ENSR
40 British American Boulevard
T 518-453-2288 F518-951-2300 www.ensr.aecom.com

September 9, 2008

Mr. Charles Burke
National Fuel Gas Distribution Corporation
Building 8
365 Mineral Springs Road
Buffalo, NY 14210

Subject: Groundwater and Surface Water Monitoring Results
April 2008
Mineral Springs Road MGP Site

Dear Charlie,

This report provides the results of a groundwater and surface water sampling event completed by ENSR Corporation on April 30, 2008, at the Mineral Springs Road former MGP site in West Seneca (and Buffalo), New York.

The work at the Mineral Springs site is being conducted under a NYSDEC Voluntary Cleanup Agreement (number B9-0538-98-08) as described in the Remedial Design, dated February 10, 1999, and the Final Engineering Report, Volume II – Operations and Maintenance Plan, dated May 2002.

Summary

A total of 13 groundwater samples were collected and analyzed. A total of 14 depth-to-water measurements were taken. Sampling locations are shown in the attached figure. Analytical results are summarized in the attached table.

Groundwater elevations were similar to those in April 2007. August 2007 groundwater elevations were the lowest measured since 2000.

Concentrations of BTEX and/or PAH compounds were above NYSDEC standard or guidance values in three of the seven onsite groundwater samples.

Total cyanide concentrations exceeded the NYSDEC groundwater standard in eight of the nine groundwater samples analyzed. Free cyanide was detected in all nine of the groundwater samples.

Concentrations of BTEX and/or PAH compounds in two surface water samples were below NYSDEC standard or guidance values. Total cyanide concentrations in these surface water samples were also below the NYSDEC Class D Stream Standard. One surface water sample exceeded the NYSDEC standard for free cyanide while the other was not detected above method reporting limits.

Groundwater Elevations

Depth-to-water measurements were taken at the 14 monitoring wells. The measurements were used to construct the groundwater contours shown in the attached figure. Groundwater elevations were similar

to the April 2007 event while the groundwater elevations in August 2007 were the lowest measured since 2000.

At the time of the sampling, groundwater flowed onto the site from the east-southeast, and then flowed to the west towards Calais Street and Mineral Springs Road. Onsite groundwater usually appears to also discharge to the Class D Stream, which in turn discharges to the Calais Street storm sewer and the municipal wastewater treatment system.

Sampling and Analysis

A total of 13 monitoring wells were purged and sampled by an ENSR geologist. Sampling locations are shown on the attached figure.

Test America (formerly Severn Trent Laboratories (STL)) of Pittsburgh, PA, performed the analyses of the groundwater samples for hydrocarbon compounds of concern. Test America is currently certified to perform the requested analyses under the NYSDOH Environmental Laboratory Approval Program. The samples were analyzed for manufactured gas plant (MGP) indicators using the following methods:

BTEX	Method SW846 8260B
PAHs	Method SW846 8270C

Samples were also sent to Clarkson University of Potsdam, NY (Clarkson) for cyanide analysis using the following methods:

Cyanide (free)	Method ASTM D4282-89
Cyanide (total)	Method APHA 4500-CN-

All sampling and analyses were conducted according to ENSR's Standard Operating Procedures as provided in the project Quality Assurance Plan of June 11, 1999. Additionally, the cyanide samples were protected from light during collection to prevent the dissociation of metal-cyanide compounds, which would artificially elevate free cyanide results. The cyanide samples were also treated with lead carbonate and filtered to remove potential sulfide interferences.

Analytical Results and Conclusions

The results of the laboratory analyses are summarized in the attached table. The laboratory reports and the chain-of-custody forms are attached as well. The locations, sampling objectives, and a discussion of the analytical results for each of the specific areas of interest at the site are provided in the following sections.

Upgradient Site Perimeter

Well MW-17 is located in the southeast corner of the site and monitors upgradient groundwater quality. The results of the analyses indicate that no BTEX or PAH compounds were detected. Total cyanide was detected at a concentration of 285 µg/L, exceeding the NYSDEC groundwater standard. Free cyanide was detected at a concentration of 5.9 µg/L.

Downgradient Site Perimeter

Wells MW-20 and MW-21 are located downgradient of the western boundary of the site on Calais Street. Wells MW-13, MW-14, MW-22 and MW-23 are located just inside the northern property

boundary near Mineral Springs Road. These six "sentinel" wells monitor groundwater quality downgradient of the site. The groundwater samples from these six wells were analyzed for total and free cyanide.

Five of the wells were found to contain total cyanide in concentrations above the NYSDEC groundwater standard of 200 µg/L. Concentrations ranged from 252 µg/L at MW-23 to 666 µg/L at MW-22. Free cyanide was detected in all six of the sentinel wells above method detection limits. These concentrations are generally consistent with previous results with the following exceptions;

- The total cyanide concentration in MW-13 decreased from 664 µg/L in August 2007 to 54 µg/L. The concentration in April 2007 was 3 µg/L and 300 µg/L in August 2006.
- Free cyanide was detected above method detection limits in all ten groundwater wells sampled whereas in August of 2007, free cyanide was detected in five of the nine groundwater wells sampled. Free cyanide was not detected in any groundwater samples above method detection limits in the April 2007 or August 2006 sampling events.

Onsite Purifier Residuals Impacted Areas

Wells MW-12 and MW-16 monitor groundwater quality at locations of known subsurface deposits of purifier box residuals. These deposits were remediated by capping. Samples from these two wells were analyzed for total and free cyanide.

Total cyanide concentrations were 473 µg/L at MW-12 and 467 µg/L at MW-16. Free cyanide was detected in both of these monitoring wells.

Onsite Hydrocarbon NAPL Impacted Areas

Wells MW-7, MW-10, MW-11A, and MW-19 monitor onsite groundwater quality downgradient of subsurface soil impacted with hydrocarbon NAPL. Samples from these wells were analyzed for BTEX and PAHs.

BTEX and PAHs were not detected at MW-10. Consistent with previous results, BTEX and PAH compounds were detected above the NYSDEC groundwater standards in MW-7, MW-11A, and MW-19.

Surface Water

Two surface water samples were collected from the Class D Stream running along the south side of the site. BTEX and PAHs were not detected above the NYSDEC Class D Stream standard or guidance values.

Total cyanide was detected in both samples but did not exceed the NYSDEC standard. Free cyanide was detected at 50.7 µg/L in SW-02 which exceeds the NYSDEC standard. Free cyanide in SW-01 was not detected at a concentration greater than the method detection limits.

In August 2007, no surface water samples were collected because the stream was dry. In April 2007, the two surface water samples had no BTEX, PAHs, or total cyanide detected above method reporting limits but did have free cyanide concentrations below the NYSDEC standard.

QA/QC Samples

Quality control samples were collected during the sampling event to meet the requirements of the project QAP.

An equipment blank (EB) was prepared using organic free water supplied by the laboratory that was run over and through a sample collection bailer and through peristaltic pump tubing. No cyanide or BTEX compounds were detected in the equipment blank.

A trip blank (TB) sample was prepared by the laboratory and was stored in the sample cooler throughout the sampling event and during transportation back to the laboratory. The trip blank was analyzed for BTEX and no compounds were detected in it.

A duplicate sample was collected from MW-19 and submitted for analysis of BTEX and PAHs. The duplicate results were within the acceptable range for both BTEX and PAHs samples.

DNAPL Recovery Test Well (RTW-1)

During this groundwater sampling event, the Recovery System was operated to purge RTW-1 of DNAPL that had accumulated since the August 2007 sampling event. Approximately ½ gallon of water was pumped out. The water contained only trace amounts (blebs) of NAPL.

If you have any questions or comments, please do not hesitate to call Dan Shearer me at (518) 453-2288.

Sincerely yours,

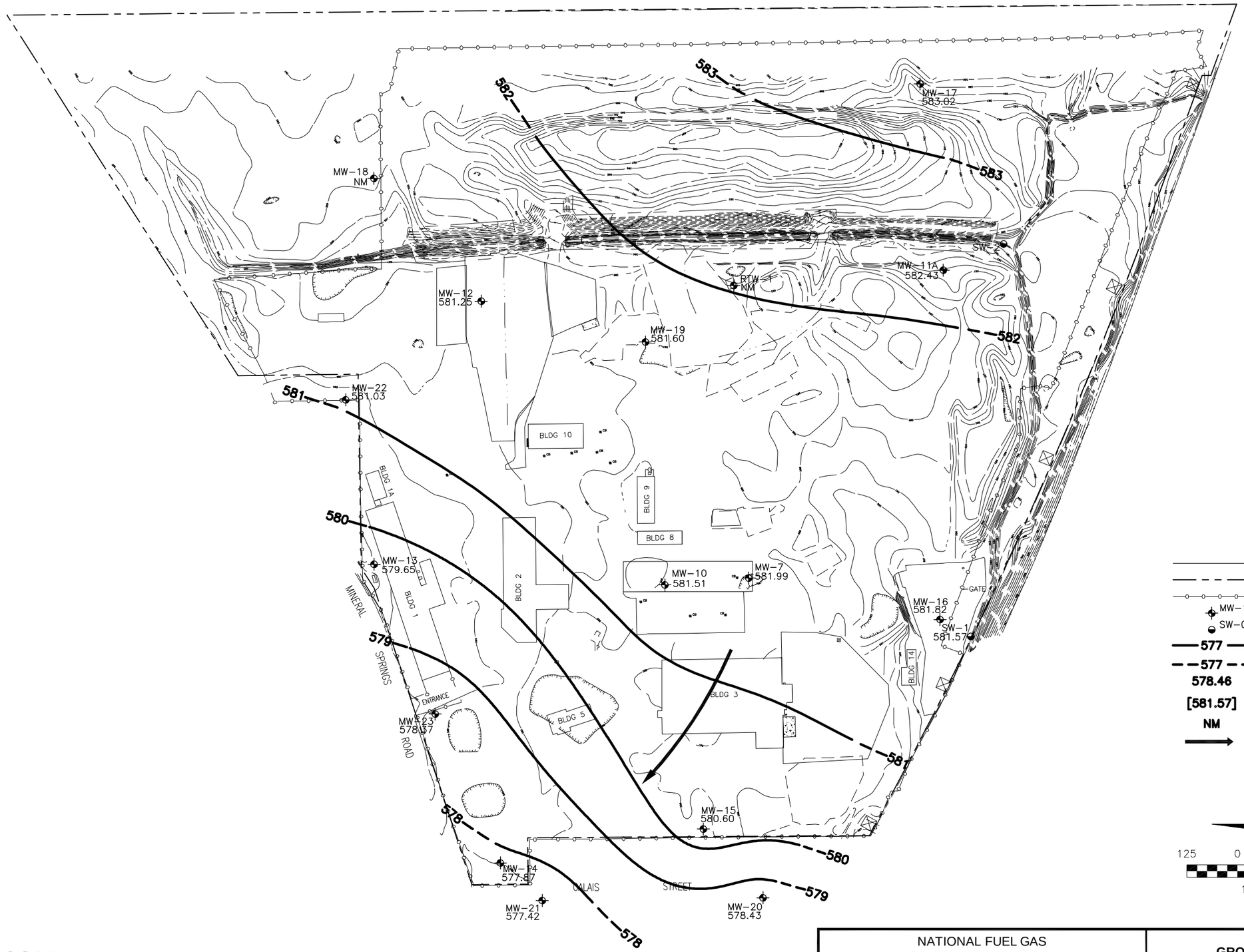
Helen A. Jones
Geochemist

Dan Shearer. P.E.
Project Manager

encl: Groundwater Contours (figure)
Laboratory Results Summary (table)
Laboratory Reports

cc: T. Alexander - NFG
R. Kennedy – Hodgson Russ LLP
D. Szymanski – NYSDEC
C. O'Connor - NYSDOH (w. figure/table only)
G. Bailey - NYSDEC (w. figure/table only)
G. Litwin - NYSDOH (w. figure/table only)
File: 04870-026

Groundwater Countours



LEGEND

- CURRENT SITE FEATURE
- PROPERTY BOUNDARY
- FENCELINE
- MW-16 MONITORING WELLS
- SW-01 SURFACE WATER SAMPLE LOCATION
- 577 GROUNDWATER ELEVATION CONTOUR (ft. MSL)
- 577 (DASHED WHERE INFERRED)
- 578.46 GROUNDWATER ELEVATION (ft. MSL)
- [581.57] GROUNDWATER ELEVATION (ft. MSL) NOT USED TO CONTOUR
- NM NOT MEASURED
- GROUNDWATER FLOW DIRECTION

CONTOUR INTERVAL: 1'

125 0 250

1"=250'

ENSR | AECOM

NATIONAL FUEL GAS MINERAL SPRINGS ROAD MGP SITE 04870-026-300			GROUNDWATER CONTOURS APRIL 2008
DATE: 6/02/08	DRWN: MAW/BIL		FIGURE 1

File: J:\04870026\300\GW4-08.dwg Layout: ANSL_BI-LJ User: mawilliamson Plotted: Jun 02, 2008 - 8:49am Xref's:

Laboratory Results Summary

Groundwater and Surface Water Monitoring Results
Mineral Springs Road MGP Site

April 2008

PARAMETER	GROUNDWATER															SURFACE WATER			QA / QC		
Sample ID :	**MW-07**	**MW-10**	**MW-11A**	**MW-12**	**MW-13**	**MW-14**	**MW-15**	**MW-16**	**MW-17**	**MW-19**	**MW-20**	**MW-21**	**MW-22**	**MW-23**	***Groundwater***	**SW-01**	**SW-02**	***Class D Stream***	**TB**	**EB**	**MW-19 Dup**
Sample Date :	04/30/08	04/30/08	04/30/08	04/30/08	04/30/08	04/30/08	04/30/08	04/30/08	04/30/08	04/30/08	04/30/08	04/30/08	04/30/08	04/30/08	***Standard*** [(1)]	04/30/08	04/30/08	***Standard*** [(1)]	04/30/08	04/30/08	04/30/08
BTEX (µg/L)																					
Benzene	490	nd	230	---	nd	---	---	---	nd	5200	---	---	---	nd	**1**	nd	nd	**10**	nd	nd	5200
Toluene	270	nd	5.5 J	---	nd	---	---	---	nd	nd	---	---	---	nd	**5**	nd	nd	**6000**	nd	nd	nd
Ethylbenzene	410	nd	69	---	nd	---	---	---	nd	210	---	---	---	nd	**5**	nd	nd	**150 ***	nd	nd	210
Xylene (sum of isomers)	270	nd	41	---	nd	---	---	---	nd	780	---	---	---	nd	**5 (each)**	nd	nd	**590 ***	nd	nd	790
PAHs (µg/L)																					
Naphthalene	430	nd	7.1 J	---	nd	---	---	---	nd	4100	---	---	---	4 J	**10 ***	2.3 J	0.94 J	**110 ***	---	---	3800
Acenaphthylene	2.5 J	nd	6.9 J	---	nd	---	---	---	nd	nd	---	---	---	nd	**NL ***	nd	nd	**NL**	---	---	nd
Acenaphthene	19	nd	5.6 J	---	nd	---	---	---	nd	1.5 J	---	---	---	nd	**20 ***	nd	nd	**48 ***	---	---	nd
Fluorene	7.6 J	nd	5.1 J	---	nd	---	---	---	nd	nd	---	---	---	nd	**50 ***	nd	nd	**4.8 ***	---	---	nd
Phenanthrene	2.5 J	nd	1.5 J	---	nd	---	---	---	nd	nd	---	---	---	nd	**50 ***	nd	nd	**45 ***	---	---	nd
Anthracene	2.5 J	nd	2.2 J	---	nd	---	---	---	nd	nd	---	---	---	nd	**50 ***	nd	nd	**35 ***	---	---	nd
Fluoranthene	nd	nd	nd	---	nd	---	---	---	nd	nd	---	---	---	nd	**50 ***	nd	nd	**NL**	---	---	nd
Pyrene	nd	nd	nd	---	nd	---	---	---	nd	nd	---	---	---	nd	**50 ***	nd	nd	**42 ***	---	---	nd
Benzo(a)anthracene	nd	nd	nd	---	nd	---	---	---	nd	nd	---	---	---	nd	**0.002 ***	nd	nd	**0.23 ***	---	---	nd
Chrysene	nd	nd	nd	---	nd	---	---	---	nd	nd	---	---	---	nd	**0.002 ***	nd	nd	**NL**	---	---	nd
Benzo(b)fluoranthene	nd	nd	nd	---	nd	---	---	---	nd	nd	---	---	---	nd	**0.002 ***	nd	nd	**NL**	---	---	nd
Benzo(k)fluoranthene	nd	nd	nd	---	nd	---	---	---	nd	nd	---	---	---	nd	**0.002 ***	nd	nd	**NL**	---	---	nd
Benzo(a)pyrene	nd	nd	nd	---	nd	---	---	---	nd	nd	---	---	---	nd	**NL**	nd	nd	**0.0012 ***	---	---	nd
Indeno(1,2,3-cd)pyrene	nd	nd	nd	---	nd	---	---	---	nd	nd	---	---	---	nd	**0.002 ***	nd	nd	**NL**	---	---	nd
Dibenz(a,h)anthracene	nd	nd	nd	---	nd	---	---	---	nd	nd	---	---	---	nd	**NL**	nd	nd	**NL**	---	---	nd
Benzo(g,h,i)perylene	nd	nd	nd	---	nd	---	---	---	nd	nd	---	---	---	nd	**NL**	nd	nd	**NL**	---	---	nd
2-Methylnaphthalene	24	nd	nd	---	nd	---	---	---	nd	4.7 J	---	---	---	nd	**NL**	nd	nd	**NL**	---	---	4.7 J
CYANIDE (µg/L)																					
Cyanide, total	---	---		473	54	374	---	467	285	---	494	543	666	252	**200**	14	86	**9000**	---	nd	---
Cyanide, free	---	---		25	2.3	4.0	---	6.9	5.9	---	3.2	18.5	5.9	3.2	**NL**	nd	50.7	**22**	---	nd	---
Water Elevation (feet)	581.99	581.51	582.43	581.25	579.65	577.87	580.60	581.82	583.02	581.60	578.43	577.42	581.03	578.37	**NL**	581.57	---	**NL**	---	---	---

Notes:

NL Not listed
nd Not detected above method detection limit
--- Not analyzed
J, E Indicates laboratory estimated value

(1) NYSDEC Division of Water Technical and Operational Guidance Series (1.1.1)
* Groundwater or Surface Water Guidance Value (no Standard value listed).
Concentrations exceeding NYSDEC regulatory standard or guidance value.

Laboratory Reports

ENSR

TestAmerica Laboratories, Inc. Report

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

PROJECT NO. 04870-025-200

ENSR-Mineral Springs

Lot #: C8E020307

Jim Edwards

ENSR International

TESTAMERICA LABORATORIES, INC.

Dave Dunlap
Project Manager

May 15, 2008

301 Alpha Drive Pittsburgh, PA 15238 tel 412.963.7058 fax 412.963.2468 www.testamericainc.com

NELAC REPORTING:

At the time of analysis the laboratory was in compliance with the current NELAC standards and held accreditation for all analyses performed unless noted by a qualifier. The labs accreditation numbers are listed below. The format and contents of the report meets all applicable NELAC standards except as noted in the narrative and shall not be reproduced except in full, without the written approval of the laboratory. The table below presents a summary of the certifications held by TestAmerica Pittsburgh. Our primary accreditation authority for the Non-potable water and Solid & Hazardous waste programs is Pennsylvania DEP. A more detailed parameter list is available upon request. Please ask your project manager for this information when required.

Certifying State/Program	Certificate #	Program Types	TestAmerica
NFESC	NA	NAVY	X
US Dept of Agriculture	(#P330-07-00101)	Foreign Soil Import Permit	X
Arkansas	(#03-022-1)	WW	X
		HW	X
California – NELAC	04224CA	WW	X
		HW	X
Connecticut	(#PH-0688)	WW	X
		HW	X
Florida – NELAC	(#E87660)	WW	X
		HW	X
Illinois – NELAC	(#200005)	WW	X
		HW	X
Kansas – NELAC	(#E-10350)	WW	X
		HW	X
Louisiana – NELAC	(#93200)	WW	X
		HW	X
New Hampshire – NELAC	(#203002)	WW	X
		--	--
New Jersey – NELAC	(PA-005)	WW	X
		HW	X
New York – NELAC	(#11182)	WW	X
		HW	X
North Carolina	(#434)	WW	X
		HW	X
Pennsylvania - NELAC	(#02-00416)	WW	X
		HW	X
South Carolina	(#89014001)	WW	X
		HW	X
Utah – NELAC	(STLP)	WW	X
		HW	X
West Virginia	(#142)	WW	X
		HW	X
Wisconsin	998027800	WW	X
		HW	X

The codes utilized for program types are described below:

HW Hazardous Waste certification
WW Non-potable Water and/or Wastewater certification
X Laboratory has some form of certification under the specific program. Many states certify laboratories for specific parameters or tests within a category. The information in the table indicates the lab is certified in a general category of testing. Please contact the laboratory if parameter specific certification information is required.

Updated: 12/28/07 C:\Documents and Settings\derubeisn\My Documents\NELAC NARRATIVE Pttsburgh.doc

CASE NARRATIVE

ENSR –Mineral Springs

Lot # C8E020307

Sample Receiving:
Samples were received at TestAmerica Pittsburgh on May 2, 2008. The coolers were received within the proper temperature range.

The laboratory received two broken 1-liter amber bottles for sample EQUIP.BLANK. This sample could not be analyzed for PAHs.

If project specific QC was not required for samples contained in this report, when batch QC was completed on these samples, anomalous results will be discussed below.

GC/MS Volatiles:
Due to the concentration of target compounds detected, several samples were analyzed at a dilution.

GC/MS Semivolatiles:
Due to the concentration of target compounds detected, samples MW-19 and MW-19 DUP were analyzed at a dilution. These samples had the surrogates diluted out.

C8E020307

Chain of Custody Record

STL-4124 (0901)

STL
Severn Trent Laboratories, Inc.

Client: ENSR	Project Manager: JAMES EDWARDS	Date: 5/1/08	Chain of Custody Number: 315515
Address: 1601 W. SENECA ST, SUITE 104	Telephone Number (Area Code)/Fax Number: 607-277-5716	Lab Number:	Page 1 of 1
City: ITHACA / State: NY / Zip Code: 14850	Site Contact:	Lab Contact: DAVE DUNCAP	
Project Name and Location (State): MINERAL SPRINGS, W. SENECA, NY	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	BTEX (Method 8260B)	PAH (Method 8270C)	Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt
MW-7		0914		X			2			3			X	X		
MW-10S		0840		X			2			3			X	X		
MW-11A		1140		X			2			3			X	X		
MW-13		1500		X			2			3			X	X		
MW-17		1255		X			2			3			X	X		
MW-19		1016		X			2			3			X	X		
MW-23		1446		X			2			3			X	X		
MW-19 DUP		1045		X			2			3			X	X		
SW-1		0930		X			2			3			X	X		
SW-2		1200		X			2			3			X	X		
EQUIP. BLANK		1500		X			2			3			X	X	both PAH bottles need broken seals 5/2/08	
TB				X						3			X	X		

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other ROUTINE

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	5/1/08	1500	1. Received By		
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By	5/2/08	0950

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

METHODS SUMMARY

C8E020307

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Semivolatile Organic Compounds by GC/MS	SW846 8270C	SW846 3520C
Volatile Organics by GC/MS	SW846 8260B	SW846 5030B/826

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

C8E020307

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
KMG45	001	MW-7	04/30/08	09:14
KMG5A	002	MW-10S	04/30/08	08:40
KMG5C	003	MW-11A	04/30/08	11:40
KMG5E	004	MW-13	04/30/08	15:00
KMG5F	005	MW-17	04/30/08	12:55
KMG5G	006	MW-19	04/30/08	10:40
KMG5H	007	MW-23	04/30/08	14:46
KMG5J	008	MW-19 DUP	04/30/08	10:45
KMG5K	009	SW-1	04/30/08	09:30
KMG5L	010	SW-2	04/30/08	12:00
KMG5M	011	EQUIP.BLANK	04/30/08	15:00
KMG5T	012	TB	04/30/08	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

ENSR International

Client Sample ID: MW-7

GC/MS Volatiles

Lot-Sample #...: C8E020307-001 **Work Order #...:** KMG451AD **Matrix.....:** WG
Date Sampled...: 04/30/08 **Date Received..:** 05/02/08 **MS Run #.....:** 8135045
Prep Date.....: 05/13/08 **Analysis Date..:** 05/13/08
Prep Batch #...: 8135061
Dilution Factor: 25 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**490**	**25**	**ug/L**
Ethylbenzene	**410**	**25**	**ug/L**
Toluene	**270**	**25**	**ug/L**
Xylenes (total)	**270**	**75**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	86	(73 - 122)
1,2-Dichloroethane-d4	86	(61 - 128)
Toluene-d8	92	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

ENSR International

Client Sample ID: MW-7

GC/MS Semivolatiles

Lot-Sample #...: C8E020307-001 **Work Order #...:** KMG451AC **Matrix.....:** WG
Date Sampled...: 04/30/08 **Date Received..:** 05/02/08 **MS Run #.....:**
Prep Date.....: 05/05/08 **Analysis Date..:** 05/07/08
Prep Batch #...: 8126136
Dilution Factor: 1.14 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**19**	**11**	**ug/L**
Acenaphthylene	**2.5 J**	**11**	**ug/L**
Anthracene	**2.5 J**	**11**	**ug/L**
Benzo(a)anthracene	ND	11	ug/L
Benzo(b)fluoranthene	ND	11	ug/L
Benzo(k)fluoranthene	ND	11	ug/L
Benzo(ghi)perylene	ND	11	ug/L
Benzo(a)pyrene	ND	11	ug/L
Chrysene	ND	11	ug/L
Fluoranthene	ND	11	ug/L
Fluorene	**7.6 J**	**11**	**ug/L**
Indeno(1,2,3-cd)pyrene	ND	11	ug/L
2-Methylnaphthalene	**24**	**11**	**ug/L**
Naphthalene	**430**	**11**	**ug/L**
Phenanthrene	**2.5 J**	**11**	**ug/L**
Pyrene	ND	11	ug/L
Dibenzo(a,h)anthracene	ND	11	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	80	(20 - 107)
2-Fluorobiphenyl	73	(27 - 104)
2-Fluorophenol	61	(17 - 102)
Nitrobenzene-d5	68	(33 - 103)
Phenol-d5	65	(25 - 107)
Terphenyl-d14	70	(14 - 127)

NOTE(S):

J Estimated result. Result is less than RL.

ENSR International

Client Sample ID: MW-10S

GC/MS Volatiles

Lot-Sample #...: C8E020307-002 **Work Order #...:** KMG5A1AD **Matrix.....:** WG
Date Sampled...: 04/30/08 **Date Received..:** 05/02/08 **MS Run #.....:** 8135045
Prep Date.....: 05/13/08 **Analysis Date..:** 05/13/08
Prep Batch #...: 8135061
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Xylenes (total)	ND	3.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	87	(73 - 122)
1,2-Dichloroethane-d4	87	(61 - 128)
Toluene-d8	90	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

ENSR International

Client Sample ID: MW-10S

GC/MS Semivolatiles

Lot-Sample #...: C8E020307-002 **Work Order #...:** KMG5A1AC **Matrix.....:** WG
Date Sampled...: 04/30/08 **Date Received..:** 05/02/08 **MS Run #.....:**
Prep Date.....: 05/05/08 **Analysis Date..:** 05/07/08
Prep Batch #...: 8126136
Dilution Factor: 0.96 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	9.6	ug/L
Acenaphthylene	ND	9.6	ug/L
Anthracene	ND	9.6	ug/L
Benzo(a)anthracene	ND	9.6	ug/L
Benzo(b)fluoranthene	ND	9.6	ug/L
Benzo(k)fluoranthene	ND	9.6	ug/L
Benzo(ghi)perylene	ND	9.6	ug/L
Benzo(a)pyrene	ND	9.6	ug/L
Chrysene	ND	9.6	ug/L
Fluoranthene	ND	9.6	ug/L
Fluorene	ND	9.6	ug/L
Indeno(1,2,3-cd)pyrene	ND	9.6	ug/L
2-Methylnaphthalene	ND	9.6	ug/L
Naphthalene	ND	9.6	ug/L
Phenanthrene	ND	9.6	ug/L
Pyrene	ND	9.6	ug/L
Dibenzo(a,h)anthracene	ND	9.6	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	62	(20 - 107)
2-Fluorobiphenyl	60	(27 - 104)
2-Fluorophenol	53	(17 - 102)
Nitrobenzene-d5	58	(33 - 103)
Phenol-d5	53	(25 - 107)
Terphenyl-d14	53	(14 - 127)

ENSR International

Client Sample ID: MW-11A

GC/MS Volatiles

Lot-Sample #...: C8E020307-003 **Work Order #...:** KMG5C1AD **Matrix.....:** WG
Date Sampled...: 04/30/08 **Date Received..:** 05/02/08 **MS Run #.....:** 8135045
Prep Date.....: 05/13/08 **Analysis Date..:** 05/13/08
Prep Batch #...: 8135061
Dilution Factor: 6.67 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**230**	**6.7**	**ug/L**
Ethylbenzene	**69**	**6.7**	**ug/L**
Toluene	**5.5 J**	**6.7**	**ug/L**
Xylenes (total)	**41**	**20**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	88	(73 - 122)
1,2-Dichloroethane-d4	85	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

NOTE(S):

J Estimated result. Result is less than RL.

ENSR International

Client Sample ID: MW-11A

GC/MS Semivolatiles

Lot-Sample #...: C8E020307-003 **Work Order #...:** KMG5C1AC **Matrix.....:** WG
Date Sampled...: 04/30/08 **Date Received..:** 05/02/08 **MS Run #.....:**
Prep Date.....: 05/05/08 **Analysis Date..:** 05/07/08
Prep Batch #...: 8126136
Dilution Factor: 0.94 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**5.6 J**	**9.4**	**ug/L**
Acenaphthylene	**6.9 J**	**9.4**	**ug/L**
Anthracene	**2.2 J**	**9.4**	**ug/L**
Benzo(a)anthracene	ND	9.4	ug/L
Benzo(b)fluoranthene	ND	9.4	ug/L
Benzo(k)fluoranthene	ND	9.4	ug/L
Benzo(ghi)perylene	ND	9.4	ug/L
Benzo(a)pyrene	ND	9.4	ug/L
Chrysene	ND	9.4	ug/L
Fluoranthene	ND	9.4	ug/L
Fluorene	**5.1 J**	**9.4**	**ug/L**
Indeno(1,2,3-cd)pyrene	ND	9.4	ug/L
2-Methylnaphthalene	ND	9.4	ug/L
Naphthalene	**7.1 J**	**9.4**	**ug/L**
Phenanthrene	**1.5 J**	**9.4**	**ug/L**
Pyrene	ND	9.4	ug/L
Dibenzo(a,h)anthracene	ND	9.4	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	74	(20 - 107)
2-Fluorobiphenyl	71	(27 - 104)
2-Fluorophenol	59	(17 - 102)
Nitrobenzene-d5	67	(33 - 103)
Phenol-d5	61	(25 - 107)
Terphenyl-d14	56	(14 - 127)

NOTE(S):

J Estimated result. Result is less than RL.

ENSR International

Client Sample ID: MW-13

GC/MS Volatiles

Lot-Sample #...: C8E020307-004 **Work Order #...:** KMG5E1AD **Matrix.....:** WG
Date Sampled...: 04/30/08 **Date Received..:** 05/02/08 **MS Run #.....:** 8135045
Prep Date.....: 05/13/08 **Analysis Date..:** 05/13/08
Prep Batch #...: 8135061
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Xylenes (total)	ND	3.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	87	(73 - 122)
1,2-Dichloroethane-d4	86	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	87	(74 - 116)

ENSR International

Client Sample ID: MW-13

GC/MS Semivolatiles

Lot-Sample #...: C8E020307-004 **Work Order #...:** KMG5E1AC **Matrix.....:** WG
Date Sampled...: 04/30/08 **Date Received..:** 05/02/08 **MS Run #.....:**
Prep Date.....: 05/05/08 **Analysis Date..:** 05/07/08
Prep Batch #...: 8126136
Dilution Factor: 0.97 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	9.7	ug/L
Acenaphthylene	ND	9.7	ug/L
Anthracene	ND	9.7	ug/L
Benzo(a)anthracene	ND	9.7	ug/L
Benzo(b)fluoranthene	ND	9.7	ug/L
Benzo(k)fluoranthene	ND	9.7	ug/L
Benzo(ghi)perylene	ND	9.7	ug/L
Benzo(a)pyrene	ND	9.7	ug/L
Chrysene	ND	9.7	ug/L
Fluoranthene	ND	9.7	ug/L
Fluorene	ND	9.7	ug/L
Indeno(1,2,3-cd)pyrene	ND	9.7	ug/L
2-Methylnaphthalene	ND	9.7	ug/L
Naphthalene	ND	9.7	ug/L
Phenanthrene	ND	9.7	ug/L
Pyrene	ND	9.7	ug/L
Dibenzo(a,h)anthracene	ND	9.7	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	78	(20 - 107)
2-Fluorobiphenyl	74	(27 - 104)
2-Fluorophenol	64	(17 - 102)
Nitrobenzene-d5	71	(33 - 103)
Phenol-d5	67	(25 - 107)
Terphenyl-d14	87	(14 - 127)

ENSR International

Client Sample ID: MW-17

GC/MS Volatiles

Lot-Sample #...: C8E020307-005 **Work Order #...:** KMG5F1AD **Matrix.....:** WG
Date Sampled...: 04/30/08 **Date Received..:** 05/02/08 **MS Run #.....:** 8135045
Prep Date.....: 05/13/08 **Analysis Date..:** 05/13/08
Prep Batch #...: 8135061
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Xylenes (total)	ND	3.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	88	(73 - 122)
1,2-Dichloroethane-d4	86	(61 - 128)
Toluene-d8	89	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)

ENSR International

Client Sample ID: MW-17

GC/MS Semivolatiles

Lot-Sample #...: C8E020307-005 **Work Order #...:** KMG5F1AC **Matrix.....:** WG
Date Sampled...: 04/30/08 **Date Received..:** 05/02/08 **MS Run #.....:**
Prep Date.....: 05/05/08 **Analysis Date..:** 05/07/08
Prep Batch #...: 8126136
Dilution Factor: 0.94 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	9.4	ug/L
Acenaphthylene	ND	9.4	ug/L
Anthracene	ND	9.4	ug/L
Benzo(a)anthracene	ND	9.4	ug/L
Benzo(b)fluoranthene	ND	9.4	ug/L
Benzo(k)fluoranthene	ND	9.4	ug/L
Benzo(ghi)perylene	ND	9.4	ug/L
Benzo(a)pyrene	ND	9.4	ug/L
Chrysene	ND	9.4	ug/L
Fluoranthene	ND	9.4	ug/L
Fluorene	ND	9.4	ug/L
Indeno(1,2,3-cd)pyrene	ND	9.4	ug/L
2-Methylnaphthalene	ND	9.4	ug/L
Naphthalene	ND	9.4	ug/L
Phenanthrene	ND	9.4	ug/L
Pyrene	ND	9.4	ug/L
Dibenzo(a,h)anthracene	ND	9.4	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	76	(20 - 107)
2-Fluorobiphenyl	75	(27 - 104)
2-Fluorophenol	63	(17 - 102)
Nitrobenzene-d5	71	(33 - 103)
Phenol-d5	67	(25 - 107)
Terphenyl-d14	83	(14 - 127)

ENSR International

Client Sample ID: MW-19

GC/MS Volatiles

Lot-Sample #...: C8E020307-006 **Work Order #...:** KMG5G1AD **Matrix.....:** WG
Date Sampled...: 04/30/08 **Date Received..:** 05/02/08 **MS Run #.....:** 8135045
Prep Date.....: 05/13/08 **Analysis Date..:** 05/13/08
Prep Batch #...: 8135061
Dilution Factor: 142.86 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**5200**	**140**	**ug/L**
Ethylbenzene	**210**	**140**	**ug/L**
Toluene	ND	140	ug/L
Xylenes (total)	**780**	**430**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	89	(73 - 122)
1,2-Dichloroethane-d4	87	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

ENSR International

Client Sample ID: MW-19

GC/MS Semivolatiles

Lot-Sample #...: C8E020307-006 **Work Order #...:** KMG5G1AC **Matrix.....:** WG
Date Sampled...: 04/30/08 **Date Received..:** 05/02/08 **MS Run #.....:**
Prep Date.....: 05/05/08 **Analysis Date..:** 05/07/08
Prep Batch #...: 8126136
Dilution Factor: 0.98 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	**1.5 J**	**9.8**	**ug/L**
Acenaphthylene	ND	9.8	ug/L
Anthracene	ND	9.8	ug/L
Benzo(a)anthracene	ND	9.8	ug/L
Benzo(b)fluoranthene	ND	9.8	ug/L
Benzo(k)fluoranthene	ND	9.8	ug/L
Benzo(ghi)perylene	ND	9.8	ug/L
Benzo(a)pyrene	ND	9.8	ug/L
Chrysene	ND	9.8	ug/L
Fluoranthene	ND	9.8	ug/L
Fluorene	ND	9.8	ug/L
Indeno(1,2,3-cd)pyrene	ND	9.8	ug/L
2-Methylnaphthalene	**4.7 J**	**9.8**	**ug/L**
Naphthalene	**950 E**	**9.8**	**ug/L**
Phenanthrene	ND	9.8	ug/L
Pyrene	ND	9.8	ug/L
Dibenzo(a,h)anthracene	ND	9.8	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	87	(20 - 107)
2-Fluorobiphenyl	84	(27 - 104)
2-Fluorophenol	70	(17 - 102)
Nitrobenzene-d5	73	(33 - 103)
Phenol-d5	75	(25 - 107)
Terphenyl-d14	75	(14 - 127)

NOTE(S):

J Estimated result. Result is less than RL.

E Estimated result. Result concentration exceeds the calibration range.

ENSR International

Client Sample ID: MW-19

GC/MS Semivolatiles

Lot-Sample #...: C8E020307-006 **Work Order #...:** KMG5G2AC **Matrix.....:** WG
Date Sampled...: 04/30/08 **Date Received..:** 05/02/08 **MS Run #.....:**
Prep Date.....: 05/05/08 **Analysis Date..:** 05/09/08
Prep Batch #...: 8126136
Dilution Factor: 19.6 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	200	ug/L
Acenaphthylene	ND	200	ug/L
Anthracene	ND	200	ug/L
Benzo(a)anthracene	ND	200	ug/L
Benzo(b)fluoranthene	ND	200	ug/L
Benzo(k)fluoranthene	ND	200	ug/L
Benzo(ghi)perylene	ND	200	ug/L
Benzo(a)pyrene	ND	200	ug/L
Chrysene	ND	200	ug/L
Fluoranthene	ND	200	ug/L
Fluorene	ND	200	ug/L
Indeno(1,2,3-cd)pyrene	ND	200	ug/L
2-Methylnaphthalene	ND	200	ug/L
Naphthalene	**4100**	**200**	**ug/L**
Phenanthrene	ND	200	ug/L
Pyrene	ND	200	ug/L
Dibenzo(a,h)anthracene	ND	200	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	NC,DIL	(20 - 107)
2-Fluorobiphenyl	NC,DIL	(27 - 104)
2-Fluorophenol	NC,DIL	(17 - 102)
Nitrobenzene-d5	NC,DIL	(33 - 103)
Phenol-d5	NC,DIL	(25 - 107)
Terphenyl-d14	NC,DIL	(14 - 127)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

ENSR International

Client Sample ID: MW-23

GC/MS Volatiles

Lot-Sample #...: C8E020307-007 **Work Order #...:** KMG5H1AD **Matrix.....:** WG
Date Sampled...: 04/30/08 **Date Received..:** 05/02/08 **MS Run #.....:** 8135045
Prep Date.....: 05/13/08 **Analysis Date..:** 05/13/08
Prep Batch #...: 8135061
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Xylenes (total)	ND	3.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	86	(73 - 122)
1,2-Dichloroethane-d4	85	(61 - 128)
Toluene-d8	88	(76 - 110)
4-Bromofluorobenzene	89	(74 - 116)

ENSR International

Client Sample ID: MW-23

GC/MS Semivolatiles

Lot-Sample #...: C8E020307-007 **Work Order #...:** KMG5H1AC **Matrix.....:** WG
Date Sampled...: 04/30/08 **Date Received..:** 05/02/08 **MS Run #.....:**
Prep Date.....: 05/05/08 **Analysis Date..:** 05/08/08
Prep Batch #...: 8126136
Dilution Factor: 1.04 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	10	ug/L
Acenaphthylene	ND	10	ug/L
Anthracene	ND	10	ug/L
Benzo(a)anthracene	ND	10	ug/L
Benzo(b)fluoranthene	ND	10	ug/L
Benzo(k)fluoranthene	ND	10	ug/L
Benzo(ghi)perylene	ND	10	ug/L
Benzo(a)pyrene	ND	10	ug/L
Chrysene	ND	10	ug/L
Fluoranthene	ND	10	ug/L
Fluorene	ND	10	ug/L
Indeno(1,2,3-cd)pyrene	ND	10	ug/L
2-Methylnaphthalene	ND	10	ug/L
Naphthalene	**4.0 J**	**10**	**ug/L**
Phenanthrene	ND	10	ug/L
Pyrene	ND	10	ug/L
Dibenzo(a,h)anthracene	ND	10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	76	(20 - 107)
2-Fluorobiphenyl	77	(27 - 104)
2-Fluorophenol	68	(17 - 102)
Nitrobenzene-d5	75	(33 - 103)
Phenol-d5	73	(25 - 107)
Terphenyl-d14	101	(14 - 127)

NOTE(S):

J Estimated result. Result is less than RL.

ENSR International

Client Sample ID: MW-19 DUP

GC/MS Volatiles

Lot-Sample #...: C8E020307-008 **Work Order #...:** KMG5J1AD **Matrix.....:** WG
Date Sampled...: 04/30/08 **Date Received..:** 05/02/08 **MS Run #.....:** 8135045
Prep Date.....: 05/13/08 **Analysis Date..:** 05/13/08
Prep Batch #...: 8135061
Dilution Factor: 142.86 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**5200**	**140**	**ug/L**
Ethylbenzene	**210**	**140**	**ug/L**
Toluene	ND	140	ug/L
Xylenes (total)	**790**	**430**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	89	(73 - 122)
1,2-Dichloroethane-d4	90	(61 - 128)
Toluene-d8	90	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

ENSR International

Client Sample ID: MW-19 DUP

GC/MS Semivolatiles

Lot-Sample #...: C8E020307-008 **Work Order #...:** KMG5J1AC **Matrix.....:** WG
Date Sampled...: 04/30/08 **Date Received..:** 05/02/08 **MS Run #.....:**
Prep Date.....: 05/05/08 **Analysis Date..:** 05/07/08
Prep Batch #...: 8126136
Dilution Factor: 1.09 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	11	ug/L
Acenaphthylene	ND	11	ug/L
Anthracene	ND	11	ug/L
Benzo(a)anthracene	ND	11	ug/L
Benzo(b)fluoranthene	ND	11	ug/L
Benzo(k)fluoranthene	ND	11	ug/L
Benzo(ghi)perylene	ND	11	ug/L
Benzo(a)pyrene	ND	11	ug/L
Chrysene	ND	11	ug/L
Fluoranthene	ND	11	ug/L
Fluorene	ND	11	ug/L
Indeno(1,2,3-cd)pyrene	ND	11	ug/L
2-Methylnaphthalene	**4.7 J**	**11**	**ug/L**
Naphthalene	**980 E**	**11**	**ug/L**
Phenanthrene	ND	11	ug/L
Pyrene	ND	11	ug/L
Dibenzo(a,h)anthracene	ND	11	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	95	(20 - 107)
2-Fluorobiphenyl	85	(27 - 104)
2-Fluorophenol	64	(17 - 102)
Nitrobenzene-d5	72	(33 - 103)
Phenol-d5	75	(25 - 107)
Terphenyl-d14	90	(14 - 127)

NOTE(S):

J Estimated result. Result is less than RL.

E Estimated result. Result concentration exceeds the calibration range.

ENSR International

Client Sample ID: MW-19 DUP

GC/MS Semivolatiles

Lot-Sample #...: C8E020307-008 **Work Order #...:** KMG5J2AC **Matrix.....:** WG
Date Sampled...: 04/30/08 **Date Received..:** 05/02/08 **MS Run #.....:**
Prep Date.....: 05/05/08 **Analysis Date..:** 05/09/08
Prep Batch #...: 8126136
Dilution Factor: 21.7 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	220	ug/L
Acenaphthylene	ND	220	ug/L
Anthracene	ND	220	ug/L
Benzo(a)anthracene	ND	220	ug/L
Benzo(b)fluoranthene	ND	220	ug/L
Benzo(k)fluoranthene	ND	220	ug/L
Benzo(ghi)perylene	ND	220	ug/L
Benzo(a)pyrene	ND	220	ug/L
Chrysene	ND	220	ug/L
Fluoranthene	ND	220	ug/L
Fluorene	ND	220	ug/L
Indeno(1,2,3-cd)pyrene	ND	220	ug/L
2-Methylnaphthalene	ND	220	ug/L
Naphthalene	**3800**	**220**	**ug/L**
Phenanthrene	ND	220	ug/L
Pyrene	ND	220	ug/L
Dibenzo(a,h)anthracene	ND	220	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	NC,DIL	(20 - 107)
2-Fluorobiphenyl	NC,DIL	(27 - 104)
2-Fluorophenol	NC,DIL	(17 - 102)
Nitrobenzene-d5	NC,DIL	(33 - 103)
Phenol-d5	NC,DIL	(25 - 107)
Terphenyl-d14	NC,DIL	(14 - 127)

NOTE(S):

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

ENSR International

Client Sample ID: SW-1

GC/MS Volatiles

Lot-Sample #...: C8E020307-009 **Work Order #...:** KMG5K1AD **Matrix.....:** WS
Date Sampled...: 04/30/08 **Date Received..:** 05/02/08 **MS Run #.....:** 8135045
Prep Date.....: 05/13/08 **Analysis Date..:** 05/13/08
Prep Batch #...: 8135061
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Xylenes (total)	ND	3.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	91	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
Toluene-d8	89	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

ENSR International

Client Sample ID: SW-1

GC/MS Semivolatiles

Lot-Sample #...: C8E020307-009 **Work Order #...:** KMG5K1AC **Matrix.....:** WS
Date Sampled...: 04/30/08 **Date Received..:** 05/02/08 **MS Run #.....:**
Prep Date.....: 05/05/08 **Analysis Date..:** 05/07/08
Prep Batch #...: 8126136
Dilution Factor: 0.98 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	9.8	ug/L
Acenaphthylene	ND	9.8	ug/L
Anthracene	ND	9.8	ug/L
Benzo(a)anthracene	ND	9.8	ug/L
Benzo(b)fluoranthene	ND	9.8	ug/L
Benzo(k)fluoranthene	ND	9.8	ug/L
Benzo(ghi)perylene	ND	9.8	ug/L
Benzo(a)pyrene	ND	9.8	ug/L
Chrysene	ND	9.8	ug/L
Fluoranthene	ND	9.8	ug/L
Fluorene	ND	9.8	ug/L
Indeno(1,2,3-cd)pyrene	ND	9.8	ug/L
2-Methylnaphthalene	ND	9.8	ug/L
Naphthalene	**2.3 J**	**9.8**	**ug/L**
Phenanthrene	ND	9.8	ug/L
Pyrene	ND	9.8	ug/L
Dibenzo(a,h)anthracene	ND	9.8	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	66	(20 - 107)
2-Fluorobiphenyl	63	(27 - 104)
2-Fluorophenol	53	(17 - 102)
Nitrobenzene-d5	58	(33 - 103)
Phenol-d5	56	(25 - 107)
Terphenyl-d14	54	(14 - 127)

NOTE(S):

J Estimated result. Result is less than RL.

ENSR International

Client Sample ID: SW-2

GC/MS Volatiles

Lot-Sample #...: C8E020307-010 **Work Order #...:** KMG5L1AD **Matrix.....:** WS
Date Sampled...: 04/30/08 **Date Received..:** 05/02/08 **MS Run #.....:** 8135045
Prep Date.....: 05/13/08 **Analysis Date..:** 05/13/08
Prep Batch #...: 8135061
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Xylenes (total)	ND	3.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	89	(73 - 122)
1,2-Dichloroethane-d4	89	(61 - 128)
Toluene-d8	89	(76 - 110)
4-Bromofluorobenzene	87	(74 - 116)

ENSR International

Client Sample ID: SW-2

GC/MS Semivolatiles

Lot-Sample #...: C8E020307-010 **Work Order #...:** KMG5L1AC **Matrix.....:** WS
Date Sampled...: 04/30/08 **Date Received..:** 05/02/08 **MS Run #.....:**
Prep Date.....: 05/05/08 **Analysis Date..:** 05/07/08
Prep Batch #...: 8126136
Dilution Factor: 0.97 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	9.7	ug/L
Acenaphthylene	ND	9.7	ug/L
Anthracene	ND	9.7	ug/L
Benzo(a)anthracene	ND	9.7	ug/L
Benzo(b)fluoranthene	ND	9.7	ug/L
Benzo(k)fluoranthene	ND	9.7	ug/L
Benzo(ghi)perylene	ND	9.7	ug/L
Benzo(a)pyrene	ND	9.7	ug/L
Chrysene	ND	9.7	ug/L
Fluoranthene	ND	9.7	ug/L
Fluorene	ND	9.7	ug/L
Indeno(1,2,3-cd)pyrene	ND	9.7	ug/L
2-Methylnaphthalene	ND	9.7	ug/L
Naphthalene	**0.94 J**	**9.7**	**ug/L**
Phenanthrene	ND	9.7	ug/L
Pyrene	ND	9.7	ug/L
Dibenzo(a,h)anthracene	ND	9.7	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	75	(20 - 107)
2-Fluorobiphenyl	72	(27 - 104)
2-Fluorophenol	63	(17 - 102)
Nitrobenzene-d5	71	(33 - 103)
Phenol-d5	64	(25 - 107)
Terphenyl-d14	41	(14 - 127)

NOTE(S):

J Estimated result. Result is less than RL.

ENSR International

Client Sample ID: EQUIP.BLANK

GC/MS Volatiles

Lot-Sample #...: C8E020307-011 **Work Order #...:** KMG5M1AA **Matrix.....:** WQ
Date Sampled...: 04/30/08 **Date Received..:** 05/02/08 **MS Run #.....:** 8135045
Prep Date.....: 05/13/08 **Analysis Date..:** 05/13/08
Prep Batch #...: 8135061
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Xylenes (total)	ND	3.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(73 - 122)
1,2-Dichloroethane-d4	92	(61 - 128)
Toluene-d8	89	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

ENSR International

Client Sample ID: TB

GC/MS Volatiles

Lot-Sample #...: C8E020307-012 **Work Order #...:** KMG5T1AA **Matrix.....:** WQ
Date Sampled...: 04/30/08 **Date Received..:** 05/02/08 **MS Run #.....:** 8135045
Prep Date.....: 05/13/08 **Analysis Date..:** 05/13/08
Prep Batch #...: 8135061
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Xylenes (total)	ND	3.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
Toluene-d8	89	(76 - 110)
4-Bromofluorobenzene	91	(74 - 116)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: C8E020307 **Work Order #...:** KM5RK1AA **Matrix.....:** WATER
MB Lot-Sample #: A8E140000-061
Prep Date.....: 05/13/08
Analysis Date..: 05/13/08 **Prep Batch #...:** 8135061
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	3.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	89	(73 - 122)
1,2-Dichloroethane-d4	87	(61 - 128)
Toluene-d8	89	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: C8E020307 **Work Order #...:** KMJTP1AA **Matrix.....:** WATER
MB Lot-Sample #: C8E050000-136
Prep Date.....: 05/05/08
Analysis Date..: 05/07/08 **Prep Batch #...:** 8126136
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acenaphthene	ND	10	ug/L	SW846 8270C
Acenaphthylene	ND	10	ug/L	SW846 8270C
Anthracene	ND	10	ug/L	SW846 8270C
Benzo(a)anthracene	ND	10	ug/L	SW846 8270C
Benzo(b)fluoranthene	ND	10	ug/L	SW846 8270C
Benzo(k)fluoranthene	ND	10	ug/L	SW846 8270C
Benzo(ghi)perylene	ND	10	ug/L	SW846 8270C
Benzo(a)pyrene	ND	10	ug/L	SW846 8270C
Chrysene	ND	10	ug/L	SW846 8270C
Fluoranthene	ND	10	ug/L	SW846 8270C
Fluorene	ND	10	ug/L	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	SW846 8270C
2-Methylnaphthalene	ND	10	ug/L	SW846 8270C
Naphthalene	ND	10	ug/L	SW846 8270C
Phenanthrene	ND	10	ug/L	SW846 8270C
Pyrene	ND	10	ug/L	SW846 8270C
Dibenzo(a,h)anthracene	ND	10	ug/L	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	79	(20 - 107)
2-Fluorobiphenyl	71	(27 - 104)
2-Fluorophenol	62	(17 - 102)
Nitrobenzene-d5	68	(33 - 103)
Phenol-d5	62	(25 - 107)
Terphenyl-d14	102	(14 - 127)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: C8E020307 **Work Order #...:** KM5RK1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A8E140000-061 KM5RK1AD-LCSD
Prep Date.....: 05/13/08 **Analysis Date..:** 05/13/08
Prep Batch #...: 8135061
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**101**	**(63 - 130)**			**SW846 8260B**
	104	**(63 - 130)**	**2.7**	**(0-20)**	**SW846 8260B**
Trichloroethene	**95**	**(75 - 122)**			**SW846 8260B**
	95	**(75 - 122)**	**0.38**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**95**	**(76 - 117)**			**SW846 8260B**
	93	**(76 - 117)**	**1.7**	**(0-20)**	**SW846 8260B**
Benzene	**93**	**(80 - 116)**			**SW846 8260B**
	93	**(80 - 116)**	**0.45**	**(0-20)**	**SW846 8260B**
Toluene	**95**	**(74 - 119)**			**SW846 8260B**
	93	**(74 - 119)**	**1.7**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(73 - 122)
	90	(73 - 122)
1,2-Dichloroethane-d4	86	(61 - 128)
	85	(61 - 128)
Toluene-d8	89	(76 - 110)
	88	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)
	90	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: C8E020307 **Work Order #...:** KMJTP1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: C8E050000-136 KMJTP1AD-LCSD
Prep Date.....: 05/05/08 **Analysis Date..:** 05/07/08
Prep Batch #...: 8126136
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,2,4-Trichloro-benzene	77	(39 - 97)			SW846 8270C
	72	(39 - 97)	6.2	(0-32)	SW846 8270C
1,4-Dichlorobenzene	64	(38 - 94)			SW846 8270C
	61	(38 - 94)	4.1	(0-33)	SW846 8270C
2,4-Dinitrotoluene	88	(37 - 103)			SW846 8270C
	90	(37 - 103)	2.1	(0-32)	SW846 8270C
Acenaphthene	91	(40 - 97)			SW846 8270C
	92	(40 - 97)	1.8	(0-32)	SW846 8270C
2-Chlorophenol	79	(38 - 97)			SW846 8270C
	77	(38 - 97)	2.0	(0-31)	SW846 8270C
4-Chloro-3-methylphenol	88	(38 - 100)			SW846 8270C
	90	(38 - 100)	2.0	(0-32)	SW846 8270C
4-Nitrophenol	69	(30 - 112)			SW846 8270C
	71	(30 - 112)	2.4	(0-39)	SW846 8270C
N-Nitrosodi-n-propyl-amine	87	(36 - 102)			SW846 8270C
	88	(36 - 102)	1.8	(0-36)	SW846 8270C
Pentachlorophenol	85	(13 - 120)			SW846 8270C
	89	(13 - 120)	3.9	(0-56)	SW846 8270C
Phenol	71	(36 - 98)			SW846 8270C
	71	(36 - 98)	0.22	(0-35)	SW846 8270C
Butyl benzyl phthalate	73	(39 - 105)			SW846 8270C
	75	(39 - 105)	3.2	(0-35)	SW846 8270C
4-Bromophenyl phenyl ether	87	(40 - 105)			SW846 8270C
	90	(40 - 105)	3.9	(0-40)	SW846 8270C
4-Methylphenol	86	(33 - 106)			SW846 8270C
	87	(33 - 106)	0.50	(0-34)	SW846 8270C
Hexachloroethane	63	(35 - 96)			SW846 8270C
	61	(35 - 96)	3.3	(0-43)	SW846 8270C
Naphthalene	82	(38 - 98)			SW846 8270C
	78	(38 - 98)	4.5	(0-39)	SW846 8270C
Pyrene	73	(39 - 108)			SW846 8270C
	75	(39 - 108)	3.4	(0-38)	SW846 8270C

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: C8E020307 **Work Order #...:** KMJTP1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: C8E050000-136 KMJTP1AD-LCSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	96	(20 - 107)
	98	(20 - 107)
2-Fluorobiphenyl	91	(27 - 104)
	89	(27 - 104)
2-Fluorophenol	73	(17 - 102)
	71	(17 - 102)
Nitrobenzene-d5	85	(33 - 103)
	81	(33 - 103)
Phenol-d5	78	(25 - 107)
	77	(25 - 107)
Terphenyl-d14	82	(14 - 127)
	85	(14 - 127)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: C8E020307 **Work Order #...:** KMG5G1AE-MS **Matrix.....:** WG
MS Lot-Sample #: C8E020307-006 KMG5G1AF-MSD
Date Sampled...: 04/30/08 **Date Received..:** 05/02/08 **MS Run #.....:** 8135045
Prep Date.....: 05/13/08 **Analysis Date..:** 05/13/08
Prep Batch #...: 8135061
Dilution Factor: 142.86

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**99**	**(62 - 130)**			**SW846 8260B**
	93	**(62 - 130)**	**6.1**	**(0-20)**	**SW846 8260B**
Trichloroethene	**98**	**(62 - 130)**			**SW846 8260B**
	94	**(62 - 130)**	**4.1**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**96**	**(76 - 117)**			**SW846 8260B**
	92	**(76 - 117)**	**3.8**	**(0-20)**	**SW846 8260B**
Benzene	**110**	**(78 - 118)**			**SW846 8260B**
	83	**(78 - 118)**	**5.7**	**(0-20)**	**SW846 8260B**
Toluene	**97**	**(70 - 119)**			**SW846 8260B**
	92	**(70 - 119)**	**5.7**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	91	(73 - 122)
	88	(73 - 122)
1,2-Dichloroethane-d4	89	(61 - 128)
	87	(61 - 128)
Toluene-d8	93	(76 - 110)
	88	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)
	91	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

ENSR

Clarkson University Laboratory Report

Project Number: 04870-026

September 2008

May 14, 2008

James Edwards
ENSR Corporation
1001 W. Seneca St., Suite 204
Ithaca, NY 14850-3342

Re: PO Number 2062317. Groundwater samples analyzed by Eleanor Hopke, Clarkson University

Dear Mr. Edwards:

Thirteen groundwater samples from the Mineral Springs site were received from ENSR Corporation on May 6, 2008. The samples arrived cold (4^{o}C) in brown plastic bottles, two 250-ml bottles for each sample. Requested analyses were Total Cyanide and Free Cyanide by Microdiffusion. The Chain of Custody form listed three samples which were not received: MW-7, MW-10S, and MW-19. The sample analysis quotation provided for the analysis of 13 samples, the number received.

The duplicate sample containers were composited before analysis. pH's of the samples were all greater than pH 13. Laboratory matrix spikes and matrix spike duplicates, independent check standards, continuing calibration verification standards, and reagent blanks were analyzed along with the samples.

The following methods were used to analyze the samples:

Total Cyanide – APHA *Standard Methods* 4500-CN^- C. "Total Cyanide after Distillation" and APHA *Standard Methods* 4500-CN^- E., "Colorimetric Method."

Free Cyanide - *ASTM* D4282-95. "Standard Test Method for Determination of Free Cyanide in Water and Wastewater by Microdiffusion." using lower concentration standards to better bracket the sample concentrations, and substituting APHA 4500-CN^- D. to standardize the stock cyanide standard. Sample pH's were reduced by adding sulfuric acid so that the buffer would adequately reduce the pH during the analysis. I have had success with doing this.

For Diffusible and Total Cyanide, the stock cyanide standard was calibrated using APHA *Standard Methods*, 4500-CN^- D., "Titrimetric Method."

The analytical results follow:

Groundwater Samples
TOTAL CYANIDE and FREE CYANIDE
Results in µg CN^{--} /L (ppb)

ID	Free Cyanide	Total Cyanide
MW-11A	4.4	173
MW-12	25.0	473
MW-13	2.3	54
MW-14	4.0	374
MW-16S	6.9	467
MW-17	5.9	285
MW-20	3.2	494
MW-21	18.5	543
MW-22	5.9	666
MW-23	3.2	252
SW-1	<2.3	14
SW-2	50.7	86
Equipment Blank	<2.3	<3
Matrix Spike and Matrix Spike Duplicate	98.5%, 101.1% (MW-11A)	95.1%, 94.4 % (MW-17)
Reagent Blank	<2.3	<3
Independent Check Std	102.8%	95.5%

Analytical Dates

ID	Sampling Date	Arrival Date	Free CN Analysis Date	Total CN Analysis Date
MW-11A	4/30/08	5/6/08	5/9/08	5/9/08
MW-12	4/30/08	5/6/08	5/9/08	5/9/08
MW-13	4/30/08	5/6/08	5/9/08	5/9/08
MW-14	4/30/08	5/6/08	5/9/08	5/9/08
MW-16S	4/30/08	5/6/08	5/9/08	5/9/08
MW-17	4/30/08	5/6/08	5/9/08	5/9/08
MW-20	4/30/08	5/6/08	5/9/08	5/9/08
MW-21	4/30/08	5/6/08	5/9/08	5/9/08
MW-22	4/30/08	5/6/08	5/9/08	5/13/08
MW-23	4/30/08	5/6/08	5/9/08	5/12/08
SW-1	4/30/08	5/6/08	5/9/08	5/12/08
SW-2	4/30/08	5/6/08	5/9/08	5/12/08
Equipment Blank	4/30/08	5/6/08	5/9/08	5/9/08

I will be very glad to answer any questions you might have about these results. Thank you very much for sending them to Clarkson for analysis.

Sincerely,

Eleanor Hopke
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