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EA Science and Technology

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24 May 2012

Mr. Jeff Dyber, P.E. - Environmental Engineer 2
New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Eastern Remedial Action
625 Broadway
Albany, New York 12233

RE: National Heatset Printing Site / Soil Vapor Extraction System
Operation & Maintenance Report (January – April 2012)
1 Adams Boulevard, Farmingdale, New York
New York State Department of Environmental Conservation Site No. 1-52-140
EA Project No. 14474.29

Dear Mr. Dyber:

This letter report provides an overview of the ongoing operation of the soil vapor extraction (SVE) system at the National Heatset Printing site in Farmingdale, New York (Figure 1). EA Engineering, P.C. and its affiliate EA Science & Technology, Inc. (EA) assumed management of the on-site SVE system under Work Assignment No. D004441-29. The activities are being conducted under the New York State Department of Environmental Conservation (NYSDEC) State Superfund Standby Contract. SVE system details are presented in an Operation & Maintenance (O&M) Manual (Shaw, 2003)¹.

During the reporting period, an O&M visit was performed on the following date by EA personnel.

Date	Purpose
4/24/12	Quarterly Visit (April 2012)

1. SYSTEM OPERATION

Based on the motor's hour meter, the system was operational for a total of 2,016 hours out of an available 2,016 hours (100 percent of the total available) during this reporting period (31 January 2012 to 24 April 2012).

¹ The Shaw Group. 2003. Soil Vapor Extraction Operation and Maintenance Manual. October.



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Operational data for this period have been based on the measurements and effluent sample data collected on 24 April 2012. Operational data are summarized in Table 1 and on the site visit data collection form provided in Attachment A. Key operating parameters for the SVE system are summarized below.

Date	Extraction Well Flow rate (cfm)	Extraction Well Vacuum (H ₂ O)	SVE Blower Flow rate (cfm)	DCE Conc. ¹ (mg/m ³)	TCE Conc. ¹ (mg/m ³)	PCE Conc. ¹ (mg/m ³)
4/24/12	90	33	268	0.110	0.193	5.95

¹ PCE, DCE, and TCE concentration measured via laboratory analysis.

NOTE: cfm = Cubic feet per minute.
PCE = Tetrachloroethylene.
TCE = Trichloroethene.
DCE = *cis*-1,2-Dichloroethene

A complete set of operational data collected are presented in Tables 1 and 2, as well as Attachment A.

2. MONITORING PROBES

The following vacuum data (inches of water column) were observed at the listed vapor monitoring points during the monitoring period.

Vapor Monitoring Point	Vacuum Reading (Inches H ₂ O)
	24 April 2012
VP-1	0.0
VP-2	0.0
VP-3	0.0
VP-7	0.1
VP-8	0.05
VP-9	0.0
VP-10	0.0
VP-11	0.1
VP-12	0.0
VP-13	0.0
VP-14	0.0
VP-15	-

NOTE: - = Unable to access monitoring point due to closed business.

The vapor points will continue to be monitored during future site visits.



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3. DEPTH-TO-WATER MEASUREMENTS

The following gauging data (feet below top-of-casing) were collected during the monitoring period.

Date	MW-C	MW-E	MW-G
4/24/12	16.66	--	16.84
NOTE: -- = Unable to access monitoring point due to closed business.			

The wells will continue to be gauged during future site visits.

4. AIR DISCHARGE MONITORING

EA personnel collected a grab air sample from the system effluent using a Tedlar bag and submitted the sample to Alpha Analytical. The sample was analyzed for VOCs using U.S. Environmental Protection Agency Method TO-15. PCE, TCE, and *cis*-1,2-dichloroethene (*cis*-1,2-DCE) were detected at the following concentrations:

Date	<i>cis</i> -1,2-DCE	TCE	PCE
4/24/12	0.110	0.193	5.95
NOTE: ND = Not Detected			
J = Analyte detected below detection limits.			
Units = mg/m ³			

Analytical results are summarized in Table 1 and the laboratory data reports are presented in Attachment B. A summary of the field monitoring and laboratory air discharge analytical results are presented as Table 3.

Based on the effluent sampling results, a total of 11.75 lbs of PCE has been discharged during the year 2012 toward the permitted annual discharge limit of 270 lbs. A total of 0.38 lb of TCE has been discharged during the year 2012 toward the permitted annual discharge limit of 120 lbs. A negligible amount of *cis*-1,2-DCE was discharged during the reporting period (the annual discharge limit is 5,510 lbs).



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5. CONCLUSIONS AND RECOMMENDATIONS

Based on the data collected from the SVE system during this reporting period, EA recommends continued operation of the SVE system.

Please do not hesitate to contact me at 315-431-4610 with any questions you might have regarding this report.

Sincerely,

EA SCIENCE AND
TECHNOLOGY, INC.

A handwritten signature in black ink that reads "James C. Hayward".

James C. Hayward, P.E.
Project Manager

JCH/drs

Enclosures

TABLE 2 AIR SAMPLE ANALYTICAL RESULTS

VGAC Effluent Concentration (mg/m ³)			
Date	cis -1,2-Dichloroethene	Tetrachloroethene	Trichloroethene
3/31/2010	0.02	0.69	0.04
6/28/2010	0.197	14.1	0.306
9/27/2010	0.122	4.18	0.240
12/28/2010	0.015	0.318	0.041
3/3/2011	0.0734	3.22	0.162
6/27/2011	0.0678	1.46	0.220
1/31/2012	0.0892	4.28	0.091
4/24/2012	0.110	5.95	0.193

NOTE: VGAC = Vapor-phase granular activated carbon
mg/m³ = Milligrams per cubic meter

TABLE 3 AIR DISCHARGE MONITORING

Date	System Effluent Flow Rate (cfm)	Field Monitoring		Elapsed Time (day)	Laboratory Results			Discharge based on Field Monitoring		Discharge based on Laboratory Results					
		PCE System Effluent Concentration (ppmv)	System Effluent VOC Concentration (ppmv)		PCE	TCE	cis-1,2-DCE	PCE Discharge Since Last Visit (lb/hr)	PCE Discharge Since Last Visit (lb)	TCE Discharge Since Last Visit (lb)	TCE Discharge Since Last Visit: lb/hr	TCE Discharge Since Last Visit (lb)	cis-1,2-DCE Discharge Since Last Visit (lb)	cis-1,2-DCE Discharge Since Last Visit (lb)	
18 September 2002-24 November 2003 (Total)															
								431.38		26.42		5.41		0.00	
6 January 2004-22 December 2004 (Total)															
								24.34		62.26		1.41		10.00	
20 January 2005-8 December 2005 (Total)															
								149.79		117.08		3.77		4.09	
6 January 2006-21 December 2006 (Total)															
								0.00		4.11		0.66		0.71	
26 January 2007-4 January 2008 (Total)															
								0.00		0.27		0.00		0.12	
23 January 2008-22 December 2008 (Total)															
									30.13		2.17		0.00		
26 January 2009-21 December 2009 (Total)															
									39.56		1.64		0.00		
31 March 2010-Current															
3/31/2010	285	0	0	100	0.69	0.04	0.02	0.0000	0.00	0.0007	1.77	0.0000	0.10	0.000	0.00
6/28/2010	283	0	4.4	89	14.1	0.306	0.197	0.0000	0.00	0.0150	31.95	0.0003	0.69	0.000	0.00
9/27/2010	275	0	8.8	91	4.18	0.24	0.122	0.0000	0.00	0.0043	9.41	0.0002	0.54	0.000	0.00
12/28/2010	300	NA	0.1	92	0.318	0.041	0.015	NA	NA	0.0004	0.79	0.0000	0.10	0.000	0.00
3/3/2011	124	NA	0.2	65	3.22	0.162	0.0734	NA	NA	0.0015	2.34	0.0001	0.12	0.000	0.00
6/27/2011	175	NA	0.1	116	1.46	0.22	0.0678	NA	NA	0.0010	2.67	0.0001	0.40	0.000	0.00
1/31/2012	252	NA	0.1	101	4.28	0.091	0.0892	NA	NA	0.0040	9.80	0.0001	0.21	0.000	0.00
4/24/2012	268	NA	2.0	84	5.95	0.193	0.110	NA	NA	0.0060	12.05	0.0002	0.39	0.000	0.00
2012 TOTALS =													21.85	0.60	
NOTE: cfm = cubic feet per minute ppmv = parts per million (vol./vol.) mg/cu. m = milligrams per cubic meter PCE = Tetrachloroethylene TCE = Trichloroethene <i>cis</i> -1,2-DCE = <i>cis</i> -1,2-Dichloroethene															
Discharge Rate (Field Mon., lb/hr) = [(flow(cfm)*influent conc.(ppmv)*MW*12,187)/(273.15+C)]*1 cu. m/35.31 cu. ft*1g/1000 mg*1 lb/453.6 g*60 min/1 hr															
Discharge (Field Mon., lb) = Discharge Rate (lb/hr) * # of days*24hours/day*60 minutes/hr															
Discharge Rate (Lab Res., lb/hr) = flow (cfm)*effluent conc. (mg/cu. m)*1g/1000mg*1lb/453.6g*1cu. m/35.31cu. ft*60min/1 hr															
Discharge (Lab Res., lb) = Discharge Rate (lb/hr) * # of days*24hours/day															
Permit limit for PCE is 0.031 lb/hr and 270 lb/yr; TCE is 0.014 lb/hr and 120 lb/year; <i>cis</i> -1,2-DCE is 0.63 lb/hr and 5,510 lb/year															

Attachment A

National Heatset Printing
 1 Adams Boulevard, Farmingdale, New York
 EA Engineering

Personnel: Robert Peterson Time: 9:32
 Weather: 43F, Partly Cloudy, 14-16 mph SW Date: 4/24/2012

System Status:

Arrival: Running
 Departure: Running
 Run Timer Reading: 48,824.47
 Electric Meter Reading: 19974; 00.42; 35.64; 0095

System Data:

Extraction Well F Gate Valve: 100 % Open
 Dilution Valve: 75 % Open

Pre-Bleed Air (Extraction Well):

Flow: 90 CFM
 Vacuum: 33 "H₂O
 PID Reading: 4.1 PPM
 Temperature: 86.6 °F

Post-Bleed Air (SVE Influent):

Flow: 268.2 CFM
 Pressure: 19 "H₂O via magnehelic
 PID Reading: 1.5 PPM
 Temperature: 145.7 °F

Carbon Monitoring:

Mid: 2.5 PPM 9 "H₂O
 Effluent: 2.0 PPM

Carbon effluent sample collected & shipped to lab? Yes

Knockout Tank Drained? No

Gallons: N/A

Purge water drums on-site: N/A

Monitoring Well Gauging / Vapor Point Monitoring:

Well/V.P. ID:	MW-C	MW-E	MW-G	VP-1	VP-2	VP-3	VP-7	VP-8	VP-9	VP-10	VP-11	VP-12	VP-13	VP-14	VP-15
DTW (ft):	16.66	--	16.84	--	--	--	--	--	--	--	--	--	--	--	--
Vac. (" H ₂ O):	--	--	--	0.0	0.0	0.0	0.1	0.05	0.0	0	0.1	0.0	0.0	0.0	--
PID (PPM):	1.3	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--

Comments:

SVE-Effluent sample collected @ 09:51.

MW-E and VP-15 not accessible.

Attachment B



ANALYTICAL REPORT

Lab Number:	L1207191
Client:	EA Engineering, Science and Tech 6712 Brooklawn Parkway Suite 104 Syracuse, NY 13211
ATTN:	Jim Hayward
Phone:	(315) 431-4610
Project Name:	NATIONAL HEATSET
Project Number:	1447429.0003
Report Date:	05/01/12

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: NATIONAL HEATSET
Project Number: 1447429.0003

Lab Number: L1207191
Report Date: 05/01/12

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1207191-01	SVE-EFFLUENT	FARMINGDALE, NY	04/24/12 09:53

Project Name: NATIONAL HEATSET
Project Number: 1447429.0003

Lab Number: L1207191
Report Date: 05/01/12

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEX data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Volatile Organics in Air

Project Name: NATIONAL HEATSET
Project Number: 1447429.0003

Lab Number: L1207191
Report Date: 05/01/12

Case Narrative (continued)

L1207191-01: Sample was transferred from a Tedlar bag into a fused silica lined canister upon receipt in order to extend the holding time for analysis.

TO15-LL L1207191-01 has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

L1207191-01 was re-analyzed on dilution in order to quantitate the sample within the calibration range. The result should be considered estimated, and is qualified with an E flag, for any compound that exceeded the calibration on the initial analysis. The re-analysis was performed only for the compound that exceeded the calibration range.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

Christopher J. Anderson Christopher J. Anderson

Title: Technical Director/Representative

Date: 05/01/12

AIR



Project Name: NATIONAL HEATSET
Project Number: 1447429.0003

Lab Number: L1207191
Report Date: 05/01/12

SAMPLE RESULTS

Lab ID:	L1207191-01 D	Date Collected:	04/24/12 09:53
Client ID:	SVE-EFFLUENT	Date Received:	04/25/12
Sample Location:	FARMINGDALE, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/27/12 02:59		
Analyst:	RY		

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	1.44	--	ND	7.12	--		7.214
Chloromethane	ND	1.44	--	ND	2.97	--		7.214
Freon-114	ND	1.44	--	ND	10.1	--		7.214
Vinyl chloride	ND	1.44	--	ND	3.68	--		7.214
Bromomethane	ND	1.44	--	ND	5.59	--		7.214
Chloroethane	ND	1.44	--	ND	3.80	--		7.214
Trichlorofluoromethane	ND	1.44	--	ND	8.09	--		7.214
1,1-Dichloroethene	ND	1.44	--	ND	5.71	--		7.214
Methylene chloride	ND	7.21	--	ND	25.0	--		7.214
Freon-113	ND	1.44	--	ND	11.0	--		7.214
trans-1,2-Dichloroethene	ND	1.44	--	ND	5.71	--		7.214
1,1-Dichloroethane	ND	1.44	--	ND	5.83	--		7.214
cis-1,2-Dichloroethene	27.8	1.44	--	110	5.71	--		7.214
Chloroform	ND	1.44	--	ND	7.03	--		7.214
1,2-Dichloroethane	ND	1.44	--	ND	5.83	--		7.214
1,1,1-Trichloroethane	3.76	1.44	--	20.5	7.86	--		7.214
Benzene	ND	1.44	--	ND	4.60	--		7.214
Carbon tetrachloride	ND	1.44	--	ND	9.06	--		7.214
1,2-Dichloropropane	ND	1.44	--	ND	6.66	--		7.214
Trichloroethene	36.0	1.44	--	193	7.74	--		7.214
cis-1,3-Dichloropropene	ND	1.44	--	ND	6.54	--		7.214
trans-1,3-Dichloropropene	ND	1.44	--	ND	6.54	--		7.214
1,1,2-Trichloroethane	ND	1.44	--	ND	7.86	--		7.214
Toluene	ND	1.44	--	ND	5.43	--		7.214



Project Name: NATIONAL HEATSET
Project Number: 1447429.0003

Lab Number: L1207191
Report Date: 05/01/12

SAMPLE RESULTS

Lab ID:	L1207191-01 D	Date Collected:	04/24/12 09:53
Client ID:	SVE-EFFLUENT	Date Received:	04/25/12
Sample Location:	FARMINGDALE, NY	Field Prep:	Not Specified

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	Results	RL		
Volatile Organics in Air - Mansfield Lab							
1,2-Dibromoethane	ND	1.44	--	ND	11.1	--	7.214
Tetrachloroethene	878	1.44	--	5950	9.76	--	E 7.214
Chlorobenzene	ND	1.44	--	ND	6.63	--	7.214
Ethylbenzene	ND	1.44	--	ND	6.25	--	7.214
p/m-Xylene	ND	2.88	--	ND	12.5	--	7.214
Styrene	ND	1.44	--	ND	6.13	--	7.214
1,1,2,2-Tetrachloroethane	ND	1.44	--	ND	9.89	--	7.214
o-Xylene	ND	1.44	--	ND	6.25	--	7.214
1,3,5-Trimethylbenzene	ND	1.44	--	ND	7.08	--	7.214
1,2,4-Trimethylbenzene	ND	1.44	--	ND	7.08	--	7.214
Benzyl chloride	ND	1.44	--	ND	7.46	--	7.214
1,3-Dichlorobenzene	ND	1.44	--	ND	8.66	--	7.214
1,4-Dichlorobenzene	ND	1.44	--	ND	8.66	--	7.214
1,2-Dichlorobenzene	ND	1.44	--	ND	8.66	--	7.214
1,2,4-Trichlorobenzene	ND	1.44	--	ND	10.7	--	7.214
Hexachlorobutadiene	ND	1.44	--	ND	15.4	--	7.214

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	105		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	104		60-140

Project Name: NATIONAL HEATSET
Project Number: 1447429.0003

Lab Number: L1207191
Report Date: 05/01/12

SAMPLE RESULTS

Lab ID:	L1207191-01 D2	Date Collected:	04/24/12 09:53
Client ID:	SVE-EFFLUENT	Date Received:	04/25/12
Sample Location:	FARMINGDALE, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/27/12 20:03		
Analyst:	RY		

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Tetrachloroethene	992	2.89	--	6730	19.6	--		14.43

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	91		60-140

Project Name: NATIONAL HEATSET
Project Number: 1447429.0003

Lab Number: L1207191
Report Date: 05/01/12

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 04/26/12 14:41

Parameter	ppbV			ug/m3			Dilution Factor
	Results	RL	MDL	Results	RL	MDL	
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG531878-4							
Propylene	ND	0.500	--	ND	0.860	--	1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	1
Chloromethane	ND	0.200	--	ND	0.413	--	1
Freon-114	ND	0.200	--	ND	1.40	--	1
Vinyl chloride	ND	0.200	--	ND	0.511	--	1
1,3-Butadiene	ND	0.200	--	ND	0.442	--	1
Bromomethane	ND	0.200	--	ND	0.777	--	1
Chloroethane	ND	0.200	--	ND	0.528	--	1
Ethanol	ND	2.50	--	ND	4.71	--	1
Vinyl bromide	ND	0.200	--	ND	0.874	--	1
Acetone	ND	1.00	--	ND	2.38	--	1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	1
Isopropanol	ND	0.500	--	ND	1.23	--	1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	1
Methylene chloride	ND	1.00	--	ND	3.47	--	1
3-Chloropropene	ND	0.200	--	ND	0.626	--	1
Carbon disulfide	ND	0.200	--	ND	0.623	--	1
Freon-113	ND	0.200	--	ND	1.53	--	1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	1
Vinyl acetate	ND	0.200	--	ND	0.704	--	1
2-Butanone	ND	0.200	--	ND	0.590	--	1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	1
Ethyl Acetate	ND	0.500	--	ND	1.80	--	1



Project Name: NATIONAL HEATSET
Project Number: 1447429.0003

Lab Number: L1207191
Report Date: 05/01/12

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 04/26/12 14:41

Parameter	ppbV			ug/m3			Dilution Factor
	Results	RL	MDL	Results	RL	MDL	Qualifier
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG531878-4							
Chloroform	ND	0.200	--	ND	0.977	--	1
Tetrahydrofuran	ND	0.200	--	ND	0.590	--	1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	1
n-Hexane	ND	0.200	--	ND	0.705	--	1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	1
Benzene	ND	0.200	--	ND	0.639	--	1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--	1
Cyclohexane	ND	0.200	--	ND	0.688	--	1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	1
Bromodichloromethane	ND	0.200	--	ND	1.34	--	1
1,4-Dioxane	ND	0.200	--	ND	0.721	--	1
Trichloroethene	ND	0.200	--	ND	1.07	--	1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	1
Heptane	ND	0.200	--	ND	0.820	--	1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--	1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	1
Toluene	ND	0.200	--	ND	0.754	--	1
2-Hexanone	ND	0.200	--	ND	0.820	--	1
Dibromochloromethane	ND	0.200	--	ND	1.70	--	1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	1
Tetrachloroethene	ND	0.200	--	ND	1.36	--	1
Chlorobenzene	ND	0.200	--	ND	0.921	--	1
Ethylbenzene	ND	0.200	--	ND	0.869	--	1



Project Name: NATIONAL HEATSET
Project Number: 1447429.0003

Lab Number: L1207191
Report Date: 05/01/12

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 04/26/12 14:41

Parameter	ppbV			ug/m3			Dilution Factor
	Results	RL	MDL	Results	RL	MDL	
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG531878-4							
p/m-Xylene	ND	0.400	--	ND	1.74	--	1
Bromoform	ND	0.200	--	ND	2.07	--	1
Styrene	ND	0.200	--	ND	0.852	--	1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	1
o-Xylene	ND	0.200	--	ND	0.869	--	1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--	1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	1
Benzyl chloride	ND	0.200	--	ND	1.04	--	1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	1



Project Name: NATIONAL HEATSET
Project Number: 1447429.0003

Lab Number: L1207191
Report Date: 05/01/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 04/27/12 16:48

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG531878-9								
2-Butanone	ND	0.200	--	ND	0.590	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1



Lab Control Sample Analysis

Batch Quality Control

Project Name: NATIONAL HEATSET
Project Number: 1447429.0003

Lab Number: L1207191
Report Date: 05/01/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG531878-3								
Chlorodifluoromethane	71		-		70-130	-		
Propylene	93		-		70-130	-		
Propane	84		-		70-130	-		
Dichlorodifluoromethane	84		-		70-130	-		
Chloromethane	80		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	78		-		70-130	-		
Methanol	81		-		70-130	-		
Vinyl chloride	77		-		70-130	-		
1,3-Butadiene	78		-		70-130	-		
Butane	76		-		70-130	-		
Bromomethane	76		-		70-130	-		
Chloroethane	75		-		70-130	-		
Ethyl Alcohol	90		-		70-130	-		
Dichlorofluoromethane	73		-		70-130	-		
Vinyl bromide	75		-		70-130	-		
Acrolein	101		-		70-130	-		
Acetone	109		-		70-130	-		
Acetonitrile	116		-		70-130	-		
Trichlorofluoromethane	73		-		70-130	-		
iso-Propyl Alcohol	91		-		70-130	-		
Acrylonitrile	101		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: NATIONAL HEATSET
Project Number: 1447429.0003

Lab Number: L1207191
Report Date: 05/01/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG531878-3								
Pentane	70	-	-	-	70-130	-	-	-
Ethyl ether	96	-	-	-	70-130	-	-	-
1,1-Dichloroethene	73	-	-	-	70-130	-	-	-
Methylene chloride	76	-	-	-	70-130	-	-	-
3-Chloropropene	72	-	-	-	70-130	-	-	-
Carbon disulfide	76	-	-	-	70-130	-	-	-
1,1,2-Trichloro-1,2,2-Trifluoroethane	79	-	-	-	70-130	-	-	-
trans-1,2-Dichloroethene	70	-	-	-	70-130	-	-	-
1,1-Dichloroethane	85	-	-	-	70-130	-	-	-
Methyl tert butyl ether	100	-	-	-	70-130	-	-	-
Vinyl acetate	129	-	-	-	70-130	-	-	-
2-Butanone	113	-	-	-	70-130	-	-	-
cis-1,2-Dichloroethene	96	-	-	-	70-130	-	-	-
Ethyl Acetate	122	-	-	-	70-130	-	-	-
Chloroform	97	-	-	-	70-130	-	-	-
Tetrahydrofuran	108	-	-	-	70-130	-	-	-
2,2-Dichloropropane	76	-	-	-	70-130	-	-	-
1,2-Dichloroethane	88	-	-	-	70-130	-	-	-
n-Hexane	88	-	-	-	70-130	-	-	-
Isopropyl Ether	107	-	-	-	70-130	-	-	-
Ethyl-Tert-Butyl-Ether	102	-	-	-	70-130	-	-	-

Lab Control Sample Analysis

Batch Quality Control

Project Name: NATIONAL HEATSET
Project Number: 1447429.0003

Lab Number: L1207191
Report Date: 05/01/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG531878-3								
1,1,1-Trichloroethane	88	-	-	-	70-130	-	-	-
1,1-Dichloropropene	88	-	-	-	70-130	-	-	-
Benzene	93	-	-	-	70-130	-	-	-
Carbon tetrachloride	85	-	-	-	70-130	-	-	-
Cyclohexane	87	-	-	-	70-130	-	-	-
Tertiary-Amyl Methyl Ether	102	-	-	-	70-130	-	-	-
Dibromomethane	91	-	-	-	70-130	-	-	-
1,2-Dichloropropane	104	-	-	-	70-130	-	-	-
Bromodichloromethane	95	-	-	-	70-130	-	-	-
1,4-Dioxane	110	-	-	-	70-130	-	-	-
Trichloroethylene	90	-	-	-	70-130	-	-	-
2,2,4-Trimethylpentane	100	-	-	-	70-130	-	-	-
Heptane	98	-	-	-	70-130	-	-	-
2,4,4-Trimethyl-1-Pentene	98	-	-	-	70-130	-	-	-
cis-1,3-Dichloropropene	98	-	-	-	70-130	-	-	-
4-Methyl-2-pentanone	114	-	-	-	70-130	-	-	-
2,4,4-Trimethyl-2-Pentene	93	-	-	-	70-130	-	-	-
trans-1,3-Dichloropropene	85	-	-	-	70-130	-	-	-
1,1,2-Trichloroethane	105	-	-	-	70-130	-	-	-
Toluene	102	-	-	-	70-130	-	-	-
1,3-Dichloropropane	106	-	-	-	70-130	-	-	-

Lab Control Sample Analysis

Batch Quality Control

Project Name: NATIONAL HEATSET
Project Number: 1447429.0003

Lab Number: L1207191
Report Date: 05/01/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG531878-3								
2-Hexanone	116	-	-	-	70-130	-	-	-
Dibromochloromethane	105	-	-	-	70-130	-	-	-
1,2-Dibromoethane	104	-	-	-	70-130	-	-	-
Butyl Acetate	113	-	-	-	70-130	-	-	-
Octane	96	-	-	-	70-130	-	-	-
Tetrachloroethene	99	-	-	-	70-130	-	-	-
1,1,1,2-Tetrachloroethane	96	-	-	-	70-130	-	-	-
Chlorobenzene	104	-	-	-	70-130	-	-	-
Ethylbenzene	114	-	-	-	70-130	-	-	-
p/m-Xylene	114	-	-	-	70-130	-	-	-
Bromoform	100	-	-	-	70-130	-	-	-
Styrene	118	-	-	-	70-130	-	-	-
1,1,2,2-Tetrachloroethane	124	-	-	-	70-130	-	-	-
o-Xylene	121	-	-	-	70-130	-	-	-
1,2,3-Trichloropropane	113	-	-	-	70-130	-	-	-
Nonane (C9)	108	-	-	-	70-130	-	-	-
Isopropylbenzene	118	-	-	-	70-130	-	-	-
Bromobenzene	116	-	-	-	70-130	-	-	-
o-Chlorotoluene	108	-	-	-	70-130	-	-	-
n-Propylbenzene	120	-	-	-	70-130	-	-	-
p-Chlorotoluene	110	-	-	-	70-130	-	-	-

Lab Control Sample Analysis

Batch Quality Control

Project Name: NATIONAL HEATSET
Project Number: 1447429.0003

Lab Number: L1207191
Report Date: 05/01/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG531878-3								
4-Ethyltoluene	117	-	-	-	70-130	-	-	-
1,3,5-Trimethylbenzene	123	-	-	-	70-130	-	-	-
tert-Butylbenzene	122	-	-	-	70-130	-	-	-
1,2,4-Trimethylbenzene	128	-	-	-	70-130	-	-	-
Decane (C10)	125	-	-	-	70-130	-	-	-
Benzyl chloride	110	-	-	-	70-130	-	-	-
1,3-Dichlorobenzene	120	-	-	-	70-130	-	-	-
1,4-Dichlorobenzene	118	-	-	-	70-130	-	-	-
sec-Butylbenzene	125	-	-	-	70-130	-	-	-
p-Isopropyltoluene	118	-	-	-	70-130	-	-	-
1,2-Dichlorobenzene	122	-	-	-	70-130	-	-	-
n-Butylbenzene	130	-	-	-	70-130	-	-	-
1,2-Dibromo-3-chloropropane	115	-	-	-	70-130	-	-	-
Undecane	130	-	-	-	70-130	-	-	-
Dodecane (C12)	126	-	-	-	70-130	-	-	-
1,2,4-Trichlorobenzene	118	-	-	-	70-130	-	-	-
Naphthalene	110	-	-	-	70-130	-	-	-
1,2,3-Trichlorobenzene	116	-	-	-	70-130	-	-	-
Hexachlorobutadiene	116	-	-	-	70-130	-	-	-

Lab Control Sample Analysis

Batch Quality Control

Project Name: NATIONAL HEATSET
Project Number: 1447429.0003

Lab Number: L1207191
Report Date: 05/01/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG531878-8								
2-Butanone	100	-	-	-	70-130	-	-	-
Tetrachloroethene	91	-	-	-	70-130	-	-	-

Lab Duplicate Analysis
Batch Quality Control

Project Name: NATIONAL HEATSET
Project Number: 1447429.0003

Lab Number: L1207191
Report Date: 05/01/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG531878-5 QC Sample: L1207215-04 Client ID: DUP Sample						
Propylene	12.7	12.6	ppbV	1		25
Dichlorodifluoromethane	0.359	0.296	ppbV	19		25
Chloromethane	1.57	1.82	ppbV	15		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ppbV	NC		25
Vinyl chloride	ND	ND	ppbV	NC		25
1,3-Butadiene	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	0.216	ppbV	NC		25
Trichlorofluoromethane	0.259	0.255	ppbV	2		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
Carbon disulfide	1.43	1.50	ppbV	5		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.231	0.246	ppbV	6		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25
2-Butanone	19.9	20.1	ppbV	1		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
Chloroform	ND	ND	ppbV	NC		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: NATIONAL HEATSET
Project Number: 1447429.0003

Lab Number: L1207191
Report Date: 05/01/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG531878-5 QC Sample: L1207215-04 Client ID: DUP Sample					
1,2-Dichloroethane	ND	ND	ppbV	NC	25
n-Hexane	0.583	0.574	ppbV	2	25
1,1,1-Trichloroethane	ND	ND	ppbV	NC	25
Benzene	1.15	1.10	ppbV	4	25
Carbon tetrachloride	ND	ND	ppbV	NC	25
Cyclohexane	ND	ND	ppbV	NC	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
Trichloroethene	ND	ND	ppbV	NC	25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
Toluene	1.03	1.00	ppbV	3	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Tetrachloroethene	ND	ND	ppbV	NC	25
Chlorobenzene	ND	ND	ppbV	NC	25
Ethylbenzene	ND	ND	ppbV	NC	25
p/m-Xylene	ND	ND	ppbV	NC	25
Styrene	ND	ND	ppbV	NC	25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC	25

Lab Duplicate Analysis
Batch Quality Control

Project Name: NATIONAL HEATSET
Project Number: 1447429.0003

Lab Number: L1207191
Report Date: 05/01/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG531878-5 QC Sample: L1207215-04 Client ID: DUP Sample					
o-Xylene	ND	ND	ppbV	NC	25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC	25
1,2,4-Trimethylbenzene	0.242	0.228	ppbV	6	25
Benzyl chloride	ND	ND	ppbV	NC	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC	25
Hexachlorobutadiene	ND	ND	ppbV	NC	25

Project Name: NATIONAL HEATSET
Project Number: 1447429.0003

Lab Number: L1207191
Report Date: 05/01/12

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

N/A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1207191-01A	Tedlar Bag 5 liter-Polypropylene	N/A	N/A		Y	Absent	TO15-LL(30)

*Values in parentheses indicate holding time in days

Project Name: NATIONAL HEATSET
Project Number: 1447429.0003

Lab Number: L1207191
Report Date: 05/01/12

GLOSSARY

Acronyms

- EPA - Environmental Protection Agency.
- LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
- LCSD - Laboratory Control Sample Duplicate: Refer to LCS.
- LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
- MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
- MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
- MSD - Matrix Spike Sample Duplicate: Refer to MS.
- NA - Not Applicable.
- NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
- NI - Not Ignitable.
- RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
- RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
- SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e., co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

Report Format: Data Usability Report



Project Name: NATIONAL HEATSET
Project Number: 1447429.0003

Lab Number: L1207191
Report Date: 05/01/12

Data Qualifiers

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report



Project Name: NATIONAL HEATSET
Project Number: 1447429.0003

Lab Number: L1207191
Report Date: 05/01/12

REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at its own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised January 30, 2012 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable), Total Cyanide. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Organic Carbon, Total Cyanide, Corrosivity, TCLP 1311. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570B, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 245.7, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B. Organic Parameters: EPA 8081B, 8082A, 8260B, 8270C, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 3060A, 6020A, 7471A, 9040B, 9045C, 7196A. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 5035, 8260B, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3010, 3020A, SM2320B, SM2540D, 2540G, EPA 180.1, 1631E, SW-846 7470A, 9040B, 6020, 9050A. Organic Parameters: SW-846 3510C, 3580A, 5030B, 5035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8015B 8081A, 8082, 8260B, 8270C)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6020, 1311, 1312, 3050B, 3051, 3060A, 7196A, 7470A, 7471A, 7474, 9040B, 9045C, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 5030B, 5035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082, 8260B, 8270C, 8015B.)

Atmospheric Organic Parameters (EPA TO-15)

Biological Tissue (Inorganic Parameters: SW-846 6020 Organic Parameters: SW-846 8270C, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, EPA 200.8, 6020, 1631E, 245.1, 245.7, 7470A, 9014, 9040B, 9050, 120.1, 4500CN-E, 4500H-B, EPA 376.2, 180.1, 3020A. Organic Parameters: EPA 8260B, 8270C, 8081A, 8082, 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020, 7196A, 3060A, 7471A, 7474, 9014, 9040B, 9045C, 9010B. Organic Parameters: EPA 8260B, 8270C, 8081A, DRO 8015B, 8082, 1311, 1312, 3050B, 3580, 3570, 3051, 5035, 5030B.)

Air & Emissions (EPA TO-15.)

Pennsylvania Certificate/Lab ID: 68-02089 **NELAP Accredited**

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474. Organic Parameters: EPA 3050B, 3540C, 3630C, 8270C, 8081B, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via LA-DEQ.**

Refer to LA-DEQ Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 7196, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8260, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015 Mod, 8270.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460194. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 3020A, 6020A, 245.7, 9040B, SM4500H-B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A, 7470A, 7471B, 9040B, 9045C, 3050B, 3051. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 5030B, 8260B, 8270C, 8270C-ALK-PAH, 8082, 8081A, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 5035A, 8260B, 8270C, 8270-ALK-PAH, 8082, 8081A, 8015D-SHC, 8015D.)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.



AIR ANALYSIS

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: EA Engineering
Address: 6712 Brooklawn Pkwy.
Syracuse, NY 13211
Phone: 315-431-4610
Fax: 315-431-4280
Email: rp peterson@eaest.com

These samples have been previously analyzed by Alpha

PAGE 1 OF 1

Date Rec'd in Lab:

ALPHA Job #: L1207191

Project Information

Project Name: National Heatset

Project Location: Farmingdale, NY

Project #: 1447429.0003

Project Manager: Jim Hayward

ALPHA Quote #:

Turn-Around Time

Standard

RUSH (only confirmed if pre-approved)

Date Due:

Time:

Report Information - Data Deliverables

FAX

ADEX

Criteria Checker:

(Default based on Regulatory Criteria Indicated)

Other Formats:

EMAIL (standard pdf report)

Additional Deliverables:

Report to: (if different than Project Manager)

jhayward@eaest.com
rp peterson@eaest.com

Billing Information

Same as Client Info PO #: 1447429.0003

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria

ANALYSIS

TO-14A by TO-15
TO-15 SIM
APH
TO-13A
TO-4 / TO-10

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection						Sample Matrix*	Sampler's Initials	Can Size	ID - Flow Controller	TO-14A by TO-15	TO-15 SIM	APH	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
		Date	Start Time	End Time	Initial Vacuum	Final Vacuum											
07191-01	SVE-Effluent	4/24/12	0951	0953	—	—	SV	RP	5L	—	—	#1					PID: 2.0

*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)

SV = Soil Vapor/Landfill Gas/SVE

Other - Please Specify

Container Type

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:
Robert Peterson
FedEx

Date/Time: 4/24/12

Received By:

Sherry O'Brien

Date/Time: 4/25/12 9:10