Appendix 2-2

Fire Hydrant Analytical

CHAIN-OF-CUSTODY RECORD

CA

Billing Information :
Battelle
505 King Avenue

Columbus, OH 43201

Client:
Battelle Memorial Institute
505 King Avenue

Columbus, OH 43201

Report Attention : Ben Headington
CC Report :

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

Ben Headington
TEL : (626) 345-0598
FAX : (626) 345-0698

Job : G486009-T9
PO : 184533
Client's COC # : 07635

WorkOrder : BMI04040220

Report Due By : 10:00 AM On : 05-Apr-04

EDD Required : **Yes**

Sampled by : Sam Serpa

Cooler Temp : 4 °C

02-Apr-04

QC Level : DS3 = DOD QC Required : Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles ORG	SUB	TAT	PWS #	Requested Tests 314_S	314_W	8081_S	8082_S	BNA_W	CONDUCTIVITY	CORROSIVITY_REACTIVITY	CYANIDE_TOTAL	Sample Remarks
BMI04040220-01A	Fire Hydrant	AQ	04/01/04 13:00	15	1	1			Perchlorate			8270	Perchlorate		Cn	Inorganic=Cyanide by 335.2, subbed to SEM. Cr6 by 7199, subbed to CLS by client.
BMI04040220-02A	Pad Soil	SO	04/01/04 13:30	1	1	1		Perchlorate		PEST	PCB			Corrosivity,Reactivity Sub SEM		Inorganic=Reactivity/ Corrosivity/ Ignitability and Cyanide, subbed to SEM. Hex Chromium by 7199, subbed to CLS by lab.
BMI04040220-03A	Trip Blank	AQ	04/01/04 00:00	1	0	1										TB lab provided with date of 3/01/04.
BMI04040220-04A	SM POLY Tank	AQ	04/01/04 13:50	15	1	1			Perchlorate			8270	Perchlorate		Cn	Inorganic=Cyanide by 335.2, subbed to SEM. Cr6 by 7199, subbed to CLS by client.

Comments: No security seals intact, ice frozen. Ca rush 24hr tat samples. Temp Blank #3809 @ 4'C. Hexchrome by 7199 subbed to CLS by client. Lab received two set of 2-500ml non-preseved polys for AQ samples, with no analysis requested on chain for these bottles. No : level 4 QC, per Randy. Per phone call to CLS they received AQ Fire Hyrant and SM POLY Tank samles for Cr6. They did not received soil (Pad Soil) we will ship on Monday as they don't accept Saturday shipments.

	Signature	Print Name	Company	Date/Time
Received by:	Manuela Navarrete	G. Navarrete	Alpha Analytical, Inc.	4-2-04 10:00

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

CHAIN-OF-CUSTODY RECORD

CA

Billing Information :
Battelle
505 King Avenue

Columbus, OH 43201

Client:
Battelle Memorial Institute
505 King Avenue

Columbus, OH 43201

Report Attention : Ben Headington
CC Report :

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

Ben Headington
TEL : (626) 345-0598
FAX : (626) 345-0698

Job : G486009-T9
PO : 184533
Client's COC # : 07635

WorkOrder : BMI04040220

Report Due By : 10:00 AM On : 05-Apr-04

EDD Required : **Yes**

Sampled by : Sam Serpa

Cooler Temp : 4 °C

02-Apr-04

QC Level : DS3 = DOD QC Required : Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles ORG	SUB	TAT	PWS #	FLASH_IGNIT	METALS_AQ	METALS_CR6	METALS_SO	TPH/E_W	VOC_S	VOC_W	Sample Remarks
BMI04040220-01A	Fire Hydrant	AQ	04/01/04 13:00	15	1	1			CAM_17_TT LC+ Strontium	Cr6 by 7199		TPH/E_C		8260_Cs	Inorganic=Cyanide by 335.2, subbed to SEM. Cr6 by 7199, subbed to CLS by client.
BMI04040220-02A	Pad Soil	SO	04/01/04 13:30	1	1	1		Ignitability Sub SEM		Cr6 by 7199	CAM_17_TT LC+Strontium		8260_Cs		Inorganic=Reactivity/ Corrosivity/ Ignitability and Cyanide, subbed to SEM. Hex Chromium by 7199, subbed to CLS by lab.
BMI04040220-03A	Trip Blank	AQ	04/01/04 00:00	1	0	1								8260_Cs	TB lab provided with date of 3/01/04.
BMI04040220-04A	SM POLY Tank	AQ	04/01/04 13:50	15	1	1			CAM_17_TT LC+ Strontium	Cr6 by 7199		TPH/E_C		8260_Cs	Inorganic=Cyanide by 335.2, subbed to SEM. Cr6 by 7199, subbed to CLS by client.

Comments: No security seals intact, ice frozen. Ca rush 24hr tat samples. Temp Blank #3809 @ 4'C. Hexchrome by 7199 subbed to CLS by client. Lab received two set of 2-500ml non-preseved polys for AQ samples, with no analysis requested on chain for these bottles. No : level 4 QC, per Randy. Per phone call to CLS they received AQ Fire Hyrant and SM POLY Tank samles for Cr6. They did not received soil (Pad Soil) we will ship on Monday as they don't accept Saturday shipments.

	Signature	Print Name	Company	Date/Time
Received by:	Graciela Navarrete	G. Navarrete	Alpha Analytical, Inc.	4-2-04 10:00

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information:

Name: Scott Sorpa
Address: 505 King Ave.
City, State, Zip: Columbus, OH 43201
Phone Number: 614-424-7311 Fax: 614-424-3667

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, Nevada 89431-5778
Phone (775) 355-1044
Fax (775) 355-0406

Client Name	P.O. #	Job #
Battelle	84558	G-98-001-T9
Address: 505 King Ave.	PWS #	DWR #
City, State, Zip: Columbus, OH 43201	Phone # 614-424-5989	Fax # 626-345-0613 / 614-424-3667

Sampled by: Sam Sorpa
Report Attention: B. Headington

Analyses Required: 87656 CA 24-TAT

Time Sampled	Date Sampled	Matrix* See Key Below	Office Use Only / Lab ID Number	Sample Description	Total and type of containers ** See below	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	REMARKS
13:00	4-1	AQ	8440220-01	Fire Hydrant	3-V	X								
13:00	4-1	AQ		Fire Hydrant	3-V				X					
13:00	4-1	AQ		Fire Hydrant	3-V								X	
13:00	4-1	AQ		Fire Hydrant	2-L		X							
13:00	4-1	AQ		Fire Hydrant	2-P			X						
13:00	4-1	AQ		Fire Hydrant	1-P					X				
13:00	4-1	AQ		Fire Hydrant	1-P						X			
13:00	4-1	SO	02	Red Soil	3-S	X		X	X					[illegible]
	4-1	AQ	03	Trip Blank	1-V	X								
13:50	4-1	AQ	04	SMPOLY Tank	3-V	X								
13:50	4-1	AQ		SMPOLY Tank	3-V				X					
13:50	4-1	AQ		SMPOLY Tank	3-V								X	
13:50	4-1	AQ		SMPOLY Tank	2-L		X							

ADDITIONAL INSTRUCTIONS:

* Hexchrome sent to CLS Lab.

	Signature	Print Name	Company	Date	Time
Relinquished by	[signature]	Sam L. Sorpa III	Battelle	4-1-04	15:00
Received by	[signature]	G. Bracciale	Alpha	4-2-04	10:00
Relinquished by					
Received by					
Relinquished by					
Received by					

*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.

Billing Information:

Name Gerald Tompkins
Address 505 King Ave.
City, State, Zip Columbus, OH 43201
Phone Number 614-424-4844 Fax 614-424-3667

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, Nevada 89431-5778
Phone (775) 355-1044
Fax (775) 355-0406

Page # 2 of 2

Client Name	P.O. #	Job #
Battelle	184533	G48C001-T9
Address	**PWS #**	**DWR #**
505 King Ave.		
City, State, Zip	**Phone #**	**Fax #**
Columbus, Ohio 43201	614-424-5484	614-424-3667

Sampled by Sam Seppa
Report Attention B. Heddington

Analyses Required: Cr(VI) - 6010 Spectro 3550 Chromium 7199

07659 CA 24-TAT

Time Sampled	Date Sampled	Matrix* See Key Below	Office Use Only Lab ID Number	Sample Description	Total and type of containers ** See below	Cr(VI) - 6010	Spectro 3550	Chromium 7199						REMARKS
13:50	4-1	AQ		SMPOLY Tank	2-P	X								
13:50	4-1	AQ		SMPOLY Tank	1-P		X							
13:50	4-1	AQ		SMPOLY Tank	1-P			X						

ADDITIONAL INSTRUCTIONS:

* Hexchrome Sent To CLS Lab.

	Signature	Print Name	Company	Date	Time
Relinquished by	[signature]	Sam L. Seppatti	Battelle	4-1-04	15:00
Received by	Graciela Navarrete	G. Navarrete	Alpha	4-2-04	10:00
Relinquished by					
Received by					
Relinquished by					
Received by					

*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.

CNV-151

Billing Information:

Name Gerald Tompkins
Address 505 King Ave.
City, State, Zip Columbus, OH 43201
Phone Number 614-424-6511 Fax 614-424-3667

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, Nevada 89431-5778
Phone (775) 355-1044
Fax (775) 355-0406

Page # 1 of 1

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Client Name	P.O. #	Job #
Battelle	184588	G-98-001-T1
Address: 505 King Ave.	PWS #	DWR #
City, State, Zip: Columbus, OH 43201	Phone # 614-424-5751	Fax # 626-345-0615 / 614-424-3667

Sampled by: Sam Scott
Report Attention: B. Hensington

24-TAT

Time Sampled	Date Sampled	Matrix* See Key Below	Office Use Only Lab ID Number	Sample Description	Total and type of containers ** See below	Arsenic, Total								REMARKS
1310	4-1	AQ		Fire Hydrant	1-P	X								
1350	4-1	AQ		Supply Tank	1-P	X								

ADDITIONAL INSTRUCTIONS:

	Signature	Print Name	Company	Date	Time
Relinquished by	[signature]	Sam L. Scott III	Battelle	4-1-99	1500
Received by					
Relinquished by					
Received by					
Relinquished by					
Received by					

*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.

Alpha Analytical, Inc

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date *12-Apr-04*

Ben Headington
Battelle Memorial Institute
505 King Avenue
Columbus, OH 43201
(614) 424-7358

CASE NARRATIVE

Project: G486009-T9

Work Order: BMI04040220 **Cooler Temp:** 4 °C

Alpha's Sample ID	Client's Sample ID	Matrix
04040220-01A	Fire Hydrant	Aqueous
04040220-02A	Pad Soil	Soil
04040220-03A	Trip Blank	Aqueous
04040220-04A	SM POLY Tank	Aqueous

Enclosed please find the analytical results of the samples received by Alpha Analytical, Inc. under the above mentioned Work Order/Chain-of-Custody.

Alpha Analytical, Inc. has a formal Quality Assurance/Quality Control program, which is designed to meet or exceed the EPA requirements. All relevant QC met quality assurance objectives for this project unless otherwise stated in the footnotes.

If you have any questions with regards to this report, please contact Randy Gardner, Project Manager, at (800) 283-1183.

Alpha Analytical, Inc

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle Memorial Institute
505 King Avenue
Columbus, OH 43201

Attn: Ben Headington
Phone: (626) 345-0598
Fax: (626) 345-0698
Date Received 04/02/04

Job#: G486009-T9

Total Petroleum Hydrocarbons - Extractable (TPH-E) EPA Method SW8015B/DHS LUFT Manual

		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	**Fire Hydrant**	TPH-E (Jet Fuel)	ND	0.050 mg/L	04/01/04	04/02/04
Lab ID :	BMI04040220-01A	TPH-E (Diesel)	ND	0.050 mg/L	04/01/04	04/02/04
		TPH-E (Oil)	ND	0.50 mg/L	04/01/04	04/02/04
Client ID :	**SM POLY Tank**	TPH-E (Jet Fuel)	ND	0.050 mg/L	04/01/04	04/02/04
Lab ID :	BMI04040220-04A	TPH-E (Diesel)	ND	0.050 mg/L	04/01/04	04/02/04
		TPH-E (Oil)	ND	0.50 mg/L	04/01/04	04/02/04

ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / info@alpha-analytical.com

4/5/04
Report Date

Alpha Analytical, Inc

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle Memorial Institute
505 King Avenue
Columbus, OH 43201
Job#: G486009-T9

Attn: Ben Headington
Phone: (626) 345-0598
Fax: (626) 345-0698

Alpha Analytical Number: BMI04040220-01A
Client I.D. Number: Fire Hydrant

Sampled: 04/01/04
Received: 04/02/04
Analyzed: 04/02/04

Semivolatile Organics by GC/MS
EPA Method SW8270C

	Compound	Concentration	Reporting Limit		Compound	Concentration	Reporting Limit	
1	Phenol	ND	10	µg/L	36	Hexachlorobenzene	ND	10 µg/L
2	2-Chlorophenol	ND	10	µg/L	37	Pentachlorophenol	ND	50 µg/L
3	Bis(2-chloroethyl)ether	ND	10	µg/L	38	Phenanthrene	ND	10 µg/L
4	1,3-Dichlorobenzene	ND	20	µg/L	39	Anthracene	ND	10 µg/L
5	1,4-Dichlorobenzene	ND	20	µg/L	40	Di-n-butyl phthalate	ND	50 µg/L
6	1,2-Dichlorobenzene	ND	20	µg/L	41	Fluoranthene	ND	10 µg/L
7	Bis(2-chloroisopropyl)ether	ND	10	µg/L	42	Pyrene	ND	10 µg/L
8	N-Nitrosodi-n-propylamine	ND	10	µg/L	43	Butyl benzyl phthalate	ND	20 µg/L
9	Hexachloroethane	ND	20	µg/L	44	Benzo(a)anthracene	ND	10 µg/L
10	Nitrobenzene	ND	10	µg/L	45	3,3'-Dichlorobenzidine	ND	20 µg/L
11	Isophorone	ND	10	µg/L	46	Chrysene	ND	10 µg/L
12	2-Nitrophenol	ND	10	µg/L	47	Bis(2-ethylhexyl)phthalate	ND	50 µg/L
13	2,4-Dimethylphenol	ND	10	µg/L	48	Di-n-octyl phthalate	ND	20 µg/L
14	Bis(2-chloroethoxy)methane	ND	10	µg/L	49	Benzo(b)fluoranthene	ND	10 µg/L
15	2,4-Dichlorophenol	ND	10	µg/L	50	Benzo(k)fluoranthene	ND	10 µg/L
16	1,2,4-Trichlorobenzene	ND	10	µg/L	51	Benzo(a)pyrene	ND	10 µg/L
17	Naphthalene	ND	10	µg/L	52	Indeno(1,2,3-cd)pyrene	ND	10 µg/L
18	Hexachlorobutadiene	ND	20	µg/L	53	Dibenz(a,h)anthracene	ND	10 µg/L
19	4-Chloro-3-methylphenol	ND	20	µg/L	54	Benzo(g,h,i)perylene	ND	10 µg/L
20	Hexachlorocyclopentadiene	ND	100	µg/L				
21	2,4,6-Trichlorophenol	ND	10	µg/L				
22	2-Chloronaphthalene	ND	10	µg/L				
23	Dimethyl phthalate	ND	10	µg/L				
24	Acenaphthylene	ND	10	µg/L				
25	2,6-Dinitrotoluene	ND	10	µg/L				
26	Acenaphthene	ND	10	µg/L				
27	2,4-Dinitrophenol	ND	100	µg/L				
28	4-Nitrophenol	ND	50	µg/L				
29	2,4-Dinitrotoluene	ND	10	µg/L				
30	Diethyl phthalate	ND	10	µg/L				
31	Fluorene	ND	10	µg/L				
32	4-Chlorophenyl phenyl ether	ND	10	µg/L				
33	4,6-Dinitro-2-methylphenol	ND	100	µg/L				
34	N-Nitrosodiphenylamine	ND	10	µg/L				
35	4-Bromophenyl phenyl ether	ND	10	µg/L				

ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

4/5/04
Report Date

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / info@alpha-analytical.com

Alpha Analytical, Inc

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle Memorial Institute
505 King Avenue
Columbus, OH 43201
Job#: G486009-T9

Attn: Ben Headington
Phone: (626) 345-0598
Fax: (626) 345-0698

Alpha Analytical Number: BMI04040220-04A
Client I.D. Number: SM POLY Tank

Sampled: 04/01/04
Received: 04/02/04
Analyzed: 04/02/04

Semivolatile Organics by GC/MS
EPA Method SW8270C

	Compound	Concentration	Reporting Limit			Compound	Concentration	Reporting Limit	
1	Phenol	ND	10	µg/L	36	Hexachlorobenzene	ND	10	µg/L
2	2-Chlorophenol	ND	10	µg/L	37	Pentachlorophenol	ND	50	µg/L
3	Bis(2-chloroethyl)ether	ND	10	µg/L	38	Phenanthrene	ND	10	µg/L
4	1,3-Dichlorobenzene	ND	20	µg/L	39	Anthracene	ND	10	µg/L
5	1,4-Dichlorobenzene	ND	20	µg/L	40	Di-n-butyl phthalate	ND	50	µg/L
6	1,2-Dichlorobenzene	ND	20	µg/L	41	Fluoranthene	ND	10	µg/L
7	Bis(2-chloroisopropyl)ether	ND	10	µg/L	42	Pyrene	ND	10	µg/L
8	N-Nitrosodi-n-propylamine	ND	10	µg/L	43	Butyl benzyl phthalate	ND	20	µg/L
9	Hexachloroethane	ND	20	µg/L	44	Benzo(a)anthracene	ND	10	µg/L
10	Nitrobenzene	ND	10	µg/L	45	3,3´-Dichlorobenzidine	ND	20	µg/L
11	Isophorone	ND	10	µg/L	46	Chrysene	ND	10	µg/L
12	2-Nitrophenol	ND	10	µg/L	47	Bis(2-ethylhexyl)phthalate	ND	50	µg/L
13	2,4-Dimethylphenol	ND	10	µg/L	48	Di-n-octyl phthalate	ND	20	µg/L
14	Bis(2-chloroethoxy)methane	ND	10	µg/L	49	Benzo(b)fluoranthene	ND	10	µg/L
15	2,4-Dichlorophenol	ND	10	µg/L	50	Benzo(k)fluoranthene	ND	10	µg/L
16	1,2,4-Trichlorobenzene	ND	10	µg/L	51	Benzo(a)pyrene	ND	10	µg/L
17	Naphthalene	ND	10	µg/L	52	Indeno(1,2,3-cd)pyrene	ND	10	µg/L
18	Hexachlorobutadiene	ND	20	µg/L	53	Dibenz(a,h)anthracene	ND	10	µg/L
19	4-Chloro-3-methylphenol	ND	20	µg/L	54	Benzo(g,h,i)perylene	ND	10	µg/L
20	Hexachlorocyclopentadiene	ND	100	µg/L					
21	2,4,6-Trichlorophenol	ND	10	µg/L					
22	2-Chloronaphthalene	ND	10	µg/L					
23	Dimethyl phthalate	ND	10	µg/L					
24	Acenaphthylene	ND	10	µg/L					
25	2,6-Dinitrotoluene	ND	10	µg/L					
26	Acenaphthene	ND	10	µg/L					
27	2,4-Dinitrophenol	ND	100	µg/L					
28	4-Nitrophenol	ND	50	µg/L					
29	2,4-Dinitrotoluene	ND	10	µg/L					
30	Diethyl phthalate	ND	10	µg/L					
31	Fluorene	ND	10	µg/L					
32	4-Chlorophenyl phenyl ether	ND	10	µg/L					
33	4,6-Dinitro-2-methylphenol	ND	100	µg/L					
34	N-Nitrosodiphenylamine	ND	10	µg/L					
35	4-Bromophenyl phenyl ether	ND	10	µg/L					

ND - Not Detected

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / info@alpha-analytical.com

4/5/04
Report Date

Alpha Analytical, Inc

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Battelle Memorial Institute
505 King Avenue
Columbus, OH 43201
Job#: G486009-T9

Attn: Ben Headington
Phone: (626) 345-0598
Fax: (626) 345-0698

Alpha Analytical Number: BMI04040220-01A
Client I.D. Number: Fire Hydrant

Sampled: 04/01/04
Received: 04/02/04
Analyzed: 04/02/04

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	2.0 µg/L
2	Vinyl chloride	ND	1.0 µg/L
3	Chloroethane	ND	1.0 µg/L
4	Bromomethane	ND	1.0 µg/L
5	Trichlorofluoromethane	ND	1.0 µg/L
6	1,1-Dichloroethene	ND	1.0 µg/L
7	Dichloromethane	ND	2.0 µg/L
8	trans-1,2-Dichloroethene	ND	1.0 µg/L
9	1,1-Dichloroethane	ND	1.0 µg/L
10	cis-1,2-Dichloroethene	ND	1.0 µg/L
11	Chloroform	26	1.0 µg/L
12	1,2-Dichloroethane	ND	1.0 µg/L
13	1,1,1-Trichloroethane	ND	1.0 µg/L
14	Carbon tetrachloride	ND	1.0 µg/L
15	Benzene	ND	0.50 µg/L
16	1,2-Dichloropropane	ND	1.0 µg/L
17	Trichloroethene	ND	1.0 µg/L
18	Bromodichloromethane	18	1.0 µg/L
19	cis-1,3-Dichloropropene	ND	1.0 µg/L
20	trans-1,3-Dichloropropene	ND	1.0 µg/L
21	1,1,2-Trichloroethane	ND	1.0 µg/L
22	Toluene	ND	0.50 µg/L
23	Dibromochloromethane	7.2	1.0 µg/L
24	Tetrachloroethene	ND	1.0 µg/L
25	Chlorobenzene	ND	1.0 µg/L
26	Ethylbenzene	ND	0.50 µg/L
27	m,p-Xylene	ND	0.50 µg/L
28	Bromoform	ND	1.0 µg/L
29	o-Xylene	ND	0.50 µg/L
30	1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
31	1,3-Dichlorobenzene	ND	1.0 µg/L
32	1,4-Dichlorobenzene	ND	1.0 µg/L
33	1,2-Dichlorobenzene	ND	1.0 µg/L

ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

4/5/04
Report Date

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
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Alpha Analytical, Inc

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ANALYTICAL REPORT

Battelle Memorial Institute
505 King Avenue
Columbus, OH 43201
Job#: G486009-T9

Attn: Ben Headington
Phone: (626) 345-0598
Fax: (626) 345-0698

Alpha Analytical Number: BMI04040220-02A
Client I.D. Number: Pad Soil

Sampled: 04/01/04
Received: 04/02/04
Analyzed: 04/02/04

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit		Compound	Concentration	Reporting Limit
1	Chloromethane	ND	40 µg/Kg	26	Ethylbenzene	ND	5.0 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg	27	m,p-Xylene	ND	5.0 µg/Kg
3	Chloroethane	ND	20 µg/Kg	28	Bromoform	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg	29	o-Xylene	ND	5.0 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg	30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg	31	1,3-Dichlorobenzene	ND	20 µg/Kg
7	Dichloromethane	ND	40 µg/Kg	32	1,4-Dichlorobenzene	ND	20 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg	33	1,2-Dichlorobenzene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg				
10	cis-1,2-Dichloroethene	ND	20 µg/Kg				
11	Chloroform	ND	20 µg/Kg				
12	1,2-Dichloroethane	ND	20 µg/Kg				
13	1,1,1-Trichloroethane	ND	20 µg/Kg				
14	Carbon tetrachloride	ND	20 µg/Kg				
15	Benzene	ND	5.0 µg/Kg				
16	1,2-Dichloropropane	ND	20 µg/Kg				
17	Trichloroethene	ND	20 µg/Kg				
18	Bromodichloromethane	ND	20 µg/Kg				
19	cis-1,3-Dichloropropene	ND	20 µg/Kg				
20	trans-1,3-Dichloropropene	ND	20 µg/Kg				
21	1,1,2-Trichloroethane	ND	20 µg/Kg				
22	Toluene	ND	5.0 µg/Kg				
23	Dibromochloromethane	ND	20 µg/Kg				
24	Tetrachloroethene	ND	20 µg/Kg				
25	Chlorobenzene	ND	20 µg/Kg				

ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

4/5/04
Report Date

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
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ANALYTICAL REPORT

Battelle Memorial Institute
505 King Avenue
Columbus, OH 43201
Job#: G486009-T9

Attn: Ben Headington
Phone: (626) 345-0598
Fax: (626) 345-0698

Alpha Analytical Number: BMI04040220-03A
Client I.D. Number: Trip Blank

Sampled: 04/01/04
Received: 04/02/04
Analyzed: 04/02/04

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	2.0 µg/L
2	Vinyl chloride	ND	1.0 µg/L
3	Chloroethane	ND	1.0 µg/L
4	Bromomethane	ND	1.0 µg/L
5	Trichlorofluoromethane	ND	1.0 µg/L
6	1,1-Dichloroethene	ND	1.0 µg/L
7	Dichloromethane	ND	2.0 µg/L
8	trans-1,2-Dichloroethene	ND	1.0 µg/L
9	1,1-Dichloroethane	ND	1.0 µg/L
10	cis-1,2-Dichloroethene	ND	1.0 µg/L
11	Chloroform	ND	1.0 µg/L
12	1,2-Dichloroethane	ND	1.0 µg/L
13	1,1,1-Trichloroethane	ND	1.0 µg/L
14	Carbon tetrachloride	ND	1.0 µg/L
15	Benzene	ND	0.50 µg/L
16	1,2-Dichloropropane	ND	1.0 µg/L
17	Trichloroethene	ND	1.0 µg/L
18	Bromodichloromethane	ND	1.0 µg/L
19	cis-1,3-Dichloropropene	ND	1.0 µg/L
20	trans-1,3-Dichloropropene	ND	1.0 µg/L
21	1,1,2-Trichloroethane	ND	1.0 µg/L
22	Toluene	ND	0.50 µg/L
23	Dibromochloromethane	ND	1.0 µg/L
24	Tetrachloroethene	ND	1.0 µg/L
25	Chlorobenzene	ND	1.0 µg/L
26	Ethylbenzene	ND	0.50 µg/L
27	m,p-Xylene	ND	0.50 µg/L
28	Bromoform	ND	1.0 µg/L
29	o-Xylene	ND	0.50 µg/L
30	1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
31	1,3-Dichlorobenzene	ND	1.0 µg/L
32	1,4-Dichlorobenzene	ND	1.0 µg/L
33	1,2-Dichlorobenzene	ND	1.0 µg/L

ND - Not Detected

Roger Scholl Randy Gardner Walter Hinchman

4/5/04
Report Date

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
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ANALYTICAL REPORT

Battelle Memorial Institute
505 King Avenue
Columbus, OH 43201
Job#: G486009-T9

Attn: Ben Headington
Phone: (626) 345-0598
Fax: (626) 345-0698

Alpha Analytical Number: BMI04040220-04A
Client I.D. Number: SM POLY Tank

Sampled: 04/01/04
Received: 04/02/04
Analyzed: 04/02/04

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	8.0 µg/L
2	Vinyl chloride	ND	2.0 µg/L
3	Chloroethane	ND	2.0 µg/L
4	Bromomethane	ND	2.0 µg/L
5	Trichlorofluoromethane	ND	2.0 µg/L
6	1,1-Dichloroethene	ND	2.0 µg/L
7	Dichloromethane	ND	8.0 µg/L
8	trans-1,2-Dichloroethene	ND	2.0 µg/L
9	1,1-Dichloroethane	ND	2.0 µg/L
10	cis-1,2-Dichloroethene	ND	2.0 µg/L
11	Chloroform	ND	2.0 µg/L
12	1,2-Dichloroethane	ND	2.0 µg/L
13	1,1,1-Trichloroethane	ND	2.0 µg/L
14	Carbon tetrachloride	ND	2.0 µg/L
15	Benzene	ND	1.0 µg/L
16	1,2-Dichloropropane	ND	2.0 µg/L
17	Trichloroethene	ND	2.0 µg/L
18	Bromodichloromethane	ND	2.0 µg/L
19	cis-1,3-Dichloropropene	ND	2.0 µg/L
20	trans-1,3-Dichloropropene	ND	2.0 µg/L
21	1,1,2-Trichloroethane	ND	2.0 µg/L
22	Toluene	ND	1.0 µg/L
23	Dibromochloromethane	ND	2.0 µg/L
24	Tetrachloroethene	ND	2.0 µg/L
25	Chlorobenzene	ND	2.0 µg/L
26	Ethylbenzene	ND	1.0 µg/L
27	m,p-Xylene	ND	1.0 µg/L
28	Bromoform	ND	2.0 µg/L
29	o-Xylene	ND	1.0 µg/L
30	1,1,2,2-Tetrachloroethane	ND	2.0 µg/L
31	1,3-Dichlorobenzene	ND	2.0 µg/L
32	1,4-Dichlorobenzene	ND	2.0 µg/L
33	1,2-Dichlorobenzene	ND	2.0 µg/L

Reporting Limits were increased due to sample foaming.

ND - Not Detected

Roger Scholl Randy Gardner Walter Hinchman

4/5/04
Report Date

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
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VOC pH Report

Work Order BMI04040220 **Project:** G486009-T9

Alpha's Sample ID	Client's Sample ID	Matrix	pH
04040220-01A	Fire Hydrant	Aqueous	2
04040220-03A	Trip Blank	Aqueous	
04040220-04A	SM POLY Tank	Aqueous	2

4/5/04

Report Date

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ANALYTICAL REPORT

Battelle Memorial Institute
505 King Avenue
Columbus, OH 43201
Job#: G486009-T9

Attn: Ben Headington
Phone: (626) 345-0598
Fax: (626) 345-0698

Alpha Analytical Number: BMI04040220-02A
Client I.D. Number: Pad Soil

Sampled: 04/01/04
Received: 04/02/04
Analyzed: 04/03/04

Organochlorine Pesticides
EPA Method SW8081A

	Compound	Concentration	Reporting Limit
1	alpha-BHC	ND	1.7 µg/Kg
2	gamma-BHC (Lindane)	ND	1.7 µg/Kg
3	Heptachlor	ND	1.7 µg/Kg
4	Aldrin	ND	1.7 µg/Kg
5	beta-BHC	ND	1.7 µg/Kg
6	delta-BHC	ND	1.7 µg/Kg
7	Heptachlor epoxide	ND	1.7 µg/Kg
8	Endosulfan I	ND	1.7 µg/Kg
9	Chlordane (Technical)	ND	33 µg/Kg
10	4,4'-DDE	ND	3.3 µg/Kg
11	Dieldrin	ND	3.3 µg/Kg
12	Endrin	ND	3.3 µg/Kg
13	4,4'-DDD	ND	3.3 µg/Kg
14	Endosulfan II	ND	3.3 µg/Kg
15	4,4'-DDT	ND	3.3 µg/Kg
16	Endrin aldehyde	ND	6.6 µg/Kg
17	Methoxychlor	ND	17 µg/Kg
18	Endosulfan sulfate	ND	3.3 µg/Kg
19	Endrin ketone	ND	6.6 µg/Kg
20	Toxaphene	ND	170 µg/Kg

ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

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4/5/04
Report Date

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ANALYTICAL REPORT

Battelle Memorial Institute
505 King Avenue
Columbus, OH 43201
Job#: G486009-T9

Attn: Ben Headington
Phone: (626) 345-0598
Fax: (626) 345-0698

Alpha Analytical Number: BMI04040220-02A
Client I.D. Number: Pad Soil

Sampled: 04/01/04
Received: 04/02/04
Analyzed: 04/03/04

Polychlorinated Biphenyls (PCBs)
EPA Method SW8082

	Compound	Concentration	Reporting Limit
1	Aroclor 1016	ND	33 µg/Kg
2	Aroclor 1221	ND	33 µg/Kg
3	Aroclor 1232	ND	33 µg/Kg
4	Aroclor 1242	ND	33 µg/Kg
5	Aroclor 1248	ND	33 µg/Kg
6	Aroclor 1254	ND	33 µg/Kg
7	Aroclor 1260	ND	33 µg/Kg

ND - Not Detected

Roger Scholl Randy Gardner Walter Hinchman

4/5/04
Report Date

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
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ANALYTICAL REPORT

Battelle Memorial Institute
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Attn: Ben Headington
Phone: (626) 345-0598
Fax: (626) 345-0698
Date Received 04/02/04

Job#: G486009-T9

Conductivity (Specific Conductance at 25°C)
EPA Method 120.1 / SM2510B /SW9050A

		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	**Fire Hydrant**					
Lab ID :	BMI04040220-01A	Conductivity	680	10 µS/cm	04/01/04	04/02/04
Client ID :	**SM POLY Tank**					
Lab ID :	BMI04040220-04A	Conductivity	750	10 µS/cm	04/01/04	04/02/04

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4/5/04
Report Date

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ANALYTICAL REPORT

Battelle Memorial Institute
505 King Avenue
Columbus, OH 43201

Attn: Ben Headington
Phone: (626) 345-0598
Fax: (626) 345-0698
Date Received 04/02/04

Job#: G486009-T9

Perchlorate by Ion Chromatography
EPA Method 314.0

		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	**Fire Hydrant**					
Lab ID :	BMI04040220-01A	Perchlorate	ND	2.0 µg/L	04/01/04	04/02/04
Client ID :	**Pad Soil**					
Lab ID :	BMI04040220-02A	Perchlorate	ND	20 µg/Kg	04/01/04	04/02/04
Client ID :	**SM POLY Tank**					
Lab ID :	BMI04040220-04A	Perchlorate	36	2.0 µg/L	04/01/04	04/02/04

ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

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4/5/04
Report Date

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ANALYTICAL REPORT

Battelle Memorial Institute
505 King Avenue
Columbus, OH 43201

Attn: Ben Headington
Phone: (626) 345-0598
Fax: (626) 345-0698
Date Received 04/02/04

Job#: G486009-T9

Metals by ICPMS
EPA Method SW6020

		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	**Fire Hydrant**					
Lab ID :	BMI04040220-01A	Beryllium	ND	0.0050 mg/L	04/01/04	04/02/04
		Vanadium	ND	0.0050 mg/L	04/01/04	04/02/04
		Chromium	ND	0.0050 mg/L	04/01/04	04/02/04
		Cobalt	ND	0.0050 mg/L	04/01/04	04/02/04
		Nickel	ND	0.0050 mg/L	04/01/04	04/02/04
		Copper	0.016	0.010 mg/L	04/01/04	04/02/04
		Zinc	ND	0.10 mg/L	04/01/04	04/02/04
		Arsenic	ND	0.0050 mg/L	04/01/04	04/02/04
		Selenium	ND	0.020 mg/L	04/01/04	04/02/04
		Molybdenum	0.0052	0.0050 mg/L	04/01/04	04/02/04
		Strontium	0.53	0.050 mg/L	04/01/04	04/02/04
		Silver	ND	0.0050 mg/L	04/01/04	04/02/04
		Cadmium	ND	0.0050 mg/L	04/01/04	04/02/04
		Antimony	ND	0.010 mg/L	04/01/04	04/02/04
		Barium	0.065	0.0050 mg/L	04/01/04	04/02/04
		Mercury	ND	0.0010 mg/L	04/01/04	04/02/04
		Thallium	ND	0.0050 mg/L	04/01/04	04/02/04
		Lead	ND	0.0050 mg/L	04/01/04	04/02/04
Client ID :	**Pad Soil**					
Lab ID :	BMI04040220-02A	Beryllium	ND	1.0 mg/Kg	04/01/04	04/02/04
		Vanadium	40	4.0 mg/Kg	04/01/04	04/02/04
		Chromium	28	1.0 mg/Kg	04/01/04	04/02/04
		Cobalt	5.2	1.0 mg/Kg	04/01/04	04/02/04
		Nickel	5.3	1.0 mg/Kg	04/01/04	04/02/04
		Copper	11	2.0 mg/Kg	04/01/04	04/02/04
		Zinc	45	20 mg/Kg	04/01/04	04/02/04
		Arsenic	2.3	1.0 mg/Kg	04/01/04	04/02/04
		Selenium	ND	4.0 mg/Kg	04/01/04	04/02/04
		Molybdenum	ND	1.0 mg/Kg	04/01/04	04/02/04
		Strontium	31	10 mg/Kg	04/01/04	04/02/04
		Silver	ND	1.0 mg/Kg	04/01/04	04/02/04
		Cadmium	ND	1.0 mg/Kg	04/01/04	04/02/04
		Antimony	ND	2.0 mg/Kg	04/01/04	04/02/04
		Barium	87	1.0 mg/Kg	04/01/04	04/02/04
		Mercury	ND	0.20 mg/Kg	04/01/04	04/02/04
		Thallium	ND	1.0 mg/Kg	04/01/04	04/02/04
		Lead	3.6	1.0 mg/Kg	04/01/04	04/02/04

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Client ID : **SM POLY Tank**

Lab ID : BMI04040220-04A

Beryllium	ND	0.0050 mg/L	04/01/04	04/02/04
Vanadium	ND	0.0050 mg/L	04/01/04	04/02/04
Chromium	ND	0.0050 mg/L	04/01/04	04/02/04
Cobalt	ND	0.0050 mg/L	04/01/04	04/02/04
Nickel	0.0064	0.0050 mg/L	04/01/04	04/02/04
Copper	0.019	0.010 mg/L	04/01/04	04/02/04
Zinc	ND	0.10 mg/L	04/01/04	04/02/04
Arsenic	ND	0.0050 mg/L	04/01/04	04/02/04
Selenium	ND	0.020 mg/L	04/01/04	04/02/04
Molybdenum	ND	0.0050 mg/L	04/01/04	04/02/04
Strontium	0.18	0.050 mg/L	04/01/04	04/02/04
Silver	ND	0.0050 mg/L	04/01/04	04/02/04
Cadmium	ND	0.0050 mg/L	04/01/04	04/02/04
Antimony	ND	0.010 mg/L	04/01/04	04/02/04
Barium	0.015	0.0050 mg/L	04/01/04	04/02/04
Mercury	ND	0.0010 mg/L	04/01/04	04/02/04
Thallium	ND	0.0050 mg/L	04/01/04	04/02/04
Lead	0.011	0.0050 mg/L	04/01/04	04/02/04

ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

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4/5/04

Report Date

Alpha Analytical, Inc

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Date: *12-Apr-04*

QC Summary Report

Work Order: 04040220

Method Blank

Type **MBLK** Test Code: **EPA Method 314.0**

File ID: **10** Batch ID: **9681** Analysis Date: **04/02/2004 00:00**

Sample ID: **MBLK-9681** Units : **µg/L** Run ID: **IC_2_040402A** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	ND	2								

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method 314.0**

File ID: **11** Batch ID: **9681** Analysis Date: **04/02/2004 00:00**

Sample ID: **LCS-9681** Units : **µg/L** Run ID: **IC_2_040402A** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	25	2	25		99.9	85	115			

Sample Matrix Spike

Type **MS** Test Code: **EPA Method 314.0**

File ID: **14** Batch ID: **9681** Analysis Date: **04/02/2004 00:00**

Sample ID: **04040220-01AMS** Units : **µg/L** Run ID: **IC_2_040402A** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	27.2	2	25	0	109	80	120			

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method 314.0**

File ID: **15** Batch ID: **9681** Analysis Date: **04/02/2004 00:00**

Sample ID: **04040220-01AMSD** Units : **µg/L** Run ID: **IC_2_040402A** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	26.2	2	25	0	105	80	120	27.18	3.9(40)	

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Alpha Analytical, Inc

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *12-Apr-04*

QC Summary Report

Work Order: 04040220

Method Blank

Type **MBLK** Test Code: **EPA Method 314.0**
File ID: **19** Batch ID: **9677** Analysis Date: **04/02/2004 00:00**
Sample ID: **MBLK-9677** Units : **µg/Kg** Run ID: **IC_2_040402A** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	ND	20								

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method 314.0**
File ID: **20** Batch ID: **9677** Analysis Date: **04/02/2004 00:00**
Sample ID: **LCS-9677** Units : **µg/Kg** Run ID: **IC_2_040402A** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	241	20	250		96	85	115			

Sample Matrix Spike

Type **MS** Test Code: **EPA Method 314.0**
File ID: **23** Batch ID: **9677** Analysis Date: **04/02/2004 00:00**
Sample ID: **04040220-02AMS** Units : **µg/Kg** Run ID: **IC_2_040402A** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	227	20	250	0	91	80	120			

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method 314.0**
File ID: **24** Batch ID: **9677** Analysis Date: **04/02/2004 00:00**
Sample ID: **04040220-02AMSD** Units : **µg/Kg** Run ID: **IC_2_040402A** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	232	20	250	0	93	80	120	226.6	2.4(40)	

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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QC Summary Report

Work Order: 04040220

Method Blank

Type **MBLK** Test Code: **EPA Method 120.1 / SM2510B /SW9050A**

File ID: Batch ID: **W040402CON** Analysis Date: **04/02/2004 00:00**

Sample ID: **MBLK_W040402CON** Units : **µS/cm** Run ID: **WETLAB_040402A** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Conductivity	ND	10								

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method 120.1 / SM2510B /SW9050A**

File ID: Batch ID: **W040402CON** Analysis Date: **04/02/2004 00:00**

Sample ID: **LCS_W040402CON** Units : **µS/cm** Run ID: **WETLAB_040402A** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Conductivity	1430	10	1410		102	98	102			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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QC Summary Report

Work Order: 04040220

Method Blank

Type **MBLK** Test Code: **EPA Method SW6020**

File ID: **040204.B\020A_ICB.D** Batch ID: **9674** Analysis Date: **04/02/2004 14:49**

Sample ID: **MB-9674** Units : **mg/L** Run ID: **ICP/MS_040402A** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Beryllium	ND	0.004								
Vanadium	ND	0.003								
Chromium	ND	0.005								
Cobalt	ND	0.005								
Nickel	ND	0.005								
Copper	ND	0.01								
Zinc	ND	0.1								
Arsenic	ND	0.005								
Selenium	ND	0.02								
Molybdenum	ND	0.005								
Strontium	ND	0.05								
Silver	ND	0.005								
Cadmium	ND	0.005								
Antimony	ND	0.01								
Barium	ND	0.005								
Mercury	ND	0.001								
Thallium	ND	0.002								
Lead	ND	0.005								

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW6020**

File ID: **040204.B\021A_LCS.D** Batch ID: **9674** Analysis Date: **04/02/2004 14:53**

Sample ID: **LCS-9674** Units : **mg/L** Run ID: **ICP/MS_040402A** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Beryllium	0.246	0.004	0.25		98	85	115			
Vanadium	0.244	0.003	0.25		98	85	115			
Chromium	0.244	0.005	0.25		98	85	115			
Cobalt	0.252	0.005	0.25		101	85	115			
Nickel	0.251	0.005	0.25		100	85	115			
Copper	0.252	0.01	0.25		101	85	115			
Zinc	0.251	0.1	0.25		101	85	115			
Arsenic	0.251	0.005	0.25		101	85	115			
Selenium	0.252	0.02	0.25		101	85	115			
Molybdenum	0.246	0.005	0.25		98	85	115			
Strontium	4.93	0.05	5		99	85	115			
Silver	0.237	0.005	0.25		95	85	115			
Cadmium	0.247	0.005	0.25		99	85	115			
Antimony	0.258	0.01	0.25		103	85	115			
Barium	2.59	0.005	2.5		103	85	115			
Mercury	0.00489	0.001	0.005		98	85	115			
Thallium	0.234	0.002	0.25		94	85	115			
Lead	0.245	0.005	0.25		98	85	115			

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Date: *12-Apr-04*

QC Summary Report

Work Order: 04040220

Method Blank

Type **MBLK** Test Code: **EPA Method SW6020**

File ID: **040204.B\039A_ICB.D** Batch ID: **9669** Analysis Date: **04/02/2004 16:09**

Sample ID: **MB-9669** Units : **mg/Kg** Run ID: **ICP/MS_040402B** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Beryllium	ND	1								
Vanadium	ND	4								
Chromium	ND	1								
Cobalt	ND	1								
Nickel	ND	1								
Copper	ND	2								
Zinc	ND	20								
Arsenic	ND	1								
Selenium	ND	4								
Molybdenum	ND	1								
Strontium	ND	10								
Silver	ND	1								
Cadmium	ND	1								
Antimony	ND	2								
Barium	ND	1								
Mercury	ND	0.2								
Thallium	ND	1								
Lead	ND	1								

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW6020**

File ID: **040204.B\041A_LCS.D** Batch ID: **9669** Analysis Date: **04/02/2004 16:18**

Sample ID: **LCS-9669** Units : **mg/Kg** Run ID: **ICP/MS_040402B** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Beryllium	22.3	1	25		89	85	115			
Vanadium	22.4	4	25		90	85	115			
Chromium	22.4	1	25		89	85	115			
Cobalt	23	1	25		92	85	115			
Nickel	22.9	1	25		92	85	115			
Copper	22.9	2	25		91	85	115			
Zinc	22.7	20	25		91	85	115			
Arsenic	22.6	1	25		90	85	115			
Selenium	22.5	4	25		90	85	115			
Molybdenum	22.2	1	25		89	85	115			
Strontium	450	10	500		90	85	115			
Silver	21.9	1	25		88	85	115			
Cadmium	22.8	1	25		91	85	115			
Antimony	22.9	2	25		92	85	115			
Barium	241	1	250		96	85	115			
Mercury	0.542	0.2	0.5		108	85	115			
Thallium	22.5	1	25		90	85	115			
Lead	23.3	1	25		93	85	115			

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Date: *12-Apr-04*

QC Summary Report

Work Order: 04040220

Sample Matrix Spike

Type **MS** Test Code: **EPA Method SW6020**

File ID: **040204.B\043ASMPL.D** Batch ID: **9669** Analysis Date: **04/02/2004 16:26**

Sample ID: **04040120-01AMS** Units : **mg/Kg** Run ID: **ICP/MS_040402B** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Beryllium	24.3	1	25	0	97	70	130			
Vanadium	52	4	25	26	104	70	130			
Chromium	33.1	1	25	8.588	98	70	130			
Cobalt	28.4	1	25	3.106	101	70	130			
Nickel	29.6	1	25	4.9	99	70	130			
Copper	38.3	2	25	11.6	107	70	130			
Zinc	44.8	20	25	20.13	99	70	130			
Arsenic	25.9	1	25	1.222	99	70	130			
Selenium	24.5	4	25	0	98	70	130			
Molybdenum	24.4	1	25	0	98	70	130			
Strontium	515	10	500	25.59	98	70	130			
Silver	23.9	1	25	0	96	70	130			
Cadmium	24.8	1	25	0	99	70	130			
Antimony	25.1	2	25	0	101	70	130			
Barium	311	1	250	50.86	104	70	130			
Mercury	0.561	0.2	0.5	0	112	70	130			
Thallium	24.3	1	25	0	97	70	130			
Lead	29.5	1	25	4.561	99.7	70	130			

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method SW6020**

File ID: **040204.B\044ASMPL.D** Batch ID: **9669** Analysis Date: **04/02/2004 16:30**

Sample ID: **04040120-01AMSD** Units : **mg/Kg** Run ID: **ICP/MS_040402B** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Beryllium	21.5	1	25	0	86	70	130	24.3	12.2(20)	
Vanadium	44.8	4	25	26	75	70	130	51.95	14.9(20)	
Chromium	28.5	1	25	8.588	80	70	130	33.05	14.8(20)	
Cobalt	24.8	1	25	3.106	87	70	130	28.37	13.3(20)	
Nickel	26.4	1	25	4.9	86	70	130	29.64	11.6(20)	
Copper	32.6	2	25	11.6	84	70	130	38.32	16.3(20)	
Zinc	40	20	25	20.13	80	70	130	44.84	11.3(20)	
Arsenic	23.2	1	25	1.222	88	70	130	25.86	11.1(20)	
Selenium	21.9	4	25	0	87	70	130	24.54	11.5(20)	
Molybdenum	21.7	1	25	0	87	70	130	24.42	11.7(20)	
Strontium	462	10	500	25.59	87	70	130	515.2	10.9(20)	
Silver	21.4	1	25	0	86	70	130	23.88	10.9(20)	
Cadmium	22.2	1	25	0	89	70	130	24.77	11.1(20)	
Antimony	22.2	2	25	0	89	70	130	25.14	12.2(20)	
Barium	271	1	250	50.86	88	70	130	311	13.8(20)	
Mercury	0.49	0.2	0.5	0	98	70	130	0.5611	13.6(20)	
Thallium	21.8	1	25	0	87	70	130	24.28	10.9(20)	
Lead	26.4	1	25	4.561	87	70	130	29.49	10.9(20)	

Comments:

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Date: *12-Apr-04*

QC Summary Report

Work Order: 04040220

Method Blank

Type **MBLK** Test Code: **EPA Method SW8015**
File ID: Batch ID: **9679** Analysis Date: **04/02/2004 16:55**
Sample ID: **MBLK_9679** Units : **mg/L** Run ID: **GC/FID_4_040402A** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
TPH-E (Jet Fuel)	ND	0.05								
TPH-E (Diesel)	ND	0.05								
TPH-E (Oil)	ND	0.5								
Surr: Nonane	85		100		85	40	155			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8015**
File ID: Batch ID: **9679** Analysis Date: **04/02/2004 18:02**
Sample ID: **LCS_9679** Units : **mg/L** Run ID: **GC/FID_4_040402A** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
TPH-E (Diesel)	2.61	0.5	2.5		104	57	135			
Surr: Nonane	88.3		100		88	40	135			

Sample Matrix Spike

Type **MS** Test Code: **EPA Method SW8015**
File ID: Batch ID: **9679** Analysis Date: **04/02/2004 21:21**
Sample ID: **04040241-03AMS** Units : **mg/L** Run ID: **GC/FID_4_040402A** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
TPH-E (Diesel)	4.8	0.5	2.5	3.161	65	57	162			
Surr: Nonane	91.9		100		92	40	155			

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method SW8015**
File ID: Batch ID: **9679** Analysis Date: **04/02/2004 21:55**
Sample ID: **04040241-03AMSD** Units : **mg/L** Run ID: **GC/FID_4_040402A** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
TPH-E (Diesel)	5.09	0.5	2.5	3.161	77	57	162	4.797	5.8(60)	
Surr: Nonane	94.7		100		95	40	155			

Comments:

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Date: *12-Apr-04*

QC Summary Report

Work Order: 04040220

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS07\DATA\040402\04040216.D** Batch ID: **MS07S9676A** Analysis Date: **04/02/2004 13:31**

Sample ID: **MBLK MS07S9676A** Units : **µg/Kg** Run ID: **GC/MSD_7_040402A** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Chloromethane	ND	40								
Vinyl chloride	ND	20								
Chloroethane	ND	20								
Bromomethane	ND	20								
Trichlorofluoromethane	ND	20								
1,1-Dichloroethene	ND	20								
Dichloromethane	ND	40								
trans-1,2-Dichloroethene	ND	20								
1,1-Dichloroethane	ND	20								
cis-1,2-Dichloroethene	ND	20								
Chloroform	ND	20								
1,2-Dichloroethane	ND	20								
1,1,1-Trichloroethane	ND	20								
Carbon tetrachloride	ND	20								
Benzene	ND	5								
1,2-Dichloropropane	ND	20								
Trichloroethene	ND	20								
Bromodichloromethane	ND	20								
cis-1,3-Dichloropropene	ND	20								
trans-1,3-Dichloropropene	ND	20								
1,1,2-Trichloroethane	ND	20								
Toluene	ND	5								
Dibromochloromethane	ND	20								
Tetrachloroethene	ND	20								
Chlorobenzene	ND	20								
Ethylbenzene	ND	5								
m,p-Xylene	ND	5								
Bromoform	ND	20								
o-Xylene	ND	5								
1,1,2,2-Tetrachloroethane	ND	20								
1,3-Dichlorobenzene	ND	20								
1,4-Dichlorobenzene	ND	20								
1,2-Dichlorobenzene	ND	20								
Surr: 1,2-Dichloroethane-d4	165		200		82	70	120			
Surr: Toluene-d8	193		200		97	79	124			
Surr: 4-Bromofluorobenzene	197		200		98	75	122			

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QC Summary Report

Work Order: 04040220

Laboratory Control Spike Type **LCS** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS07\DATA\040402\04040221.D** Batch ID: **MS07S9676A** Analysis Date: **04/02/2004 15:21**

Sample ID: **LCS MS07S9676A** Units : **µg/Kg** Run ID: **GC/MSD_7_040402A** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Chloromethane	168	40	200		84	33	141			
Vinyl chloride	170	20	200		85	28	154			
Chloroethane	95.8	20	200		48	0	118			
Bromomethane	124	20	200		62	0	123			
Trichlorofluoromethane	135	20	200		67	0	149			
1,1-Dichloroethene	135	20	200		67	0	147			
Dichloromethane	149	40	200		74	50	141			
trans-1,2-Dichloroethene	188	20	200		94	57	144			
1,1-Dichloroethane	201	20	200		101	53	143			
cis-1,2-Dichloroethene	195	20	200		97	61	144			
Chloroform	193	20	200		96	53	141			
1,2-Dichloroethane	208	20	200		104	50	136			
1,1,1-Trichloroethane	200	20	200		100	40	143			
Carbon tetrachloride	196	20	200		98	28	149			
Benzene	259	5	200		129	60	142			
1,2-Dichloropropane	202	20	200		101	53	140			
Trichloroethene	199	20	200		99.7	60	142			
Bromodichloromethane	187	20	200		93	43	139			
cis-1,3-Dichloropropene	159	20	200		80	50	149			
trans-1,3-Dichloropropene	165	20	200		82	49	151			
1,1,2-Trichloroethane	200	20	200		99.8	50	148			
Toluene	199	5	200		99.7	58	143			
Dibromochloromethane	176	20	200		88	34	141			
Tetrachloroethene	198	20	200		99	60	146			
Chlorobenzene	190	20	200		95	57	144			
Ethylbenzene	201	5	200		100	58	147			
m,p-Xylene	187	5	200		94	57	147			
Bromoform	181	20	200		90	9	140			
o-Xylene	214	5	200		107	58	149			
1,1,2,2-Tetrachloroethane	190	20	200		95	39	148			
1,3-Dichlorobenzene	181	20	200		90	58	145			
1,4-Dichlorobenzene	187	20	200		94	56	144			
1,2-Dichlorobenzene	175	20	200		88	51	137			
Surr: 1,2-Dichloroethane-d4	247		200		124	70	120			+
Surr: Toluene-d8	187		200		93	79	124			
Surr: 4-Bromofluorobenzene	181		200		90	75	122			

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QC Summary Report

Work Order: 04040220

Sample Matrix Spike Type **MS** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS07\DATA\040402\04040222.D** Batch ID: **MS07S9676A** Analysis Date: **04/02/2004 15:43**

Sample ID: **04040220-02AMS** Units : **µg/Kg** Run ID: **GC/MSD_7_040402A** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Chloromethane	147	40	200	0	73	2	141			
Vinyl chloride	137	20	200	0	69	0	300			
Chloroethane	75.3	20	200	0	38	0	130			
Bromomethane	129	20	200	0	64	0	133			
Trichlorofluoromethane	86.7	20	200	0	43	0	149			
1,1-Dichloroethene	148	20	200	0	74	0	177			
Dichloromethane	179	40	200	0	90	27	143			
trans-1,2-Dichloroethene	208	20	200	0	104	0	237			
1,1-Dichloroethane	214	20	200	0	107	28	148			
cis-1,2-Dichloroethene	220	20	200	0	110	0	279			
Chloroform	204	20	200	0	102	28	150			
1,2-Dichloroethane	221	20	200	0	110	26	142			
1,1,1-Trichloroethane	209	20	200	0	104	20	147			
Carbon tetrachloride	207	20	200	0	103	9	151			
Benzene	280	5	200	0	140	31	152			
1,2-Dichloropropane	232	20	200	0	116	28	149			
Trichloroethene	292	20	200	0	146	33	154			
Bromodichloromethane	233	20	200	0	116	21	147			
cis-1,3-Dichloropropene	208	20	200	0	104	25	161			
trans-1,3-Dichloropropene	188	20	200	0	94	23	164			
1,1,2-Trichloroethane	252	20	200	0	126	18	168			
Toluene	292	5	200	0	146	11	182			
Dibromochloromethane	250	20	200	0	125	16	146			
Tetrachloroethene	328	20	200	0	164	27	165			
Chlorobenzene	270	20	200	0	135	32	157			
Ethylbenzene	284	5	200	0	142	30	161			
m,p-Xylene	280	5	200	0	140	0	199			
Bromoform	229	20	200	0	114	0	141			
o-Xylene	304	5	200	0	152	0	208			
1,1,2,2-Tetrachloroethane	250	20	200	0	125	29	156			
1,3-Dichlorobenzene	276	20	200	0	138	33	157			
1,4-Dichlorobenzene	287	20	200	0	143	31	156			
1,2-Dichlorobenzene	253	20	200	0	127	31	148			
Surr: 1,2-Dichloroethane-d4	174		200		87	70	120			
Surr: Toluene-d8	201		200		100	79	124			
Surr: 4-Bromofluorobenzene	187		200		94	75	122			

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Date: *12-Apr-04*

QC Summary Report

Work Order: 04040220

Sample Matrix Spike Duplicate Type **MSD** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS07\DATA\040402\04040223.D** Batch ID: **MS07S9676A** Analysis Date: **04/02/2004 16:05**

Sample ID: **04040220-02AMSD** Units : **µg/Kg** Run ID: **GC/MSD_7_040402A** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Chloromethane	107	40	200	0	53	2	141	146.7	31.5(45)	
Vinyl chloride	111	20	200	0	55	0	300	137.4	21.6(45)	
Chloroethane	71.3	20	200	0	36	0	130	75.29	5.5(40)	
Bromomethane	110	20	200	0	55	0	133	128.6	15.9(43)	
Trichlorofluoromethane	87.1	20	200	0	44	0	149	86.68	0.5(38)	
1,1-Dichloroethene	142	20	200	0	71	0	177	148	4.1(46)	
Dichloromethane	175	40	200	0	87	27	143	179.1	2.4(33)	
trans-1,2-Dichloroethene	194	20	200	0	97	0	237	208.5	7.4(35)	
1,1-Dichloroethane	193	20	200	0	96	28	148	213.9	10.4(29)	
cis-1,2-Dichloroethene	189	20	200	0	94	0	279	219.8	15.2(35)	
Chloroform	176	20	200	0	88	28	150	203.9	14.5(29)	
1,2-Dichloroethane	182	20	200	0	91	26	142	220.8	19.1(32)	
1,1,1-Trichloroethane	187	20	200	0	94	20	147	208.9	11.1(32)	
Carbon tetrachloride	182	20	200	0	91	9	151	206.8	12.9(31)	
Benzene	240	5	200	0	120	31	152	279.6	15.5(29)	
1,2-Dichloropropane	199	20	200	0	99	28	149	232.4	15.7(31)	
Trichloroethene	249	20	200	0	125	33	154	292.1	15.9(31)	
Bromodichloromethane	187	20	200	0	94	21	147	233	21.8(33)	
cis-1,3-Dichloropropene	169	20	200	0	84	25	161	208	20.9(32)	
trans-1,3-Dichloropropene	149	20	200	0	75	23	164	188.3	23.3(33)	
1,1,2-Trichloroethane	203	20	200	0	101	18	168	252.1	21.6(69)	
Toluene	248	5	200	0	124	11	182	292	16.2(44)	
Dibromochloromethane	198	20	200	0	99	16	146	250	23.3(35)	
Tetrachloroethene	280	20	200	0	140	27	165	327.7	15.7(30)	
Chlorobenzene	234	20	200	0	117	32	157	270.3	14.5(29)	
Ethylbenzene	252	5	200	0	126	30	161	283.7	11.7(29)	
m,p-Xylene	246	5	200	0	123	0	199	279.5	12.7(30)	
Bromoform	179	20	200	0	90	0	141	228.8	24.4(35)	
o-Xylene	266	5	200	0	133	0	208	303.5	13.3(30)	
1,1,2,2-Tetrachloroethane	217	20	200	0	109	29	156	249.7	13.9(27)	
1,3-Dichlorobenzene	235	20	200	0	117	33	157	276.2	16.3(29)	
1,4-Dichlorobenzene	242	20	200	0	121	31	156	286.5	16.8(30)	
1,2-Dichlorobenzene	223	20	200	0	112	31	148	253.1	12.6(28)	
Surr: 1,2-Dichloroethane-d4	166		200		83	70	120			
Surr: Toluene-d8	199		200		99	79	124			
Surr: 4-Bromofluorobenzene	167		200		83	75	122			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

+Surrogate recovery was above laboratory acceptance limits.

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Date: *12-Apr-04*

QC Summary Report

Work Order: 04040220

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS07\DATA\040402\04040209.D** Batch ID: **MS07W0402A** Analysis Date: **04/02/2004 10:55**

Sample ID: **MBLK MS07W0402A** Units : **µg/L** Run ID: **GC/MSD_7_040402B** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Chloromethane	ND	2								
Vinyl chloride	ND	1								
Chloroethane	ND	1								
Bromomethane	ND	1								
Trichlorofluoromethane	ND	1								
1,1-Dichloroethene	ND	1								
Dichloromethane	ND	2								
trans-1,2-Dichloroethene	ND	1								
1,1-Dichloroethane	ND	1								
cis-1,2-Dichloroethene	ND	1								
Chloroform	ND	1								
1,2-Dichloroethane	ND	1								
1,1,1-Trichloroethane	ND	1								
Carbon tetrachloride	ND	1								
Benzene	ND	0.5								
1,2-Dichloropropane	ND	1								
Trichloroethene	ND	1								
Bromodichloromethane	ND	1								
cis-1,3-Dichloropropene	ND	1								
trans-1,3-Dichloropropene	ND	1								
1,1,2-Trichloroethane	ND	1								
Toluene	ND	0.5								
Dibromochloromethane	ND	1								
Tetrachloroethene	ND	1								
Chlorobenzene	ND	1								
Ethylbenzene	ND	0.5								
m,p-Xylene	ND	0.5								
Bromoform	ND	1								
o-Xylene	ND	0.5								
1,1,2,2-Tetrachloroethane	ND	1								
1,3-Dichlorobenzene	ND	1								
1,4-Dichlorobenzene	ND	1								
1,2-Dichlorobenzene	ND	1								
Surr: 1,2-Dichloroethane-d4	9.39		10		94	72	126			
Surr: Toluene-d8	9.57		10		96	71	128			
Surr: 4-Bromofluorobenzene	10.5		10		105	76	121			

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Date: *12-Apr-04*

QC Summary Report

Work Order: 04040220

Laboratory Control Spike Type **LCS** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS07\DATA\040402\04040208.D** Batch ID: **MS07W0402A** Analysis Date: **04/02/2004 10:32**

Sample ID: **LCS MS07W0402A** Units : **µg/L** Run ID: **GC/MSD_7_040402B** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Chloromethane	8.9	2	10		89	49	130			
Vinyl chloride	9.56	1	10		96	80	120			
Chloroethane	10.7	1	10		107	55	145			
Bromomethane	7.26	1	10		73	7	169			
Trichlorofluoromethane	9.48	1	10		95	62	143			
1,1-Dichloroethene	11.4	1	10		114	80	120			
Dichloromethane	11.5	2	10		115	69	123			
trans-1,2-Dichloroethene	11.1	1	10		111	74	124			
1,1-Dichloroethane	11.2	1	10		112	77	121			
cis-1,2-Dichloroethene	10.9	1	10		109	81	132			
Chloroform	10.6	1	10		106	80	120			
1,2-Dichloroethane	10.7	1	10		107	68	126			
1,1,1-Trichloroethane	10.8	1	10		108	75	132			
Carbon tetrachloride	11	1	10		110	68	144			
Benzene	11.8	0.5	10		118	83	119			
1,2-Dichloropropane	10.8	1	10		108	80	120			
Trichloroethene	10.3	1	10		103	76	127			
Bromodichloromethane	10.1	1	10		101	78	128			
cis-1,3-Dichloropropene	8.5	1	10		85	77	128			
trans-1,3-Dichloropropene	8.68	1	10		87	74	135			
1,1,2-Trichloroethane	10.9	1	10		109	78	122			
Toluene	10	0.5	10		100	80	120			
Dibromochloromethane	9.36	1	10		94	68	135			
Tetrachloroethene	9.57	1	10		96	67	138			
Chlorobenzene	9.85	1	10		99	76	124			
Ethylbenzene	10.3	0.5	10		103	80	120			
m,p-Xylene	9.79	0.5	10		98	77	125			
Bromoform	9.71	1	10		97	60	138			
o-Xylene	11.3	0.5	10		113	77	124			
1,1,2,2-Tetrachloroethane	10.3	1	10		103	65	136			
1,3-Dichlorobenzene	9.53	1	10		95	77	124			
1,4-Dichlorobenzene	9.79	1	10		98	73	125			
1,2-Dichlorobenzene	9.32	1	10		93	77	118			
Surr: 1,2-Dichloroethane-d4	11.9		10		119	72	126			
Surr: Toluene-d8	9.01		10		90	71	128			
Surr: 4-Bromofluorobenzene	9.51		10		95	76	121			

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Date: *12-Apr-04*

QC Summary Report

Work Order: 04040220

Sample Matrix Spike Type **MS** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS07\DATA\040402\04040213.D** Batch ID: **MS07W0402A** Analysis Date: **04/02/2004 12:25**

Sample ID: **04040101-02AMS** Units : **µg/L** Run ID: **GC/MSD_7_040402B** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Chloromethane	55.9	10	50	0	112	25	147			
Vinyl chloride	58.9	2.5	50	0	118	34	153			
Chloroethane	57.3	2.5	50	0	115	18	172			
Bromomethane	44.7	2.5	50	0	89	0	183			
Trichlorofluoromethane	51.9	2.5	50	0	104	32	163			
1,1-Dichloroethene	57.6	2.5	50	0	115	51	145			
Dichloromethane	54.7	10	50	0	109	47	148			
trans-1,2-Dichloroethene	53.7	2.5	50	0	107	59	142			
1,1-Dichloroethane	54.3	2.5	50	0	109	58	141			
cis-1,2-Dichloroethene	53.2	2.5	50	0	106	51	152			
Chloroform	49.9	2.5	50	0	99.8	61	144			
1,2-Dichloroethane	49.6	2.5	50	0	99	41	151			
1,1,1-Trichloroethane	51.1	2.5	50	0	102	55	153			
Carbon tetrachloride	52.2	2.5	50	0	104	52	159			
Benzene	54.3	1.3	50	0	109	59	145			
1,2-Dichloropropane	50.9	2.5	50	0	102	56	148			
Trichloroethene	49.8	2.5	50	0	99.7	58	142			
Bromodichloromethane	47.2	2.5	50	0	94	54	150			
cis-1,3-Dichloropropene	42.4	2.5	50	0	85	54	143			
trans-1,3-Dichloropropene	42.3	2.5	50	0	85	51	147			
1,1,2-Trichloroethane	52.4	2.5	50	0	105	55	149			
Toluene	49.1	1.3	50	0	98	39	161			
Dibromochloromethane	43.6	2.5	50	0	87	53	147			
Tetrachloroethene	46.2	2.5	50	0	92	56	144			
Chlorobenzene	47.3	2.5	50	0	95	62	138			
Ethylbenzene	51	1.3	50	0	102	57	145			
m,p-Xylene	48.7	1.3	50	0	97	37	163			
Bromoform	45.2	2.5	50	0	90	47	146			
o-Xylene	55.9	1.3	50	0	112	47	156			
1,1,2,2-Tetrachloroethane	47.1	2.5	50	0	94	48	162			
1,3-Dichlorobenzene	44.9	2.5	50	0	90	62	137			
1,4-Dichlorobenzene	46.3	2.5	50	0	93	57	142			
1,2-Dichlorobenzene	43.3	2.5	50	0	87	60	134			
Surr: 1,2-Dichloroethane-d4	55.3		50		111	72	126			
Surr: Toluene-d8	44.5		50		89	71	128			
Surr: 4-Bromofluorobenzene	48.7		50		97	76	121			

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Date: *12-Apr-04*

QC Summary Report

Work Order: 04040220

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS07\DATA\040402\04040214.D** Batch ID: **MS07W0402A** Analysis Date: **04/02/2004 12:47**

Sample ID: **04040101-02AMSD** Units : **µg/L** Run ID: **GC/MSD_7_040402B** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Chloromethane	54.1	10	50	0	108	25	147	55.92	3.4(31)	
Vinyl chloride	56.2	2.5	50	0	112	34	153	58.87	4.7(23)	
Chloroethane	57.9	2.5	50	0	116	18	172	57.34	1.0(43)	
Bromomethane	47.2	2.5	50	0	94	0	183	44.67	5.6(54)	
Trichlorofluoromethane	50.6	2.5	50	0	101	32	163	51.89	2.6(25)	
1,1-Dichloroethene	54.5	2.5	50	0	109	51	145	57.63	5.6(23)	
Dichloromethane	55.8	10	50	0	112	47	148	54.66	2.0(40)	
trans-1,2-Dichloroethene	51.8	2.5	50	0	104	59	142	53.68	3.5(28)	
1,1-Dichloroethane	53	2.5	50	0	106	58	141	54.31	2.4(25)	
cis-1,2-Dichloroethene	52.6	2.5	50	0	105	51	152	53.16	1.1(34)	
Chloroform	49.6	2.5	50	0	99	61	144	49.91	0.7(22)	
1,2-Dichloroethane	51.6	2.5	50	0	103	41	151	49.6	4.0(24)	
1,1,1-Trichloroethane	49.1	2.5	50	0	98	55	153	51.06	3.8(22)	
Carbon tetrachloride	50.4	2.5	50	0	101	52	159	52.19	3.4(23)	
Benzene	52.8	1.3	50	0	106	59	145	54.26	2.8(22)	
1,2-Dichloropropane	51	2.5	50	0	102	56	148	50.93	0.1(22)	
Trichloroethene	48	2.5	50	0	96	58	142	49.84	3.9(22)	
Bromodichloromethane	49.3	2.5	50	0	99	54	150	47.15	4.5(23)	
cis-1,3-Dichloropropene	41.9	2.5	50	0	84	54	142	42.44	1.2(24)	

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Date: *23-Apr-04*

QC Summary Report

Work Order: 04040220

Method Blank Type **MBLK** Test Code: **EPA Method SW8270C**

File ID: **C:\HPCHEM\MS02\DATA\040402\04040209.D** Batch ID: **9682** Analysis Date: **04/02/2004 20:16**

Sample ID: **MBLK 9682** Units : **µg/L** Run ID: **GC/MSD_2_040402A** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Phenol	ND	10								
2-Chlorophenol	ND	10								
Bis(2-chloroethyl)ether	ND	10								
1,3-Dichlorobenzene	ND	20								
1,4-Dichlorobenzene	ND	20								
1,2-Dichlorobenzene	ND	20								
Bis(2-chloroisopropyl)ether	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
Hexachloroethane	ND	20								
Nitrobenzene	ND	10								
Isophorone	ND	10								
2-Nitrophenol	ND	10								
2,4-Dimethylphenol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
2,4-Dichlorophenol	ND	10								
1,2,4-Trichlorobenzene	ND	10								
Naphthalene	ND	10								
Hexachlorobutadiene	ND	20								
4-Chloro-3-methylphenol	ND	20								
Hexachlorocyclopentadiene	ND	100								
2,4,6-Trichlorophenol	ND	10								
2-Chloronaphthalene	ND	10								
Dimethyl phthalate	ND	10								
Acenaphthylene	ND	10								
2,6-Dinitrotoluene	ND	10								
Acenaphthene	ND	10								
2,4-Dinitrophenol	ND	100								
4-Nitrophenol	ND	50								
2,4-Dinitrotoluene	ND	10								
Diethyl phthalate	ND	10								
Fluorene	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
4,6-Dinitro-2-methylphenol	ND	100								
N-Nitrosodiphenylamine	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Hexachlorobenzene	ND	10								
Pentachlorophenol	ND	50								
Phenanthrene	ND	10								
Anthracene	ND	10								
Di-n-butyl phthalate	ND	50								
Fluoranthene	ND	10								
Pyrene	ND	10								
Butyl benzyl phthalate	ND	20								
Benzo(a)anthracene	ND	10								
3,3'-Dichlorobenzidine	ND	20								
Chrysene	ND	10								
Bis(2-ethylhexyl)phthalate	ND	50								
Di-n-octyl phthalate	ND	20								
Benzo(b)fluoranthene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzo(a)pyrene	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Dibenz(a,h)anthracene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Surr: 2-Fluorophenol	96.4		200		48	32	122			
Surr: Phenol-d5	74.5		200		37	20	128			
Surr: Nitrobenzene-d5	87.3		100		87	65	130			
Surr: 2-Fluorobiphenyl	77		100		77	54	133			
Surr: 2,4,6-Tribromophenol	133		200		66	48	149			
Surr: 4-Terphenyl-d14	77.6		100		78	57	136			

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Date: *23-Apr-04*

QC Summary Report

Work Order: 04040220

Laboratory Control Spike Type **LCS** Test Code: **EPA Method SW8270C**

File ID: **C:\HPCHEM\MS02\DATA\040402\04040212.D** Batch ID: **9682** Analysis Date: **04/02/2004 22:49**

Sample ID: **LCS 9682** Units : **µg/L** Run ID: **GC/MSD_2_040402A** Prep Date: **04/02/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Phenol	46.8	10	100		47	22	121			
2-Chlorophenol	79.1	10	100		79	57	123			
Bis(2-chloroethyl)ether	93.1	10	100		93	55	132			
1,3-Dichlorobenzene	84.6	20	100		85	28	144			
1,4-Dichlorobenzene	82.7	20	100		83	30	140			
1,2-Dichlorobenzene	80.7	20	100		81	29	143			
Bis(2-chloroisopropyl)ether	95.4	10	100		95	56	131			
N-Nitrosodi-n-propylamine	99.8	10	100		99.8	61	131			
Hexachloroethane	84.2	20	100		84	25	146			
Nitrobenzene	90	10	100		90	58	126			
Isophorone	102	10	100		102	63	135			
2-Nitrophenol	82.6	10	100		83	58	129			
2,4-Dimethylphenol	87	10	100		87	61	127			
Bis(2-chloroethoxy)methane	96.6	10	100		97	55	135			
2,4-Dichlorophenol	81.4	10	100		81	59	128			
1,2,4-Trichlorobenzene	83.4	10	100		83	36	138			
Naphthalene	82.3	10	100		82	44	134			
Hexachlorobutadiene	83.6	20	100		84	28	154			
4-Chloro-3-methylphenol	79.2	20	100		79	60	124			
Hexachlorocyclopentadiene	70.1	100	100		70	0	164			
2,4,6-Trichlorophenol	69.8	10	100		70	61	130			
2-Chloronaphthalene	84.8	10	100		85	51	137			
Dimethyl phthalate	74.2	10	100		74	65	126			
Acenaphthylene	89.3	10	100		89	60	131			
2,6-Dinitrotoluene	98.5	10	100		99	62	128			
Acenaphthene	83.2	10	100		83	49	138			
2,4-Dinitrophenol	46.8	100	100		47	12	161			
4-Nitrophenol	32.8	50	100		33	2	141			
2,4-Dinitrotoluene	96.2	10	100		96	64	136			
Diethyl phthalate	84	10	100		84	63	131			
Fluorene	84	10	100		84	61	129			
4-Chlorophenyl phenyl ether	84.1	10	100		84	62	127			
4,6-Dinitro-2-methylphenol	48.4	100	100		48	25	157			
N-Nitrosodiphenylamine	96	10	100		96	62	126			
4-Bromophenyl phenyl ether	71.4	10	100		71	58	123			
Hexachlorobenzene	82.2	10	100		82	59	133			
Pentachlorophenol	89.8	50	100		90	46	143			
Phenanthrene	93.2	10	100		93	60	128			
Anthracene	93.5	10	100		93	62	128			
Di-n-butyl phthalate	90	50	100		90	64	125			
Fluoranthene	82.6	10	100		83	61	126			
Pyrene	95	10	100		95	60	130			
Butyl benzyl phthalate	103	20	100		103	63	131			
Benzo(a)anthracene	88.3	10	100		88	66	126			
3,3'-Dichlorobenzidine	103	20	100		103	11	160			
Chrysene	93.6	10	100		94	62	129			
Bis(2-ethylhexyl)phthalate	89.2	50	100		89	0	397			
Di-n-octyl phthalate	91.1	20	100		91	57	132			
Benzo(b)fluoranthene	92.8	10	100		93	64	127			
Benzo(k)fluoranthene	90.7	10	100		91	58	130			
Benzo(a)pyrene	93.3	10	100		93	67	124			
Indeno(1,2,3-cd)pyrene	101	10	100		101	59	131			
Dibenz(a,h)anthracene	111	10	100		111	54	133			
Benzo(g,h,i)perylene	106	10	100		106	54	135			
Surr: 2-Fluorophenol	101		200		50	32	122			
Surr: Phenol-d5	75		200		38	20	128			
Surr: Nitrobenzene-d5	93.6		100		94	65	130			
Surr: 2-Fluorobiphenyl	83.2		100		83	54	133			
Surr: 2,4,6-Tribromophenol	136		200		68	48	149			
Surr: 4-Terphenyl-d14	91.5		100		91	57	136			

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Date: *23-Apr-04*

QC Summary Report

Work Order: 04040220

Sample Matrix Spike Type **MS** Test Code: **EPA Method SW8270C**

File ID: **C:\HPCHEM\MS02\DATA\040422\04042212.D** Batch ID: **9682** Analysis Date: **04/22/2004 18:25**

Sample ID: **04040220-01AMS** Units : **µg/L** Run ID: **GC/MSD_2_040402A** Prep Date: **04/22/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Phenol	42.5	10	100	0	42	18	123			
2-Chlorophenol	76.4	10	100	0	76	37	139			
Bis(2-chloroethyl)ether	88.8	10	100	0	89	48	137			
1,3-Dichlorobenzene	68.2	20	100	0	68	6	150			
1,4-Dichlorobenzene	60.6	20	100	0	61	8	148			
1,2-Dichlorobenzene	51.6	20	100	0	52	11	147			
Bis(2-chloroisopropyl)ether	98.9	10	100	0	99	37	145			
N-Nitrosodi-n-propylamine	109	10	100	0	109	33	155			
Hexachloroethane	64.3	20	100	0	64	0	162			
Nitrobenzene	91.3	10	100	0	91	48	137			
Isophorone	108	10	100	0	108	58	137			
2-Nitrophenol	82.5	10	100	0	83	31	152			
2,4-Dimethylphenol	58	10	100	0	58	19	159			
Bis(2-chloroethoxy)methane	95.7	10	100	0	96	30	148			
2,4-Dichlorophenol	80.9	10	100	0	81	37	145			
1,2,4-Trichlorobenzene	76	10	100	0	76	17	147			
Naphthalene	77.1	10	100	0	77	28	142			
Hexachlorobutadiene	81.7	20	100	0	82	0	167			
4-Chloro-3-methylphenol	86.1	20	100	0	86	38	142			
Hexachlorocyclopentadiene	43.8	100	100	0	44	0	177			
2,4,6-Trichlorophenol	77.2	10	100	0	77	34	154			
2-Chloronaphthalene	88.2	10	100	0	88	46	138			
Dimethyl phthalate	82	10	100	0	82	60	129			
Acenaphthylene	89.4	10	100	0	89	42	143			
2,6-Dinitrotoluene	94.7	10	100	0	95	59	137			
Acenaphthene	87	10	100	0	87	49	138			
2,4-Dinitrophenol	82.6	100	100	0	83	0	203			
4-Nitrophenol	38.3	50	100	0	38	0	233			
2,4-Dinitrotoluene	98.2	10	100	0	98	49	145			
Diethyl phthalate	95	10	100	0	95	61	131			
Fluorene	90.2	10	100	0	90	57	132			
4-Chlorophenyl phenyl ether	94	10	100	0	94	59	128			
4,6-Dinitro-2-methylphenol	81.2	100	100	0	81	0	198			
N-Nitrosodiphenylamine	61.4	10	100	0	61	28	162			
4-Bromophenyl phenyl ether	83.2	10	100	0	83	55	125			
Hexachlorobenzene	99.4	10	100	0	99	59	133			
Pentachlorophenol	108	50	100	0	108	0	206			
Phenanthrene	87.3	10	100	0	87	58	130			
Anthracene	79	10	100	0	79	44	144			
Di-n-butyl phthalate	88.6	50	100	0	89	53	136			
Fluoranthene	91.7	10	100	0	92	59	127			
Pyrene	89.8	10	100	0	90	55	132			
Butyl benzyl phthalate	95.4	20	100	0	95	55	136			
Benzo(a)anthracene	89.7	10	100	0	90	57	133			
3,3´-Dichlorobenzidine	40.7	20	100	0	41	0	193			
Chrysene	118	10	100	0	118	59	130			
Bis(2-ethylhexyl)phthalate	81.1	50	100	0	81	0	456			
Di-n-octyl phthalate	78.4	20	100	0	78	52	136			
Benzo(b)fluoranthene	85.4	10	100	0	85	57	133			
Benzo(k)fluoranthene	90.6	10	100	0	91	55	132			
Benzo(a)pyrene	86.3	10	100	0	86	42	144			
Indeno(1,2,3-cd)pyrene	91.9	10	100	0	92	53	136			
Dibenz(a,h)anthracene	108	10	100	0	108	48	141			
Benzo(g,h,i)perylene	99.2	10	100	0	99	49	139			
Surr: 2-Fluorophenol	94.5		200		47	32	122			
Surr: Phenol-d5	49.9		200		25	20	128			
Surr: Nitrobenzene-d5	95.3		100		95	65	130			
Surr: 2-Fluorobiphenyl	85		100		85	54	133			
Surr: 2,4,6-Tribromophenol	223		200		111	48	149			
Surr: 4-Terphenyl-d14	96.1		100		96	57	136			

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Date: *23-Apr-04*

QC Summary Report

Work Order: 04040220

Sample Matrix Spike Duplicate Type **MSD** Test Code: **EPA Method SW8270C**

File ID: **C:\HPCHEM\MS02\DATA\040422\04042213.D** Batch ID: **9682** Analysis Date: **04/22/2004 19:15**

Sample ID: **04040220-01AMSD** Units : **µg/L** Run ID: **GC/MSD_2_040402A** Prep Date: **04/22/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Phenol	41.1	10	100	0	41	18	123	42.49	3.4(28)	
2-Chlorophenol	78.5	10	100	0	78	37	139	76.44	2.6(11)	
Bis(2-chloroethyl)ether	97.6	10	100	0	98	48	137	88.75	9.5(14)	
1,3-Dichlorobenzene	85.7	20	100	0	86	6	150	68.16	22.8(42)	
1,4-Dichlorobenzene	80.3	20	100	0	80	8	148	60.6	27.9(41)	
1,2-Dichlorobenzene	68.4	20	100	0	68	11	147	51.64	27.9(38)	
Bis(2-chloroisopropyl)ether	104	10	100	0	104	37	145	98.9	5.5(13)	
N-Nitrosodi-n-propylamine	111	10	100	0	111	33	155	108.6	2.0(11)	
Hexachloroethane	93.4	20	100	0	93	0	162	64.31	36.9(53)	
Nitrobenzene	92.5	10	100	0	92	48	137	91.34	1.2(10)	
Isophorone	106	10	100	0	106	58	137	107.9	2.1(12)	
2-Nitrophenol	85.4	10	100	0	85	31	152	82.51	3.5(21)	
2,4-Dimethylphenol	56.6	10	100	0	57	19	159	58.04	2.5(12)	
Bis(2-chloroethoxy)methane	97	10	100	0	97	30	148	95.71	1.4(25)	
2,4-Dichlorophenol	81.3	10	100	0	81	37	145	80.9	0.4(11)	
1,2,4-Trichlorobenzene	86.2	10	100	0	86	17	147	76.01	12.6(40)	
Naphthalene	84	10	100	0	84	28	142	77.07	8.6(28)	
Hexachlorobutadiene	99	20	100	0	99	0	167	81.66	19.2(51)	
4-Chloro-3-methylphenol	87.1	20	100	0	87	38	142	86.09	1.2(10)	
Hexachlorocyclopentadiene	42.6	100	100	0	43	0	177	43.8	2.7(73)	
2,4,6-Trichlorophenol	77.5	10	100	0	78	34	154	77.18	0.5(16)	
2-Chloronaphthalene	90.1	10	100	0	90	46	138	88.21	2.1(27)	
Dimethyl phthalate	82.1	10	100	0	82	60	129	81.98	0.2(10)	
Acenaphthylene	87.3	10	100	0	87	42	143	89.36	2.3(18)	
2,6-Dinitrotoluene	94.8	10	100	0	95	59	137	94.69	0.1(10)	
Acenaphthene	87.6	10	100	0	88	49	138	86.99	0.6(20)	
2,4-Dinitrophenol	88.5	100	100	0	88	0	203	82.55	6.9(39)	
4-Nitrophenol	39.1	50	100	0	39	0	233	38.28	2.0(58)	
2,4-Dinitrotoluene	99.9	10	100	0	99.9	49	145	98.21	1.7(10)	
Diethyl phthalate	95.6	10	100	0	96	61	131	94.95	0.7(10)	
Fluorene	90.6	10	100	0	91	57	132	90.19	0.5(12)	
4-Chlorophenyl phenyl ether	95.1	10	100	0	95	59	128	94.03	1.1(13)	
4,6-Dinitro-2-methylphenol	85	100	100	0	85	0	198	81.16	4.6(61)	
N-Nitrosodiphenylamine	61.5	10	100	0	62	28	162	61.37	0.3(10)	
4-Bromophenyl phenyl ether	83.6	10	100	0	84	55	125	83.19	0.5(10)	
Hexachlorobenzene	100	10	100	0	100	59	133	99.35	1.0(10)	
Pentachlorophenol	110	50	100	0	110	0	206	108.3	1.7(34)	
Phenanthrene	88.2	10	100	0	88	58	130	87.28	1.1(10)	
Anthracene	77.5	10	100	0	77	44	144	79.02	2.0(10)	
Di-n-butyl phthalate	90.3	50	100	0	90	53	136	88.57	1.9(10)	
Fluoranthene	92.3	10	100	0	92	59	127	91.71	0.6(10)	
Pyrene	89.8	10	100	0	90	55	132	89.79	0.0(10)	
Butyl benzyl phthalate	93.8	20	100	0	94	55	136	95.39	1.7(10)	
Benzo(a)anthracene	90.3	10	100	0	90	57	133	89.72	0.7(10)	
3,3'-Dichlorobenzidine	39.1	20	100	0	39	0	193	40.67	3.9(28)	
Chrysene	118	10	100	0	118	59	130	117.7	0.6(10)	
Bis(2-ethylhexyl)phthalate	80	50	100	0	80	0	456	81.1	1.3(22)	
Di-n-octyl phthalate	78.7	20	100	0	79	52	136	78.4	0.4(27)	
Benzo(b)fluoranthene	84.9	10	100	0	85	57	133	85.35	0.5(11)	
Benzo(k)fluoranthene	92.7	10	100	0	93	55	132	90.56	2.3(12)	
Benzo(a)pyrene	87.2	10	100	0	87	42	144	86.34	1.0(10)	
Indeno(1,2,3-cd)pyrene	94.1	10	100	0	94	53	136	91.9	2.3(13)	
Dibenz(a,h)anthracene	110	10	100	0	110	48	141	108	1.8(13)	
Benzo(g,h,i)perylene	101	10	100	0	101	49	139	99.19	1.7(15)	
Surr: 2-Fluorophenol	94.4		200		47	32	122			
Surr: Phenol-d5	52.3		200		26	20	128			
Surr: Nitrobenzene-d5	94.7		100		95	65	130			
Surr: 2-Fluorobiphenyl	82.1		100		82	54	133			
Surr: 2,4,6-Tribromophenol	226		200		113	48	149			
Surr: 4-Terphenyl-d14	94.3		100		94	57	136			

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Date: *23-Apr-04*

QC Summary Report

Work Order: 04040220

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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Date: *15-Oct-04*

QC Summary Report

Work Order: 04040220

Method Blank

Type: **MBLK** Test Code: **EPA Method SW8081A**

File ID: Batch ID: **9678A** Analysis Date: **04/03/2004 00:00**

Sample ID: **MBLK-9678A** Units : **µg/Kg** Run ID: **ECD_5_040403A** Prep Date: **04/03/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
alpha-BHC	ND	1.7								
gamma-BHC (Lindane)	ND	1.7								
Heptachlor	ND	1.7								
Aldrin	ND	1.7								
beta-BHC	ND	1.7								
delta-BHC	ND	1.7								
Heptachlor epoxide	ND	1.7								
Endosulfan I	ND	1.7								
4,4'-DDE	ND	3.3								
Dieldrin	ND	3.3								
Endrin	ND	3.3								
4,4'-DDD	ND	3.3								
Endosulfan II	ND	3.3								
4,4'-DDT	ND	3.3								
Endrin aldehyde	ND	6.6								
Methoxychlor	ND	17								
Endosulfan sulfate	ND	3.3								
Endrin ketone	ND	6.6								
Surr: Tetrachloro-m-xylene	19.2		20		96	14	143			
Surr: Decachlorobiphenyl	19		20		95	26	174			

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method SW8081A**

File ID: Batch ID: **9678A** Analysis Date: **04/03/2004 00:00**

Sample ID: **LCS-9678A** Units : **µg/Kg** Run ID: **ECD_5_040403A** Prep Date: **04/03/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
alpha-BHC	16.2	1.7	20		81	27	138			
gamma-BHC (Lindane)	16.4	1.7	20		82	45	146			
Heptachlor	18.9	1.7	20		95	51	158			
Aldrin	15	1.7	20		75	65	113			
beta-BHC	16.1	1.7	20		81	48	136			
delta-BHC	15.4	1.7	20		77	61	128			
Heptachlor epoxide	17.5	1.7	20		88	48	129			
Endosulfan I	9.5	1.7	20		48	4	105			
4,4'-DDE	17.6	3.3	20		88	56	133			
Dieldrin	17.7	3.3	20		89	20	172			
Endrin	25.2	3.3	20		126	30	200			
4,4'-DDD	13.8	3.3	20		69	50	149			
Endosulfan II	10.5	3.3	20		53	11	122			
4,4'-DDT	25.6	3.3	20		128	41	178			
Endrin aldehyde	9.5	6.6	20		48	0	198			
Methoxychlor	26.7	17	20		134	0	240			
Endosulfan sulfate	16.5	3.3	20		83	60	137			
Endrin ketone	13.8	6.6	20		69	51	144			
Surr: Tetrachloro-m-xylene	18.4		20		92	14	143			
Surr: Decachlorobiphenyl	18.6		20		93	26	174			

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Date: *15-Oct-04*

QC Summary Report

Work Order: 04040220

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method SW8081A**

File ID: Batch ID: **9678A** Analysis Date: **04/03/2004 00:00**

Sample ID: **04040220-02AMS** Units : **µg/Kg** Run ID: **ECD_5_040403A** Prep Date: **04/03/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
alpha-BHC	11.9	1.7	20	0	60	27	138			
gamma-BHC (Lindane)	12.2	1.7	20	0	61	45	146			
Heptachlor	13.9	1.7	20	0	70	51	158			
Aldrin	11.2	1.7	20	0	56	65	113			M2
beta-BHC	11.9	1.7	20	0	60	48	136			
delta-BHC	11.4	1.7	20	0	57	61	128			M2
Heptachlor epoxide	12.2	1.7	20	0	61	48	129			
Endosulfan I	6.4	1.7	20	0	32	4	105			
4,4'-DDE	12.1	3.3	20	0	61	56	133			
Dieldrin	12.4	3.3	20	0	62	20	172			
Endrin	17.9	3.3	20	0	90	30	200			
4,4'-DDD	9.5	3.3	20	0	48	50	149			M2
Endosulfan II	7.5	3.3	20	0	38	11	122			
4,4'-DDT	19.9	3.3	20	0	100	41	178			
Endrin aldehyde	9.8	6.6	20	0	49	0	198			
Methoxychlor	21.5	17	20	0	108	0	240			
Endosulfan sulfate	12.2	3.3	20	0	61	60	137			
Endrin ketone	9.7	6.6	20	0	49	51	144			M2
Surr: Tetrachloro-m-xylene	13.6		20		68	14	143			
Surr: Decachlorobiphenyl	9.8		20		49	26	174			

Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **EPA Method SW8081A**

File ID: Batch ID: **9678A** Analysis Date: **04/03/2004 00:00**

Sample ID: **04040220-02AMSD** Units : **µg/Kg** Run ID: **ECD_5_040403A** Prep Date: **04/03/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
alpha-BHC	11.7	1.7	20	0	59	27	138	11.9	1.7(40)	
gamma-BHC (Lindane)	11.9	1.7	20	0	60	45	146	12.2	2.5(40)	
Heptachlor	13.6	1.7	20	0	68	51	158	13.9	2.2(40)	
Aldrin	10.9	1.7	20	0	55	65	113	11.2	2.7(40)	M2
beta-BHC	11.5	1.7	20	0	58	48	136	11.9	3.4(40)	
delta-BHC	11	1.7	20	0	55	61	128	11.4	3.6(40)	M2
Heptachlor epoxide	11.8	1.7	20	0	59	48	129	12.2	3.3(40)	
Endosulfan I	6.2	1.7	20	0	31	4	105	6.4	3.2(40)	
4,4'-DDE	11.3	3.3	20	0	57	56	133	12.1	6.8(40)	
Dieldrin	11.8	3.3	20	0	59	20	172	12.4	5.0(40)	
Endrin	17.5	3.3	20	0	88	30	200	17.9	2.3(40)	
4,4'-DDD	9	3.3	20	0	45	50	149	9.5	5.4(40)	M2
Endosulfan II	7.2	3.3	20	0	36	11	122	7.5	4.1(40)	
4,4'-DDT	18.9	3.3	20	0	95	41	178	19.9	5.2(40)	
Endrin aldehyde	10	6.6	20	0	50	0	198	9.8	2.0(40)	
Methoxychlor	20.4	17	20	0	102	0	240	21.5	5.3(40)	
Endosulfan sulfate	11.7	3.3	20	0	59	60	137	12.2	4.2(40)	M2
Endrin ketone	9.2	6.6	20	0	46	51	144	9.7	5.3(40)	M2
Surr: Tetrachloro-m-xylene	13.6		20		68	14	143			
Surr: Decachlorobiphenyl	8.8		20		44	26	174			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

M2 = Matrix spike recovery was low, the method control sample recovery was acceptable.

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Date: *15-Oct-04*

QC Summary Report

Work Order: 04040220

Method Blank

Type: **MBLK** Test Code: **EPA Method SW8082**

File ID: Batch ID: **9678B** Analysis Date: **04/03/2004 00:00**

Sample ID: **MBLK-9678B** Units : **µg/Kg** Run ID: **ECD_5_040403A** Prep Date: **04/03/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Aroclor 1016	ND	33								
Aroclor 1221	ND	33								
Aroclor 1232	ND	33								
Aroclor 1242	ND	33								
Aroclor 1248	ND	33								
Aroclor 1254	ND	33								
Aroclor 1260	ND	33								
Surr: Tetrachloro-m-xylene	19.8		20		99	14	143			
Surr: Decachlorobiphenyl	27.6		20		138	26	174			

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method SW8082**

File ID: Batch ID: **9678B** Analysis Date: **04/03/2004 00:00**

Sample ID: **LCS-9678B** Units : **µg/Kg** Run ID: **ECD_5_040403A** Prep Date: **04/03/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Aroclor 1232	109	33	100		109	23	142			
Surr: Tetrachloro-m-xylene	18.6		20		93	14	143			
Surr: Decachlorobiphenyl	26.8		20		134	26	174			

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method SW8082**

File ID: Batch ID: **9678B** Analysis Date: **04/03/2004 00:00**

Sample ID: **04040220-02AMS** Units : **µg/Kg** Run ID: **ECD_5_040403A** Prep Date: **04/03/2004**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Aroclor 1232	78	33	100	0	78	23	142			
Surr: Tetrachloro-m-xylene	13.4		20		67	14	143			
Surr: Decachlorobiphenyl	10.6		20		53	26	174			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Sierra Environmental Monitoring, Inc.

Laboratory Analysis Report
Report ID: 59855

Alpha Analytical

255 Glendale Avenue Suite 21
Sparks, NV 89431

Date: 4/8/2004
Client: ALP-855
Taken by: Client
PO #:

Sample ID:	Customer Sample ID	Date Sampled	Time Sampled	Date Received
S200404-0066	BMI04040220-01 - Fire Hydrant	4/1/2004	1:00 PM	4/2/2004

Parameter	Method	Result	Units Of Measure	Detection Limit	Analyst	Date Analyzed
Cyanide,Total	SM 4500 CN C	<0.005	mg/L	0.005	Hellmann	4/4/2004

Sample ID:	Customer Sample ID	Date Sampled	Time Sampled	Date Received
S200404-0067	BMI04040220-02 - Pad Soil	4/1/2004	1:30 PM	4/2/2004

Parameter	Method	Result	Units Of Measure	Detection Limit	Analyst	Date Analyzed
Corrosivity	SW-846	Non-Corrosive		0	Kobza	4/7/2004
Cyanide,Total	SM 4500 CN C	<0.5	mg/Kg	0.5	Hellmann	4/4/2004
Ignitability of Solids	SW-846	<2.2	mm/sec	2.2	Kobza	4/7/2004
pH - Saturated Paste	SW-846 9045A	8.13	pH Units		Kobza	4/5/2004
pH - Temperature	SW-846 9045A	22.5	°C		Kobza	4/5/2004
Reactivity	SW-846	Non-Reactive		0	Kobza	4/8/2004

Sample ID:	Customer Sample ID	Date Sampled	Time Sampled	Date Received
S200404-0068	BMI04040220-04 - SM POLY Tank	4/1/2004	1:50 PM	4/2/2004

Parameter	Method	Result	Units Of Measure	Detection Limit	Analyst	Date Analyzed
Cyanide,Total	SM 4500 CN C	<0.005	mg/L	0.005	Hellmann	4/4/2004

John Kobza, Ph.D.
Laboratory Director

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John C. Seher
Special Consultant
Quality Assurance Manager

Sierra
Environmental
Monitoring, Inc.

Laboratory Analysis Report
Report ID: 59855

Alpha Analytical

255 Glendale Avenue Suite 21
Sparks, NV 89431

Date: 4/8/2004
Client: ALP-855
Taken by: Client
PO #:

Approved By: _____
Sierra Environmental Monitoring, Inc

Date: 4/8/2004

This report is applicable only to the sample received by the laboratory. The liability of the laboratory is limited to the amount paid for this report. This report is for the exclusive use of the client to whom it is addressed and upon the condition that the client assumes all liability for the further distribution of the report or its contents.

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John C. Seher
Special Consultant
Quality Assurance Manager

CALIFORNIA LABORATORY SERVICES

04/05/04 15:39

Alpha Analytical, Inc.-Sparks 255 Glendale Ave.; Suite 21 Sparks NV, 89431	Project: Battelle Project Number: G486009-T9 Project Manager: None	**CLS Work Order #: CND0051** COC #: 07636

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Fire Hydrant (CND0051-01) Water Sampled: 04/01/04 13:00 Received: 04/02/04 10:07									
Hexavalent Chromium	**1.9**	1.0	µg/L	1	CN02653	04/02/04	04/02/04	EPA 7199	
SM Poly tank (CND0051-02) Water Sampled: 04/01/04 13:50 Received: 04/02/04 10:07									
Hexavalent Chromium	ND	1.0	µg/L	1	CN02653	04/02/04	04/02/04	EPA 7199	

CALIFORNIA LABORATORY SERVICES

04/05/04 15:39

Alpha Analytical, Inc.-Sparks 255 Glendale Ave.; Suite 21 Sparks NV, 89431	Project: Battelle Project Number: G486009-T9 Project Manager: None	**CLS Work Order #: CND0051** COC #: 07636

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

CALIFORNIA LABORATORY SERVICES

04/05/04 15:39

Alpha Analytical, Inc.-Sparks 255 Glendale Ave.; Suite 21 Sparks NV, 89431	Project: Battelle Project Number: G486009-T9 Project Manager: None	**CLS Work Order #: CND0051** COC #: 07636

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CN02653 - General Prep										
Blank (CN02653-BLK1)				Prepared & Analyzed: 04/02/04						
Hexavalent Chromium	ND	1.0	µg/L							
LCS (CN02653-BS1)				Prepared & Analyzed: 04/02/04						
Hexavalent Chromium	5.40	1.0	µg/L	5.00		108	80-120			
LCS Dup (CN02653-BSD1)				Prepared & Analyzed: 04/02/04						
Hexavalent Chromium	5.38	1.0	µg/L	5.00		108	80-120	0.371	20	
Matrix Spike (CN02653-MS1)		**Source: CND0051-01**		Prepared & Analyzed: 04/02/04						
Hexavalent Chromium	7.81	1.0	µg/L	5.00	1.9	118	75-125			
Matrix Spike Dup (CN02653-MSD1)		**Source: CND0051-01**		Prepared & Analyzed: 04/02/04						
Hexavalent Chromium	7.36	1.0	µg/L	5.00	1.9	109	75-125	5.93	25	

CALIFORNIA LABORATORY SERVICES

04/09/04 13:17

Alpha Analytical, Inc.-Sparks 255 Glendale Ave.; Suite 21 Sparks NV, 89431	Project: BMI04040220 Project Number: BMI04040220 Project Manager: None	**CLS Work Order #: CND0171** COC #: BMI04040220

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BMI04040220-02A (Pad Soil) (CND0171-01) Soil Sampled: 04/01/04 13:30 Received: 04/06/04 09:30									
Hexavalent Chromium	ND	10	µg/kg	1	CN02738	04/06/04	04/06/04	EPA 7199	

CALIFORNIA LABORATORY SERVICES

04/09/04 13:17

Alpha Analytical, Inc.-Sparks 255 Glendale Ave.; Suite 21 Sparks NV, 89431	Project: BMI04040220 Project Number: BMI04040220 Project Manager: None	**CLS Work Order #: CND0171** COC #: BMI04040220

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CN02738 - General Prep										
Blank (CN02738-BLK1)				Prepared & Analyzed: 04/06/04						
Hexavalent Chromium	ND	10	µg/kg							
LCS (CN02738-BS1)				Prepared & Analyzed: 04/06/04						
Hexavalent Chromium	54.1	10	µg/kg	50.0		108	80-120			
LCS Dup (CN02738-BSD1)				Prepared & Analyzed: 04/06/04						
Hexavalent Chromium	53.7	10	µg/kg	50.0		107	80-120	0.742	20	
Matrix Spike (CN02738-MS1)		**Source: CND0171-01**		Prepared & Analyzed: 04/06/04						
Hexavalent Chromium	29.8	10	µg/kg	50.0	0.0	59.6	75-125			QM-07
Matrix Spike Dup (CN02738-MSD1)		**Source: CND0171-01**		Prepared & Analyzed: 04/06/04						
Hexavalent Chromium	27.5	10	µg/kg	50.0	0.0	55.0	75-125	8.03	25	QM-07

CALIFORNIA LABORATORY SERVICES

04/09/04 13:17

Alpha Analytical, Inc.-Sparks 255 Glendale Ave.; Suite 21 Sparks NV, 89431	Project: BMI04040220 Project Number: BMI04040220 Project Manager: None	**CLS Work Order #: CND0171** COC #: BMI04040220

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference