



September 5, 2012

Mr. Chris Swain
Maine Department of Environmental Protection
17 State House Station
Augusta, ME 04333

RE: Soil Gas Sampling Results
188 Madison Street
Skowhegan, Maine

Dear Chris:

MAI Environmental (MAI) is pleased to provide you with the results of the sub-slab soil gas and soil gas (utility trench) sampling performed for the Whitten Brook project at the 188 Madison Street property in Skowhegan, Maine (herein after "Site").

MAI performed the soil gas sampling on August 10, 2012. This report provides a summary of the investigation methods and laboratory results.

Sub-Slab Soil Gas Probe Sampling and Analysis

Sub-slab soil gas probes SSVP-1 and SSVP-2 were collected from beneath the basement floor in a portion of the Site building. The basement is only located beneath the vacant office space portion of the building. The basement does not extend beneath the north portion of the building (consignment shop) or the south end of the building (auto repair business). SSVP-1 was collected along the eastern wall at the base of stairs, which access the basement from the vacant office space. SSVP-2 was collected near the northeast corner of the basement where the buildings sewer and water lines enter the basement through the eastern wall. SV-3 was collected on the exterior eastern side of the building in the sewer/water line trench. Sampling locations are shown on Figure 1.

The sub-slab and soil vapor samples were collected in accordance with MEDEP SOP No. DR#027, using Teflon tubing. The samples were collected in 2.7 liter Summa® canisters regulated with a 20 minute draw time and submitted to Alpha Analytical for analysis of Air Petroleum Hydrocarbons (APH), nine (9) chlorinated volatile organic compounds using method TO-15 (SIM) and fixed gasses (oxygen, carbon dioxide and methane). The soil vapor results are presented in **Table 1 – Soil Gas Analytical Results**. The laboratory reports and Field Sampling Sheets are provided in **Attachment 1 – Laboratory Analytical Reports and Sub-slab Field Sampling Sheets**.

The results have been compared to the MEDEP Vapor Intrusion Evaluation Guidance dated January 14, 2010, Table B6 Indoor Air Targets (IATs) for Chronic Commercial

MAI

Scenario for multi-contaminant Sites. Soil gas targets (SGTs) were derived by dividing the IATs by the MEDEP approved attenuation factor of 0.02. In addition, the data was entered into Maine DEP's In-Door Air Risk Calculator Model.

TABLE 1
 Soil Gas Analytical Results

Analyte	SSVP-1	SSVP-2	SV-3	MEDEP Regulatory Guidelines
	Sample Results (ug/m ³)	Sample Results (ug/m ³)	Sample Results (ug/m ³)	Commercial Chronic SGTs - (ug/m ³) (IAT/0.02)
<i>Air Petroleum Hydrocarbons (APH)</i>				
C5-C8 Aliphatic Hydrocarbons	54000	54000	5300	9,000
C9-C12 Aliphatic Hydrocarbons	77000	33000	4800	9,000
C9-C10 Aromatic Hydrocarbons	82000	21000	440	2,200
1,3 Butadiene	ND	ND	21	20.5
Benzene	ND	ND	28	80
Toluene	1300	410	32	220,000
Ethylbenzene	670	340	ND	245
m- & p- Xylenes	14000	4000	ND	4,400
o-Xylene	8600	1800	ND	
<i>Total Xylenes</i>	22600	5800	<i>ND</i>	
Naphthalene	1700	180	ND	18
<i>Chlorinated Volatile Organic Compounds TO-15 (SIM)</i>				
1,3 Butadiene	39.4	ND	21.2	20.5
Benzene	64.8	ND	25.4	80
1,1,1-Trichloroethane	ND	ND	1.42	220,000
Tetrachloroethylene (PCE)	773	882	3680	105
Ethylbenzene	664	343	5.78	245
Naphthalene	1440	157	4.30	18
<i>Fixed Gasses</i>				
Oxygen	16.1	6.68	13.0	NS
Carbon Dioxide	3.92	12.3	5.44	NS
Methane	ND	ND	ND	NS

NOTES - [1] Regulatory Guidelines obtained from - **MEDEP Table B6 Vapor Intrusion Evaluation Guidance: Chronic Commercial Scenario Soil Gas Targets (SGTs)**
 ug/m³ = micrograms per cubic meter
 SGT = IAT/0.02 - Guidelines calculated using the MEDEP attenuation factor of 0.02 for the applicable IAT.

The following exceedences of the commercial multi-contaminant SGTs were noted:

APH	SSVP-1	SSVP-2	SV-3
C5-C8 Aliphatic Hydrocarbons	X	X	
C9-C12 Aliphatic Hydrocarbons	X	X	
C9-C10 Aromatic Hydrocarbons	X	X	
1,3 Butadiene			X
Ethylbenzene	X	X	
Total Xylenes	X	X	
Naphthalene	X	X	
Chlorinated Volatile Organic Compounds TO-15 (SIM)			
1,3 Butadiene	X		X
Tetrachloroethylene (PCE)	X	X	X
Ethylbenzene	X	X	
Naphthalene	X	X	

To better understand the risk of potential vapor intrusion into the indoor air spaces, the sub-slab and soil gas vapor results were entered into a modeling program provided by the MEDEP (5-Indoor Air Risk Calculator, Version 2, 10/11/2011) that utilizes site specific analytical data to calculate the human health risk from indoor air when multiple contaminants of concern (COCs) are present. The program calculates the sum Incremental Lifetime Cancer Risks (ILCRs) for all carcinogenic contaminants of concern, and calculates the Hazard Index (HI) by performing a summing of the Hazard Quotients (HQs) for all non-carcinogenic contaminants across each target organ or system. The method calculates risk from multiple contaminants based on toxicity data and default exposure assumptions, as detailed in the 2012 Basis Statement for the Maine Remedial Action Guidelines (MERAGs).

Prior to entering the soil gas data into the program, each parameter result was multiplied by the MEDEP prescribed attenuation factor of 0.02 (data reduced 50 times), which models the affect of attenuation of soil gas concentrations across a typical floor slab.

Based on the modeling results from the three sampling points (SSVP-1, SSVP-2, SV-3) all three samples exceeded the Cumulative ILCR of 1.0E-05, and/or the HI of 1.0. The results of the analysis of human health risk from modeling indoor air concentrations when multiple COCs are present revealed levels above the MEDEP action levels of 1.0E-05 (1 in 100,000) for ILCR at each monitoring point (SSVP-1, SSVP-2, SV-3) and above the HI action level (target organs/systems) of 1.0 for multiple organs/systems at SSVP-1 and SSVP-2. A copy of the modeling summary sheet is provided in **Attachment 2**.

Recommendations

The results and subsequent modeling analysis of the soil gas sampling data indicate a potential human health risk from modeling indoor air concentrations at the 188 Madison Street property. To determine if the extent of the potential risk MAI makes the following recommendations:

1. Collect two (2) 24 hour composite indoor air samples at the subject property. One sample would be collected in the basement of the building. The second sample would be collected in the (currently) unoccupied commercial space above the basement. These results will provide indoor air data to determine if sub-slab/near-slab soil gas exceedences are migrating into the buildings interior above IATs.
2. Collect a (grab) sub-slab sample from beneath the consignment shop which occupies the north portion (adjacent to the vacant commercial space) of the subject building.

We also recommend that the DEP consider collecting a 24 hour composite indoor air sample from the consignment shop at the same time as the other indoor air samples. The collected sample would be held by the laboratory (not analyzed) until the results of the sub-slab (consignment shop) sample have been received and modeled. If the modeled results exceed the MEDEP action levels for the Cumulative ILCR of 1.0E-05, and/or the HI of 1.0 then the laboratory would be notified to analyze the indoor air sample. If the sub-slab sample from beneath the consignment shop does not exceed the action levels, then the laboratory would be directed not to test the consignment shop indoor air sample.

Each sample will be analyzed for APH, nine (9) chlorinated volatile organic compounds using method TO-15 (SIM) and fixed gasses (oxygen, carbon dioxide and methane). The sampling results will be provided to the DEP in a letter report.

Closing

MAI appreciates this opportunity to work with you on this project. If you have any questions, please feel to contact us.

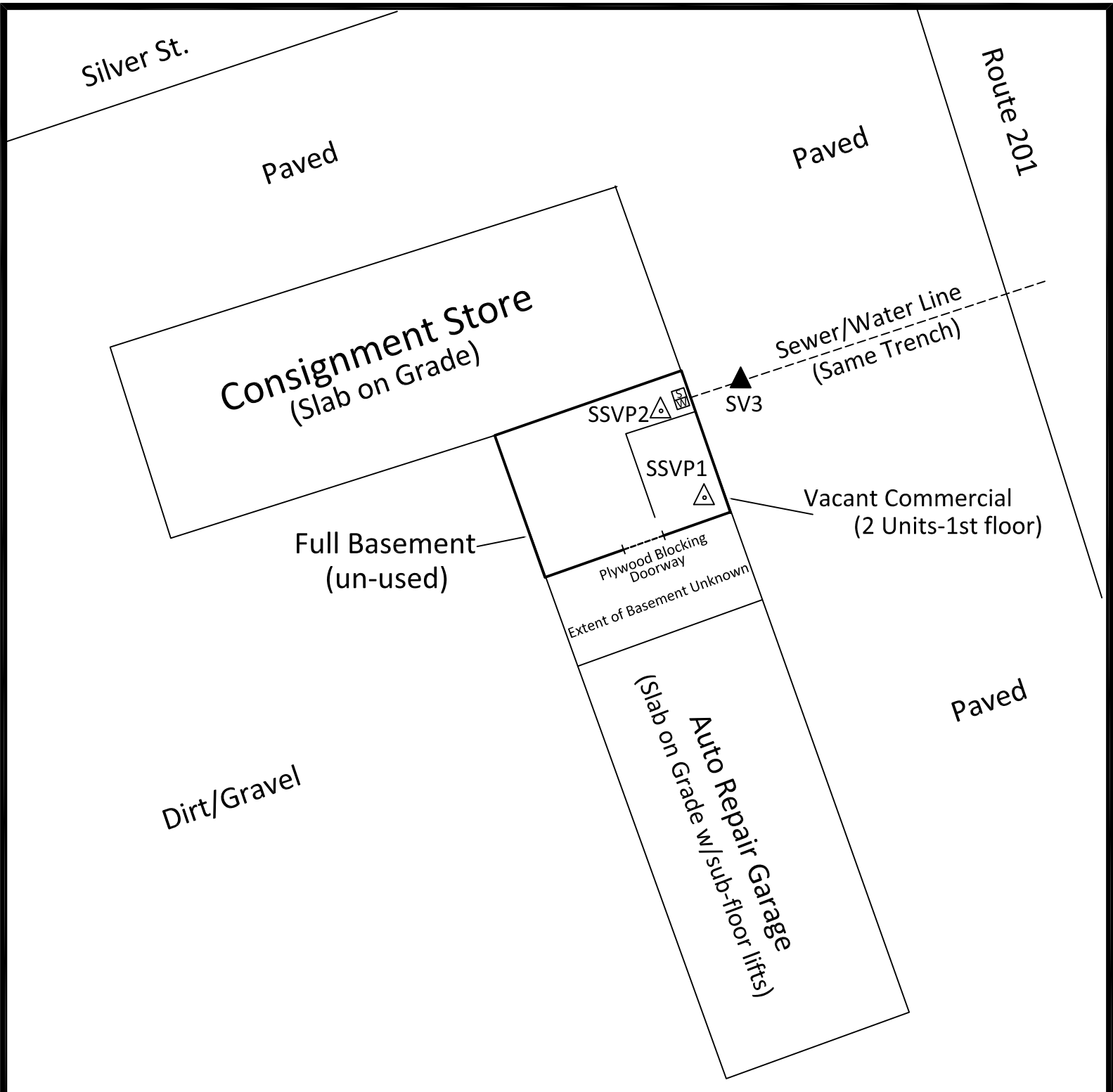
Sincerely,

MAI ENVIRONMENTAL

John S. Marchewka, C.G., P.G.
President

cc. John Beane - MEDEP
Carol White - CWA

Attachments



- SV3 ▲ Soil Vapor Probe
- SSVP1 △ Sub-Slab Vapor Point
- Water/Sewer Line - Same Trench
- S
W Water/Sewer Lines enter basement through foundation (wall) at a depth of 4' BGS. Sewer Line is directly above water line.

All Site Features Have Been Approximated based on Site Observations.

FIGURE 1
Site Plan

Whitten Brook Investigation
Skowhegan, ME

SCALE: 1" = 20'
DATE: 9/5/12
DWG: A-1049



ATTACHMENT 1
Soil Gas Laboratory Reports and
Field Sampling Sheets



ANALYTICAL REPORT

Lab Number:	L1214504
Client:	Maine DEP-Div. of Technical Services DEP / BRWM 28 Tyson Drive Augusta, ME 04333-0017
ATTN:	Chris Swain
Phone:	(207) 287-7660
Project Name:	WHITTEN BROOK
Project Number:	MAI-1063
Report Date:	08/28/12

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: WHITTEN BROOK
Project Number: MAI-1063

Lab Number: L1214504
Report Date: 08/28/12

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1214504-01	SSVP-1	SKOWHEGAN	08/10/12 10:42
L1214504-02	SSVP-2	SKOWHEGAN	08/10/12 11:12
L1214504-03	SV-3	SKOWHEGAN	08/10/12 13:57
L1214504-04	UNUSED CAN ID 249	SKOWHEGAN	
L1214504-05	UNUSED CAN ID 381	SKOWHEGAN	
L1214504-06	UNUSED CAN ID 488	SKOWHEGAN	

Project Name: WHITTEN BROOK

Lab Number: L1214504

Project Number: MAI-1063

Report Date: 08/28/12

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	YES
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES
A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES
For any questions answered "No", please refer to the case narrative section on the following page(s).		

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name: WHITTEN BROOK
Project Number: MAI-1063

Lab Number: L1214504
Report Date: 08/28/12

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.

Project Name: WHITTEN BROOK
Project Number: MAI-1063

Lab Number: L1214504
Report Date: 08/28/12

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on August 1, 2012. The canister certification data is provided as an addendum.

MCP Related Narratives

Petroleum Hydrocarbons in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

L1214504-01 and -02 have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

All significant concentrations of non-petroleum VOCs detected in the TO-15 analysis were subtracted from the corresponding hydrocarbon ranges.

L1214504-03 and WG555542-5 Duplicate have elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the samples.

TO15-SIM

L1214504-01 and -02 have elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the samples.

L1214504-03 and WG555543-5 Duplicate were re-analyzed on dilution in order to quantitate the samples 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.

Project Name: WHITTEN BROOK
Project Number: MAI-1063

Lab Number: L1214504
Report Date: 08/28/12

Case Narrative (continued)

L1214504-03 and WG555543-5 Duplicate have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

The WG555543-3 LCS recovery for 1,2,4-Trichlorobenzene (132%) is above the upper 130% acceptance limit. The LCS is within overall method allowance therefore no further action was taken.

Fixed Gases

L1214504-01 through -03: Prior to sample analysis, the canisters were pressurized with UHP Nitrogen in order to facilitate the transfer of sample to the Gas Chromatograph. The addition of Nitrogen resulted in a dilution of the samples. The reporting limits have been elevated accordingly.

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

Title: Technical Director/Representative

Date: 08/28/12

AIR

Project Name: WHITTEN BROOK
Project Number: MAI-1063

Lab Number: L1214504
Report Date: 08/28/12

SAMPLE RESULTS

Lab ID: L1214504-01 D
 Client ID: SSVP-1
 Sample Location: SKOWHEGAN
 Matrix: Soil_Vapor
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 08/18/12 01:40
 Analyst: RY

Date Collected: 08/10/12 10:42
 Date Received: 08/14/12
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.850	--	ND	2.17	--		42.52
1,3-Butadiene	17.8	0.850	--	39.4	1.88	--		42.52
1,1-Dichloroethene	ND	0.850	--	ND	3.37	--		42.52
trans-1,2-Dichloroethene	ND	0.850	--	ND	3.37	--		42.52
1,1-Dichloroethane	ND	0.850	--	ND	3.44	--		42.52
cis-1,2-Dichloroethene	ND	0.850	--	ND	3.37	--		42.52
1,2-Dichloroethane	ND	0.850	--	ND	3.44	--		42.52
1,1,1-Trichloroethane	ND	0.850	--	ND	4.64	--		42.52
Benzene	20.3	4.25	--	64.8	13.6	--		42.52
Trichloroethene	ND	0.850	--	ND	4.57	--		42.52
1,2-Dibromoethane	ND	0.850	--	ND	6.53	--		42.52
Tetrachloroethene	114	0.850	--	773	5.76	--		42.52
Ethylbenzene	153	0.850	--	664	3.69	--		42.52
Naphthalene	274	2.13	--	1440	11.2	--		42.52

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	104		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	105		60-140



Project Name: WHITTEN BROOK
Project Number: MAI-1063

Lab Number: L1214504
Report Date: 08/28/12

SAMPLE RESULTS

Lab ID: L1214504-02 D
 Client ID: SSVP-2
 Sample Location: SKOWHEGAN
 Matrix: Soil_Vapor
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 08/18/12 00:04
 Analyst: RY

Date Collected: 08/10/12 11:12
 Date Received: 08/14/12
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		10
1,3-Butadiene	ND	0.200	--	ND	0.442	--		10
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		10
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		10
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		10
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		10
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		10
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		10
Benzene	ND	1.00	--	ND	3.19	--		10
Trichloroethene	ND	0.200	--	ND	1.07	--		10
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		10
Tetrachloroethene	130	0.200	--	882	1.36	--		10
Ethylbenzene	78.9	0.200	--	343	0.869	--		10
Naphthalene	29.9	0.500	--	157	2.62	--		10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	99		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	118		60-140



Project Name: WHITTEN BROOK**Lab Number:** L1214504**Project Number:** MAI-1063**Report Date:** 08/28/12**SAMPLE RESULTS**

Lab ID: L1214504-03 D

Date Collected: 08/10/12 13:57

Client ID: SV-3

Date Received: 08/14/12

Sample Location: SKOWHEGAN

Field Prep: Not Specified

Matrix: Soil_Vapor

Analytical Method: 48,TO-15-SIM

Analytical Date: 08/18/12 00:36

Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		10
1,3-Butadiene	9.58	0.200	--	21.2	0.442	--		10
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		10
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		10
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		10
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		10
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		10
1,1,1-Trichloroethane	0.260	0.200	--	1.42	1.09	--		10
Benzene	7.94	1.00	--	25.4	3.19	--		10
Trichloroethene	ND	0.200	--	ND	1.07	--		10
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		10
Tetrachloroethene	507	0.200	--	3440	1.36	--	E	10
Ethylbenzene	1.33	0.200	--	5.78	0.869	--		10
Naphthalene	0.820	0.500	--	4.30	2.62	--		10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	104		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	99		60-140



Project Name: WHITTEN BROOK**Lab Number:** L1214504**Project Number:** MAI-1063**Report Date:** 08/28/12**SAMPLE RESULTS**

Lab ID: L1214504-03 D2
 Client ID: SV-3
 Sample Location: SKOWHEGAN
 Matrix: Soil_Vapor
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 08/18/12 09:51
 Analyst: RY

Date Collected: 08/10/12 13:57
 Date Received: 08/14/12
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	543	0.346	--	3680	2.35	--		17.3

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	106		60-140
bromochloromethane	111		60-140
chlorobenzene-d5	99		60-140



Project Name: WHITTEN BROOK

Lab Number: L1214504

Project Number: MAI-1063

Report Date: 08/28/12

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 08/17/12 15:27

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-03 Batch: WG555543-4								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



Project Name: WHITTEN BROOK

Lab Number: L1214504

Project Number: MAI-1063

Report Date: 08/28/12

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 08/17/12 15:27

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-03 Batch: WG555543-4								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1



Project Name: WHITTEN BROOK

Lab Number: L1214504

Project Number: MAI-1063

Report Date: 08/28/12

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 08/17/12 15:27

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-03 Batch: WG555543-4								
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: WHITTEN BROOK

Lab Number: L1214504

Project Number: MAI-1063

Report Date: 08/28/12

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 Batch: WG555543-3								
Dichlorodifluoromethane	79		-		70-130	-		25
Chloromethane	106		-		70-130	-		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	101		-		70-130	-		25
Vinyl chloride	105		-		70-130	-		25
1,3-Butadiene	113		-		70-130	-		25
Bromomethane	105		-		70-130	-		25
Chloroethane	106		-		70-130	-		25
Acetone	103		-		70-130	-		25
Trichlorofluoromethane	107		-		70-130	-		25
Acrylonitrile	103		-		70-130	-		25
1,1-Dichloroethene	108		-		70-130	-		25
Methylene chloride	109		-		70-130	-		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	108		-		70-130	-		25
Halothane	107		-		70-130	-		25
trans-1,2-Dichloroethene	98		-		70-130	-		25
1,1-Dichloroethane	108		-		70-130	-		25
Methyl tert butyl ether	107		-		70-130	-		25
2-Butanone	104		-		70-130	-		25
cis-1,2-Dichloroethene	115		-		70-130	-		25
Chloroform	105		-		70-130	-		25
1,2-Dichloroethane	107		-		70-130	-		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: WHITTEN BROOK

Lab Number: L1214504

Project Number: MAI-1063

Report Date: 08/28/12

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 Batch: WG555543-3								
1,1,1-Trichloroethane	109		-		70-130	-		25
Benzene	93		-		70-130	-		25
Carbon tetrachloride	117		-		70-130	-		25
1,2-Dichloropropane	106		-		70-130	-		25
Bromodichloromethane	110		-		70-130	-		25
Trichloroethene	107		-		70-130	-		25
1,4-Dioxane	101		-		70-130	-		25
cis-1,3-Dichloropropene	118		-		70-130	-		25
4-Methyl-2-pentanone	109		-		70-130	-		25
trans-1,3-Dichloropropene	105		-		70-130	-		25
1,1,2-Trichloroethane	109		-		70-130	-		25
Toluene	104		-		70-130	-		25
Dibromochloromethane	119		-		70-130	-		25
1,2-Dibromoethane	114		-		70-130	-		25
Tetrachloroethene	109		-		70-130	-		25
1,1,1,2-Tetrachloroethane	112		-		70-130	-		25
Chlorobenzene	110		-		70-130	-		25
Ethylbenzene	110		-		70-130	-		25
p/m-Xylene	110		-		70-130	-		25
Bromoform	123		-		70-130	-		25
Styrene	105		-		70-130	-		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: WHITTEN BROOK

Project Number: MAI-1063

Lab Number: L1214504

Report Date: 08/28/12

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 Batch: WG555543-3								
1,1,2,2-Tetrachloroethane	116		-		70-130	-		25
o-Xylene	112		-		70-130	-		25
Isopropylbenzene	108		-		70-130	-		25
1,3,5-Trimethylbenzene	114		-		70-130	-		25
1,2,4-Trimethylbenzene	117		-		70-130	-		25
1,3-Dichlorobenzene	116		-		70-130	-		25
1,4-Dichlorobenzene	115		-		70-130	-		25
sec-Butylbenzene	106		-		70-130	-		25
p-Isopropyltoluene	102		-		70-130	-		25
1,2-Dichlorobenzene	118		-		70-130	-		25
n-Butylbenzene	114		-		70-130	-		25
1,2,4-Trichlorobenzene	132	Q	-		70-130	-		25
Naphthalene	125		-		70-130	-		25
1,2,3-Trichlorobenzene	130		-		70-130	-		25
Hexachlorobutadiene	127		-		70-130	-		25

Lab Duplicate Analysis

Batch Quality Control

Project Name: WHITTEN BROOK

Project Number: MAI-1063

Lab Number: L1214504

Report Date: 08/28/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG555543-5 QC Sample: L1214504-03 Client ID: SV-3						
Vinyl chloride	ND	ND	ppbV	NC		25
1,3-Butadiene	9.58	8.75	ppbV	9		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	0.260	0.280	ppbV	7		25
Benzene	7.94	8.17	ppbV	3		25
Trichloroethene	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Tetrachloroethene	507E	520E	ppbV	3		25
Ethylbenzene	1.33	1.22	ppbV	9		25
Naphthalene	0.820	0.720	ppbV	13		25
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG555543-5 QC Sample: L1214504-03 Client ID: SV-3						
Tetrachloroethene	543	534	ppbV	2		25

Project Name: WHITTEN BROOK**Lab Number:** L1214504**Project Number:** MAI-1063**Report Date:** 08/28/12**SAMPLE RESULTS**

Lab ID: L1214504-01 D
 Client ID: SSVP-1
 Sample Location: SKOWHEGAN
 Matrix: Soil_Vapor
 Analytical Method: 51,3C
 Analytical Date: 08/24/12 12:26
 Analyst: RY

Date Collected: 08/10/12 10:42
 Date Received: 08/14/12
 Field Prep: Not Specified
 Extraction Method:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Fixed Gases by GC - Mansfield Lab						
Oxygen	16.1		%	1.70	--	1.701
Carbon Dioxide	3.92		%	0.170	--	1.701
Methane	ND		%	0.170	--	1.701

Project Name: WHITTEN BROOK**Lab Number:** L1214504**Project Number:** MAI-1063**Report Date:** 08/28/12**SAMPLE RESULTS**

Lab ID: L1214504-02 D
 Client ID: SSVP-2
 Sample Location: SKOWHEGAN
 Matrix: Soil_Vapor
 Analytical Method: 51,3C
 Analytical Date: 08/24/12 13:00
 Analyst: RY

Date Collected: 08/10/12 11:12
 Date Received: 08/14/12
 Field Prep: Not Specified
 Extraction Method:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Fixed Gases by GC - Mansfield Lab						
Oxygen	6.68		%	1.63	--	1.632
Carbon Dioxide	12.3		%	0.163	--	1.632
Methane	ND		%	0.163	--	1.632

Project Name: WHITTEN BROOK**Lab Number:** L1214504**Project Number:** MAI-1063**Report Date:** 08/28/12**SAMPLE RESULTS**

Lab ID: L1214504-03 D
 Client ID: SV-3
 Sample Location: SKOWHEGAN
 Matrix: Soil_Vapor
 Analytical Method: 51,3C
 Analytical Date: 08/24/12 14:10
 Analyst: RY

Date Collected: 08/10/12 13:57
 Date Received: 08/14/12
 Field Prep: Not Specified
 Extraction Method:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Fixed Gases by GC - Mansfield Lab						
Oxygen	13.0		%	2.38	--	2.378
Carbon Dioxide	5.44		%	0.238	--	2.378
Methane	ND		%	0.238	--	2.378

Project Name: WHITTEN BROOK**Lab Number:** L1214504**Project Number:** MAI-1063**Report Date:** 08/28/12**Method Blank Analysis**
Batch Quality Control

Analytical Method: 51,3C

Analytical Date: 08/24/12 12:00

Analyst: RY

Parameter	Result	Qualifier	Units	RL	MDL
Fixed Gases by GC - Mansfield Lab for sample(s): 01-03 Batch: WG556881-2					
Oxygen	ND		%	1.00	--
Carbon Dioxide	ND		%	0.100	--
Methane	ND		%	0.100	--

Lab Control Sample Analysis

Batch Quality Control

Project Name: WHITTEN BROOK

Project Number: MAI-1063

Lab Number: L1214504

Report Date: 08/28/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Fixed Gases by GC - Mansfield Lab Associated sample(s): 01-03 Batch: WG556881-1								
Oxygen	96		-		80-120	-		
Carbon Dioxide	101		-		80-120	-		
Methane	105		-		80-120	-		

Lab Duplicate Analysis

Batch Quality Control

Project Name: WHITTEN BROOK

Project Number: MAI-1063

Lab Number: L1214504

Report Date: 08/28/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Fixed Gases by GC - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG556881-3 QC Sample: L1214504-01 Client ID: SSVP-1						
Oxygen	16.1	16.2	%	1		5
Carbon Dioxide	3.92	4.00	%	2		5
Methane	ND	ND	%	NC		5
Fixed Gases by GC - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG556881-4 QC Sample: L1214504-02 Client ID: SSVP-2						
Oxygen	6.68	6.83	%	2		5
Carbon Dioxide	12.3	12.3	%	0		5
Methane	ND	ND	%	NC		5
Fixed Gases by GC - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG556881-5 QC Sample: L1214504-03 Client ID: SV-3						
Oxygen	13.0	12.9	%	1		5
Carbon Dioxide	5.44	5.44	%	0		5
Methane	ND	ND	%	NC		5

Project Name: WHITTEN BROOK

Lab Number: L1214504

Project Number: MAI-1063

Report Date: 08/28/12

SAMPLE RESULTS

Lab ID: L1214504-01 D
 Client ID: SSV-1
 Sample Location: SKOWHEGAN
 Matrix: Soil_Vapor
 Analytical Method: 96,APH
 Analytical Date: 08/18/12 01:40
 Analyst: RY

Date Collected: 08/10/12 10:42
 Date Received: 08/14/12
 Field Prep: Not Specified

Quality Control Information

Sample Type: 200 ml/Minute Composite
 Sample Container Type: Canister - 2.7 Liter
 Sampling Flow Controller: Mechanical
 Sampling Zone: Unknown
 Sampling Flow Meter RPD of pre & post-sampling calibration check: <=20%
 Were all QA/QC procedures REQUIRED by the method followed? Yes
 Were all performance/acceptance standards for the required procedures achieved? Yes
 Were significant modifications made to the method as specified in Sect 11.1.2? No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	84	--	42
Methyl tert butyl ether	ND		ug/m3	84	--	42
Benzene	ND		ug/m3	84	--	42
C5-C8 Aliphatics, Adjusted	54000		ug/m3	500	--	42
Toluene	1300		ug/m3	84	--	42
Ethylbenzene	670		ug/m3	84	--	42
p/m-Xylene	14000		ug/m3	170	--	42
o-Xylene	8600		ug/m3	84	--	42
Naphthalene	1700		ug/m3	84	--	42
C9-C12 Aliphatics, Adjusted	77000		ug/m3	590	--	42
C9-C10 Aromatics Total	82000		ug/m3	420	--	42

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	105		50-200
Bromochloromethane	103		50-200
Chlorobenzene-d5	102		50-200

Project Name: WHITTEN BROOK
Project Number: MAI-1063

Lab Number: L1214504
Report Date: 08/28/12

SAMPLE RESULTS

Lab ID: L1214504-02 D
 Client ID: SSV-2
 Sample Location: SKOWHEGAN
 Matrix: Soil_Vapor
 Analytical Method: 96,APH
 Analytical Date: 08/18/12 00:04
 Analyst: RY

Date Collected: 08/10/12 11:12
 Date Received: 08/14/12
 Field Prep: Not Specified

Quality Control Information

Sample Type:	200 ml/Minute Composite
Sample Container Type:	Canister - 2.7 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	20	--	10
Methyl tert butyl ether	ND		ug/m3	20	--	10
Benzene	ND		ug/m3	20	--	10
C5-C8 Aliphatics, Adjusted	54000		ug/m3	120	--	10
Toluene	410		ug/m3	20	--	10
Ethylbenzene	340		ug/m3	20	--	10
p/m-Xylene	4000		ug/m3	40	--	10
o-Xylene	1800		ug/m3	20	--	10
Naphthalene	180		ug/m3	20	--	10
C9-C12 Aliphatics, Adjusted	33000		ug/m3	140	--	10
C9-C10 Aromatics Total	21000		ug/m3	100	--	10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	99		50-200
Bromochloromethane	97		50-200
Chlorobenzene-d5	118		50-200

Project Name: WHITTEN BROOK
Project Number: MAI-1063

Lab Number: L1214504
Report Date: 08/28/12

SAMPLE RESULTS

Lab ID: L1214504-03 D
 Client ID: SV-3
 Sample Location: SKOWHEGAN
 Matrix: Soil_Vapor
 Analytical Method: 96,APH
 Analytical Date: 08/18/12 00:36
 Analyst: RY

Date Collected: 08/10/12 13:57
 Date Received: 08/14/12
 Field Prep: Not Specified

Quality Control Information

Sample Type:	200 ml/Minute Composite
Sample Container Type:	Canister - 2.7 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	21		ug/m3	20	--	10
Methyl tert butyl ether	ND		ug/m3	20	--	10
Benzene	28		ug/m3	20	--	10
C5-C8 Aliphatics, Adjusted	5300		ug/m3	120	--	10
Toluene	32		ug/m3	20	--	10
Ethylbenzene	ND		ug/m3	20	--	10
p/m-Xylene	ND		ug/m3	40	--	10
o-Xylene	ND		ug/m3	20	--	10
Naphthalene	ND		ug/m3	20	--	10
C9-C12 Aliphatics, Adjusted	4800		ug/m3	140	--	10
C9-C10 Aromatics Total	440		ug/m3	100	--	10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	105		50-200
Bromochloromethane	102		50-200
Chlorobenzene-d5	101		50-200

Project Name: WHITTEN BROOK

Lab Number: L1214504

Project Number: MAI-1063

Report Date: 08/28/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 96,APH

Analytical Date: 08/17/12 15:27

Analyst: RY

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbons in Air - Mansfield Lab for sample(s): 01-03 Batch: WG555542-4					
1,3-Butadiene	ND		ug/m3	2.0	--
Methyl tert butyl ether	ND		ug/m3	2.0	--
Benzene	ND		ug/m3	2.0	--
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--
Toluene	ND		ug/m3	2.0	--
Ethylbenzene	ND		ug/m3	2.0	--
p/m-Xylene	ND		ug/m3	4.0	--
o-Xylene	ND		ug/m3	2.0	--
Naphthalene	ND		ug/m3	2.0	--
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--
C9-C10 Aromatics Total	ND		ug/m3	10	--

Lab Control Sample Analysis

Batch Quality Control

Project Name: WHITTEN BROOK

Project Number: MAI-1063

Lab Number: L1214504

Report Date: 08/28/12

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG555542-3								
1,3-Butadiene	98		-		70-130	-		
Methyl tert butyl ether	98		-		70-130	-		
Benzene	98		-		70-130	-		
C5-C8 Aliphatics, Adjusted	99		-		70-130	-		
Toluene	100		-		70-130	-		
Ethylbenzene	102		-		70-130	-		
p/m-Xylene	100		-		70-130	-		
o-Xylene	104		-		70-130	-		
Naphthalene	135		-		50-150	-		
C9-C12 Aliphatics, Adjusted	106		-		70-130	-		
C9-C10 Aromatics Total	91		-		70-130	-		

Lab Duplicate Analysis

Batch Quality Control

Project Name: WHITTEN BROOK

Project Number: MAI-1063

Lab Number: L1214504

Report Date: 08/28/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG555542-5 QC Sample: L1214504-03 Client ID: SV-3						
1,3-Butadiene	21	ND	ug/m3	NC		30
Methyl tert butyl ether	ND	ND	ug/m3	NC		30
Benzene	28	28	ug/m3	0		30
C5-C8 Aliphatics, Adjusted	5300	4700	ug/m3	12		30
Toluene	32	33	ug/m3	3		30
Ethylbenzene	ND	ND	ug/m3	NC		30
p/m-Xylene	ND	ND	ug/m3	NC		30
o-Xylene	ND	ND	ug/m3	NC		30
Naphthalene	ND	ND	ug/m3	NC		30
C9-C12 Aliphatics, Adjusted	4800	4300	ug/m3	11		30
C9-C10 Aromatics Total	440	370	ug/m3	17		30

Project Name: WHITTEN BROOK

Serial_No:08281216:59
Lab Number: L1214504

Project Number: MAI-1063

Report Date: 08/28/12

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1214504-01	SSVP-1	0429	#90 SV	08/01/12	79952		-	-	-	Pass	200	200	0
L1214504-01	SSVP-1	348	2.7L Can	08/01/12	79952	L1213215-01	Pass	-28.9	-5.1	-	-	-	-
L1214504-02	SSVP-2	0272	#90 SV	08/01/12	79952		-	-	-	Pass	200	203	1
L1214504-02	SSVP-2	202	2.7L Can	08/01/12	79952	L1213215-01	Pass	-28.9	-3.5	-	-	-	-
L1214504-03	SV-3	0377	#16 AMB	08/01/12	79952		-	-	-	Pass	200	205	2
L1214504-03	SV-3	185	2.7L Can	08/01/12	79952	L1213215-01	Pass	-28.9	-4.1	-	-	-	-
L1214504-04	UNUSED CAN ID 249	0229	#90 SV	08/01/12	79952		-	-	-	Pass	200	205	2
L1214504-04	UNUSED CAN ID 249	249	2.7L Can	08/01/12	79952	L1213215-01	Pass	-28.9	-29.4	-	-	-	-
L1214504-05	UNUSED CAN ID 381	0103	#30 AMB	08/01/12	79952		-	-	-	Pass	195	189	3
L1214504-05	UNUSED CAN ID 381	381	2.7L Can	08/01/12	79952	L1213215-01	Pass	-28.5	-29.1	-	-	-	-
L1214504-06	UNUSED CAN ID 488	0161	#90 SV	08/01/12	79952		-	-	-	Pass	200	204	2
L1214504-06	UNUSED CAN ID 488	488	2.7L Can	08/01/12	79952	L1213215-01	Pass	-28.9	-29.5	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1213215
Report Date: 08/28/12

Air Canister Certification Results

Lab ID: L1213215-01
 Client ID: CAN 252 SHELF 2
 Sample Location:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 07/25/12 18:42
 Analyst: MB

Date Collected: 07/23/12 14:41
 Date Received: 07/24/12
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.860	--		1
Propane	ND	0.200	--	ND	0.361	--		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
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		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
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.200	--	ND	0.434	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1213215
Report Date: 08/28/12

Air Canister Certification Results

Lab ID: L1213215-01
 Client ID: CAN 252 SHELF 2
 Sample Location:

Date Collected: 07/23/12 14:41
 Date Received: 07/24/12
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
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
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.590	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		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
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		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



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1213215
Report Date: 08/28/12

Air Canister Certification Results

Lab ID: L1213215-01
 Client ID: CAN 252 SHELF 2
 Sample Location:

Date Collected: 07/23/12 14:41
 Date Received: 07/24/12
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		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
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		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
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
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
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1213215
Report Date: 08/28/12

Air Canister Certification Results

Lab ID: L1213215-01
 Client ID: CAN 252 SHELF 2
 Sample Location:

Date Collected: 07/23/12 14:41
 Date Received: 07/24/12
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		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
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1213215
Report Date: 08/28/12

Air Canister Certification Results

Lab ID: L1213215-01 Date Collected: 07/23/12 14:41
 Client ID: CAN 252 SHELF 2 Date Received: 07/24/12
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	105		60-140
Bromochloromethane	105		60-140
chlorobenzene-d5	97		60-140



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1213215
Report Date: 08/28/12

Air Canister Certification Results

Lab ID: L1213215-01
 Client ID: CAN 252 SHELF 2
 Sample Location:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 07/27/12 09:35
 Analyst: MB

Date Collected: 07/23/12 14:41
 Date Received: 07/24/12
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1213215
Report Date: 08/28/12

Air Canister Certification Results

Lab ID: L1213215-01
 Client ID: CAN 252 SHELF 2
 Sample Location:

Date Collected: 07/23/12 14:41
 Date Received: 07/24/12
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1213215
Report Date: 08/28/12

Air Canister Certification Results

Lab ID: L1213215-01 Date Collected: 07/23/12 14:41
 Client ID: CAN 252 SHELF 2 Date Received: 07/24/12
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	82		60-140
chlorobenzene-d5	80		60-140



AIR Petro Can Certification

Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L1213215**Project Number:** CANISTER QC BAT**Report Date:** 08/28/12**AIR CAN CERTIFICATION RESULTS**

Lab ID: L1213215-01
Client ID: CAN 252 SHELF 2
Sample Location: Not Specified
Matrix: Air
Analytical Method: 96,APH
Analytical Date: 07/26/12 17:40
Analyst: MB

Date Collected: 07/23/12 14:41
Date Received: 07/24/12
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
Toluene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Project Name: WHITTEN BROOK

Lab Number: L1214504

Project Number: MAI-1063

Report Date: 08/28/12

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 Present/Intact

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1214504-01A	Canister - 2.7 Liter	N/A	N/A		Y	Present/Intact	APH-10(30),FIXGAS(30),TO15-SIM(30)
L1214504-02A	Canister - 2.7 Liter	N/A	N/A		Y	Present/Intact	APH-10(30),FIXGAS(30),TO15-SIM(30)
L1214504-03A	Canister - 2.7 Liter	N/A	N/A		Y	Present/Intact	APH-10(30),FIXGAS(30),TO15-SIM(30)
L1214504-04A	Canister - 2.7 Liter	N/A	N/A		Y	Present/Intact	CLEAN-FEE()
L1214504-05A	Canister - 2.7 Liter	N/A	N/A		Y	Present/Intact	CLEAN-FEE()
L1214504-06A	Canister - 2.7 Liter	N/A	N/A		Y	Present/Intact	CLEAN-FEE()

*Values in parentheses indicate holding time in days

Project Name: WHITTEN BROOK
Project Number: MAI-1063

Lab Number: L1214504
Report Date: 08/28/12

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: WHITTEN BROOK
Project Number: MAI-1063

Lab Number: L1214504
Report Date: 08/28/12

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.

Project Name: WHITTEN BROOK
Project Number: MAI-1063

Lab Number: L1214504
Report Date: 08/28/12

REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.
- 51 Determination of Carbon Dioxide, Methane, Nitrogen and Oxygen from Stationary Sources. Method 3C. Appendix A, Part 60, 40 CFR (Code of Federal Regulations). June 20, 1996.
- 96 Method for the Determination of Air-Phase Petroleum Hydrocarbons (APH), MassDEP, December 2009, Revision 1 with QC Requirements & Performance Standards for the Analysis of APH by GC/MS under the Massachusetts Contingency Plan, WSC-CAM-IXA, July 2010.

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 it's 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 August 3, 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, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). 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, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. 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, 3020A, 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, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 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 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

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

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

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

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

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

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

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

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

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

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

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

Refer to NJ-DEP 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, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

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

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

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

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, 8270.)

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, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

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

PAGE 1 OF 1

CHAIN OF CUSTODY

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

Client Information

Client: Chris Swain
 Address: MEDEP
17 State House station
 Phone: Augusta, ME 04333
 Fax: 207-287-7688
 Email: Chris.Swain@maine.gov

These samples have been previously analyzed by Alpha

Project Information

Project Name: Whitten Brook
 Project Location: Skowhegan
 Project #: MAI-1063
 Project Manager: Paul Prescott
 ALPHA Quote #:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved!)

Date Due: _____ Time: _____

Date Rec'd in Lab:

Report Information - Data Deliverables

FAX
 ADEx
 Criteria Checker: _____
 (Default based on Regulatory Criteria Indicated)
 Other Formats: _____
 EMAIL (standard pdf report)
 Additional Deliverables:
MAINE EDD
 Report to: (if different than Project Manager)
P.Prescott @ MAIEnvironmental.com

ALPHA Job #: L1214504

Billing Information

Same as Client info PO #: _____

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria
<u>MEDEP</u>	<u>BUR</u>	<u>1/10</u>

Other Project Specific Requirements/Comments:

Send Invoice to client (MEDEP)
Email results to client and Paul Prescott

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection					Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	ANALYSIS						Sample Comments (i.e. PID)
		Date	Start Time	End Time	Initial Vacuum	Final Vacuum						TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES O ₂ , CO ₂ , CO	TO-13A	
L1214504-01	SSVP-1	8/10/12	1030	1042	29.37	-4.92	SV	PP	2.7L	348	429	X	X	X	X			
-02	SSVP-2	↓	1059	1112	29.26	-3.92	SV	PP	2.7L	202	272	X	X	X	X			
-03	SU-3	↓	1346	1357	30.06	-3.96	SV	PP	2.7L	185	377	X	X	X	X			

ANALYSIS
 TO-14A by TO-15
 TO-15
 TO-15 SIM
 APH
 FIXED GASES O₂, CO₂, CO
 TO-13A
 TO-4/TO-10
 See Attached
 Fixed Gases
 O₂, CO₂, methane

*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:

[Signature]
 UPS

Date/Time

8/13/12/1100
8/14/12 12:40

Received By:

UPS
S. Hofmann

Date/Time:

8/14/12 12:40

For the TO-15 SIM only analyze for the 9 (listed below) chlorinated compounds.

Please perform SIM on the following Petroleum compounds as the targets are below standard reporting levels.

The Petroleum SIM compounds include:

Compound
1,3 Butadiene
Benzene
1,2-dibromoethane (ethylene dibromide)
Ethyl benzene
Naphthalene

The TO-15 SIM ** Only Analyze for the 9 listed Chlorinated Compounds which include) :

Compound
Vinyl Chloride
1,1-Dichloroethene
Trans 1,2-Dichloroethene
1,1-Dichloroethane
Cis-1,2-Dichloroethene
1,2-Dichloroethane
1,1,1-Trichloroethane
Trichloroethene
Tetrachloroethene

Deliverables

Email PDF lab reports to Chris.Swain@Maine.gov and to P.Prescott@MAIEnvironmental.com (sampler). Both are noted on COC.

Invoice to Chris Swain - MEDEP as noted on COC.

Any Question contact Paul Prescott (MAI Environmental) 207-767-3663

**Indoor Air Sampling Field Sheet
Maine DEP**

Site Name & Town:	Whitten Brook Skowhegan
Date:	8/9/2012
Sample I.D.:	SSVP-1
Sampling Personnel:	Paul Prescott MAI Environmental
Collection Device:	Summa Canister
Sample Type:	SSG - Subslab Gas
Sample Location:	BM - Basement
Foundation Floor Type:	Concrete
Foundation Wall Type:	Concrete
Sump Hole:	No
Penetrations in Floor:	Cracks
Penetrations in Floor:	Cracks
Penetrations in Floor:	Cracks
Penetrations in Wall:	Sewer
Penetrations in Wall:	Water
Penetrations in Wall:	
Suspected Contaminant of Concern:	Petroleum
Ambient O2:	20.4
Ambient CO2:	650
Pre-sample O2:	16.1
Pre-sample CO2:	2.7
Pre-sample PID:	139
Pre-sample CH4:	
Sample Initiation Time:	10:30 AM
Sample End Time:	10:42 AM
Post Sample O2:	16.2
Post Sample CO2:	2.72
Notes/Observations:	

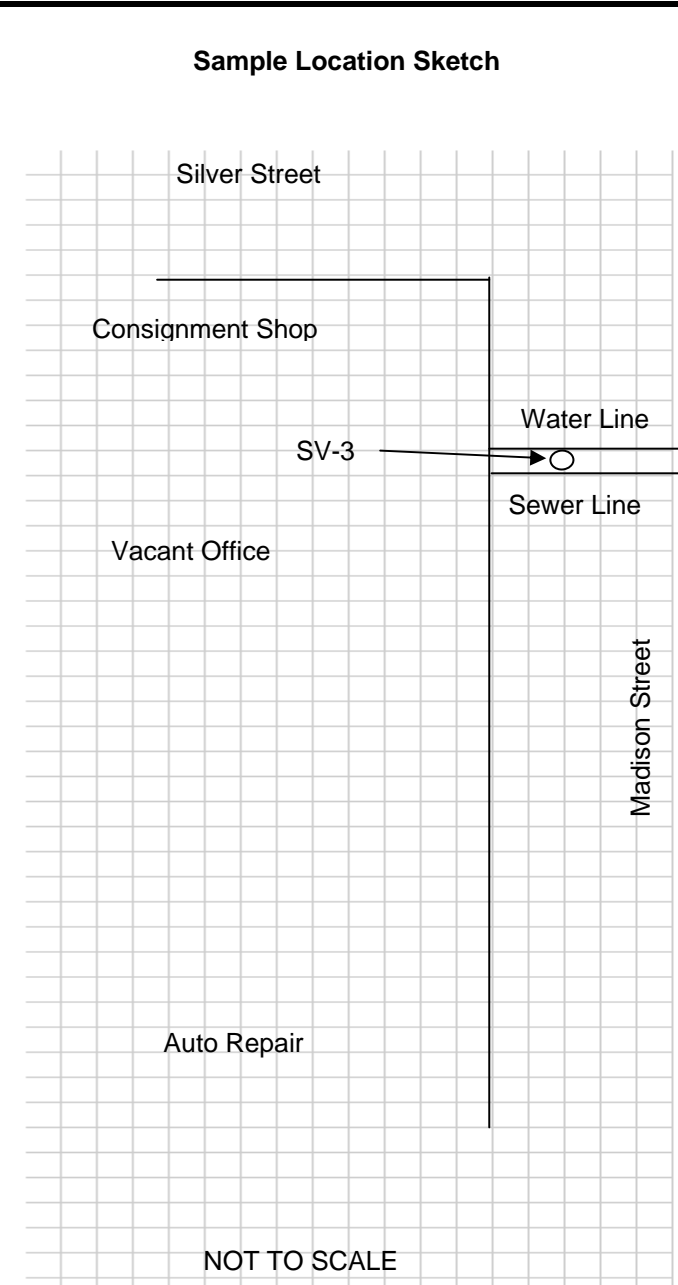
**Indoor Air Sampling Field Sheet
Maine DEP**

Site Name & Town:	Whitten Brook Skowhegan
Date:	8/9/2012
Sample I.D.:	SSVP-2
Sampling Personnel:	Paul Prescott MAI Environmental
Collection Device:	Summa Canister
Sample Type:	SSG - Subslab Gas
Sample Location:	BM - Basement
Foundation Floor Type:	Concrete
Foundation Wall Type:	Concrete
Sump Hole:	No
Penetrations in Floor:	Cracks
Penetrations in Floor:	Cracks
Penetrations in Floor:	Cracks
Penetrations in Wall:	Sewer
Penetrations in Wall:	Water
Penetrations in Wall:	
Suspected Contaminant of Concern:	Petroleum
Ambient O2:	20.4
Ambient CO2:	650
Pre-sample O2:	6.5
Pre-sample CO2:	Over Range +5000
Pre-sample PID:	58
Pre-sample CH4:	
Sample Initiation Time:	10:59 AM
Sample End Time:	11:12 AM
Post Sample O2:	7.2
Post Sample CO2:	Over Range +5000
Notes/Observations:	

Soil Gas Sampling Data Record

PROJECT: Whitten Brook
LOCATION: Skowhegan, ME
DATE: 8/9/2012

SAMPLE ID: SV-3
SAMPLER: Paul Prescott

Sampling Purpose	Utility	<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; margin: 0;">Sample Location Sketch</p>  <p style="text-align: center; margin: 0;">NOT TO SCALE</p> </div>	
Collection Device:	Suma Canniste		
Sample Penetration Location:	Ashphalt		
Soil Type:	Fill - Sand utility bedding		
Sample Depth: (ft bgs)	4'		
Depth to Water: (ft bgs)	+/- 15'		
Suspected COCs:	Petroleum		
Cannister I.D.:	185		
Controller I.D.:	377		
Flow rate: (ml/min)	200		
O ₂ Ambient (%)	20.6		
CO ₂ Ambient (%)	0.037		
Pre Sample O ₂ : (%)	14.6		
Pre Sample CO ₂ : (%)	3.31		
Pre Sample PID: (ppm)	5.2		
Pre Sample CH ₄ : (% LEL)			
Sampling Start Time:	1346		
Initial Cannister Vacuum: (" H ₂ O)	30.06		
Sampling End Time:	1357		
Final Cannister Vacuum: (" H ₂ O)	3.68		
Post Sample O ₂ : (%)	14.6		
Post Sample CO ₂ : (%)	3.68		
Post Sample CH ₄ : (% LEL)			

Notes:

ATTACHMENT 2

DEP's In-Door Air Risk Calculator Model Summary Sheets

Chronic Commercial
SSVP-1

CAS Number	Chemical	Indoor Air Concentration (ug/m ³)	Cancer-Based IAT (ug/m ³)	Noncancer-Based IAT (ug/m ³)	ILCR	HI	Target Organ
75-68-3	1-Chloro-1,1-difluoroethane	0		2.2E+05		0.00	Respiratory
71-55-6	1,1,1-Trichloroethane	0		2.2E+04		0.00	Liver, Nervous System
79-00-5	1,1,2-Trichloroethane	0	7.7E+00		0.0E+00		
75-34-3	1,1-Dichloroethane	0	7.7E+01	2.2E+03	0.0E+00	0.00	Kidney, Liver
75-35-4	1,1-Dichloroethene	0		8.8E+02		0.00	Liver
120-82-1	1,2,4-Trichlorobenzene	0		8.8E+00		0.00	Kidney, Liver
96-12-8	1,2-Dibromo-3-chloropropane	0	2.0E-02	8.8E-01	0.0E+00	0.00	Endocrine, Reproductive, Respiratory
107-06-2	1,2-Dichloroethane	0	4.7E+00	1.1E+04	0.0E+00	0.00	Liver
156-59-2	1,2-Dichloroethene (cis)	0		2.6E+02		0.00	Liver, Respiratory
156-60-5	1,2-Dichloroethene (trans)	0		2.6E+02		0.00	Liver, Respiratory
78-87-5	1,2-Dichloropropane	0	1.2E+01	1.8E+01	0.0E+00	0.00	Respiratory
106-99-0	1,3-Butadiene	0.788	4.1E+00	8.8E+00	1.9E-06	0.09	Developmental, Reproductive
542-75-6	1,3-Dichloropropene	0	3.1E+01	8.8E+01	0.0E+00	0.00	Respiratory
106-46-7	1,4-Dichlorobenzene	0	1.1E+01	2.6E+02	0.0E+00	0.00	Liver, Respiratory
123-91-1	1,4-Dioxane	0		1.3E+04		0.00	Blood, Kidney, Liver
95-48-7	2-Cresol	0		2.6E+03		0.00	Nervous System
91-57-6	2-Methylnaphthalene	0		1.3E+01		0.00	Respiratory
75-05-8	Acetonitrile	0		2.6E+02		0.00	Blood, Immune System, Respiratory
107-02-8	Acrolein	0		1.5E+00		0.00	Respiratory
107-13-1	Acrylonitrile	0	1.8E+00	8.8E+00	0.0E+00	0.00	Respiratory
107-05-1	Allyl chloride	0	2.0E+01	4.4E+00	0.0E+00	0.00	Nervous System
71-43-2	Benzene	1.296	1.6E+01	4.4E+01	8.2E-07	0.03	Immune System
100-44-7	Benzyl chloride	0	2.5E+00	4.4E+00	0.0E+00	0.00	Kidney, Liver, Nervous System, Respiratory
75-25-2	Bromoform	0	1.1E+02		0.0E+00		
74-83-9	Bromomethane	0		2.2E+01		0.00	Respiratory
75-15-0	Carbon disulfide	0		3.1E+03		0.00	Nervous System
56-23-5	Carbon tetrachloride	0	2.0E+01	4.4E+02	0.0E+00	0.00	Liver
108-90-7	Chlorobenzene	0		4.4E+03		0.00	Kidney, Liver, Reproductive
67-66-3	Chloroform	0	5.3E+00	8.8E+00	0.0E+00	0.00	Liver
74-87-3	Chloromethane	0		3.9E+02		0.00	Nervous System
75-71-8	Dichlorodifluoromethane	0		8.8E+02		0.00	Liver
100-41-4	Ethylbenzene	13.4	4.9E+01	4.4E+02	2.7E-06	0.03	Developmental, Kidney, Liver
106-93-4	Ethylene dibromide	0	2.0E-01	3.9E+01	0.0E+00	0.00	Respiratory
75-00-3	Ethyl chloride	0		4.4E+04		0.00	Developmental
87-68-3	Hexachlorobutadiene	0	5.6E+00		0.0E+00		
67-72-1	Hexachloroethane	0		1.3E+02			
7439-97-6	Mercury (elemental)	0		1.3E+00		0.00	Nervous System
78-93-3	Methyl ethyl ketone	0		2.2E+04		0.00	Developmental
108-10-1	Methyl isobutyl ketone	0		1.3E+04		0.00	Developmental
80-62-6	Methyl methacrylate	0		3.1E+03		0.00	Respiratory
1634-04-4	Methyl tert-butyl ether	0	4.7E+02	1.3E+04	0.0E+00	0.00	Kidney, Liver, Nervous System
75-09-2	Methylene chloride	0	2.6E+02	4.8E+03	0.0E+00	0.00	Liver
91-20-3	Naphthalene	34	3.6E+00	1.3E+01	9.4E-05	2.59	Respiratory
108-95-2	Phenol	0		8.8E+02		0.00	Liver, Nervous System
100-42-5	Styrene	0		1.3E+03		0.00	Nervous System
127-18-4	Tetrachloroethene	15.46	2.1E+01	1.2E+03	7.4E-06	0.01	Nervous System
108-88-3	Toluene	26		2.2E+04		0.00	Nervous System
79-1-6	Trichloroethene	0	3.0E+01	8.8E+00	0.0E+00	0.00	Developmental, Immune System
108-05-4	Vinyl acetate	0		8.8E+02		0.00	Respiratory
593-60-2	Vinyl bromide	0	3.8E+00	1.3E+01	0.0E+00	0.00	Liver
75-1-4	Vinyl chloride	0	2.8E+01	4.4E+01	0.0E+00	0.00	Liver
1330-20-7	Xylene	452		4.4E+02		1.03	Nervous System
Petroleum Hydrocarbon Fractions							
	C5-C8 Aliphatics	1080		2.6E+03		0.41	Nervous System, Respiratory
	C9-C12 Aliphatics	1540		8.8E+02		1.76	Nervous System
	C9-C10 Aromatics	1640		2.2E+02		7.49	Developmental, Kidney, Liver

Cumulative ILCR	Target Organ HIs	
1.1E-04	0.03	Immune System HI
	7.61	Developmental HI
	7.52	Kidney HI
	7.52	Liver HI
	3.22	Nervous System HI
	0.00	Endocrine HI
	0.09	Reproductive HI
	3.00	Respiratory HI
	0.00	Blood HI

Chronic Commercial
SSVP-2

CAS Number	Chemical	Indoor Air Concentration (ug/m ³)	Cancer-Based IAT (ug/m ³)	Noncancer-Based IAT (ug/m ³)	ILCR	HI	Target Organ
75-68-3	1-Chloro-1,1-difluoroethane	0		2.2E+05		0.00	Respiratory
71-55-6	1,1,1-Trichloroethane	0		2.2E+04		0.00	Liver, Nervous System
79-00-5	1,1,2-Trichloroethane	0	7.7E+00		0.0E+00		
75-34-3	1,1-Dichloroethane	0	7.7E+01	2.2E+03	0.0E+00	0.00	Kidney, Liver
75-35-4	1,1-Dichloroethene	0		8.8E+02		0.00	Liver
120-82-1	1,2,4-Trichlorobenzene	0		8.8E+00		0.00	Kidney, Liver
96-12-8	1,2-Dibromo-3-chloropropane	0	2.0E-02	8.8E-01	0.0E+00	0.00	Endocrine, Reproductive, Respiratory
107-06-2	1,2-Dichloroethane	0	4.7E+00	1.1E+04	0.0E+00	0.00	Liver
156-59-2	1,2-Dichloroethene (cis)	0		2.6E+02		0.00	Liver, Respiratory
156-60-5	1,2-Dichloroethene (trans)	0		2.6E+02		0.00	Liver, Respiratory
78-87-5	1,2-Dichloropropane	0	1.2E+01	1.8E+01	0.0E+00	0.00	Respiratory
106-99-0	1,3-Butadiene	0	4.1E+00	8.8E+00	0.0E+00	0.00	Developmental, Reproductive
542-75-6	1,3-Dichloropropene	0	3.1E+01	8.8E+01	0.0E+00	0.00	Respiratory
106-46-7	1,4-Dichlorobenzene	0	1.1E+01	2.6E+02	0.0E+00	0.00	Liver, Respiratory
123-91-1	1,4-Dioxane	0		1.3E+04		0.00	Blood, Kidney, Liver
95-48-7	2-Cresol	0		2.6E+03		0.00	Nervous System
91-57-6	2-Methylnaphthalene	0		1.3E+01		0.00	Respiratory
75-05-8	Acetonitrile	0		2.6E+02		0.00	Blood, Immune System, Respiratory
107-02-8	Acrolein	0		1.5E+00		0.00	Respiratory
107-13-1	Acrylonitrile	0	1.8E+00	8.8E+00	0.0E+00	0.00	Respiratory
107-05-1	Allyl chloride	0	2.0E+01	4.4E+00	0.0E+00	0.00	Nervous System
71-43-2	Benzene	0	1.6E+01	4.4E+01	0.0E+00	0.00	Immune System
100-44-7	Benzyl chloride	0	2.5E+00	4.4E+00	0.0E+00	0.00	Kidney, Liver, Nervous System, Respiratory
75-25-2	Bromoform	0	1.1E+02		0.0E+00		
74-83-9	Bromomethane	0		2.2E+01		0.00	Respiratory
75-15-0	Carbon disulfide	0		3.1E+03		0.00	Nervous System
56-23-5	Carbon tetrachloride	0	2.0E+01	4.4E+02	0.0E+00	0.00	Liver
108-90-7	Chlorobenzene	0		4.4E+03		0.00	Kidney, Liver, Reproductive
67-66-3	Chloroform	0	5.3E+00	8.8E+00	0.0E+00	0.00	Liver
74-87-3	Chloromethane	0		3.9E+02		0.00	Nervous System
75-71-8	Dichlorodifluoromethane	0		8.8E+02		0.00	Liver
100-41-4	Ethylbenzene	6.86	4.9E+01	4.4E+02	1.4E-06	0.02	Developmental, Kidney, Liver
106-93-4	Ethylene dibromide	0	2.0E-01	3.9E+01	0.0E+00	0.00	Respiratory
75-00-3	Ethyl chloride	0		4.4E+04		0.00	Developmental
87-68-3	Hexachlorobutadiene	0	5.6E+00		0.0E+00		
67-72-1	Hexachloroethane	0		1.3E+02			
7439-97-6	Mercury (elemental)	0		1.3E+00		0.00	Nervous System
78-93-3	Methyl ethyl ketone	0		2.2E+04		0.00	Developmental
108-10-1	Methyl isobutyl ketone	0		1.3E+04		0.00	Developmental
80-62-6	Methyl methacrylate	0		3.1E+03		0.00	Respiratory
1634-04-4	Methyl tert-butyl ether	0	4.7E+02	1.3E+04	0.0E+00	0.00	Kidney, Liver, Nervous System
75-09-2	Methylene chloride	0	2.6E+02	4.8E+03	0.0E+00	0.00	Liver
91-20-3	Naphthalene	3.6	3.6E+00	1.3E+01	1.0E-05	0.27	Respiratory
108-95-2	Phenol	0		8.8E+02		0.00	Liver, Nervous System
100-42-5	Styrene	0		1.3E+03		0.00	Nervous System
127-18-4	Tetrachloroethene	17.64	2.1E+01	1.2E+03	8.5E-06	0.01	Nervous System
108-88-3	Toluene	8.2		2.2E+04		0.00	Nervous System
79-1-6	Trichloroethene	0	3.0E+01	8.8E+00	0.0E+00	0.00	Developmental, Immune System
108-05-4	Vinyl acetate	0		8.8E+02		0.00	Respiratory
593-60-2	Vinyl bromide	0	3.8E+00	1.3E+01	0.0E+00	0.00	Liver
75-1-4	Vinyl chloride	0	2.8E+01	4.4E+01	0.0E+00	0.00	Liver
1330-20-7	Xylene	116		4.4E+02		0.26	Nervous System
Petroleum Hydrocarbon Fractions							
	C5-C8 Aliphatics	1080		2.6E+03		0.41	Nervous System, Respiratory
	C9-C12 Aliphatics	66		8.8E+02		0.08	Nervous System
	C9-C10 Aromatics	420		2.2E+02		1.92	Developmental, Kidney, Liver

Cumulative ILCR	Target Organ HIs	
2.0E-05	0.00	Immune System HI
	1.93	Developmental HI
	1.93	Kidney HI
	1.93	Liver HI
	0.77	Nervous System HI
	0.00	Endocrine HI
	0.00	Reproductive HI
	0.68	Respiratory HI
	0.00	Blood HI

Chronic Commercial

SV-3

CAS Number	Chemical	Indoor Air Concentration (ug/m ³)	Cancer-Based IAT (ug/m ³)	Noncancer-Based IAT (ug/m ³)	ILCR	HI	Target Organ
75-68-3	1-Chloro-1,1-difluoroethane	0		2.2E+05		0.00	Respiratory
71-55-6	1,1,1-Trichloroethane	0.0284		2.2E+04		0.00	Liver, Nervous System
79-00-5	1,1,2-Trichloroethane	0	7.7E+00		0.0E+00		
75-34-3	1,1-Dichloroethane	0	7.7E+01	2.2E+03	0.0E+00	0.00	Kidney, Liver
75-35-4	1,1-Dichloroethene	0		8.8E+02		0.00	Liver
120-82-1	1,2,4-Trichlorobenzene	0		8.8E+00		0.00	Kidney, Liver
96-12-8	1,2-Dibromo-3-chloropropane	0	2.0E-02	8.8E-01	0.0E+00	0.00	Endocrine, Reproductive, Respiratory
107-06-2	1,2-Dichloroethane	0	4.7E+00	1.1E+04	0.0E+00	0.00	Liver
156-59-2	1,2-Dichloroethene (cis)	0		2.6E+02		0.00	Liver, Respiratory
156-60-5	1,2-Dichloroethene (trans)	0		2.6E+02		0.00	Liver, Respiratory
78-87-5	1,2-Dichloropropane	0	1.2E+01	1.8E+01	0.0E+00	0.00	Respiratory
106-99-0	1,3-Butadiene	0.424	4.1E+00	8.8E+00	1.0E-06	0.05	Developmental, Reproductive
542-75-6	1,3-Dichloropropene	0	3.1E+01	8.8E+01	0.0E+00	0.00	Respiratory
106-46-7	1,4-Dichlorobenzene	0	1.1E+01	2.6E+02	0.0E+00	0.00	Liver, Respiratory
123-91-1	1,4-Dioxane	0		1.3E+04		0.00	Blood, Kidney, Liver
95-48-7	2-Cresol	0		2.6E+03		0.00	Nervous System
91-57-6	2-Methylnaphthalene	0		1.3E+01		0.00	Respiratory
75-05-8	Acetonitrile	0		2.6E+02		0.00	Blood, Immune System, Respiratory
107-02-8	Acrolein	0		1.5E+00		0.00	Respiratory
107-13-1	Acrylonitrile	0	1.8E+00	8.8E+00	0.0E+00	0.00	Respiratory
107-05-1	Allyl chloride	0	2.0E+01	4.4E+00	0.0E+00	0.00	Nervous System
71-43-2	Benzene	0.56	1.6E+01	4.4E+01	3.6E-07	0.01	Immune System
100-44-7	Benzyl chloride	0	2.5E+00	4.4E+00	0.0E+00	0.00	Kidney, Liver, Nervous System, Respiratory
75-25-2	Bromoform	0	1.1E+02		0.0E+00		
74-83-9	Bromomethane	0		2.2E+01		0.00	Respiratory
75-15-0	Carbon disulfide	0		3.1E+03		0.00	Nervous System
56-23-5	Carbon tetrachloride	0	2.0E+01	4.4E+02	0.0E+00	0.00	Liver
108-90-7	Chlorobenzene	0		4.4E+03		0.00	Kidney, Liver, Reproductive
67-66-3	Chloroform	0	5.3E+00	8.8E+00	0.0E+00	0.00	Liver
74-87-3	Chloromethane	0		3.9E+02		0.00	Nervous System
75-71-8	Dichlorodifluoromethane	0		8.8E+02		0.00	Liver
100-41-4	Ethylbenzene	0.1156	4.9E+01	4.4E+02	2.4E-08	0.00	Developmental, Kidney, Liver
106-93-4	Ethylene dibromide	0	2.0E-01	3.9E+01	0.0E+00	0.00	Respiratory
75-00-3	Ethyl chloride	0		4.4E+04		0.00	Developmental
87-68-3	Hexachlorobutadiene	0	5.6E+00		0.0E+00		
67-72-1	Hexachloroethane	0		1.3E+02			
7439-97-6	Mercury (elemental)	0		1.3E+00		0.00	Nervous System
78-93-3	Methyl ethyl ketone	0		2.2E+04		0.00	Developmental
108-10-1	Methyl isobutyl ketone	0		1.3E+04		0.00	Developmental
80-62-6	Methyl methacrylate	0		3.1E+03		0.00	Respiratory
1634-04-4	Methyl tert-butyl ether	0	4.7E+02	1.3E+04	0.0E+00	0.00	Kidney, Liver, Nervous System
75-09-2	Methylene chloride	0	2.6E+02	4.8E+03	0.0E+00	0.00	Liver
91-20-3	Naphthalene	0.086	3.6E+00	1.3E+01	2.4E-07	0.01	Respiratory
108-95-2	Phenol	0		8.8E+02		0.00	Liver, Nervous System
100-42-5	Styrene	0		1.3E+03		0.00	Nervous System
127-18-4	Tetrachloroethene	73.6	2.1E+01	1.2E+03	3.5E-05	0.06	Nervous System
108-88-3	Toluene	0.64		2.2E+04		0.00	Nervous System
79-1-6	Trichloroethene	0	3.0E+01	8.8E+00	0.0E+00	0.00	Developmental, Immune System
108-05-4	Vinyl acetate	0		8.8E+02		0.00	Respiratory
593-60-2	Vinyl bromide	0	3.8E+00	1.3E+01	0.0E+00	0.00	Liver
75-1-4	Vinyl chloride	0	2.8E+01	4.4E+01	0.0E+00	0.00	Liver
1330-20-7	Xylene	0		4.4E+02		0.00	Nervous System
Petroleum Hydrocarbon Fractions							
	C5-C8 Aliphatics	106		2.6E+03		0.04	Nervous System, Respiratory
	C9-C12 Aliphatics	96		8.8E+02		0.11	Nervous System
	C9-C10 Aromatics	8.8		2.2E+02		0.04	Developmental, Kidney, Liver

Cumulative ILCR	Target Organ HIs	
3.7E-05	0.01	Immune System HI
	0.09	Developmental HI
	0.04	Kidney HI
	0.04	Liver HI
	0.21	Nervous System HI
	0.00	Endocrine HI
	0.05	Reproductive HI
	0.05	Respiratory HI
	0.00	Blood HI