.946	0.863	0.890	0.797	0.841	9.52
59)	T	4-Bromophenyl-pheny	0.249	0.228	0.232	0.242	0.255	0.237	0.241	4.34
60)	T	Hexachlorobenzene	0.418	0.417	0.419	0.378	0.434	0.404	0.412	4.56
61)	MC	Pentachlorophenol	0.250	0.274	0.180	0.193	0.266	0.259	0.237	16.85
62)	T	Benzidine	0.112	0.109		0.025	0.100	0.085	0.086	41.27
63)	T	Phenanthrene	1.210	1.244	1.243	1.126	1.268	1.229	1.220	4.09
64)	T	Anthracene	1.171	1.207	1.209	1.096	1.267	1.219	1.195	4.80
65)	T	Carbazole	1.132	1.198	1.102	1.043	1.172	1.168	1.136	4.97
66)	T	Di-n-butylphthalate	1.737	1.684	1.625	1.504	1.812	1.721	1.680	6.33
67)	TC	Fluoranthene	1.463	1.540	1.343	1.204	1.579	1.483	1.435	9.68
68)	I	Chrysene-d12	----------ISTD----------							
69)	M	Pyrene	1.314	1.267	1.378	1.295	1.387	1.322	1.327	3.54
70)	S	Terphenyl-d14	1.186	1.193	1.167	1.151	1.265	1.225	1.198	3.47
71)	T	Butylbenzylphthalat	0.734	0.693	0.718	0.686	0.755	0.731	0.719	3.65
72)	T	3,3'-Dichlorobenzid	0.501	0.469	0.459	0.457	0.537	0.502	0.487	6.44
73)	T	Benzo[a]anthracene	1.287	1.244	1.303	1.215	1.317	1.279	1.274	2.98
74)	T	Chrysene	1.229	1.213	1.260	1.199	1.247	1.247	1.233	1.89
75)	T	bis(2-Ethylhexyl)ph	1.011	0.921	0.928	0.932	0.988	0.979	0.960	3.94
76)	I	Perylene-d12	----------ISTD----------							
77)	TC	Di-n-octylphthalate	1.533	1.555	1.418	1.395	1.640	1.626	1.528	6.74
78)	T	Benzo[b]fluoranthen	1.293	1.365	1.287	1.211	1.353	1.385	1.316	4.91
79)	T	Benzo[k]fluoranthen	1.360	1.418	1.382	1.238	1.404	1.412	1.369	4.94
80)	TC	Benzo[a]pyrene	1.130	1.191	1.118	1.083	1.199	1.211	1.155	4.50
81)	T	Indeno[1,2,3-cd]pyr	1.635	1.293	1.545	1.500	1.653	1.488	1.519	8.54
82)	T	Dibenz[a,h]anthrace	1.392	1.159	1.290	1.261	1.424	1.289	1.303	7.32

(#) = Out of Range

Response Factor Report 5972

Method : C:\HPCHEM\1\METHODS\8270CPB.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Tue Oct 26 11:57:42 1999
Response via : Initial Calibration

Calibration Files
50 =P03834.D 160 =P03835.D 10 =P03836.D
20 =P03837.D 80 =P03838.D 120 =P03839.D

	Compound	50	160	10	20	80	120	Avg	%RSD
83) T	Benzo[g,h,i]perylen	1.395	1.021	1.301	1.268	1.391	1.189	1.261	11.19

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\GCMSDATA\P\OCT2699\P03842.D Vial: 2
Acq On : 26 Oct 1999 12:39 Operator: JMS
Sample : SSTD050 Inst : 5972
Misc : SSTD050 HP#P JMS Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8270CPB.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Tue Oct 26 13:24:01 1999
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	147	0.00
2	T	N-Nitrosodimethylamine	0.787	0.829	-5.3	154#	0.00
3	S	2-Fluorophenol	1.326	1.358	-2.4	145	0.00
4	T	Aniline	0.953	0.770	19.2	144	0.00
5	T	bis(2-Chloroethyl)ether	1.388	1.398	-0.7	150	0.00
6	S	Phenol-d5	1.666	1.724	-3.5	145	0.00
7	MC	Phenol	1.631	1.743	-6.9	149	0.00
8	M	2-Chlorophenol	1.387	1.471	-6.1	149	0.00
9	T	1,3-Dichlorobenzene	1.678	1.768	-5.4	147	0.00
10	MC	1,4-Dichlorobenzene	1.706	1.811	-6.2	146	0.00
11	T	1,2-Dichlorobenzene	1.648	1.719	-4.3	149	0.00
12	T	Benzyl alcohol	0.866	0.892	-3.0	139	0.00
13	T	2,2'-oxybis(1-chloropropane	2.391	2.562	-7.2	149	0.00
14	T	2-Methylphenol	1.224	1.267	-3.5	150#	0.00
15	T	Hexachloroethane	0.727	0.735	-1.1	140	0.00
16	MP	N-Nitroso-di-n-propylamine	0.904	0.981	-8.5	154#	0.00
17	T	4-Methylphenol	1.190	1.257	-5.6	152#	0.00
18	I	Naphthalene-d8	1.000	1.000	0.0	142	0.00
19	S	Nitrobenzene-d5	0.505	0.517	-2.4	146	0.00
20	T	Nitrobenzene	0.442	0.457	-3.4	147	0.00
21	T	Isophorone	0.833	0.873	-4.8	149	0.00
22	TC	2-Nitrophenol	0.235	0.244	-3.8	146	0.00
23	T	2,4-Dimethylphenol	0.361	0.358	0.8	147	0.00
24	T	Benzoic Acid	0.220	0.229	-4.1	177#	0.00
25	T	bis(2-Chloroethoxy)methane	0.461	0.491	-6.5	155#	0.00
26	TC	2,4-Dichlorophenol	0.348	0.350	-0.6	138	0.00
27	M	1,2,4-Trichlorobenzene	0.424	0.421	0.7	139	0.00
28	T	Naphthalene	1.182	1.191	-0.8	141	0.00
29	T	4-Chloroaniline	0.555	0.542	2.3	147	0.00
30	TC	Hexachlorobutadiene	0.314	0.309	1.6	138	0.00
31	MC	4-Chloro-3-methylphenol	0.324	0.319	1.5	146	0.00
32	T	2-Methylnaphthalene	0.792	0.807	-1.9	140	0.00
33	T	1-Methylnaphthalene	0.851	0.851	0.0	141	0.00
34	I	Acenaphthene-d10	1.000	1.000	0.0	148	0.00
35	TP	Hexachlorocyclopentadiene	0.340	0.302	11.2	130	0.00
36	TC	2,4,6-Trichlorophenol	0.465	0.445	4.3	138	0.00
37	T	2,4,5-Trichlorophenol	0.508	0.486	4.3	130	0.00
38	S	2-Fluorobiphenyl	1.523	1.508	1.0	144	0.00
39	T	2-Chloronaphthalene	1.322	1.301	1.6	143	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\GCMSDATA\P\OCT2699\P03842.D Vial: 2
Acq On : 26 Oct 1999 12:39 Operator: JMS
Sample : SSTD050 Inst : 5972
Misc : SSTD050 HP#P JMS Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8270CPB.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Tue Oct 26 13:24:01 1999
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40	T	2-Nitroaniline	0.430	0.436	-1.4	149	0.00
41	T	Acenaphthylene	1.726	1.709	1.0	139	0.00
42	T	Dimethylphthalate	1.613	1.568	2.8	140	0.00
43	T	2,6-Dinitrotoluene	0.414	0.414	0.0	145	0.00
44	MC	Acenaphthene	1.264	1.197	5.3	139	0.00
45	T	3-Nitroaniline	0.409	0.416	-1.7	149	0.00
46	TP	2,4-Dinitrophenol	0.170	0.133	21.8	221#	0.00
47	T	Dibenzofuran	1.924	1.864	3.1	137	0.00
48	M	2,4-Dinitrotoluene	0.605	0.573	5.3	137	0.00
49	MP	4-Nitrophenol	0.252	0.241	4.4	148	0.00
50	T	Fluorene	1.510	1.467	2.8	141	0.00
51	T	4-Chlorophenyl-phenylether	0.776	0.741	4.5	135	0.00
52	T	Diethylphthalate	1.682	1.554	7.6	133	0.00
53	T	4-Nitroaniline	0.455	0.439	3.5	137	0.00
54	S	2,4,6 Tribromophenol	0.487	0.425	12.7	129	0.00
55	I	Phenanthrene-d10	1.000	1.000	0.0	132	0.00
56	T	4,6-Dinitro-2-methylphenol	0.181	0.182	-0.6	166#	0.00
57	TC	n-Nitrosodiphenylamine	0.568	0.557	1.9	135	0.00
58	T	1,2-Diphenylhydrazine	0.841	0.887	-5.5	140	0.00
59	T	4-Bromophenyl-phenylether	0.241	0.256	-6.2	136	0.00
60	T	Hexachlorobenzene	0.412	0.395	4.1	125	0.00
61	MC	Pentachlorophenol	0.237	0.238	-0.4	126	0.00
62	T	Benzidine	0.086	0.092	-7.0	109	0.00
63	T	Phenanthrene	1.220	1.199	1.7	131	0.00
64	T	Anthracene	1.195	1.202	-0.6	136	0.00
65	T	Carbazole	1.136	1.154	-1.6	135	0.00
66	T	Di-n-butylphthalate	1.680	1.673	0.4	127	0.00
67	TC	Fluoranthene	1.435	1.437	-0.1	130	0.00
68	I	Chrysene-d12	1.000	1.000	0.0	132	0.00
69	M	Pyrene	1.327	1.288	2.9	130	0.00
70	S	Terphenyl-d14	1.198	1.143	4.6	127	0.00
71	T	Butylbenzylphthalate	0.719	0.692	3.8	125	0.00
72	T	3,3'-Dichlorobenzidine	0.487	0.487	0.0	129	0.00
73	T	Benzo[a]anthracene	1.274	1.263	0.9	130	0.00
74	T	Chrysene	1.233	1.227	0.5	132	0.00
75	T	bis(2-Ethylhexyl)phthalate	0.960	0.934	2.7	122	0.00
76	I	Perylene-d12	1.000	1.000	0.0	121	0.00
77	TC	Di-n-octylphthalate	1.528	1.557	-1.9	123	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\GCMSDATA\P\OCT2699\P03842.D Vial: 2
Acq On : 26 Oct 1999 12:39 Operator: JMS
Sample : SSTD050 Inst : 5972
Misc : SSTD050 HP#P JMS Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8270CPB.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Tue Oct 26 13:24:01 1999
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
78	T	Benzo[b]fluoranthene	1.316	1.350	-2.6	127	0.00
79	T	Benzo[k]fluoranthene	1.369	1.378	-0.7	123	0.00
80	TC	Benzo[a]pyrene	1.155	1.155	0.0	124	0.00
81	T	Indeno[1,2,3-cd]pyrene	1.519	1.544	-1.6	115	0.00
82	T	Dibenz[a,h]anthracene	1.303	1.305	-0.2	114	0.00
83	T	Benzo[g,h,i]perylene	1.261	1.285	-1.9	112	0.00

Evaluate Continuing Calibration Report

Data File : J:\GCMSDATA\P\OCT2799\P03864.D Vial: 2
Acq On : 27 Oct 1999 14:46 Operator: JMS
Sample : SSTD050 Inst : 5972
Misc : SSTD050 HP#P JMS Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8270CPB.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Wed Oct 27 15:31:55 1999
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	326#	0.00
2	T	N-Nitrosodimethylamine	0.787	0.841	-6.9	347#	0.00
3	S	2-Fluorophenol	1.326	1.417	-6.9	335#	0.00
4	T	Aniline	0.953	0.932	2.2	384#	0.00
5	T	bis(2-Chloroethyl)ether	1.388	1.383	0.4	328#	0.00
6	S	Phenol-d5	1.666	1.715	-2.9	318#	0.00
7	MC	Phenol	1.631	1.708	-4.7	322#	0.00
8	M	2-Chlorophenol	1.387	1.425	-2.7	319#	0.00
9	T	1,3-Dichlorobenzene	1.678	1.769	-5.4	325#	0.00
10	MC	1,4-Dichlorobenzene	1.706	1.823	-6.9	325#	0.00
11	T	1,2-Dichlorobenzene	1.648	1.719	-4.3	330#	0.00
12	T	Benzyl alcohol	0.866	0.860	0.7	298#	0.00
13	T	2,2'-oxybis(1-chloropropane	2.391	2.434	-1.8	314#	0.00
14	T	2-Methylphenol	1.224	1.266	-3.4	332#	0.00
15	T	Hexachloroethane	0.727	0.735	-1.1	310#	0.00
16	MP	N-Nitroso-di-n-propylamine	0.904	0.977	-8.1	340#	0.00
17	T	4-Methylphenol	1.190	1.219	-2.4	327#	0.00
18	I	Naphthalene-d8	1.000	1.000	0.0	300#	0.00
19	S	Nitrobenzene-d5	0.505	0.514	-1.8	307#	0.00
20	T	Nitrobenzene	0.442	0.464	-5.0	317#	0.00
21	T	Isophorone	0.833	0.867	-4.1	313#	0.00
22	TC	2-Nitrophenol	0.235	0.267	-13.6	339#	0.00
23	T	2,4-Dimethylphenol	0.361	0.358	0.8	310#	0.00
24	T	Benzoic Acid	0.220	0.240	-9.1	392#	0.00
25	T	bis(2-Chloroethoxy)methane	0.461	0.467	-1.3	312#	0.00
26	TC	2,4-Dichlorophenol	0.348	0.352	-1.1	294#	0.00
27	M	1,2,4-Trichlorobenzene	0.424	0.437	-3.1	305#	0.00
28	T	Naphthalene	1.182	1.240	-4.9	311#	0.00
29	T	4-Chloroaniline	0.555	0.578	-4.1	331#	0.00
30	TC	Hexachlorobutadiene	0.314	0.326	-3.8	308#	0.00
31	MC	4-Chloro-3-methylphenol	0.324	0.319	1.5	310#	0.00
32	T	2-Methylnaphthalene	0.792	0.806	-1.8	297#	0.00
33	T	1-Methylnaphthalene	0.851	0.864	-1.5	304#	0.00
34	I	Acenaphthene-d10	1.000	1.000	0.0	293#	0.00
35	TP	Hexachlorocyclopentadiene	0.340	0.442	-30.0#	375#	0.00
36	TC	2,4,6-Trichlorophenol	0.465	0.466	-0.2	286#	0.00
37	T	2,4,5-Trichlorophenol	0.508	0.519	-2.2	276#	0.00
38	S	2-Fluorobiphenyl	1.523	1.599	-5.0	302#	0.00
39	T	2-Chloronaphthalene	1.322	1.394	-5.4	304#	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\GCMSDATA\P\OCT2799\P03864.D Vial: 2
Acq On : 27 Oct 1999 14:46 Operator: JMS
Sample : SSTD050 Inst : 5972
Misc : SSTD050 HP#P JMS Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8270CPB.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Wed Oct 27 15:31:55 1999
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40	T	2-Nitroaniline	0.430	0.438	-1.9	297#	0.00
41	T	Acenaphthylene	1.726	2.072	-20.0	333#	0.00
42	T	Dimethylphthalate	1.613	1.586	1.7	281#	0.00
43	T	2,6-Dinitrotoluene	0.414	0.433	-4.6	301#	0.00
44	MC	Acenaphthene	1.264	1.277	-1.0	293#	0.00
45	T	3-Nitroaniline	0.409	0.403	1.5	285#	0.00
46	TP	2,4-Dinitrophenol	0.170	0.171	-0.6	560#	0.00
47	T	Dibenzofuran	1.924	1.923	0.1	279#	0.00
48	M	2,4-Dinitrotoluene	0.605	0.563	6.9	266#	0.00
49	MP	4-Nitrophenol	0.252	0.220	12.7	268#	0.00
50	T	Fluorene	1.510	1.514	-0.3	288#	0.00
51	T	4-Chlorophenyl-phenylether	0.776	0.766	1.3	276#	0.00
52	T	Diethylphthalate	1.682	1.614	4.0	274#	0.00
53	T	4-Nitroaniline	0.455	0.406	10.8	251#	0.00
54	S	2,4,6 Tribromophenol	0.487	0.452	7.2	270#	0.00
55	I	Phenanthrene-d10	1.000	1.000	0.0	245#	0.00
56	T	4,6-Dinitro-2-methylphenol	0.181	0.203	-12.2	345#	0.00
57	TC	n-Nitrosodiphenylamine	0.568	0.617	-8.6	277#	0.00
58	T	1,2-Diphenylhydrazine	0.841	0.933	-10.9	274#	0.00
59	T	4-Bromophenyl-phenylether	0.241	0.277	-14.9	272#	0.00
60	T	Hexachlorobenzene	0.412	0.461	-11.9	271#	0.00
61	MC	Pentachlorophenol	0.237	0.245	-3.4	240#	0.00
62	T	Benzidine	0.086	0.280	-225.6#	615#	0.00
63	T	Phenanthrene	1.220	1.282	-5.1	260#	0.00
64	T	Anthracene	1.195	1.291	-8.0	270#	0.00
65	T	Carbazole	1.136	1.117	1.7	242#	0.00
66	T	Di-n-butylphthalate	1.680	1.680	0.0	237#	0.00
67	TC	Fluoranthene	1.435	1.337	6.8	224#	0.00
68	I	Chrysene-d12	1.000	1.000	0.0	186#	0.00
69	M	Pyrene	1.327	1.563	-17.8	222#	0.00
70	S	Terphenyl-d14	1.198	1.425	-18.9	224#	0.00
71	T	Butylbenzylphthalate	0.719	0.806	-12.1	205#	0.00
72	T	3,3'-Dichlorobenzidine	0.487	0.395	18.9	147	0.00
73	T	Benzo[a]anthracene	1.274	1.304	-2.4	189#	0.00
74	T	Chrysene	1.233	1.241	-0.6	188#	0.00
75	T	bis(2-Ethylhexyl)phthalate	0.960	1.092	-13.8	201#	0.00
76	I	Perylene-d12	1.000	1.000	0.0	145	0.00
77	TC	Di-n-octylphthalate	1.528	1.873	-22.6#	177#	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\GCMSDATA\P\OCT2799\P03864.D Vial: 2
Acq On : 27 Oct 1999 14:46 Operator: JMS
Sample : SSTD050 Inst : 5972
Misc : SSTD050 HP#P JMS Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\8270CPB.M (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Wed Oct 27 15:31:55 1999
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
78	T	Benzo[b]fluoranthene	1.316	1.371	-4.2	153#	0.00
79	T	Benzo[k]fluoranthene	1.369	1.377	-0.6	146	0.00
80	TC	Benzo[a]pyrene	1.155	1.210	-4.8	155#	0.00
81	T	Indeno[1,2,3-cd]pyrene	1.519	1.355	10.8	120	0.00
82	T	Dibenz[a,h]anthracene	1.303	1.179	9.5	122	0.00
83	T	Benzo[g,h,i]perylene	1.261	1.144	9.3	119	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 1

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKA

Lab Name: GPL_LABORATORIES Contract: SENECA_ARM

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: SBLK-713

Sample wt/vol: 30 (g/ml) G Lab File ID: P03667.D

Level: (low/med) LOW Date Received:

% Moisture: 0 decanted:(Y/N) N Date Extracted: 10/07/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/08/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	330	U
108-95-2	Phenol	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
108-60-1	2,2'-oxybis(1-chloropropane)	330	U
95-48-7	2-Methylphenol	330	U
67-72-1	Hexachloroethane	330	U
621-64-7	N-Nitroso-di-n-propylamine	330	U
106-44-5	4-Methylphenol	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1700	U
208-96-8	Acenaphthylene	330	U
131-11-3	Dimethylphthalate	330	U
606-20-2	2,6-Dinitrotoluene	330	U
83-32-9	Acenaphthene	330	U
99-09-2	3-Nitroaniline	1700	U
51-28-5	2,4-Dinitrophenol	1700	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
100-02-7	4-Nitrophenol	1700	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKA

Lab Name: GPL_LABORATORIES Contract: SENECA_ARM

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: SBLK-713

Sample wt/vol: 30 (g/ml) G Lab File ID: P03667.D

Level: (low/med) LOW Date Received:

% Moisture: 0 decanted:(Y/N) N Date Extracted: 10/07/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/08/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
84-66-2	Diethylphthalate	330	U
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	n-Nitrosodiphenylamine	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	670	U
56-55-3	Benzo[a]anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)phthalate	330	U
117-84-0	Di-n-octylphthalate	330	U
205-99-2	Benzo[b]fluoranthene	330	U
207-08-9	Benzo[k]fluoranthene	330	U
50-32-8	Benzo[a]pyrene	330	U
193-39-5	Indeno[1,2,3-cd]pyrene	330	U
53-70-3	Dibenz[a,h]anthracene	330	U
191-24-2	Benzo[g,h,i]perylene	330	U

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLKB

Lab Name: GPL_LABORATORIES Contract: SENECA_ARM

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: SBLK-733

Sample wt/vol: 30 (g/ml) G Lab File ID: P03868.D

Level: (low/med) LOW Date Received:

% Moisture: 0 decanted:(Y/N) N Date Extracted: 10/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/27/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	330	U
108-95-2	Phenol	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
108-60-1	2,2'-oxybis(1-chloropropane)	330	U
95-48-7	2-Methylphenol	330	U
67-72-1	Hexachloroethane	330	U
621-64-7	N-Nitroso-di-n-propylamine	330	U
106-44-5	4-Methylphenol	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1700	U
208-96-8	Acenaphthylene	330	U
131-11-3	Dimethylphthalate	330	U
606-20-2	2,6-Dinitrotoluene	330	U
83-32-9	Acenaphthene	330	U
99-09-2	3-Nitroaniline	1700	U
51-28-5	2,4-Dinitrophenol	1700	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
100-02-7	4-Nitrophenol	1700	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLKB

Lab Name: GPL_LABORATORIES Contract: SENECA_ARM

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: SBLK-733

Sample wt/vol: 30 (g/ml) G Lab File ID: P03868.D

Level: (low/med) LOW Date Received:

% Moisture: 0 decanted:(Y/N) N Date Extracted: 10/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/27/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
84-66-2	Diethylphthalate	330	U
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	n-Nitrosodiphenylamine	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	670	U
56-55-3	Benzo[a]anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)phthalate	330	U
117-84-0	Di-n-octylphthalate	330	U
205-99-2	Benzo[b]fluoranthene	330	U
207-08-9	Benzo[k]fluoranthene	330	U
50-32-8	Benzo[a]pyrene	330	U
193-39-5	Indeno[1,2,3-cd]pyrene	330	U
53-70-3	Dibenz[a,h]anthracene	330	U
191-24-2	Benzo[g,h,i]perylene	330	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OU3PT2FL08125MS

Lab Name: GPL_LABORATORIES Contract: PARSONS_SP

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: 9910032-05BMS

Sample wt/vol: 30 (g/ml) G Lab File ID: P03670.D

Level: (low/med) LOW Date Received: 10/05/99

% Moisture: 16 decanted:(Y/N) N Date Extracted: 10/07/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/08/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	4800	
108-95-2	Phenol	3700	
95-57-8	2-Chlorophenol	3600	
541-73-1	1,3-Dichlorobenzene	2900	
106-46-7	1,4-Dichlorobenzene	2800	
95-50-1	1,2-Dichlorobenzene	3000	
108-60-1	2,2'-oxybis(1-chloropropane)	3500	
95-48-7	2-Methylphenol	3600	
67-72-1	Hexachloroethane	2600	
621-64-7	N-Nitroso-di-n-propylamine	3900	
106-44-5	4-Methylphenol	8000	E
98-95-3	Nitrobenzene	3500	
78-59-1	Isophorone	3700	
88-75-5	2-Nitrophenol	3700	
105-67-9	2,4-Dimethylphenol	3600	
111-91-1	bis(2-Chloroethoxy)methane	3700	
120-83-2	2,4-Dichlorophenol	3900	
120-82-1	1,2,4-Trichlorobenzene	3100	
91-20-3	Naphthalene	3200	
106-47-8	4-Chloroaniline	3100	
87-68-3	Hexachlorobutadiene	2900	
59-50-7	4-Chloro-3-methylphenol	5500	
91-57-6	2-Methylnaphthalene	3600	
77-47-4	Hexachlorocyclopentadiene	2600	
88-06-2	2,4,6-Trichlorophenol	3900	
95-95-4	2,4,5-Trichlorophenol	4700	
91-58-7	2-Chloronaphthalene	3100	
88-74-4	2-Nitroaniline	4900	
208-96-8	Acenaphthylene	3700	
131-11-3	Dimethylphthalate	4200	
606-20-2	2,6-Dinitrotoluene	5100	
83-32-9	Acenaphthene	3800	
99-09-2	3-Nitroaniline	5000	
51-28-5	2,4-Dinitrophenol	9200	E
132-64-9	Dibenzofuran	4300	
121-14-2	2,4-Dinitrotoluene	6000	
100-02-7	4-Nitrophenol	5900	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OU3PT2FL08125MS

Lab Name: GPL_LABORATORIES Contract: PARSONS_SP

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: 9910032-05BMS

Sample wt/vol: 30 (g/ml) G Lab File ID: P03670.D

Level: (low/med) LOW Date Received: 10/05/99

% Moisture: 16 decanted:(Y/N) N Date Extracted: 10/07/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/08/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	4600	
7005-72-3	4-Chlorophenyl-phenylether	4700	
84-66-2	Diethylphthalate	4900	
100-01-6	4-Nitroaniline	6000	
534-52-1	4,6-Dinitro-2-methylphenol	5500	
86-30-6	n-Nitrosodiphenylamine	4000	
101-55-3	4-Bromophenyl-phenylether	4000	
118-74-1	Hexachlorobenzene	3400	
87-86-5	Pentachlorophenol	3800	
85-01-8	Phenanthrene	3700	
120-12-7	Anthracene	3600	
86-74-8	Carbazole	4200	
84-74-2	Di-n-butylphthalate	3800	
206-44-0	Fluoranthene	3800	
129-00-0	Pyrene	3700	
85-68-7	Butylbenzylphthalate	3700	
91-94-1	3,3'-Dichlorobenzidine	1400	
56-55-3	Benzo[a]anthracene	3800	
218-01-9	Chrysene	3700	
117-81-7	bis(2-Ethylhexyl)phthalate	3900	
117-84-0	Di-n-octylphthalate	6600	E
205-99-2	Benzo[b]fluoranthene	4500	
207-08-9	Benzo[k]fluoranthene	4700	
50-32-8	Benzo[a]pyrene	4000	
193-39-5	Indeno[1,2,3-cd]pyrene	3200	
53-70-3	Dibenz[a,h]anthracene	3100	
191-24-2	Benzo[g,h,i]perylene	3100	

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OU3PT2FL08125MSD

Lab Name: GPL_LABORATORIES Contract: PARSONS_SP

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: 9910032-05BMSD

Sample wt/vol: 30 (g/ml) G Lab File ID: P03679.D

Level: (low/med) LOW Date Received: 10/05/99

% Moisture: 16 decanted:(Y/N) N Date Extracted: 10/07/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/11/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
111-44-4	bis(2-Chloroethyl)ether	4100	
108-95-2	Phenol	3500	
95-57-8	2-Chlorophenol	3400	
541-73-1	1,3-Dichlorobenzene	2800	
106-46-7	1,4-Dichlorobenzene	2800	
95-50-1	1,2-Dichlorobenzene	3000	
108-60-1	2,2'-oxybis(1-chloropropane)	3400	
95-48-7	2-Methylphenol	3400	
67-72-1	Hexachloroethane	2600	
621-64-7	N-Nitroso-di-n-propylamine	3400	
106-44-5	4-Methylphenol	7500	E
98-95-3	Nitrobenzene	3500	
78-59-1	Isophorone	3500	
88-75-5	2-Nitrophenol	3600	
105-67-9	2,4-Dimethylphenol	2800	
111-91-1	bis(2-Chloroethoxy)methane	3300	
120-83-2	2,4-Dichlorophenol	3700	
120-82-1	1,2,4-Trichlorobenzene	3100	
91-20-3	Naphthalene	3200	
106-47-8	4-Chloroaniline	3500	
87-68-3	Hexachlorobutadiene	2900	
59-50-7	4-Chloro-3-methylphenol	4600	
91-57-6	2-Methylnaphthalene	3500	
77-47-4	Hexachlorocyclopentadiene	2500	
88-06-2	2,4,6-Trichlorophenol	3600	
95-95-4	2,4,5-Trichlorophenol	3800	
91-58-7	2-Chloronaphthalene	2900	
88-74-4	2-Nitroaniline	4000	
208-96-8	Acenaphthylene	3200	
131-11-3	Dimethylphthalate	3600	
606-20-2	2,6-Dinitrotoluene	4100	
83-32-9	Acenaphthene	3400	
99-09-2	3-Nitroaniline	4300	
51-28-5	2,4-Dinitrophenol	7100	E
132-64-9	Dibenzofuran	3700	
121-14-2	2,4-Dinitrotoluene	4700	
100-02-7	4-Nitrophenol	4600	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OU3PT2FL08125MSD

Lab Name: GPL_LABORATORIES Contract: PARSONS_SP

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: 9910032-05BMSD

Sample wt/vol: 30 (g/ml) G Lab File ID: P03679.D

Level: (low/med) LOW Date Received: 10/05/99

% Moisture: 16 decanted:(Y/N) N Date Extracted: 10/07/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/11/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	4000	
7005-72-3	4-Chlorophenyl-phenylether	3900	
84-66-2	Diethylphthalate	4000	
100-01-6	4-Nitroaniline	4800	
534-52-1	4,6-Dinitro-2-methylphenol	5000	
86-30-6	n-Nitrosodiphenylamine	3800	
101-55-3	4-Bromophenyl-phenylether	4100	
118-74-1	Hexachlorobenzene	3400	
87-86-5	Pentachlorophenol	3500	
85-01-8	Phenanthrene	3600	
120-12-7	Anthracene	3500	
86-74-8	Carbazole	3900	
84-74-2	Di-n-butylphthalate	3500	
206-44-0	Fluoranthene	3600	
129-00-0	Pyrene	3700	
85-68-7	Butylbenzylphthalate	3600	
91-94-1	3,3'-Dichlorobenzidine	1500	
56-55-3	Benzo[a]anthracene	3600	
218-01-9	Chrysene	3500	
117-81-7	bis(2-Ethylhexyl)phthalate	3700	
117-84-0	Di-n-octylphthalate	6200	
205-99-2	Benzo[b]fluoranthene	4200	
207-08-9	Benzo[k]fluoranthene	4000	
50-32-8	Benzo[a]pyrene	3500	
193-39-5	Indeno[1,2,3-cd]pyrene	3100	
53-70-3	Dibenz[a,h]anthracene	3000	
191-24-2	Benzo[g,h,i]perylene	3000	

TOTAL PETROLUEM HYDROCARBON: DIESEL RANGE ORGANICS (DRO) QC

GPL Laboratories, LLLP

CASE NARRATIVE

TOTAL PETROLEUM HYDROCARBONS

Client : SENECA ARMY DEPOT ACTIVITY

Work Order : 9910024

SDG # : N/A

Date : OCTOBER 21, 1999

1. Eight solid samples were received on October 5, 1999. The samples were extracted and analyzed for DRO compounds using EPA 8015 method.

2. MS/MSD analyses were shared with GP workorder #9910003. Recoveries were not within QC ranges because of the large amount of heavy oil in the sample.

3. Samples 93099-1 2 3, 93099-7 8 9, and 93099-22 23 24 were reanalyzed at dilutions because of the heavy amount of what resembled diesel fuel.

HH 10/21/99

10-21-99

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: GPL LABORATORIES Contract: SENECA_ARMY_DE

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Level: (low/med) LOW

	CLIENT SAMPLE NO.	S1 #	TOT OUT
01	TPBLK-A	109	0
02	93099-4 5 6	52	0
03	93099-10 11 12	57	0
04	93099-13 14 15	115	0
05	93099-16 17 18	52	0
06	93099-19 20 21	115	0
07	93099-7 8 9	6*	TD
08	93099-1 2 3	*	TD
09	93099-22 23 24	*	TD

HH 10/31/99

			QC LIMITS
S1	=	Terphenyl - d14	(36-119)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: GPL LABORATORIES Contract: EARTHTECH_FT

Lab Code: GPL Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: HAAF-7902-1 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
DIESEL RANGE ORGANICS	2.6	53	29	0 *	49 - 142

1/4 10/21/98

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
DIESEL RANGE ORGANICS	2.6	54	38 *	200 *	25	49 - 142

1/4 10/21/98

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 1 outside limits

Spike Recovery: 2 out of 2 outside limits

COMMENTS: _____

_____

4B

EPA SAMPLE NO.

SEMIVOLATILE METHOD BLANK SUMMARY

TPBLK-A

Lab Name: GPL LABORATORIES Contract: SENECA_ARM

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID: M01076.D Lab Sample ID: TPBLK-1571

Instrument ID: GC-FID Date Extracted: 10/07/99

Matrix: (soil/water) SOIL Date Analyzed: 10/08/99

Level: (low/med) LOW Time Analyzed: 16:20

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

	Client Sample NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	93099-4 5 6	9910024-02A	M01095.D	10/13/99
02	93099-10 11 12	9910024-04A	M01097.D	10/13/99
03	93099-13 14 15	9910024-05A	M01098.D	10/13/99
04	93099-16 17 18	9910024-06A	M01099.D	10/13/99
05	93099-19 20 21	9910024-07A	M01100.D	10/13/99
06	93099-7 8 9	9910024-03A 10X	M01130.D	10/19/99
07	93099-1 2 3	RE9910024-01A 100X	M01131.D	10/19/99
08	93099-22 23 24	RE9910024-08A 50X	M01132.D	10/19/99

COMMENTS:

Response Factor Report GC-M

Method : H:\GCDATA\METHODS\M_ICAL\M990908.M
Title : TPH
Last Update : Thu Sep 23 12:54:31 1999

Calibration Files
D10 =M00699.D D25 =M00700.D D50 =M00695.D
D100 =M00696.D D150 =M00697.D D200 =M00698.D

		Compound	D10	D25	D50	D100	D150	D200	Avg	%RSD
1)	S	Terphenyl - d14	4.4	4.2	4.3	4.4	4.7	4.3	4.4 E3	3.69
2)	H	Naphtha	8.1	6.9	6.6	6.6	6.9	6.5	6.9 E3	8.44
3)	H	Gasoline	5.4	5.0	4.2	4.0	4.2	3.9	4.4 E3	13.81
4)	H	Mineral Oil	7.8	7.4	7.0	6.4	6.0	6.5	6.9 E3	9.80
5)	H	Stoddard Solvent	6.0	4.9	4.4	4.6	4.0	4.0	4.7 E3	16.13
6)	H	Paint Thiner	9.8	8.9	8.3	7.8	9.0	8.6	8.8 E3	7.69
7)	H	Jet Fuel #4	5.5	6.1	6.6	5.8	4.6	4.5	5.5 E3	14.96
8)	H	Kerosene	8.0	7.6	7.6	7.3	6.3	6.2	7.2 E3	10.32
9)	H	Diesel	4.6	4.8	4.9	6.1	6.7	6.2	5.5 E3	16.04
10)	H	Heavy Oil	7.6	7.6	6.5	6.7	8.5	6.2	7.2 E3	11.97
11)	H	Fuel Oil #6	1.3	1.1	0.9	1.3	0.9	0.9	1.1 E3	16.99
12)	H	Fuel Oil #2	5.6	6.1	6.7	6.2	6.1	6.3	6.1 E3	5.81
13)	H	Fuel Oil #4	2.5	2.2	2.2	2.8	2.5	2.8	2.5 E3	10.38
14)	H	Decane (C10)			5.7				5.7 E3	0.00
15)	H	Tricosane (C23)			5.9				5.9 E3	0.00
16)	H	Total Unknown	4.6	4.8	4.9	6.1	6.7	6.2	5.5 E3	16.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : H:\GCDATA\M\991008\M01075.D Vial: 4
Acq On : 08 Oct 1999 15:32 Operator:
Sample : 100 PPM DIESEL Inst : GC-M
Misc : Multiplr: 1.00
IntFile : rteint.p

Method : H:\GCDATA\METHODS\M_ICAL\M990908.M (RTE Integrator)
Title : TPH
Last Update : Tue Sep 28 11:31:59 1999
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	S	Terphenyl - d14	4.394	4.717 E3	-7.4	85	0.09
9	H	Diesel	5.523	5.482 E3	0.7	80	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : H:\GCDATA\M\991008\M01086.D Vial: 15
Acq On : 09 Oct 1999 00:18 Operator:
Sample : 100 PPM DIESEL Inst : GC-M
Misc : Multiplr: 1.00
IntFile : rteint.p

Method : H:\GCDATA\METHODS\M_ICAL\M990908.M (RTE Integrator)
Title : TPH
Last Update : Tue Sep 28 11:31:59 1999
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	S	Terphenyl - d14	4.394	6.394 E3	-45.5#	115	0.00
9	H	Diesel	5.523	6.104 E3	-10.5	89	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : H:\GCDATA\M\991012\M01093.D Vial: 15
Acq On : 12 Oct 1999 22:32 Operator:
Sample : 100 PPM DIESEL Inst : GC-M
Misc : Multiplr: 1.00
IntFile : rteint.p

Method : H:\GCDATA\METHODS\M_ICAL\M990908.M (RTE Integrator)
Title : TPH
Last Update : Tue Sep 28 11:31:59 1999
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	S	Terphenyl - d14	4.394	5.370 E3	-22.2#	97	0.02
9	H	Diesel	5.523	6.005 E3	-8.7	88	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : H:\GCDATA\M\991012\M01104.D Vial: 26
Acq On : 13 Oct 1999 13:57 Operator:
Sample : 100 PPM DIESEL Inst : GC-M
Misc : 10 PPM SURROGATE Multiplr: 1.00
IntFile : rteint.p

Method : H:\GCDATA\METHODS\M_ICAL\M990908.M (RTE Integrator)
Title : TPH
Last Update : Tue Sep 28 11:31:59 1999
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	S	Terphenyl - d14	4.394	5.633 E3	-28.2#	101	0.04
9	H	Diesel	5.523	5.739 E3	-3.9	84	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : H:\GCDATA\M\991018\M01128.D Vial: 12
Acq On : 19 Oct 1999 14:07 Operator:
Sample : 100 PPM DIESEL Inst : GC-M
Misc : Multiplr: 1.00
IntFile : rteint.p

Method : H:\GCDATA\METHODS\M_ICAL\M990908.M (RTE Integrator)
Title : TPH
Last Update : Tue Sep 28 11:31:59 1999
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	S	Terphenyl - d14	4.394	5.243 E3	-19.3	94	0.06
9	H	Diesel	5.523	5.511 E3	0.2	81	0.00

Evaluate Continuing Calibration Report

Data File : H:\GCDATA\M\991018\M01133.D Vial: 17
Acq On : 19 Oct 1999 18:05 Operator:
Sample : 100 PPM DIESEL Inst : GC-M
Misc : Multiplr: 1.00
IntFile : rteint.p

Method : H:\GCDATA\METHODS\M_ICAL\M990908.M (RTE Integrator)
Title : TPH
Last Update : Tue Sep 28 11:31:59 1999
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	S	Terphenyl - d14	4.394	5.538 E3	-26.0#	100	0.06
9	H	Diesel	5.523	6.031 E3	-9.2	88	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TPBLK-A

Lab Name: GPL LABORATORIES Contract: SENECA_ARM

Lab Code: GPL Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: TPBLK-1571

Sample wt/vol: 30 (g/ml) G Lab File ID: M01076.D

Level: (low/med) LOW Date Received:

% Moisture: 0 decanted:(Y/N) N Date Extracted: 10/07/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 10/08/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	DIESEL RANGE ORGANICS (D	1.7	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HAAF-7902-1 MS

Lab Name: GPL LABORATORIES Contract: EARTHTECH_

Lab Code: GPL Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 9910003-03D-MS

Sample wt/vol: 30 (g/ml) G Lab File ID: M01081.D

Level: (low/med) LOW Date Received: 10/01/99

% Moisture: 13.8 decanted:(Y/N) N Date Extracted: 10/07/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 10/08/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG HH 10/21/99	Q
	DIESEL RANGE ORGANICS (D	29	

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HAAF-7902-1 MSD

Lab Name: GPL LABORATORIES Contract: EARTHTECH_

Lab Code: GPL Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 9910003-03D-MSD

Sample wt/vol: 30.2 (g/ml) G Lab File ID: M01082.D

Level: (low/med) LOW Date Received: 10/01/99

% Moisture: 13.8 decanted:(Y/N) N Date Extracted: 10/07/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 10/08/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG HH 10/21/99	Q
	DIESEL RANGE ORGANICS (D	54	

ION CHROMATOGRAPHY QC

GPL Laboratories, LLLP

GPL LABORATORIES,LLLP

CASE NARRATIVE

ION CHROMATOGRAPHY

CLIENT	:	SENECA ARMY DEPOT ACTIVITY
PROJECT	:	SENECA_ARMY_DEP
GP WO#	:	9910024
DATE	:	October 29, 1999

The following data package is comprised of eight soil samples received at GPL Laboratories on October 5, 1999. The samples were extracted and analyzed for ammonium perchlorate.

Duplicate and spike analyses were performed on sample 93099-22 23 24.

All QC analyses met acceptance criteria.

Signature: _____ Date: 10/19/99

Reviewer: _____ Date: 11/02/99

RUN SUMMARY SHEET
Ammonium Perchlorate

DATA FILE: PER10024
INSTRUMENT FILE: I:PER10024.CSV INSTRUMENT: IC500 ANALYZED: 10/14/1999

Seq	Lab ID	Client ID	Rep1	Rep2	Raw Conc.	Result	CRDL	Units	%Recovery	%RPD	%RSD
1	ICV	ICV	86.68		86.7	86.7	5.00	ug/L	86.7		
2	ICB	ICB	0		0.000	0.000	5.00	ug/L			
3	PREP. BLK	PREP. BLK	0		0.000	0.000	0.005	mg/Kg			
4	9910024-01	93099-1 2 3	35.60		35.6	0.532	0.075	mg/Kg			
5	9910024-02	93099-4 5 6	0		0.000	0.000	0.095	mg/Kg			
6	9910024-03	93099-7 8 9	16.06		16.1	0.233	0.072	mg/Kg			
7	9910024-04	93099-10 11 12	0		0.000	0.000	0.076	mg/Kg			
8	9910024-05	93099-13 14 15	0		0.000	0.000	0.076	mg/Kg			
9	9910024-06	93099-16 17 18	0		0.000	0.000	0.080	mg/Kg			
10	9910024-07	93099-19 20 21	0		0.000	0.000	0.075	mg/Kg			
11	CCV1	CCV1	98.54		98.5	98.5	5.00	ug/L	98.5		
12	CCB1	CCB1	0		0.000	0.000	5.00	ug/L			
13	ICB	ICB	96.29		96.3	96.3	5.00	ug/L	96.3		
14	ICV	ICV	0		0.000	0.000	5.00	ug/L			
15	9910024-08	93099-22 23 24	143.57		144	42.3	1.47	mg/Kg			
16	9910024-08D	93099-22 23 24D	114.39		114	34.4	1.50	mg/Kg		20.7	
17	9910024-08S	93099-22 23 24S	309.24		309	96.6	1.56	mg/Kg	86.9		
18	CCV1	CCV1	95.92		95.9	95.9	5.00	ug/L	95.9		
19	CCB1	CCB1	0		0.000	0.000	5.00	ug/L			

for HH
Analyst / Date

10/15/99
Lab Supervisor / Date

BENCH SHEET
Ammonium Perchlor

DATA FILE: PER10024 CASE: SDG:
INSTRUMENT FILE: I:PER10024.CSV INSTRUMENT: IC500 ANALYZED: 10/14/99

SEQ	LAB ID	CLIENT ID	MATRIX	DILUTION	SIZE	VOLUME	%SOLIDS	ANALYZED	
1	ICV	ICV	WATER	1.00	0.200	0.200		10/14/99	22:57
2	ICB	ICB	WATER	1.00	0.200	0.200		10/14/99	23:14
3	PREP. BLK	PREP. BLK	SOLID	1.00	30.000	30.000	100.00	10/14/99	23:39
4	9910024-01	93099-1 2 3	SOLID	1.00	2.040	30.000	98.40	10/14/99	23:56
5	9910024-02	93099-4 5 6	SOLID	1.00	2.040	30.000	77.40	10/15/99	00:14
6	9910024-03	93099-7 8 9	SOLID	1.00	2.080	30.000	99.60	10/15/99	00:32
7	9910024-04	93099-10 11 12	SOLID	1.00	2.100	30.000	94.50	10/15/99	00:49
8	9910024-05	93099-13 14 15	SOLID	1.00	2.010	30.000	98.00	10/15/99	01:07
9	9910024-06	93099-16 17 18	SOLID	1.00	2.050	30.000	91.70	10/15/99	01:24
10	9910024-07	93099-19 20 21	SOLID	1.00	2.000	30.000	99.90	10/15/99	01:42
11	CCV1	CCV1	WATER	1.00	0.200	0.200		10/15/99	02:35
12	CCB1	CCB1	WATER	1.00	0.200	0.200		10/15/99	02:53
13	ICB	ICB	WATER	1.00	0.200	0.200		10/15/99	14:27
14	ICV	ICV	WATER	1.00	0.200	0.200		10/15/99	14:53
15	9910024-08	93099-22 23 24	SOLID	20.00	2.120	30.000	96.00	10/15/99	15:13
16	9910024-08D	93099-22 23 24D	SOLID	20.00	2.080	30.000	96.00	10/15/99	15:31
17	9910024-08S	93099-22 23 24S	SOLID	20.00	2.000	30.000	96.00	10/15/99	15:48
18	CCV1	CCV1	WATER	1.00	0.200	0.200		10/15/99	16:06
19	CCB1	CCB1	WATER	1.00	0.200	0.200		10/15/99	16:23

HH
Analyst / Date

10/16/99
Lab Supervisor / Date

Method Information : Select Module(s)

System Name : DX 500
System Number : 1
Method Type : Ion Chromatography
Column :
Analyst :
Comment : (null)

CD20 Timed Events

Module Name : CD20
Module Serial Number :
SRS Current : 300 mA
Temperature Compensation : 1.7 (% / °C)
Cell Temperature : 35 °C

Time	Range (μS)	Offset	Mark	TTL1	TTL2	Relay1	Relay2	Collect
Init	10.000			Low	Low	Open	Open	
0.00	10.000			Low	Low	Open	Open	
2.40	10.000	*		Low	Low	Open	Open	
2.50	10.000			Low	Low	Open	Open	Begin

CD20 Detector Parameters

Detector Type : CD20
Data collection time (minutes) : 15.00
Data Collection Rate : 5.00
Real time plot scale maximum (μS) : 10.000
Real time plot scale minimum (μS) : -1.000

CD20 Integration Parameters

Peak detection algorithm : Standard
Starting peak width (seconds) : 10.00
Peak threshold : 0.50
Peak area reject (area counts) : 1000.00
Reference peak area reject (area counts) : 1000.00

CD20 Smoothing Parameters

Filter Type : No filter

CD20 Report Data

Report Format File : C:\PeakNet\method\DEFAULT.RPT
Print Sample Analysis : No
Print Calibration Update : No
Print Check Standard : No
System Suitability Tests :
No system suitability tests selected.

CD20 Integration Data Events

CD20 Calibration Parameters

External or internal calibration : EXTERNAL
Number of replicates for calibration : 1
Rejection : Manual
Level Weighting : Equal
Calibration standard volume : 1.00
Default sample volume : 1.00
Amount units :
Replace retention time : Yes
Update response : Yes
Default dilution factor : 1.00
Default response factor for unknown peaks : 0.00
Calculate unknowns by area or height : Area

CD20 Component Identification Table

Component	Retention	Tolerance	Reference
Ammonium Perchlor	9.88 min	0.50 min	

CD20 Component Quantitation Table

Component	Retention	Low Limit	High Limit
Ammonium Perchlor	9.88 min	0	0

CD20 Component Calibration Table

Component	Retention Time	Curve Fit	Origin	Cal. by	Response Component	Relative Factor
Ammonium Perchlor	9.88 min	Linear	Ignore	Area		0.00

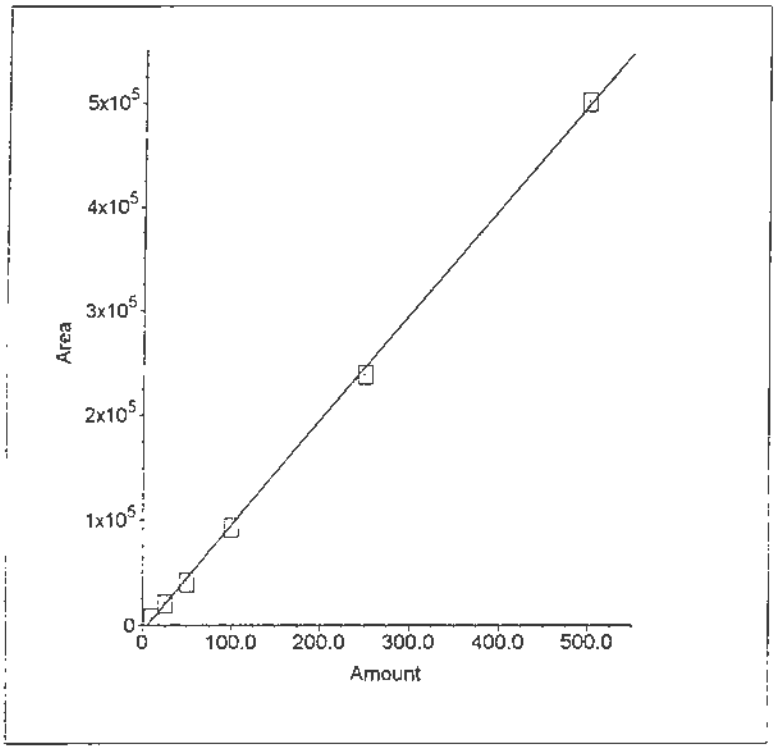
CD20 Component = Ammonium Perchlor Levels Table

Retention Time : 9.88 min
Amount units :
Replicate unit type : Area
Number of levels : 8
Number of replicates : 1

Level	Amount	Replicate 1
1	0.00	0
2	5.00	4961
3	10.00	8095
4	25.00	22387
5	50.00	46343
6	100.00	104485
7	250.00	268729
8	500.00	563773

CD20 XY Data Parameters

1. Component:Ammonium Perchlor
Standard:External Fit Type:Linear
Origin:Ignore Calibration:Area
r^2=0.999443
Amt=0.0008835*Resp+5.695



METALS QC

GPL Laboratories, LLLP

GPL LABORATORIES, LLLP
METALS CASE NARRATIVE

Client: SENECA_ARMY_DEP
Description: BURN PAN ASH GPL-99-097
Work Order: 99-10-024
Date: October 18, 1999

The following data package comprises eight solid samples which were received at GPL laboratories on October 5, 1999. The samples were analyzed for HSL metals by EPA SW 846 methods.

The preparation blank was contaminated with lead. All samples did not require redigestion because the samples concentrations were greater than 10x the blank concentration.

A duplicate, matrix spike, and serial dilution were performed on the batch sample 9910021-09 for all required ICP analytes. The matrix spike was outside of the control limits for antimony. A post digestion spike was performed with a good recovery. The matrix spike could not be recovered for lead. The spike addition was insignificant.

A duplicate and matrix spike were performed on sample 93099-1 2 3 for mercury. All were within the control limits.

Calibration standards are verified against independent check standards purchased from a commercial vendor of environmental standards.

All GPL QA/QC criteria were met with the exceptions of those mentioned above.

QA 10-18-99

SD 10/18/99

TOTAL METALS

-3-

BLANKS

Contract:

Lab Code: Case No.: SAS No.: SDG NO.: 9910024

Preparation Blank Matrix (soil/water): SOIL

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Aluminum	200.0	U	200.0	U	200.0	U	200.0	U			P
Antimony	5.0	U	5.0	U	5.0	U	5.0	U			P
Arsenic	5.0	U	5.0	U	5.0	U	5.0	U			P
Barium	5.0	U	5.0	U	5.0	U	5.0	U			P
Beryllium	3.0	U	3.0	U	3.0	U	3.0	U			P
Cadmium	3.0	U	3.0	U	3.0	U	3.0	U			P
Calcium	500.0	U	500.0	U	500.0	U	500.0	U			P
Chromium	5.0	U	5.0	U	5.0	U	5.0	U			P
Cobalt	5.0	U	5.0	U	5.0	U	5.0	U			P
Copper	5.0	U	5.0	U	5.0	U	5.0	U			P
Iron	100.0	U	100.0	U	100.0	U	100.0	U			P
Lead	3.0	U	3.0	U	3.0	U	3.0	U			P
Magnesium	250.0	U	250.0	U	250.0	U	250.0	U			P
Manganese	5.0	U	5.0	U	5.0	U	5.0	U			P
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.033	U	CV
Nickel	5.0	U	5.0	U	5.0	U	5.0	U			P
Potassium	500.0	U	500.0	U	500.0	U	500.0	U			P
Selenium	5.0	U	5.0	U	5.0	U	5.0	U			P
Silver	3.0	U	3.0	U	3.0	U	3.0	U			P
Sodium	1000.0	U	1000.0	U	1000.0	U	1000.0	U			P
Thallium	10.0	U	10.0	U	10.0	U	10.0	U			P
Vanadium	5.0	U	5.0	U	5.0	U	5.0	U			P
Zinc	15.0	U	15.0	U	15.0	U	15.0	U			P

TOTAL METALS

-3-

BLANKS

Contract:

Lab Code: Case No.: SAS No.: SDG NO.: 9910024

Preparation Blank Matrix (soil/water): SOIL

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Aluminum			200.0	U	200.0	U	200.0	U	20.000	U	P
Antimony			5.0	U	5.0	U	5.0	U	0.500	U	P
Arsenic			5.0	U	5.0	U	5.0	U	0.500	U	P
Barium			5.0	U	5.0	U	5.0	U	0.500	U	P
Beryllium			3.0	U	3.0	U	3.0	U	0.300	U	P
Cadmium			3.0	U	3.0	U	3.0	U	0.300	U	P
Calcium			500.0	U	500.0	U	500.0	U	50.000	U	P
Chromium			5.0	U	5.0	U	5.0	U	0.500	U	P
Cobalt			5.0	U	5.0	U	5.0	U	0.500	U	P
Copper			5.0	U	5.0	U	5.0	U	0.500	U	P
Iron			100.0	U	100.0	U	100.0	U	10.000	U	P
Lead			3.0	U	3.0	U	3.0	U	0.305		P
Magnesium			250.0	U	250.0	U	250.0	U	25.000	U	P
Manganese			5.0	U	5.0	U	5.0	U	0.500	U	P
Mercury			0.2	U	0.2	U					CV
Nickel			5.0	U	5.0	U	5.0	U	0.500	U	P
Potassium			500.0	U	500.0	U	500.0	U	50.000	U	P
Selenium			5.0	U	5.0	U	5.0	U	0.500	U	P
Silver			3.0	U	3.0	U	3.0	U	0.300	U	P
Sodium			1000.0	U	1000.0	U	1000.0	U	100.000	U	P
Thallium			10.0	U	10.0	U	10.0	U	1.000	U	P
Vanadium			5.0	U	5.0	U	5.0	U	0.500	U	P
Zinc			15.0	U	15.0	U	15.0	U	1.500	U	P

TOTAL METALS

-3-

BLANKS

Contract:

Lab Code: Case No.: SAS No.: SDG NO.: 9910024

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	Preparation Blank	C	M
Aluminum			200.0	U	200.0	U	200.0	U			P
Antimony			5.0	U	5.0	U	5.0	U			P
Arsenic			5.0	U	5.0	U	5.0	U			P
Barium			5.0	U	5.0	U	5.0	U			P
Beryllium			3.0	U	3.0	U	3.0	U			P
Cadmium			3.0	U	3.0	U	3.0	U			P
Calcium			500.0	U	500.0	U	500.0	U			P
Chromium			5.0	U	5.0	U	5.0	U			P
Cobalt			5.0	U	5.0	U	5.0	U			P
Copper			5.0	U	5.0	U	5.0	U			P
Iron			100.0	U	100.0	U	100.0	U			P
Lead			3.0	U	3.0	U	3.0	U			P
Magnesium			250.0	U	250.0	U	250.0	U			P
Manganese			5.0	U	5.0	U	5.0	U			P
Nickel			5.0	U	5.0	U	5.0	U			P
Potassium			500.0	U	500.0	U	500.0	U			P
Selenium			5.0	U	5.0	U	5.0	U			P
Silver			3.0	U	3.0	U	3.0	U			P
Sodium			1000.0	U	1000.0	U	1000.0	U			P
Thallium			10.0	U	10.0	U	10.0	U			P
Vanadium			5.0	U	5.0	U	5.0	U			P
Zinc			15.0	U	15.0	U	15.0	U			P

TOTAL METALS

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BLANKS

Contract:

Lab Code: Case No.: SAS No.: SDG NO.: 9910024

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	Preparation Blank	C	M
Aluminum			200.0	U							P
Antimony			5.0	U							P
Arsenic			5.0	U							P
Barium			5.0	U							P
Beryllium			3.0	U							P
Cadmium			3.0	U							P
Calcium			500.0	U							P
Chromium			5.0	U							P
Cobalt			5.0	U							P
Copper			5.0	U							P
Iron			100.0	U							P
Lead			3.0	U							P
Magnesium			250.0	U							P
Manganese			5.0	U							P
Nickel			5.0	U							P
Potassium			500.0	U							P
Selenium			5.0	U							P
Silver			3.0	U							P
Sodium			1000.0	U							P
Thallium			10.0	U							P
Vanadium			5.0	U							P
Zinc			15.0	U							P

TOTAL METALS

-3-

BLANKS

Contract:

Lab Code: Case No.: SAS No.: SDG NO.: 9910024

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	Preparation Blank	C	M
Aluminum	200.0	U	200.0	U	200.0	U	200.0	U			P
Antimony	5.0	U	5.0	U	5.0	U	5.0	U			P
Arsenic	5.0	U	5.0	U	5.0	U	5.0	U			P
Barium	5.0	U	5.0	U	5.0	U	5.0	U			P
Beryllium	3.0	U	3.0	U	3.0	U	3.0	U			P
Cadmium	3.0	U	3.0	U	3.0	U	3.0	U			P
Calcium	500.0	U	500.0	U	500.0	U	500.0	U			P
Chromium	5.0	U	5.0	U	5.0	U	5.0	U			P
Cobalt	5.0	U	5.0	U	5.0	U	5.0	U			P
Copper	5.0	U	5.0	U	5.0	U	5.0	U			P
Iron	100.0	U	100.0	U	100.0	U	100.0	U			P
Lead	3.0	U	3.0	U	3.0	U	3.0	U			P
Magnesium	250.0	U	250.0	U	250.0	U	250.0	U			P
Manganese	5.0	U	5.0	U	5.0	U	5.0	U			P
Nickel	5.0	U	5.0	U	5.0	U	5.0	U			P
Potassium	500.0	U	500.0	U	500.0	U	500.0	U			P
Selenium	5.0	U	5.0	U	5.0	U	5.0	U			P
Silver	3.0	U	3.0	U	3.0	U	3.0	U			P
Sodium	1000.0	U	1000.0	U	1000.0	U	1000.0	U			P
Thallium	10.0	U	10.0	U	10.0	U	10.0	U			P
Vanadium	5.0	U	5.0	U	5.0	U	5.0	U			P
Zinc	15.0	U	15.0	U	15.0	U	15.0	U			P

TOTAL METALS

-3-

BLANKS

Contract:

Lab Code: Case No.: SAS No.: SDG NO.: 9910024

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	Preparation Blank	C	M
Aluminum			200.0	U	200.0	U	200.0	U			P
Antimony			5.0	U	5.0	U	5.0	U			P
Arsenic			5.0	U	5.0	U	5.0	U			P
Barium			5.0	U	5.0	U	5.0	U			P
Beryllium			3.0	U	3.0	U	3.0	U			P
Cadmium			3.0	U	3.0	U	3.0	U			P
Calcium			500.0	U	500.0	U	500.0	U			P
Chromium			5.0	U	5.0	U	5.0	U			P
Cobalt			5.0	U	5.0	U	5.0	U			P
Copper			5.0	U	5.0	U	5.0	U			P
Iron			100.0	U	100.0	U	100.0	U			P
Lead			3.0	U	3.0	U	3.0	U			P
Magnesium			250.0	U	250.0	U	250.0	U			P
Manganese			5.0	U	5.0	U	5.0	U			P
Nickel			5.0	U	5.0	U	5.0	U			P
Potassium			500.0	U	500.0	U	500.0	U			P
Selenium			5.0	U	5.0	U	5.0	U			P
Silver			3.0	U	3.0	U	3.0	U			P
Sodium			1000.0	U	1000.0	U	1000.0	U			P
Thallium			10.0	U	10.0	U	10.0	U			P
Vanadium			5.0	U	5.0	U	5.0	U			P
Zinc			15.0	U	15.0	U	15.0	U			P

TOTAL METALS

-3-

BLANKS

Contract:

Lab Code: Case No.: SAS No.: SDG NO.: 9910024

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	Preparation Blank	C	M
Aluminum			200.0	U							P
Antimony			5.0	U							P
Arsenic			5.0	U							P
Barium			5.0	U							P
Beryllium			3.0	U							P
Cadmium			3.0	U							P
Calcium			500.0	U							P
Chromium			5.0	U							P
Cobalt			5.0	U							P
Copper			5.0	U							P
Iron			100.0	U							P
Lead			3.0	U							P
Magnesium			250.0	U							P
Manganese			5.0	U							P
Nickel			5.0	U							P
Potassium			500.0	U							P
Selenium			5.0	U							P
Silver			3.0	U							P
Sodium			1000.0	U							P
Thallium			10.0	U							P
Vanadium			5.0	U							P
Zinc			15.0	U							P

TOTAL METALS

-5A-

SPIKE SAMPLE RECOVERY

SAMPLE NO.

SB-UD-32(0-2)S

Contract:

Lab Code: Case No.: SAS SDG NO.: 9910024

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 81.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Antimony	75 - 125	6.2074	B	1.0758	U	21.52	28.8	N	P
Arsenic	75 - 125	12.3162		4.2462		8.61	93.7		P
Barium	75 - 125	492.1707		49.3741		430.31	102.9		P
Beryllium	75 - 125	11.0421		0.6455	U	10.76	102.6		P
Cadmium	75 - 125	9.9815		0.6455	U	10.76	92.8		P
Chromium	75 - 125	56.2764		12.8392		43.03	100.9		P
Cobalt	75 - 125	109.5272		2.9047	B	107.58	99.1		P
Copper	75 - 125	62.5621		7.9524		53.79	101.5		P
Lead		29.8448		27.0011		4.30	66.1		P
Manganese	75 - 125	370.6916		246.4275		107.58	115.5		P
Nickel	75 - 125	113.0991		6.0372	B	107.58	99.5		P
Selenium	75 - 125	2.6393		1.0758	U	2.15	122.6		P
Silver	75 - 125	10.6269		0.6455	U	10.76	98.8		P
Thallium	75 - 125	11.9007		2.1516	U	10.76	110.6		P
Vanadium	75 - 125	140.2336		31.6137		107.58	101.0		P
Zinc	75 - 125	154.7285		50.6255		107.58	96.8		P

Comments:

TOTAL METALS

-5A-

SPIKE SAMPLE RECOVERY

SAMPLE NO.

93099-1 2 3S

Contract:

Lab Code: Case No.: SAS SDG NO.: 9910024

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 98.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Mercury	75 - 125	0.5584		0.0357		0.49	106.7		CV

Comments:

TOTAL METALS
-5B-
POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

SB-UD-32(0-2)A

Contract:

Lab Code: Case No.: SAS No.: SDG NO.: 9910024

Matrix (soil/water): SOIL Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added(SA)	%R	Q	M
Antimony		507.57		5.00	U	500.0	101.5		P

Comments:

TOTAL METALS

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DUPLICATES

SAMPLE NO.

SB-UD-32(0-2)D

Contract:

Lab Code: Case No.: SAS No.: SDG NO.: 9910024

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 81.5 % Solids for Duplicate: 81.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		13719.7614		14517.4373		5.6		P
Antimony		1.0758	U	1.0758	U			P
Arsenic	2.2	4.2462		4.4744		5.2		P
Barium	43.0	49.3741		50.8393		2.9		P
Beryllium		0.6455	U	0.6455	U			P
Cadmium		0.6455	U	0.6455	U			P
Calcium		478.9614	B	527.4786	B	9.6		P
Chromium		12.8392		13.9027		8.0		P
Cobalt		2.9047	B	3.0257	B	4.1		P
Copper	5.4	7.9524		7.9393		0.2		P
Iron		19674.0880		20027.7750		1.8		P
Lead		27.0011		25.9760		3.9		P
Magnesium	1075.8	1162.1432		1228.3503		5.5		P
Manganese		246.4275		258.1824		4.7		P
Nickel		6.0372	B	6.2639	B	3.7		P
Potassium		270.1769	B	279.9957	B	3.6		P
Selenium		1.0758	U	1.0758	U			P
Silver		0.6455	U	0.6455	U			P
Sodium		215.1565	U	215.1565	U			P
Thallium		2.1516	U	2.1516	U			P
Vanadium	10.8	31.6137		32.0800		1.5		P
Zinc		50.6255		50.7611		0.3		P

TOTAL METALS

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DUPLICATES

SAMPLE NO.

93099-1 2 3D

Contract:

Lab Code: Case No.: SAS No.: SDG NO.: 9910024

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 98.4 % Solids for Duplicate: 98.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Mercury	0.03	0.0357		0.0419		16.2		CV

TOTAL METALS

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LABORATORY CONTROL SAMPLE

Contract:

Lab Code: Case No.: SAS No.: SDG NO.: 9910024

Solid LCS Source: ERA 240

Aqueous LCS Source:

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum				5350.0	6089.4		3490.0	7210.0	113.8
Antimony				26.2	17.5		5.0	53.1	66.8
Arsenic				36.5	40.6		27.2	45.9	111.1
Barium				112.0	128.7		86.3	138.0	114.9
Beryllium				77.0	80.7		60.4	93.7	104.8
Cadmium				34.6	35.8		26.6	42.6	103.5
Calcium				1250.0	1268.7		933.0	1560.0	101.5
Chromium				108.0	114.9		79.0	136.0	106.4
Cobalt				59.8	64.3		47.5	72.0	107.5
Copper				61.7	67.6		50.5	72.9	109.5
Iron				9450.0	9045.3		5370.0	13500.0	95.7
Lead				50.2	53.0		35.7	64.7	105.6
Magnesium				1170.0	1207.5		802.0	1540.0	103.2
Manganese				158.0	164.8		128.0	189.0	104.3
Mercury				2.2	2.3		1.5	2.9	107.8
Nickel				48.4	51.3		37.9	58.9	106.0
Potassium				1860.0	1925.1		1450.0	2270.0	103.5
Selenium				45.7	44.5		33.0	58.4	97.4
Silver				34.1	36.9		25.4	42.9	108.2
Sodium				521.0	487.7	B	303.0	740.0	93.6
Thallium				66.1	75.7		37.8	94.3	114.5
Vanadium				81.9	89.3		55.9	108.0	109.1
Zinc				137.0	146.5		106.0	168.0	106.9

TOTAL METALS

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ICP SERIAL DILUTIONS

SAMPLE NO.

SB-UD-32(0-2)L

Contract:

Lab Code: Case No.: SAS No.: SDG NO.: 9910024

Matrix (soil/water): SOIL Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	63766.43		66383.65		4.1		P
Antimony	5.00	U	25.00	U			P
Arsenic	19.74		25.00	U	100.0		P
Barium	229.48		236.08	B	2.9		P
Beryllium	3.00	U	15.00	U			P
Cadmium	3.00	U	15.00	U			P
Calcium	2226.11	B	2500.00	U	100.0		P
Chromium	59.67		60.46		1.3		P
Cobalt	13.50	B	25.00	U	100.0		P
Copper	36.96		38.86	B	5.1		P
Iron	91440.83		93459.24		2.2		P
Lead	125.49		125.43		0.0		P
Magnesium	5401.39		5621.25	B	4.1		P
Manganese	1145.34		1171.35		2.3		P
Nickel	28.06	B	25.00	U	100.0		P
Potassium	1255.72	B	2500.00	U	100.0		P
Selenium	5.00	U	25.00	U			P
Silver	3.00	U	15.00	U			P
Sodium	1000.00	U	5000.00	U			P
Thallium	10.00	U	50.00	U			P
Vanadium	146.93		150.99	B	2.8		P
Zinc	235.30		251.82		7.0		P

WET CHEMISTRY QC

GPL Laboratories, LLLP

GPL LABORATORIES, LLLP

WET CHEMISTRY CASE NARRATIVE

CLIENT: Seneca Army Depot Activity
GP Work Order: 9910024
DATE: November 19, 1999

The following data package is comprised of eight soil samples received by GPL Laboratories on October 5, 1999. All of the samples were analyzed for reactive cyanide, reactive sulfide, nitrocellulose, pH, and sulfate.

A duplicate was performed on sample 93099-1 2 3 for pH, reactive sulfide, reactive cyanide, and percent solids; matrix spike and duplicate analyses were performed on sample 93099-1 2 3 for sulfate and nitrocellulose. The matrix spike for nitrocellulose was very low (11.3%) and the RPD for the duplicate was high (21%); the samples was re-extracted and re-analyzed. The spike recovery improved (60%) and the RPD was lower (18.7%) but they were still outside criteria. An inhomogenous sample composition is the most probable reason. The extracted spike for the sulfate was insignificant to the sample value therefore a bench spike was performed.

All other QA/QC requirements were met.

Signature: _____ Date: 11-19-99

Reviewed by: Tracy Starcher Date: 11-19-99

RUN SUMMARY SHEET
Reactive Cyanide

DATA FILE: CNR00899
INSTRUMENT FILE: INSTRUMENT: SPEC20D ANALYZED: 10/08/1999

Seq	Lab ID	Client ID	Rep1	Rep2	Raw Conc.	Result	CRDL	Units	%Recovery	%RPD	%RSD
1	0 ug/L CN	S0	0.000		-0.641	-0.641	5.00	ug/L			
2	5.0 ug/L CN	S5.0	0.006		3.85	3.85	5.00	ug/L			
3	20 ug/L CN	S20.0	0.028		20.3	20.3	5.00	ug/L			
4	50.0 ug/L CN	S50.0	0.072		53.3	53.3	5.00	ug/L			
5	100 ug/L CN	S100	0.132		98.2	98.2	5.00	ug/L			
6	150 ug/ L CN	S150	0.201		150	150	5.00	ug/L			
7	200 ug/L CN	S200	0.268		200	200	5.00	ug/L			
8	CCV3	CCV3	0.111		82.5	165	10.0	ug/L	100		
9	CCB3	CCB3	0.002		0.857	0.857	5.00	ug/L			
10	PB056	PB056	-0.001		-1.39	-6.95	25.0	ug/L			
11	LCS056	LCS056	0.107		79.5	19900	1250	ug/L	1.99		
12	9910022-01	OU3-IW-28-1001R	0.000		-0.641	-3.20	25.0	ug/L			
13	9910022-01D	OU3-IW-28-1001R	-0.001		-1.39	-6.95	25.0	ug/L		NA 73.8 JW	
14	9910022-02	OU3-IW-29-1001R	-0.001		-1.39	-6.95	25.0	ug/L			
15	9910022-03	OU3-IW-30-0929R	-0.003		-2.89	-14.4	25.0	ug/L			
16	9910022-04	OU3-IW-35-0928	0.015		10.6	53.0	25.0	ug/L			
17	9910024-01	93099-1 2 3	-0.002		-2.14	-0.011	0.025	mg/Kg			
18	9910024-01D	93099-1 2 3D	0.013		9.10	0.045	0.025	mg/Kg		NA 328 JW	
19	9910024-02	93099-4 5 6	-0.002		-2.14	-0.011	0.025	mg/Kg			
20	CCV4	CCV4	0.108		80.2	160	10.0	ug/L	97.7		
21	CCB4	CCB4	0.000		-0.641	-0.641	5.00	ug/L			
22	9910024-03	93099-7 8 9	0.003		1.61	0.008	0.025	mg/Kg			
23	9910024-04	93099-10 11 12	0.005		3.10	0.016	0.025	mg/Kg			
24	9910024-05	93099-13 14 15	-0.001		-1.39	-0.007	0.025	mg/Kg			
25	9910024-06	93099-16 17 18	0.000		-0.641	-0.003	0.025	mg/Kg			
26	9910024-07	93099-19 20 21	-0.002		-2.14	-0.011	0.025	mg/Kg			
27	9910024-08	93099-22 23 24	0.004		2.35	0.012	0.025	mg/Kg			
28	9910031-01	OU3-IW-36-1004	0.006		3.85	19.3	25.0	ug/L			
29	9910033-01	OU3-PT2-092930	-0.001		-1.39	-0.007	0.025	mg/Kg			
30	CCV5	CCV5	0.108		80.2	160	10.0	ug/L	97.7		
31	CCB5	CCB5	0.000		-0.641	-0.641	5.00	ug/L			

Chris Bea / DCB 10-11-99
Analyst / Date

Wardell 10-11-99
Lab Supervisor / Date

RUN SUMMARY SHEET
REACTIVE SULFIDE

DATA FILE: S2R0899
INSTRUMENT FILE: INSTRUMENT: WET_LAB ANALYZED: 10/08/1999

Seq	Lab ID	Client ID	Rep1	Rep2	Raw Conc.	Result	CRDL	Units	%Recovery	%RPD	%RSD
1	PREP BLANK	PREP BLANK	0		0.000	0.000	10.0	mg/L			
2	7363	7363	175		175	875	10.0	mg/L	11.2		
3	9910022-01	OU3-IW-28-1001R	0		0.000	0.000	10.0	mg/L		N/A	
4	9910022-01D	OU3-IW-28-1001R	0		0.000	0.000	10.0	mg/L		~~DIV BY~~	
5	9910022-02	OU3-IW-29-1001R	2.0		2.00	10.0	10.0	mg/L			
6	9910022-03	OU3-IW-30-0929R	3.0		3.00	15.0	10.0	mg/L			
7	9910022-04	OU3-IW-35-0928	0		0.000	0.000	10.0	mg/L			
8	9910024-01	93099-1 2 3	0		0.000	0.000	10.0	mg/Kg		N/A	
9	9910024-01D	93099-1 2 3D	0		0.000	0.000	10.0	mg/Kg		~~DIV BY~~	
10	9910024-02	93099-4 5 6	0		0.000	0.000	10.0	mg/Kg			
11	9910024-03	93099-7 8 9	2.0		2.00	10.0	10.0	mg/Kg			
12	9910024-04	93099-10 11 12	0		0.000	0.000	10.0	mg/Kg			
13	9910024-05	93099-13 14 15	0		0.000	0.000	10.0	mg/Kg			
14	9910024-06	93099-16 17 18	0		0.000	0.000	10.0	mg/Kg			
15	9910024-07	93099-19 20 21	0		0.000	0.000	10.0	mg/Kg			
16	9910024-08	93099-22 23 24	0		0.000	0.000	10.0	mg/Kg			
17	9910031-01	OU3-IW-36-1004	0		0.000	0.000	10.0	mg/L			
18	9910033-01	OU3-PT2-092930	2.0		2.00	10.0	10.0	mg/Kg			

DT 10-8-99
Analyst / Date

11-4-99
Lab Supervisor / Date

RUN SUMMARY SHEET
pH

DATA FILE: PH00899
INSTRUMENT FILE: INSTRUMENT: WET_LAB ANALYZED: 10/08/1999

Seq	Lab ID	Client ID	Rep1	Rep2	Raw Conc.	Result	CRDL	Units	%Recovery	%RPD	%RSD
1	ICV	ICV	6.95		6.95	6.95	0.001	pH	99.3		
2	9910024-01	93099-1 2 3	10.67		10.7	10.7	0.001	pH			
3	9910024-01D	93099-1 2 3D	10.73		10.7	10.7	0.001	pH		0.561	
4	9910024-02	93099-4 5 6	10.32		10.3	10.3	0.001	pH			
5	9910024-03	93099-7 8 9	10.59		10.6	10.6	0.001	pH			
6	9910024-04	93099-10 11 12	10.48		10.5	10.5	0.001	pH			
7	9910024-05	93099-13 14 15	12.13		12.1	12.1	0.001	pH			
8	9910024-06	93099-16 17 18	10.51		10.5	10.5	0.001	pH			
9	9910024-07	93099-19 20 21	10.84		10.8	10.8	0.001	pH			
10	9910024-08	93099-22 23 24	8.98		8.98	8.98	0.001	pH			
11	9910006-01	2SA-SLUDGE	10.93		10.9	10.9	0.001	pH			
12	9910033-01	OU3-PT2-092930	4.92		4.92	4.92	0.001	pH			
13	CCV1	CCV1	7.03		7.03	7.03	0.001	pH	100		

DT
Analyst / Date

Lab Supervisor / Date 10-11-99

RUN SUMMARY SHEET
Nitrocellulose

DATA FILE: NCO1599
INSTRUMENT FILE: INSTRUMENT: RFA ANALYZED: 10/15/1999

Seq	Lab ID	Client ID	Rep1	Rep2	Raw Conc.	Result	CRDL	Units	%Recovery	%RPD	%RSD
1	ICV	ICV	0.560		0.560	2.24	1.44	mg/L	92.3		
2	ICB	ICB	0.033		0.033	0.033	0.360	mg/L			
3	PBS10111	PBS10111	0.003		0.003	0.300	36.0	mg/Kg			
4	LCSS10111	LCSS10111	3.813		3.81	381	36.0	mg/Kg	76.3		
5	9909187-01	SB-UD-21(8-12)	0.617		0.617	67.1	39.1	mg/Kg			
6	9909187-02	SB-UD-22(8-12)	0.712		0.712	88.0	44.5	mg/Kg			
7	9909187-03	SB-UD-23(6-10)	0.807		0.807	96.1	42.9	mg/Kg			
8	9909187-04	SB-UD-24(6-8)	0.845		0.845	230	98.0	mg/Kg			
9	9909187-05	SB-UD-25(6-12)	0.693		0.693	97.5	50.7	mg/Kg			
10	9909187-06	SB-UD-26(6-8)	0.807		0.807	126	56.2	mg/Kg			
11	9909187-07	SB-UD-27(6-8)	1.797		1.80	244	48.9	mg/Kg			
12	9909187-08	SB-UD-28(6-10)	0.655		0.655	99.1	54.5	mg/Kg			
13	CCV1	CCV1	0.545		0.545	2.18	1.44	mg/L	89.8		
14	CCB1	CCB1	0.033		0.033	0.033	0.360	mg/L			
15	9909187-09	SB-UD-29(8-24)	0.617		0.617	59.0	34.5	mg/Kg			
16	9909187-10	SB-UD-30(6-10)	0.845		0.845	119	50.6	mg/Kg			
17	9909187-11	SB-UD-31(6-8)	0.807		0.807	115	51.2	mg/Kg			
18	9909211-01	SB-UD-36(8-12)	0.617		0.617	82.1	47.9	mg/Kg			
19	9909211-02	SB-UD-36DUP(8-1	0.731		0.731	90.7	44.7	mg/Kg			
20	9909211-03	SB-UD-35(8-12)	0.864		0.864	136	56.7	mg/Kg			
21	9909211-03S	SB-UD-35(8-12)S	3.433		3.43	551	57.8	mg/Kg	51.7		
22	9909211-03SD	SB-UD-35(8-12)S	3.851		3.85	596	55.7	mg/Kg	59.4	7.82	
23	9909211-05	SB-UD-37(8-12)	0.750		0.750	94.5	45.4	mg/Kg			
24	9909211-06	SB-UD-37-DUP(8-	0.826		0.826	112	48.7	mg/Kg			
25	CCV2	CCV2	0.542		0.542	2.17	1.44	mg/L	89.3		
26	CCB2	CCB2	0.033		0.033	0.033	0.360	mg/L			
27	9909211-07	SB-UD-38(12-24)	D.655		0.655	84.7	46.5	mg/Kg			
28	PBS10112	PBS10112	0.275		0.275	27.5	36.0	mg/Kg			
29	LCSS10112	LCSS10112	3.699		3.70	370	36.0	mg/Kg	74.0		
30	9909211-08	SB-UD-39(12-18)	0.617		0.617	69.0	40.2	mg/Kg			
31	9909211-08S	SB-UD-39(12-18)	2.957		2.96	342	41.7	mg/Kg	47.2		
32	9909211-08SD	SB-UD-39(12-18)	3.090		3.09	348	40.6	mg/Kg	49.6	1.73	
33	9909211-10	SB-UD-40(6-12)	0.255		0.255	30.7	43.4	mg/Kg			
34	9910009-30	SB-UD-34(0.1.5)	0.255		0.255	31.8	44.9	mg/Kg			
35	9910009-32	SB-UD-34(0.1.5)	0.255		0.255	31.3	44.2	mg/Kg			
36	9910021-05	SB-UD-33(0-2)	0.541		0.541	88.0	58.5	mg/Kg			
37	CCV3	CCV3	0.529		0.529	2.12	1.44	mg/L	87.1		
38	CCB3	CCB3	0.033		0.033	0.033	0.360	mg/L			

DCB 10-15-99
Analyst / Date

Wardell 10-18-99
Lab Supervisor / Date

RUN SUMMARY SHEET
Nitrocellulose

DATA FILE: NCO1599
INSTRUMENT FILE: INSTRUMENT: RFA ANALYZED: 10/15/1999

Seq	Lab ID	Client ID	Rep1	Rep2	Raw Conc.	Result	CRDL	Units	%Recovery	%RPD	%RSD
39	9910021-07	SB-UD-33(0-2)DU	0.275		0.275	41.0	53.7	mg/Kg			
40	9910021-09	SB-UD-32(0-2)	0.427		0.427	49.9	42.1	mg/Kg			
41	9910024-01	93099-1 2 3	0.465		0.465	50.3	38.9	mg/Kg			
42	9910024-01D	93099-1 2 3D	0.693		0.693	62.3	32.4	mg/Kg		21.4	
43	9910024-01S	93099-1 2 3S	1.112		1.11	102	33.0	mg/Kg	11.3		
44	9910024-02	93099-4 5 6	0.389		0.389	45.3	41.9	mg/Kg			
45	9910024-03	93099-7 8 9	0.655		0.655	64.5	35.4	mg/Kg			
46	9910024-04	93099-10 11 12	0.807		0.807	79.8	35.6	mg/Kg			
47	9910024-05	93099-13 14 15	0.712		0.712	59.1	29.9	mg/Kg			
48	9910024-06	93099-16 17 18	0.864		0.864	81.9	34.1	mg/Kg			
49	CCV4	CCV4	0.560		0.560	2.24	1.44	mg/L	92.3		
50	CCB4	CCB4	0.033		0.033	0.033	0.360	mg/L			
51	9910024-07	93099-19 20 21	0.617		0.617	60.0	35.0	mg/Kg			
52	9910024-08	93099-22 23 24	3.433		3.43	347	36.4	mg/Kg			
53	PB1014	PB1014	0.275		0.275	0.138	0.180	mg/L			
54	OVER CALIBRATION										
55	9909038-01	MW-05	0.275		0.275	0.101	0.132	mg/L			
56	9909038-03	MW-06	0.255		0.255	0.095	0.134	mg/L			
57	9909038-05	MW-07	0.255		0.255	0.097	0.136	mg/L			
58	9909038-08	MW-08	0.313		0.313	0.115	0.132	mg/L			
59	9909038-10	MW-09	0.255		0.255	0.095	0.134	mg/L			
60	9909038-12	MW-70	0.275		0.275	0.103	0.134	mg/L			
61	CCV5	CCV5	0.529		0.529	2.12	1.44	mg/L	87.1		
62	CCB5	CCB5	0.033		0.033	0.033	0.360	mg/L			
63	990903B-15	MW-04	0.275		0.275	0.103	0.134	mg/L			
64	9909038-20	MWB1	0.275		0.275	0.104	0.136	mg/L			
65	9909038-22	MW02	0.255		0.255	0.096	0.135	mg/L			
66	9909038-24	MW03	0.275		0.275	0.103	0.135	mg/L			
67	LCS1014	LCS1014	4.23		4.23	4.23	0.360	mg/L	84.6		
68	CCV6	CCV6	0.523		0.523	2.09	1.44	mg/L	86.2		
69	CCB6	CCB6	0.033		0.033	0.033	0.360	mg/L			

DCB 10-15-99
Analyst / Date

JWardell 10-18-99
Lab Supervisor / Date

RUN SUMMARY SHEET
Nitrocellulose

DATA FILE: NCN0299
INSTRUMENT FILE: INSTRUMENT: RFA ANALYZED: 11/02/1999

Seq	Lab ID	Client ID	Rep1	Rep2	Raw Conc.	Result	CRDL	Units	%Recovery	%RPD	%RSD
1	ICV	ICV	0.565		0.565	2.26	1.44	mg/L	93.1		
2	ICB	ICB	0.021		0.021	0.021	0.360	mg/L			
3	PB10251	PB10251	0.287		0.287	28.7	36.0	mg/Kg			
4	LCS10251	LCS10251	4.022		4.02	402	36.0	mg/Kg	80.4		
5	9910024-01	93099-1 2 3	1.115		1.12	117	37.7	mg/Kg			
6	9910024-01D	93099-1 2 3D	1.132		1.13	114	36.2	mg/Kg		2.53	
7	9910024-01S	93099-1 2 3S	4.140		4.14	429	37.3	mg/Kg	60.3		
8	9910024-01SD	93099-1 2 3SD	3.397		3.40	356	37.7	mg/Kg	45.6	18.7	
9	9910086-01	SB-B10-503-01(0	0.794		0.794	90.1	40.9	mg/Kg			
10	9910086-02	SB-B10-503-02(0	0.389		0.389	37.6	34.8	mg/Kg			
11	9910099-01	SB-C10-440-02(0	0.389		0.389	48.4	44.8	mg/Kg			
12	9910099-02	SB-B13-724-05(0	1.183		1.18	126	38.4	mg/Kg			
13	CCV1	CCV1	0.556		0.556	2.22	1.44	mg/L	91.6		
14	CCB1	CCB1	0.035		0.035	0.035	0.360	mg/L			
15	9910099-03	SB-B13-724-05(0	0.253		0.253	28.8	41.0	mg/Kg			
16	9910099-07	SB-C10-466-02(0	1.031		1.03	124	43.3	mg/Kg			
17	9910099-08	SB-B13-8-04(0-2	0.777		0.777	80.5	37.3	mg/Kg			
18	9910099-09	SB-A11-1-01(0-1	0.287		0.287	31.1	39.0	mg/Kg			
19	9910099-10	SB-A11-1-04(0-1	0.287		0.287	35.3	44.3	mg/Kg			
20	9910099-11	SB-A11-3-05(0-1	0.287		0.287	33.1	41.5	mg/Kg			
21	9910099-12	SB-A11-3-03(0-1	0.659		0.659	88.5	48.3	mg/Kg			
22	9910099-17	SB-B13-757-04(0	1.200		1.20	140	42.1	mg/Kg			
23	9910099-18	SB-B13-757-04(0	0.963		0.963	111	41.3	mg/Kg			
24	9910099-19	SB-B13-682-06(0	3.261		3.26	453	50.0	mg/Kg			
25	CCV2	CCV2	0.596		0.596	2.38	1.44	mg/L	98.2		
26	CCB2	CCB2	0.024		0.024	0.024	0.360	mg/L			
27	PB10252	PB10252	0.355		0.355	35.5	36.0	mg/Kg			
28	LCS10252	LCS10252	4.039		4.04	404	36.0	mg/Kg	80.8		
29	9910099-20	SB-B13-682-04(0	1.538		1.54	258	60.5	mg/Kg			
30	9910099-20S	SB-B13-682-04(0	4.106		4.11	663	58.2	mg/Kg	50.1		
31	9910099-20SD	SB-B13-682-04(0	3.768		3.77	646	61.8	mg/Kg	45.2	2.59	
32	9910099-21	SB-B13-682-03(0	0.997		0.997	121	43.6	mg/Kg			
33	9910099-22	SB-C08-1-01(0-0	1.335		1.34	230	62.0	mg/Kg			
34	9910100-01	SB-B10-503-06(0	0.929		0.929	109	42.1	mg/Kg			
35	9910100-03	SB-B10-656-02(0	0.389		0.389	45.5	42.1	mg/Kg			
36	9910109-01	SB-B13-2-01(0-3	1.166		1.17	141	43.4	mg/Kg			
37	CCV3	CCV3	0.561		0.561	2.24	1.44	mg/L	92.4		
38	CCB3	CCB3	0.021		0.021	0.021	0.360	mg/L			

Chris Bea DCB 11/12/99
Analyst / Date

Lillardell 11-10-99
Lab Supervisor / Date

RUN SUMMARY SHEET
Nitrocellulose

DATA FILE: NCN0299
INSTRUMENT FILE: INSTRUMENT: RFA ANALYZED: 11/02/1999

Seq	Lab ID	Client ID	Rep1	Rep2	Raw Conc.	Result	CRDL	Units	%Recovery	%RPD	%RSD
39	9910109-02	SB-B13-2-02(0-2	0.287		0.287	35.6	44.7	mg/Kg			
40	9910125-01	SB-B10-506-02(0	1.132		1.13	116	37.0	mg/Kg			
41	9910125-03	SB-B11-602C-07(	0.828		0.828	97.1	42.2	mg/Kg			
42	9910125-13	SB-A12-8-05(0-2	1.369		1.37	161	42.4	mg/Kg			
43	9910125-16	SB-A11-8-03(0-2	0.963		0.963	103	38.6	mg/Kg			
44	PB10253	PB10253	0.389		0.389	38.9	36.0	mg/L			
45	LCS10253	LCS10253	4.005		4.00	400	36.0	mg/L	80.1		
46	9910128-04	SB-B11-663-04(0	0.828		0.828	94.5	41.1	mg/Kg			
47	9910128-04S	SB-B11-663-04(0	3.937		3.94	505	46.2	mg/Kg	64.0		
48	9910128-04SD	SB-B11-663-04(0	3.887		3.89	432	40.0	mg/Kg	60.7	15.6	
49	CCV4	CCV4	0.558		0.558	2.23	1.44	mg/L	91.9		
50	CCB4	CCB4	0.021		0.021	0.021	0.360	mg/L			
51	OVER CALIBRATION										
52	9910128-14	SB-A13-753-01(0	0.625		0.625	72.5	41.8	mg/Kg			
53	9910132-01	DUCK POND WHITE	1.284		1.28	129	36.2	mg/Kg			
54	9910132-02	DUCK POND GRAY	0.896		0.896	94.5	38.0	mg/Kg			
55	9910132-03	HILL SOIL	1.403		1.40	123	31.6	mg/Kg			
56	OVER CALIBRATION										
57	CCV5	CCV5	0.518		0.518	2.07	1.44	mg/L	85.3		
58	CCB5	CCB5	0.021		0.021	0.021	0.360	mg/L			

DCB 11/12/99
Analyst / Date

LWardell 11-12-99
Lab Supervisor / Date

RUN SUMMARY SHEET
Sulfate

DATA FILE: S0402599
INSTRUMENT FILE: INSTRUMENT: WET_LAB ANALYZED: 10/25/1999

Seq	Lab ID	Client ID	Rep1	Rep2	Raw Conc.	Result	CRDL	Units	%Recovery	%RPD	%RSD
1	Blank	Blank	0.8		0.880	0.9	1.0	mg/L			
2	1 mg/L	1 mg/L	3.9		1.74	1.7	1.0	mg/L			
3	5 mg/L	5 mg/L	16.8		5.33	5.3	1.0	mg/L			
4	10 mg/L	10 mg/L	28.8		8.66	8.7	1.0	mg/L			
5	15 mg/L	15 mg/L	50.5		14.7	14.7	1.0	mg/L			
6	20 mg/L	20 mg/L	68.2		19.6	19.6	1.0	mg/L			
7	25 mg/L	25 mg/L	84.7		24.2	24.2	1.0	mg/L			
8	30 mg/L	30 mg/L	106.4		30.2	30.2	1.0	mg/L			
9	35 mg/L	35 mg/L	121.1		34.3	34.3	1.0	mg/L			
10	40 mg/L	40 mg/L	146.5		41.4	41.4	1.0	mg/L			
11	LCS1	LCS1	72.4		20.8	104	5.0	mg/L	94.4		
12	ICB	ICB	0.9		0.908	0.9	1.0	mg/L			
13	PB	PB	1.00		0.936	0.9	1.0	mg/L			
14	9910024-01	93099-1 2 3	71.7		20.6	1250	60.8	mg/kg			
15	9910024-01D	93099-1 2 3D	80.8		23.1	1400	60.7	mg/kg		11.4	
16	EXTRACTED SPIKE IS INSIGINFICANT TO SAMPLE CONC.										
17	9910024-01A	93099-1 2 3A	113.8		32.3	1960	60.8	mg/kg	117		
18	ICV	ICV	69.42		19.9	19.9	1.0	mg/L	99.7		
19	9910024-02	93099-4 5 6	124.2		35.2	884	25.1	mg/kg			
20	9910024-03	93099-7 8 9	73.6		21.1	806	38.2	mg/kg			
21	9910024-04	93099-10 11 12	110.2		31.3	15800	504	mg/kg			
22	9910024-05	93099-13 14 15	110.9		31.5	16000	509	mg/kg			
23	CCV	CCV	63.8		18.4	73.5	4.0	mg/L	91.9		
24	CCB	CCB	0.2		0.714	2.9	4.0	mg/L			
25	9910024-06	93099-16 17 18	122.6		34.7	18000	520	mg/kg			
26	9910024-07	93099-19 20 21	39.6		11.7	2690	230	mg/kg			
27	9910024-08	93099-22 23 24	29.4		8.83	447	50.7	mg/kg			
28	9910093-01	NSA-355-MW04-10	29.6		8.88	8.9	1.0	mg/L			
29	CCV1	CCV1	65.6		18.9	18.9	1.0	mg/L	94.4		
30	9910156-01	NSA-355-MW04109	32.6		9.72	9.7	1.0	mg/L			
31	9910156-01D	NSA-355-MW04109	33.1		9.86	9.9	1.0	mg/L		1.42	
32	9910156-01S	NSA-355-MW04109	109.9		31.2	31.2	1.0	mg/L	107		
33	LCS2	LCS2	72.5		20.8	104	5.0	mg/L	94.6		
34	CCB1	CCB1	0.7		0.853	0.9	1.0	mg/L			

AS
Analyst / Date

Tracy Vardell 10-27-99
Lab Supervisor / Date

5.10

FLASH POINT PACKAGE

GPL Laboratories, LLLP

CASE NARRATIVE

EXTRACTIONS

CLIENT: PARSONS SPRING V

WORK ORDER: 9910024

DATE: October 08, 1999

1. Eight soil samples were received on October 5, 1999. The samples were analyzed for flash point using method 1010.

2. A quality control standard was analyzed with the batch and met calibration acceptance criteria.

DVU / 10/6/99
Initials Date

10/11/99

EXPLOSIVES
QC

GPL Laboratories, LLLP

CASE NARRATIVE

EXPLOSIVE

Client	:	SENECA_ARMY_DEP
W.O.No.	:	9910024
SDG #	:	N/A
Date	:	11/19/99

1. Eight soil samples were received on October 5, 1999. Samples were extracted and analyzed for explosive compounds using 8330 methodologies.

2. Two LCS analyses were performed with this batch of samples. MS/MSD were performed on sample 93099123 RE.

3. All samples were re-extracted due to low surrogate recovery from initial extraction. The re-extraction were performed past sample holding time. The data reported in this data package for these samples were based on the result from re-extraction. The results from initial extraction of these two samples were also submitted in this data package as references.

4. Due to co-elution of 2,4-DNT and 2.6-DNT on both columns, both compounds are reported as total DNT under results for 2,4-DNT.

5 Due to software limitation some form's correction were entered manually. Manual integration was performed on some data files as integration provided by the software was inappropriate for some analytes.

DRH
11/23/99

11/19/99

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: GPL Laboratories, LLLP Contract: SENECA

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Level: (low/med) LOW

	Client SAMPLE NO.	S1 #	TOT OUT
01	NBLKA	90	0
02	NLCSA	90	0
03	93099123 RE	59	0
04	93099123 RE MS	50*	1
05	93099123 RE MS	88	0
06	93099456 RE	*	1
07	93099789 RE	110	0
08	93099101112 RE	43*	1
09	93099131415 RE	*	1
10	930991641718 RE	37*	1
11	93099192021 RE	*	1
12	93099222324 RE	43*	1

			QC LIMITS
S1	=	4-NITROANILINE	(52-148)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

7003

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: GPL Laboratories, LLLP Contract: SENECA

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Level: (low/med) LOW

	Client SAMPLE NO.	S1 #	TOT OUT
01	NBLKB	87	0
02	NLCSB	84	0
03	93099123	40*	1
04	93099456	*	1
05	93099789	111	0
06	93099101112	44*	1
07	93099131415	*	1
08	93099161718	62	0
09	93099222324	56	0
10	93099192021	14*	1

			QC LIMITS
S1	=	4-NITROANILINE	(52-148)

7004

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: GPL Laboratories, LLLP Contract: SENECA

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix Spike - EPA Sample No.: 93099123 RE Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
HMX	2900	0.0	2000	69	52 - 148
1,3,5-TRINITROBENZENE	1400	0.0	0.0	0*	65 - 144
TETRYL	5700	0.0	0.0	0*	15 - 108
2,4,6-TRINITROTOLUENE	1400	0.0	0.0	0*	36 - 178
4-AMINO-2,6-DINITROTOLU	1400	0.0	0.0	0*	46 - 165
4-NITROTOLUENE	2900	0.0	2300	79	53 - 151
RDX	2900	0.0	5100	176*	62 - 145
1,3-DINITROBENZENE	1400	0.0	830	59	52 - 146
NITROBENZENE	1400	0.0	1400	100	61 - 188
2-AMINO-4,6-DINITROTOLU	1400	0.0	1100	79	49 - 139
2,4-DINITROTOLUENE	2900	2000	3600	55	54 - 122
2-NITROTOLUENE	2900	0.0	2300	79	54 - 158
3-NITROTOLUENE	2900	0.0	2900	100	54 - 158

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
HMX	3000	3300	110	46*	25	52 - 148
1,3,5-TRINITROBENZENE	1500	2000	133	200*	35	65 - 144
TETRYL	6000	0.0	0*	0	25	15 - 108
2,4,6-TRINITROTOLUENE	1500	2700	180*	200*	35	36 - 178
4-AMINO-2,6-DINITROTOLU	1500	0.0	0*	0	25	46 - 165
4-NITROTOLUENE	3000	2800	93	16	25	53 - 151
RDX	3000	3700	123	35*	35	62 - 145
1,3-DINITROBENZENE	1500	950	63	7	25	52 - 146
NITROBENZENE	1500	1700	113	12	35	61 - 188
2-AMINO-4,6-DINITROTOLU	1500	1700	113	35*	25	49 - 139
2,4-DINITROTOLUENE	3000	3300	43*	24	35	54 - 122
2-NITROTOLUENE	3000	2500	83	5	25	54 - 158

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 5 out of 13 outside limits

Spike Recovery: 9 out of 26 outside limits

7005

COMMENTS:

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: GPL Laboratories, LLLP Contract: SENECA

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix Spike - EPA Sample No.: 93099123 RE Level: (low/med) LOW

3-NITROTOLUENE	3000	2600	87	14	25	54 - 158

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 0 out of 0 outside limits

COMMENTS:

7006

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

NBLKA

Lab Name: GPL Laboratories, LLLP Contract: SENECA

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID: LCA3127.D Lab Sample ID: NBLK-3025

Instrument ID: HPLC3 Date Extracted: 10/29/99

Matrix: (soil/water) SOIL Date Analyzed: 11/08/99

Level: (low/med) LOW Time Analyzed: 15:59

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

	Client SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	NLCSA	NBLK-3025 MS1	LCA3128.D	11/08/99
02	93099123 RE	9910024-01C	LCA3130.D	11/08/99
03	93099123 RE MS	9910024-01C MS1	LCA3131.D	11/08/99
04	93099123 RE MSD	9910024-01C MSD2	LCA3132.D	11/08/99
05	93099456 RE	9910024-02C	LCA3135.D	11/08/99
06	93099789 RE	9910024-03C	LCA3136.D	11/08/99
07	93099101112 RE	9910024-04C	LCA3140.D	11/08/99
08	93099131415 RE	9910024-05C	LCA3141.D	11/08/99
09	930991641718 RE	9910024-06C	LCA3142.D	11/08/99
10	93099192021 RE	9910024-07C	LCA3143.D	11/08/99
11	93099222324 RE	9910024-08C	LCA3144.D	11/08/99

7007

COMMENTS:

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

NBLKB

Lab Name: GPL Laboratories, LLLP Contract: SENECA

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID: LCA2693.D Lab Sample ID: NBLK-2081

Instrument ID: HPLC3 Date Extracted: 10/11/99

Matrix: (soil/water) SOIL Date Analyzed: 10/26/99

Level: (low/med) LOW Time Analyzed: 02:32

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

	Client SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	NLCSB	NBLK-2081 MS	LCA2694.D	10/26/99
02	93099123	9910024-01C	LCA2695.D	10/26/99
03	93099456	9910024-02C	LCA2696.D	10/26/99
04	93099789	9910024-03C	LCA2697.D	10/26/99
05	93099101112	9910024-04C	LCA2698.D	10/26/99
06	93099131415	9910024-05C	LCA2699.D	10/26/99
07	93099161718	9910024-06C	LCA2700.D	10/26/99
08	93099222324	9910024-08C	LCA2701.D	10/26/99
09	93099192021	9910024-07C	LCA2702.D	10/26/99

7008

COMMENTS:

Response Factor Report LCA_HP110

Method : I:\LCDATA\LCA\METHODS\8330NEW3.M (Chemstation Integrator)
Title : 8330 Explosives
Last Update : Wed Oct 06 14:05:08 1999

Calibration Files
LEV1 =LCA2058.D LEV2 =LCA2059.D LEV3 =LCA2060.D
LEV4 =LCA2061.D LEV5 =LCA2062.D LEV6 =LCA2063.D

		Compound	LEV1	LEV2	LEV3	LEV4	LEV5	LEV6	Avg		%RSD
1)	T	HMX	1.414	1.226	1.166	1.119	1.171	1.167	1.210	E5	8.72
2)	S	4-Nitroaniline	1.331	1.227	1.225	1.444	1.356	1.291	1.312	E5	6.37
3)	T	1,3,5-Trinitrobenze	2.894	2.949	2.940	3.258	3.443	3.398	3.147	E5	7.91
4)	T	Tetryl	1.868	1.911	1.803	2.386	2.617	2.604	2.198	E5	17.29
5)	T	2,4,6-Trinitrotolue	3.486	2.887	2.715	3.066	3.238	3.192	3.098	E5	8.80
6)	T	4-Amino-2,6-Dinitro	2.544	2.241	2.205	2.139	2.237	2.182	2.258	E5	6.42
7)	T	2,6-Dinitrotoluene	2.519	2.191	2.225	2.225	2.324	2.265	2.292	E5	5.25
8)	T	4-Nitrotoluene	1.737	1.671	1.623	1.586	1.655	1.604	1.646	E5	3.32
9)	M	RDX	1.666	1.507	1.500	1.750	1.646	1.561	1.605	E5	6.17
10)	M	1,3-Dinitrobenzene	5.343	4.812	4.811	5.457	5.119	4.869	5.069	E5	5.59
11)	M	Nitrobenzene	3.541	3.069	3.055	3.535	3.309	3.161	3.278	E5	6.73
12)	M	2-Amino-4,6-Dinitro	3.352	2.935	2.849	3.203	3.024	2.925	3.048	E5	6.29
13)	M	2,4-Dinitrotoluene	5.274	4.729	4.827	5.604	5.238	4.924	5.099	E5	6.48
14)		Total 24DNT&26DNT	5.273	4.729	4.827	5.604	5.238	4.924	5.099	E5	6.48
15)	M	2-Nitrotoluene	2.251	1.961	1.972	2.251	2.112	1.995	2.090	E5	6.49
16)	M	3-Nitrotoluene	2.352	2.087	2.105	2.417	2.276	2.145	2.230	E5	6.19

* denotes curve at 50, 250, 500, 1000, 2000, 5000 ppb.

** denotes curve at 25, 125, 250, 500, 1000, 2500 ppb.

7009

(#) = Out of Range

Continuing Calibration Report LCA_HP110

Method : H:\LCDATA\LCA\METHODS\8330NEW3.M (Chemstation Integrator)
Title : 8330 Explosives
Last Update : Thu Aug 19 16:25:44 1999
Response via : Initial Calibration

Continuing Calibration File: LCA2692.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	T	HMX	121.044	120.548	E3	0.4	103
2	S	4-Nitroaniline	131.222	114.180	E3	13.0	93
3	T	1,3,5-Trinitrobenzene	314.706	304.853	E3	3.1	104
4	T	Tetryl	219.836	192.946	E3	12.2	107
5	T	2,4,6-Trinitrotoluene	309.751	337.601	E3	-9.0	124
6	T	4-Amino-2,6-Dinitrotoluene	225.791	226.397	E3	-0.3	103
7	T	2,6-Dinitrotoluene	229.168	254.319	E3	-11.0	114
8	T	4-Nitrotoluene	164.612	173.149	E3	-5.2	107
9	M	RDX	160.504	153.874	E3	4.1	103
10	M	1,3-Dinitrobenzene	506.856	474.854	E3	6.3	99
11	M	Nitrobenzene	327.848	321.796	E3	1.8	105
12	M	2-Amino-4,6-Dinitrotoluene	304.802	300.563	E3	1.4	105
13	M	2,4-Dinitrotoluene	509.928	476.167	E3	6.6	99
14		Total 24DNT&26DNT	509.916	476.167	E3	6.6	99
15	M	2-Nitrotoluene	209.019	206.626	E3	1.1	105
16	M	3-Nitrotoluene	223.046	226.614	E3	-1.6	108

7010

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Continuing Calibration Report LCA_HP110

Method : H:\LCDATA\LCA\METHODS\8330NEW3.M (Chemstation Integrator)
Title : 8330 Explosives
Last Update : Thu Aug 19 16:25:44 1999
Response via : Initial Calibration

Continuing Calibration File: LCA2704.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	T	HMX	121.044	118.211	E3	2.3	101
2	S	4-Nitroaniline	131.222	112.873	E3	14.0	92
3	T	1,3,5-Trinitrobenzene	314.706	302.434	E3	3.9	103
4	T	Tetryl	219.836	190.553	E3	13.3	106
5	T	2,4,6-Trinitrotoluene	309.751	337.094	E3	-8.8	124
6	T	4-Amino-2,6-Dinitrotoluene	225.791	213.396	E3	5.5	97
7	T	2,6-Dinitrotoluene	229.168	239.545	E3	-4.5	108
8	T	4-Nitrotoluene	164.612	180.615	E3	-9.7	111
9	M	RDX	160.504	151.942	E3	5.3	101
10	M	1,3-Dinitrobenzene	506.856	469.781	E3	7.3	98
11	M	Nitrobenzene	327.848	319.153	E3	2.7	104
12	M	2-Amino-4,6-Dinitrotoluene	304.802	283.172	E3	7.1	99
13	M	2,4-Dinitrotoluene	509.928	484.429	E3	5.0	100
14		Total 24DNT&26DNT	509.916	485.651	E3	4.8	101
15	M	2-Nitrotoluene	209.019	204.941	E3	2.0	104
16	M	3-Nitrotoluene	223.046	204.361	E3	8.4	97

7011

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Continuing Calibration Report LCA_HP110

Method : H:\LCDATA\LCA\METHODS\8330NEW3.M (Chemstation Integrator)
Title : 8330 Explosives
Last Update : Tue Nov 09 10:45:33 1999
Response via : Initial Calibration

Continuing Calibration File: LCA3125.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	T	HMX	121.044	122.122	E3	-0.9	105
2	S	4-Nitroaniline	131.222	112.841	E3	14.0	92
3	T	1,3,5-Trinitrobenzene	314.706	273.901	E3	13.0	93
4	T	Tetryl	219.836	188.675	E3	14.2	105
5	T	2,4,6-Trinitrotoluene	309.751	343.073	E3	-10.8	126
6	T	4-Amino-2,6-Dinitrotoluene	225.791	221.594	E3	1.9	101
7	T	2,6-Dinitrotoluene	229.168	244.168	E3	-6.5	110
8	T	4-Nitrotoluene	164.612	165.394	E3	-0.5	102
9	M	RDX	160.504	156.446	E3	2.5	104
10	M	1,3-Dinitrobenzene	506.856	474.954	E3	6.3	99
11	M	Nitrobenzene	327.848	307.512	E3	6.2	101
12	M	2-Amino-4,6-Dinitrotoluene	304.802	313.522	E3	-2.9	110
13	M	2,4-Dinitrotoluene	509.928	484.274	E3	5.0	100
14		Total 24DNT&26DNT	509.916	484.274	E3	5.0	100
15	M	2-Nitrotoluene	209.019	199.662	E3	4.5	101
16	M	3-Nitrotoluene	223.046	221.774	E3	0.6	105

7012

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Continuing Calibration Report LCA_HP110

Method : H:\LCDATA\LCA\METHODS\8330NEW3.M (Chemstation Integrator)
Title : 8330 Explosives
Last Update : Tue Nov 09 10:51:49 1999
Response via : Initial Calibration

Continuing Calibration File: LCA3138.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	T	HMX	121.044	119.079	E3	1.6	102
2	S	4-Nitroaniline	131.222	111.952	E3	14.7	91
3	T	1,3,5-Trinitrobenzene	314.706	268.665	E3	14.6	91
4	T	Tetryl	219.836	187.898	E3	14.5	104
5	T	2,4,6-Trinitrotoluene	309.751	338.431	E3	-9.3	125
6	T	4-Amino-2,6-Dinitrotoluene	225.791	192.944	E3	14.5	88
7	T	2,6-Dinitrotoluene	229.168	228.415	E3	0.3	103
8	T	4-Nitrotoluene	164.612	163.246	E3	0.8	101
9	M	RDX	160.504	160.337	E3	0.1	107
10	M	1,3-Dinitrobenzene	506.856	488.023	E3	3.7	101
11	M	Nitrobenzene	327.848	319.266	E3	2.6	104
12	M	2-Amino-4,6-Dinitrotoluene	304.802	305.881	E3	-0.4	107
13	M	2,4-Dinitrotoluene	509.928	496.044	E3	2.7	103
14		Total 24DNT&26DNT	509.916	496.044	E3	2.7	103
15	M	2-Nitrotoluene	209.019	207.233	E3	0.9	105
16	M	3-Nitrotoluene	223.046	246.278	E3	-10.4	117

7013

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Continuing Calibration Report LCA_HP110

Method : H:\LCDATA\LCA\METHODS\8330NEW3.M (Chemstation Integrator)
Title : 8330 Explosives
Last Update : Tue Nov 09 10:54:12 1999
Response via : Initial Calibration

Continuing Calibration File: LCA3151.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF		%Dev	Area%
1	T	HMX	121.044	116.496	E3	3.8	100
2	S	4-Nitroaniline	131.222	114.531	E3	12.7	93
3	T	1,3,5-Trinitrobenzene	314.706	270.617	E3	14.0	92
4	T	Tetryl	219.836	187.294	E3	14.8	104
5	T	2,4,6-Trinitrotoluene	309.751	334.172	E3	-7.9	123
6	T	4-Amino-2,6-Dinitrotoluene	225.791	204.021	E3	9.6	93
7	T	2,6-Dinitrotoluene	229.168	238.368	E3	-4.0	107
8	T	4-Nitrotoluene	164.612	162.740	E3	1.1	100
9	M	RDX	160.504	159.925	E3	0.4	107
10	M	1,3-Dinitrobenzene	506.856	497.556	E3	1.8	103
11	M	Nitrobenzene	327.848	302.576	E3	7.7	99
12	M	2-Amino-4,6-Dinitrotoluene	304.802	288.564	E3	5.3	101
13	M	2,4-Dinitrotoluene	509.928	521.928	E3	-2.4	108
14		Total 24DNT&26DNT	509.916	517.122	E3	-1.4	107
15	M	2-Nitrotoluene	209.019	200.389	E3	4.1	102
16	M	3-Nitrotoluene	223.046	232.577	E3	-4.3	110

7014

(#) = Out of Range SPCC's out = 0 CCC's out = 0

1B

EPA SAMPLE NO.

EXPLOSIVES ANALYSIS DATA SHEET

NBLKA

Lab Name: GPL Laboratories, LLLP Contract: SENECA

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: NBLK-3025

Sample wt/vol: 2 (g/ml) G Lab File ID: LCA3127.D

Level: (low/med) LOW Date Received: 10/05/99

% Moisture: 0 decanted:(Y/N) N Date Extracted: 10/29/99

Concentrated Extract Volume: 20000 (uL) Date Analyzed: 11/08/99

Injection Volume: 100. (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
2691-41-0	HMX	500	U
99-35-4	1,3,5-TRINITROBENZENE	250	U
479-45-8	TETRYL	500	U
118-96-7	2,4,6-TRINITROTOLUENE	250	U
1946-51-0	4-AMINO-2,6-DINITROTOLUEN	250	U
606-20-2	2,6-DINITROTOLUENE	250	U
99-99-0	4-NITROTOLUENE	500	U
121-82-4	RDX	500	U
99-65-0	1,3-DINITROBENZENE	250	U
98-95-3	NITROBENZENE	250	U
35572-78-2	2-AMINO-4,6-DINITROTOLUEN	250	U
121-14-2	2,4-DINITROTOLUENE	250	U
88-72-2	2-NITROTOLUENE	500	U
99-08-1	3-NITROTOLUENE	500	U

7015

CASE NARRATIVE

NITROGLYCERINE

Client	:	SENECA_ARMY
W.O.No.	:	9910024
SDG #	:	N/A
Date	:	11/19/99

1. Eight soil samples were received on October 5, 1999. Samples were extracted and analyzed for Nitroglycerine compounds using 8330 methodology.

2. One LCS analysis was performed with this batch of samples. MS/MSD analyses were performed on sample 93099 1 2 3. The samples were re-extracted for nitroglycerine, because the original batch did not have QC performed with it. The re-extractions were past the extraction holding time.

3. Percent recoveries and RPD of target compounds in MS/MSD analyses were outside QC limits due to matrix.

4. Manual integration was performed on some data files, as integration provided by the software was inappropriate for some analytes.

QRH 11/23/99

LM 11/23/99

3D

SOIL EXPLOSIVES MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: GPL LABORATORIES, LLLP Contract: SENECA ARMY

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix Spike - EPA Sample No.: 93099-1 2 3 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
NITROGLYCERINE	91	0.0	230	253*	60 - 140

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
NITROGLYCERINE	95	150	158*	46*	25	60 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 1 outside limits

Spike Recovery: 2 out of 2 outside limits

COMMENTS: _____

7017

3E

SOIL NITROGLYCERINE LABORATORY CONTROL SPIKE RECOVERY

Lab Name: GPL LABORATORIES, LLLP Client: SCNECA

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

EPA Sample No.: LCSA GP ID: NBLK3025 MS2

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS
NITROGLYCERINE	100000	95070	95	60-140

COMMENTS: _____

7018

4B

EPA SAMPLE NO.

EXPLOSIVES METHOD BLANK SUMMARY

NBLKA

Lab Name: GPL LABORATORIES, LLLP Contract: SENECA ARM

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID: LCA3127.D Lab Sample ID: NBLK-3025

Instrument ID: LCA Date Extracted: 10/29/99

Matrix: (soil/water) SOIL Date Analyzed: 11/08/99

Level: (low/med) LOW Time Analyzed: 15:59

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

	Client Sample NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	NLCSA	NBLK-3025 MS2	LCA3129.D	11/08/99
02	93099-1 2 3 MS	9910024-01C MS2	LCA3133.D	11/08/99
03	93099-1 2 3 MSD	9910024-01C MSD2	LCA3134.D	11/08/99
04	93099-4 5 6	9910024-02C	LCA3135.D	11/08/99
05	93099-7 8 9	9910024-03C	LCA3136.D	11/08/99
06	93099-10 11 12	9910024-04C	LCA3140.D	11/08/99
07	93099-13 14 15	9910024-05C	LCA3141.D	11/08/99
08	93099-16 17 18	9910024-06C	LCA3142.D	11/08/99
09	93099-19 20 21	9910024-07C	LCA3143.D	11/08/99
10	93099-22 23 24	9910024-08C	LCA3144.D	11/08/99

COMMENTS:

7019

Response Factor Report LCA_HP110

Method : H:\LCDATA\LCA\METHODS\NG.M (Chemstation Integrator)
Title : NITROGLYCERINE- 5 POINT IC
Last Update : Fri Jan 22 15:52:54 1999

Calibration Files
LEV1 =LCA0727.D LEV2 =LCA0728.D LEV3 =LCA0729.D
LEV4 =LCA0730.D LEV5 =LCA0731.D

		Compound	LEV1	LEV2	LEV3	LEV4	LEV5	Avg		%RSD
1)	M	NITROGLYCERINE	2.124	1.743	1.881	1.897	1.749	1.879	E6	8.24

7020

(#) = Out of Range

Continuing Calibration Report LCA_HP110

Method : H:\LCDATA\LCA\METHODS\NG.M (Chemstation Integrator)
Title : NITROGLYCERINE- 5 POINT IC
Last Update : Tue Nov 09 13:22:43 1999
Response via : Initial Calibration

Continuing Calibration File: LCA3126.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF		%Dev	Area%
1 M	NITROGLYCERINE	1.879	1.600	E6	14.9	85

7021

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Method : H:\LCDATA\LCA\METHODS\NG.M (Chemstation Integrator)
Title : NITROGLYCERINE- 5 POINT IC
Last Update : Tue Nov 09 13:24:42 1999
Response via : Initial Calibration

Continuing Calibration File: LCA3139.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF		%Dev	Area%
1 M	NITROGLYCERINE	1.879	1.604	E6	14.7	85

7022

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Method : H:\LCDATA\LCA\METHODS\NG.M (Chemstation Integrator)
Title : NITROGLYCERINE- 5 POINT IC
Last Update : Tue Nov 09 13:25:12 1999
Response via : Initial Calibration

Continuing Calibration File: LCA3152.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF		%Dev	Area%
1 M	NITROGLYCERINE	1.879	1.650	E6	12.2	88

7023

(#) = Out of Range SPCC's out = 0 CCC's out = 0

1B

EXPLOSIVES ANALYSIS DATA SHEET

EPA SAMPLE NO.

NBLKA

Lab Name: GPL LABORATORIES, LLLP Contract: SENECA ARM

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: NBLK-3025

Sample wt/vol: 2 (g/ml) G Lab File ID: LCA3127.D

Level: (low/med) LOW Date Received:

% Moisture: 0 decanted:(Y/N) N Date Extracted: 10/29/99

Concentrated Extract Volume: 20000 (uL) Date Analyzed: 11/08/99

Injection Volume: 100. (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
55-63-0	NITROGLYCERINE	5000.0	U

7024

CASE NARRATIVE

NITROGUANIDINE

Client	:	SENECA_ARMY_DEP
W.O.No.	:	9910024
SDG #	:	N/A
Date	:	11/19/99

1. Eight soil samples were received on October 5, 1999. Samples were analyzed for Nitroguanidine using modified USAEC methodologies.

2. One LCS analysis was performed with this batch of samples. MS/MSD analyses were performed on sample 93099 1 2 3.

3. Percent recoveries of target compounds in MS/MSD were outside QC limits due to matrix.

4. Manual integration was performed on some data files as integration provided by the software was inappropriate for some analytes.

DRH
11/23/99

11/19/99

3D

SOIL EXPLOSIVES MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: GPL LABORATORIES, LLLP Contract: SENECA ARMY

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix Spike - EPA Sample No.: 93099-1 2 3 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
NITROGUANIDINE	950	0.0	130	14 *	50 - 125

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
NITROGUANIDINE	870	120	14 *	0	25	50 - 125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 1 outside limits

Spike Recovery: 2 out of 2 outside limits

COMMENTS: _____

7026

3E

SOIL NITROGUANIDINE LABORATORY CONTROL SPIKE RECOVERY

Lab Name: GP Environmental Services Client: SENECA

Lab Code: GP_ENV Case No.: N/A SAS No.: N/A SDG No.: N/A

EPA Sample No.: NLCSA GP ID: NBLK2079MS

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS
NITROGUANIDIINE	833.333	425.2	51	50-125

COMMENTS: _____

_____

_____

_____

7027

4B

EPA SAMPLE NO.

EXPLOSIVES METHOD BLANK SUMMARY

NBLKA

Lab Name: GPL LABORATORIES, LLLP Contract: SENECA ARM

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Lab File ID: LCB2120.D Lab Sample ID: NBLK-2079

Instrument ID: LCB Date Extracted: 10/11/99

Matrix: (soil/water) SOIL Date Analyzed: 11/08/99

Level: (low/med) LOW Time Analyzed: 15:44

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

	Client Sample NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	NLCSA	NBLK-2079 MS	LCB2121.D	11/08/99
02	93099-1 2 3	9910024-01C	LCB2122.D	11/08/99
03	93099-1 2 3 MS	9910024-01C MS	LCB2124.D	11/08/99
04	93099-1 2 3 MSD	9910024-01C MSD	LCB2125.D	11/08/99
05	93099-4 5 6	9910024-02C	LCB2126.D	11/08/99
06	93099-7 8 9	9910024-03C	LCB2127.D	11/08/99
07	93099-10 11 12	9910024-04C	LCB2128.D	11/08/99
08	93099-13 14 15	9910024-05C	LCB2129.D	11/08/99
09	93099-16 17 18	9910024-06C	LCB2130.D	11/08/99
10	93099-19 20 21	9910024-07C	LCB2131.D	11/08/99
11	93099-22 23 24	9910024-08C	LCB2132.D	11/08/99

COMMENTS:

7028

Response Factor Report LCB_LINEA

ethod : H:\LCDATA\LCB\METHODS\NQ.M (RTE Integrator)
itle : NITROGUANIDINE- 5 POINT IC
Last Update : Fri Sep 27 15:44:29 1996

Calibration Files
LEV1 =LCB0403.D LEV2 =LCB0404.D LEV3 =LCB0405.D
LEV4 =LCB0406.D LEV5 =LCB0407.D

	Compound	LEV1	LEV2	LEV3	LEV4	LEV5	Avg		%RSD
1) TM	NITROGUANIDINE	1.724	1.678	1.707	1.689	1.657	1.691	E5	1.53

7029

#) = Out of Range

Continuing Calibration Report LCB_LINEA

Method : H:\LCDATA\LCB\METHODS\NQ.M (RTE Integrator)
Title : NITROGUANIDINE- 5 POINT IC
Last Update : Fri Sep 27 15:44:29 1996
Response via : Initial Calibration

Continuing Calibration File: LCB2112.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF		%Dev	Area%
1 TM	NITROGUANIDINE	169.069	183.371	E3	-8.5	107

7030

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Continuing Calibration Report LCB_LINEA

Method : H:\LCDATA\LCB\METHODS\NQ.M (RTE Integrator)
Title : NITROGUANIDINE- 5 POINT IC
Last Update : Fri Sep 27 15:44:29 1996
Response via : Initial Calibration

Continuing Calibration File: LCB2123.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF		%Dev	Area%
1 TM	NITROGUANIDINE	169.069	167.048	E3	1.2	98

7031

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Continuing Calibration Report LCB_LINEA

Method : H:\LCDATA\LCB\METHODS\NQ.M (RTE Integrator)
Title : NITROGUANIDINE- 5 POINT IC
Last Update : Tue Nov 09 08:38:40 1999
Response via : Initial Calibration

Continuing Calibration File: LCB2133.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF		%Dev	Area%
1 TM	NITROGUANIDINE	169.069	177.333	E3	-4.9	104

7032

(#) = Out of Range SPCC's out = 0 CCC's out = 0

1B

EPA SAMPLE NO.

EXPLOSIVES ANALYSIS DATA SHEET

NBLKA

Lab Name: GPL LABORATORIES, LLLP Contract: SENECA ARM

Lab Code: GPLL Case No.: N/A SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) SOIL Lab Sample ID: NBLK-2079

Sample wt/vol: 2.1 (g/ml) G Lab File ID: LCB2120.D

Level: (low/med) LOW Date Received:

% Moisture: 0 decanted:(Y/N) N Date Extracted: 10/11/99

Concentrated Extract Volume: 25000 (uL) Date Analyzed: 11/08/99

Injection Volume: 100. (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
556-88-7	NITROGUANIDINE	119.0	U

7033