PRECISION
ENVIRONMENTAL SERVICES, INC.
831 RT. 67, LOT 38 A
BALLSTON SPA, NY 12020
TEL: 518-885-4399
FAX: 518-885-4416
CERTIFIED WOMEN-OWNED BUSINESS ENTERPRISE

SOIL VAPOR INTRUSION INVESTIGATION REPORT

Former ICC
US Route 9
Hudson, Columbia County, New York
NYS DEC Site No. 4-11-002

Report Completed:
February 2010

Prepared For:

Mr. Michael Haggerty
Environmental Program Specialist
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7016

Prepared By:

PRECISION ENVIRONMENTAL SERVICES, INC.
831 NYS Route 67, Lot 38A
Ballston Spa, New York 12020

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1.0 Introduction

This report was prepared pursuant to the request made by the New York State Department of Environmental Conservation (NYSDEC) and is meant to summarize information collected and the services performed by Precision Environmental Services, Inc. (PES) during the soil vapor intrusion investigation performed at the subject site; former Independent Concrete Corporation (former ICC) located on US Route 9, Hudson, Columbia County, New York. See Figure 1 – Site Location Map for details.

PES has been contracted by the NYSDEC to assess and investigate the occurrence of volatile organic compounds (VOCs) and chlorinated volatile organic compounds (CVOCs) in subsurface soil gas based upon constituents of concerns identified during previous site activities, environmental investigations, and remedial actions. This report presents field data, laboratory data, and a general commentary of procedures/protocols utilized during the performance of the soil vapor intrusion investigation performed on December 14 and 15, 2009.

1.1 Background:

Please Note: The following discussion is limited to PES findings as they relate solely to the limits of the authorized scope of work. Specifically, information presented addresses only those areas of the site where PES performed investigative/monitoring work (i.e. installed soil vapor probe locations). See Figure 2 – Site Map for site plan details.

According to the information provided to PES, the former ICC site was historically utilized as a cement plant. The ten acre site was operated by U.S. Steel until 1977, when it was purchased by the Independent Cement Corporation (ICC).

In July 1986, leaking petroleum drums and transformers were discovered, which prompted an environmental investigation initiated by the NYSDEC. ICC began a remedial action at that time resulting in the removal/disposal of all transformers and most of the contaminated soils.

Subsequent investigations done by ICC found residual soils with low level PCB contamination. In addition to petroleum and PCB contamination, relatively low levels of chlorinated solvents were detected in the vicinity of the former machine shop in both soil and groundwater. A record of decision was signed in March 1995 calling for a No Further Action subsequent to the removal of the remaining PCB contaminated soils as documented in the Remedial Action Report, *Removal of PCB Contaminated Soils*, dated July 1995.

Based on improvements in environmental assessment technologies and an increased awareness of soil vapor as a medium of concern for the potential for exposure to contaminants, a re-evaluation of the subject site has been deemed necessary.

PES was retained by the NYSDEC in November 2009 under Contract Number C100906 to conduct the investigative work relating to the existing soil vapor conditions onsite. In December 2009, PES mobilized to the Site to perform a soil vapor intrusion investigation focused on evaluating onsite environmental quality through the collection of soil vapor samples.

1.2 Site Description:

The subject site is located on US Route 9 in the town of Hudson, Columbia County, New York. Figure 1 – Site Location Map is an annotated United States Geological Survey Map (USGS 1980) depicting the site location and the local topography. In general, the site is relatively flat with a gentle slope to the west. The site is border to the east by the steeply sloping Becraft Hills. The Hudson River is located approximately two-miles to the west. The land surfaces at the site are covered by asphalt or manicured grass. The property is situated in a mixed residential and industrial area. Surface structures consist of a single multi-level industrial building. The eastern portion of the building (active portion), which is currently occupied by Holcim, is currently serviced by municipal gas, water, and

electric. The utilities that once serviced the eastern portion of the site (inactive portion) are said to be disconnected and/or abandoned.

2.0 Soil Vapor Intrusion Investigation

The focus of the investigative effort was to evaluate the occurrence of VOCs and CVOCs in the subsurface based upon constituents of concerns identified through previous site activities, environmental investigations, and remedial actions. Fieldwork consisted of the installation of eight (8) temporary soil vapor probes (SV-1, SV-2, SV-3, SV-4, SV-5, SV-6, SV-7, and SV-8). The locations of investigative data collection points in relation to permanent on-site structures are depicted on Figure 2 – Site Map.

2.1 Temporary Soil Vapor Sampling Probes Installation:

On December 14, 2009, eight (8) temporary soil vapor sampling probes were installed at the subject site. Temporary soil vapor sampling points were constructed of six-inch long, stainless steel, braided screen soil vapor implant probes with 3/16-inch barbs. Expendable, stainless steel points were advanced to a depth above the encountered water table elevation, as directed by the NYSDEC. Once the desired depth was achieved, the soil vapor implant probe and 1/4-inch outside diameter (3/16-inch inside diameter) Teflon tubing were inserted into the penetrating geoprobe rods and attached to the expendable, steel point. The geoprobe rods were removed and the borehole was filled to grade with the appropriate media. Glass bead (60-100 mesh) was added to the borehole annulus to create a porous media pack surrounding the implant probe. Granular bentonite was used to fill the remaining borehole annulus to surface grade. The Teflon tubes were capped above the surface grade, and the bentonite was allowed time to hydrate prior to sample acquisition. The Teflon tubing was removed from the implant probe following the acquisition of the soil vapor samples.

See Attachment A – Boring Logs for details regarding depth and well construction for installed/sampled temporary soil vapor probes.

3.0 Soil Vapor Intrusion Sampling

3*.1 Soil Vapor Intrusion Sampling Procedure*:

On December 15, 2009 a total of four (4) soil-vapor samples were collected (SV-1, SV-2, SV-3, and SV-5). One (1) ambient air sample and one (1) indoor air sample were also collected. Sample locations have been depicted in Figures 3 – Soil Vapor Contaminant Distribution Map. The subsurface soil vapor samples were obtained from a depth below surface grade of approximately three-feet to six-feet. All samples were collected for an approximate one-hour time period. The flow rates during sampling were set not to exceed 0.2 liters per minute in regulators supplied and calibrated by the laboratory. Sampling personnel avoided actions that could cause sample interference (i.e.: fueling vehicles, using permanent marking pens). All samples were collected in clean, 6-liter, laboratory-supplied and laboratory calibrated Summa canisters.

Soil vapor samples were not collected from SV-4 and SV-6 due to the lack of competent surface seals, as observed during confirmatory tracer gas monitoring. Soil vapor samples were not collected from SV-7 and SV-8 due to the presence of water observed in associated probe tubing.

3.2 Confirmatory Tracer Gas Monitoring:

In accordance with the NYSDOH Guidance Document for Evaluating Soil Vapor Intrusion in the State of New York, a helium-enriched shroud was employed over the soil vapor implant probe tube and bore hole. Soil vapor samples were then monitored in real time by a helium detector to ensure that a competent surface seal was maintained. This procedure promoted the collection of a representative soil vapor air sample.

Soil vapor probes were purged of a volume of approximately one (1) liter and collected in a Tedlar bag. The purged soil vapor was then screened for helium concentration and VOC headspace. During the collection of the soil vapor air samples, the concentration of helium within the purged soil vapor at the temporary soil vapor probe locations was recorded at concentration above the competent seal threshold in SV-4 (17% He) and SV-6 (27.3% He), while all remaining soil vapor probes were documented as indicating competent soil vapor probe construction and surface seal for shrouds enriched to 95% He. Headspace values collected for purged soil vapor were reported at concentrations ranging from 47 ppb (SV-5) to 1,193 ppb (SV-1).

See Table 1 – Summary of Soil Vapor Sampling Data for details regarding observations regarding tracer gas monitoring and relative sampling data. Refer to Table 2 – Summary of Laboratory Analytical Results and Table 3 – Summary of Indoor Air Laboratory Analytical Results for details regarding soil vapor sampling results. The Laboratory Analytical Reports have been included as Attachment B – Laboratory Analytical Reports.

4.0 Laboratory Analytical Testing Results

4.1 Soil Vapor Sampling Results:

Spectrum Analytical, Inc. of Agawam, Massachusetts provided the sampling media and performed the analysis on the samples. Soil vapor samples were analyzed for CVOCs and VOCs by EPA Method TO-15, which is capable of achieving a detection limit down to 1.0 µg/m^3 for most analytes. The original laboratory report for the air samples has been provided in Attachment B – Laboratory Analytical Reports.

The data report provided by Spectrum is equivalent to an Analytical Services Protocol Category B deliverable package. As such, a Data Usability Summary Report (DUSR), which was prepared by Alpha Geoscience of Clifton Park, New York, has been provided in Attachment C. The results of the DUSR confirmed that no data was qualified as unusable.

Several compounds were detected in all four (4) soil vapor samples (SV-1, SV-2, SV-3, and SV-5) above the laboratory minimum reporting limits. Total compounds were detected at concentrations ranging from 87.82 µg/m^3 (SV-3) to 1,477.66 µg/m^3 (SV-1). PCE (tetrachloroethene) was detected in soil vapor samples SV-1, SV-2, SV-3 and SV-5 in concentrations ranging from 18.99 µg/m^3 (SV-5) to 990.05 µg/m^3 (SV-1). TCE (trichloroethene) and DCE (1,1-dichloroethene, cis-1,2-dichloroethene, and trans-1,2-dichloroethene) were not detected above the laboratory minimum detection limits in soil vapor samples SV-1, SV-2, and SV-5; however, a TCE concentration of 10.05 µg/m^3 was reported in soil vapor samples from SV-3 collected on December 15, 2009.

Similarly, several compounds were detected above the laboratory minimum reporting limits in the Upgradient Ambient sample collected on December 15, 2009. Total compounds were reported at a concentration of 30.71 µg/m^3. PCE was detected in the Upgradient Ambient sample at a concentration of 0.68 µg/m^3. DCE and TCE were not detected in the Upgradient Ambient sample. See Table 2 – Summary of Laboratory Analytical Results for details regarding soil vapor sampling results.

New York State currently does not have any standards, criteria or guidance values established for concentrations of compounds in subslab or subsurface vapors. Additionally, there are no databases available of background levels of volatile chemicals in soil vapor or for ambient air.

An Indoor Air sample was collected on December 15, 2009 in the basement of the active portion of the Former ICC building. The Indoor Air sample was collected adjacent to a floor sump set in the southeast corner of the basement. Several compounds were detected in the Indoor Air sample that were above the laboratory minimum reporting limits. Total compounds were reported at a concentration of 217.53 µg/m^3. PCE was reported at a concentration of 6.04 µg/m^3. DCE was reported at a concentration of 0.40 µg/m^3. TCE was reported at a concentration of 0.32 µg/m^3. All constituents of concern reported at concentrations above the laboratory minimum reporting limits were below indoor air guidance values established by the USEPA Building Assessment and Survey Evaluation (BASE 1994 – 1998), the NYSDOH letter dated October 31, 2003 from Kim D. Desnoyers of the

NYSDEC Division of Environmental Remediation, and the NYSDOH Bureau of toxic Substance Assessment Tetrachloroethylene Ambient Air Document (1997); except for the compound trichlorofluoromethane detected in the Indoor Air sample, which was reported at a concentration (52.77 µg/m^3) above the established indoor air guidance values. Refer to Table3 – Summary of Indoor Air Laboratory Analytical Results for details regarding indoor air sampling results.

The distribution of total CVOCs and VOCs within the soil for the December 15, 2009 soil vapor probe sampling event is depicted on Figure 3 – Total Soil Contamination Distribution Map. The analytical report for the submitted soil samples is included within Attachment B – Laboratory Analytical Reports.

Any statement or opinion contained in this Report prepared by Precision Environmental Services, Inc. (PES) shall not be construed to create any warranty or representation that the real or personal property on which the investigation was conducted is free of pollution or complies with any or all applicable regulatory or statutory requirements, or that the property is fit for any particular purpose. Unless otherwise indicated in this Report, PES did not independently determine the compliance of present or past owners of the site with federal, state or local laws and regulations. The conclusions presented in this Report were based upon the services described, within the time and budgetary constraints imposed by the client, and not on scientific tasks or procedures beyond the scope of those described services. PES shall not be responsible for conditions or consequences arising from any facts that were concealed, withheld or not fully disclosed by any person at the time evaluation was performed.

Any person or entity considering the acquisition, use or other involvement or activity concerning the property that is the subject of this Report shall be solely responsible for determining the adequacy of the property for any and all such purposes. The person or entity should enter into any such acquisition or use relying solely on its own judgment and personal investigation of the property, and not upon reliance of any representation by PES regarding the property or the character, quality or value thereof.

The contents and conclusions of this Report and the information gathered in order to prepare the Report will remain confidential except to the parties or their representatives.

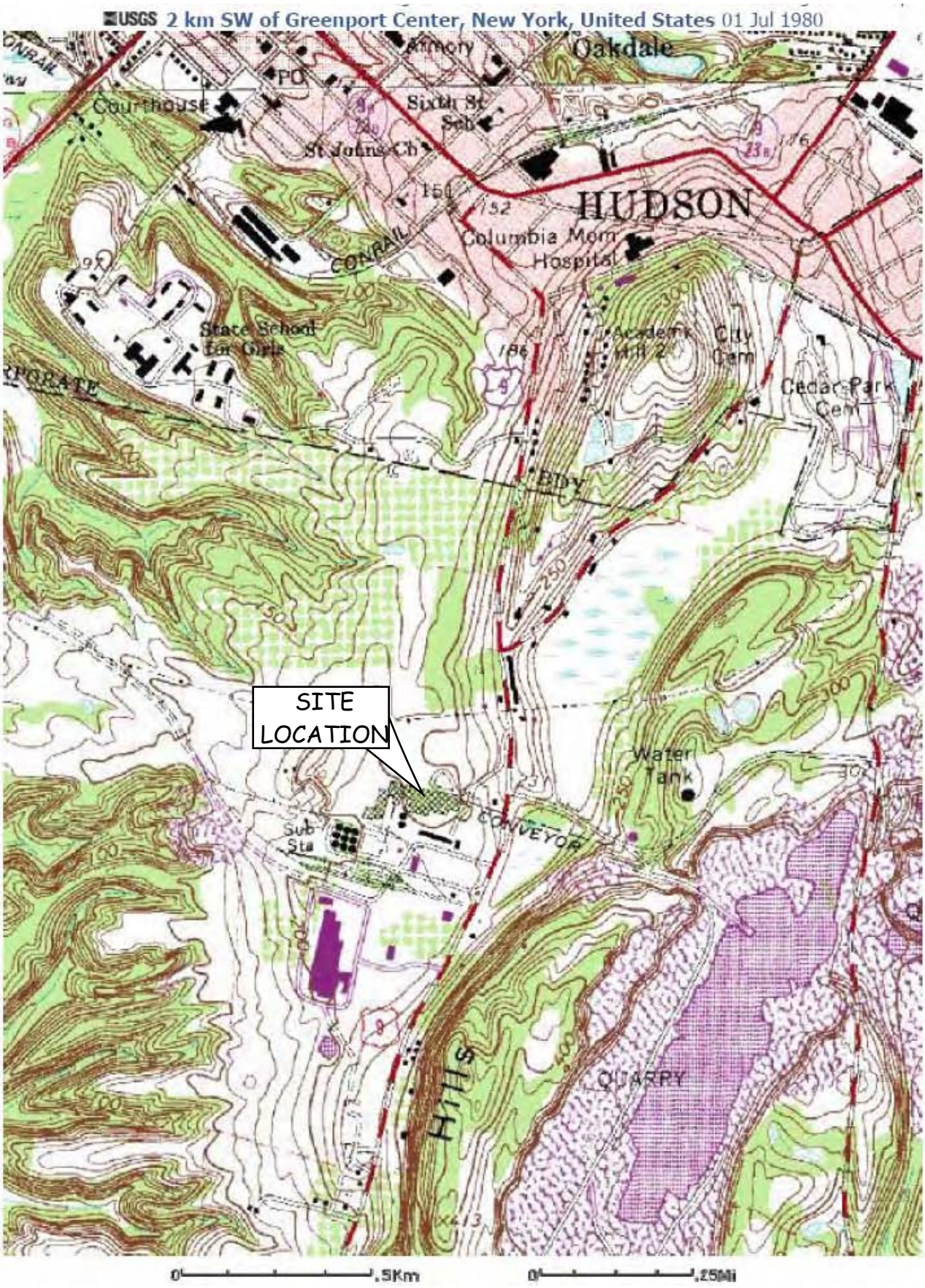
PES appreciates the opportunity to provide continuing environmental services to the NYSDEC. Should any questions arise concerning the submitted report, please contact the undersigned at (518) 885-4399. Thank you for your consideration.

SINCERELY
PRECISION ENVIRONMENTAL SERVICES, INC.

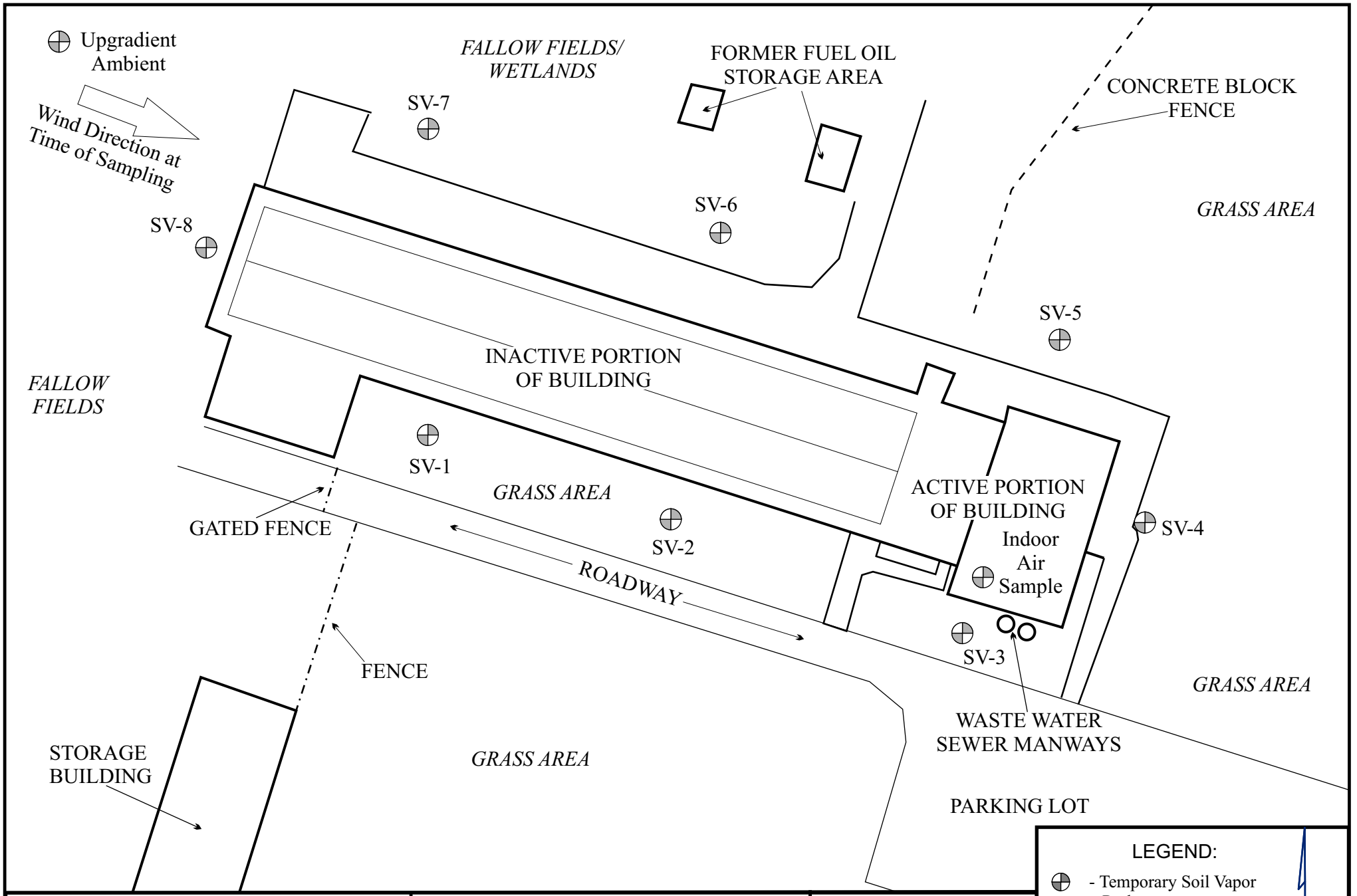
Daniel R. Nierenberg
Project Manager/Geologist

Steven M. Phelps
Environmental Scientist

FIGURES



PRECISION ENVIRONMENTAL SERVICES, INC **831 NYS Route 67, Lot 28C** **Ballston Spa, NY 12020** **518-885-4399**	FORMER ICC NYSDEC Site No. 4-11-002 **US Route 9** **Hudson, Columbia County, New York**	**Date : January 20106,**
		Map Courtesy of USGS
SITE LOCATION MAP		**Figure: 1**



PRECISION ENVIRONMENTAL SERVICES, INC
831 NYS Route 67, Lot 28C
Ballston Spa, NY 12020
518-885-4399

FORMER ICC

NYSDEC Site No. 4-11-002
US Route 9
Hudson, Columbia County, New York

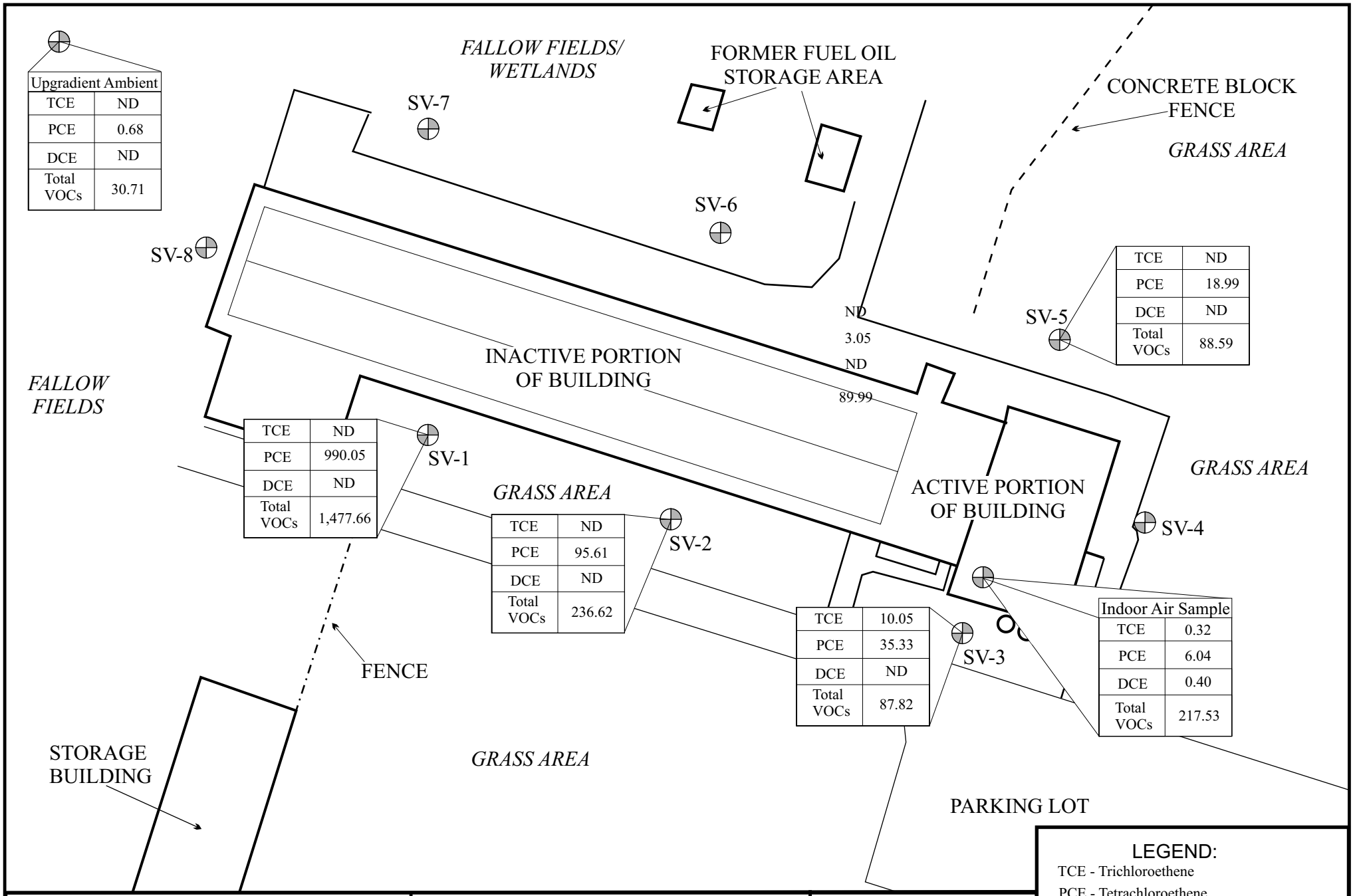
SITE MAP

Figure: 2

Date : January 6, 2010

Scale : NTS

Drawn by: DRN



PRECISION ENVIRONMENTAL SERVICES, INC
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Ballston Spa, NY 12020
518-885-4399

Soil Vapor Contaminant Distribution Map

FORMER ICC

NYSDEC Site No. 4-11-002
US Route 9
Hudson, Columbia County, New York

Figure: 3

Date : December 15, 2009

Scale : NTS

Drawn by: DRN

LEGEND:

TCE - Trichloroethene
PCE - Tetrachloroethene
DCE - 1,1 & 1,2 Dichloroethene
Total VOCs - Total Volatile Organic Compounds
ND - Not Detected Above Laboratory Minimum Reporting Limits
*All values reported in µg/m^3

TABLES

Table 1

Summary of Soil Vapor Sampling Data

Former ICC
NYSDEC Site No. 4-11-002
US Route 9
Hudson, Columbia County, New York
Collected on December 15, 2009

Temporary Soil Vapor Probe ID	SUMMA Canister ID	Regulator ID	Time On	Time Off	He Shroud %	He Tedlar Purge	Headspace Tedlar Purge (ppb)	Start SUMMA	End SUMMA	Ambient Temperature (^{o}C)
SV-1	4638	37	10:48	11:19	95%	1350	1193	-28" Hg	-2" Hg	38
SV-2	1010	2869	11:15	11:42	95%	125	95	-28" Hg	-2" Hg	38
SV-3	0263	54	11:45	12:32	95%	0	118	> -30" Hg	-4" Hg	40
SV-4	N/A	N/A	N/A	N/A	95%	17%*[1]	623	N/A	N/A	40
SV-5	5582	2876	13:09	13:49	95%	87, 750	47	-27" Hg	-2" Hg	39
SV-6	N/A	N/A	N/A	N/A	95%	27.3%*[1]	682	N/A	N/A	39
SV-7*[2]	N/A	N/A	N/A	N/A	95%	2.3%	51	N/A	N/A	38
SV-8*[2]	N/A	N/A	N/A	N/A	95%	2,950	92	N/A	N/A	38
Indoor Air Sample	4613	2842	15:24	16:05	N/A	N/A	N/A	-25" Hg	-3" Hg	60
Upgradient Ambient	0271	49	12:46	13:40	N/A	N/A	N/A	-30" Hg	-2" Hg	39

Helium Detector : He Leak Detector - MGD-2002

Photo-ionization detector : ppbRae Plus PGM-7240

N/A indicates not applicable

*[1] indicates lack of a competent surface seal as observed during confirmatory tracer gas monitoring; no soil vapor sample obtained

*[2] indicates the presence of water observed in associated soil vapor probe tubing; no soil vapor sample obtained

Table 2

Summary of Laboratory Analytical Results

Former ICC NYSDEC Site No. 4-11-002 US Route 9 Hudson, Columbia County, New York		Temporary Soil Vapor Probe Identification Collected on December 15, 2009				
Parameters	**Analysis**	**SV-1**	**SV-2**	**SV-3**	**SV-5**	**Upgradient Ambient**
Propene	*TO-15*	**14.56**	**6.82**	ND	ND	ND
Dichlorodifluoromethane	*TO-15*	**2.77 J**	**3.02**	**3.07**	**2.87**	**3.21**
Chloromethane	*TO-15*	ND	ND	ND	ND	**1.51**
1,2-Dichlorotetrafluoraethane	*TO-15*	ND	ND	ND	ND	ND
Vinyl Chloride	*TO-15*	ND	ND	ND	ND	ND
1,3-Butadiene	*TO-15*	ND	ND	ND	ND	ND
Bromomethane	*TO-15*	ND	ND	ND	ND	ND
Chloroethane	*TO-15*	ND	ND	ND	ND	ND
Acetone	*TO-15*	**13.16**	**8.53**	**5.99**	**11.05**	**6.08**
Trichlorofluoromethane	*TO-15*	ND	ND	ND	**1.18**	**1.57**
Ethanol	*TO-15*	**1.43 J**	**9.43**	**1.56**	**1.64**	**4.86**
Acrylonitrile	*TO-15*	ND	ND	ND	ND	ND
1,1-Dichloroethene (DCE)	*TO-15*	ND	ND	ND	ND	ND
Methylene Chloride	*TO-15*	ND	**2.78**	ND	ND	**0.35**
1,1,2-Trichlorotrifluoroethane	*TO-15*	ND	ND	ND	**0.54 J**	**0.77**
Carbon Disulfide	*TO-15*	**8.03**	**2.49**	ND	**0.50 J**	ND
trans-1,2-Dichloroethene (DCE)	*TO-15*	ND	ND	ND	ND	ND
1,1-Dichloroethane	*TO-15*	ND	ND	ND	**2.87**	ND
Methyl tert-Butyl Ether	*TO-15*	ND	ND	ND	ND	ND
Isopropyl Alcohol	*TO-15*	ND	**3.78**	ND	**0.25 J**	**0.59 J**
2-Butanone (MEK)	*TO-15*	**10.03**	**1.27 J**	**4.39**	**8.70 BsH**	**1.06 DJ**
cis-1,2-Dichloroethene (DCE)	*TO-15*	ND	ND	ND	ND	ND
Hexane	*TO-15*	**8.11**	**17.45**	**1.02 J**	**0.39**	**2.93**
Ethyl Acetate	*TO-15*	ND	ND	ND	ND	ND
Chloroform	*TO-15*	**2.24 J**	ND	ND	**0.88**	ND
Tetrahydrofuran	*TO-15*	ND	ND	ND	**0.68**	ND
1,2-Dichloroethane	*TO-15*	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	*TO-15*	ND	ND	**2.18 J**	**0.71**	ND
Benzene	*TO-15*	**35.09**	**2.33**	**0.99 J**	**0.54**	**1.37**
Carbon Tetrachloride	*TO-15*	ND	ND	ND	**3.77**	**0.63**
Cyclohexane	*TO-15*	**4.06**	**3.06**	ND	ND	ND
1,2-Dichloropropane	*TO-15*	ND	ND	ND	ND	ND
Bromodichloromethane	*TO-15*	ND	ND	ND	ND	ND
Trichloroethene (TCE)	*TO-15*	ND	ND	**10.05**	ND	ND
1,4-Dioxane	*TO-15*	ND	ND	ND	ND	ND
n-Heptane	*TO-15*	**12.29**	**8.73**	**5.53**	ND	**0.41**
4-Methyl-2-Pentanone (MIBK)	*TO-15*	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	*TO-15*	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	*TO-15*	ND	ND	ND	ND	ND
1,1,2- Trichloroethane	*TO-15*	ND	ND	ND	ND	ND
Toluene	*TO-15*	**269.79**	**24.26**	**7.30**	**4.40**	**3.05**
2-Hexanone (MBK)	*TO-15*	ND	ND	ND	ND	ND
Dibromochloromethane	*TO-15*	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	*TO-15*	ND	ND	ND	ND	ND
Tetrachloroethene (PCE)	*TO-15*	**990.05**	**95.61**	**35.33**	**18.99**	**0.68**
Chlorobenzene	*TO-15*	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	*TO-15*	ND	ND	ND	ND	ND
Ethylbenzene	*TO-15*	**31.13**	**5.55**	**1.91 J**	**1.69**	**0.26 J**
m,p-Xylene	*TO-15*	**56.79**	**20.16**	**5.64**	**7.85**	**0.74**
Bromoform	*TO-15*	ND	ND	ND	ND	ND
Styrene	*TO-15*	ND	ND	ND	ND	ND
o-Xylene	*TO-15*	**9.97**	**4.64**	**1.43**	**7.93 J**	**0.30 J**
1,1,2,2-Tetrachloroethane	*TO-15*	ND	ND	ND	ND	ND
Isopropylbenzene	*TO-15*	**5.01**	**4.42**	ND	**0.74**	ND
1,3,5-Trimethylbenzene	*TO-15*	ND	**2.51**	ND	**1.38**	ND
4-Ethyltoluene	*TO-15*	ND	**2.90**	ND	**2.06**	ND
1,2,4-Trimethylbenzene	*TO-15*	**3.15 J**	**6.88**	**1.43**	**6.98 J**	**0.34 J**
1,3-Dichlorobenzene	*TO-15*	ND	ND	ND	ND	ND
Benzyl Chloride	*TO-15*	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	*TO-15*	ND	ND	ND	ND	ND
sec-Butylbenzene	*TO-15*	ND	ND	ND	ND	ND
4-Isopropyltoluene	*TO-15*	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	*TO-15*	ND	ND	ND	ND	ND
n-Butylbenzene	*TO-15*	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	*TO-15*	ND	ND	ND	ND	ND
Hexachlorobutadiene	*TO-15*	ND	ND	ND	ND	ND
Total TCE	***TO-15***	**ND**	**ND**	**10.05**	**ND**	**ND**
Total PCE	***TO-15***	**990.05**	**95.61**	**35.33**	**18.99**	**0.68**
Total DCE	***TO-15***	**ND**	**ND**	**ND**	**ND**	**ND**
Total VOCs	***TO-15***	**1,477.66**	**236.62**	**87.82**	**88.59**	**30.71**

All Values reported in micrograms per cubic meters ($\mu g/m^3$)

Analytical Facility - Spectrum Analytical, Inc. - Agawam, MA

ND indicates not detected above laboratory minimum reporting limits

Values in **BOLD** indicate values detected above laboratory minimum reporting limits

(E) indicates values considered estimates

(J) indicates values detected above the laboratory method detection limits but below the minimum reporting limits

(BsH) indicates data for this analyte may be biased based on QC spike recoveries

(DJ) DUSR indicates analyte is present. The reported value may be associated with a higher level of uncertainty than normally expected with the analytical method

Table 3

Summary of Indoor Air
Laboratory Analytical Results

Former ICC NYSDEC Site No. 4-11-002 US Route 9 Hudson, Columbia County, New York		Indoor Air Sample Identification Collected on December 15, 2009	
Parameters	**Analysis**	**Indoor Air Sample**	***Indoor Air Guidance Value**** [1]
Propene	*TO-15*	ND	***N/A***
Dichlorodifluoromethane	*TO-15*	**3.16**	***16.50***
Chloromethane	*TO-15*	**1.59**	***3.70***
1,2-Dichlorotetrafluoraethane	*TO-15*	ND	***<6.80***
Vinyl Chloride	*TO-15*	ND	***<1.90***
1,3-Butadiene	*TO-15*	ND	***<3.00***
Bromomethane	*TO-15*	ND	***<1.70***
Chloroethane	*TO-15*	ND	***<1.10***
Acetone	*TO-15*	**19.49**	***98.90***
Trichlorofluoromethane	*TO-15*	**52.77**	***18.10***
Ethanol	*TO-15*	**57.53 DJ**	***210.00***
Acrylonitrile	*TO-15*	ND	***N/A***
1,1-Dichloroethene (DCE)	*TO-15*	ND	***<1.40***
Methylene Chloride	*TO-15*	**2.99**	***10.00***
1,1,2-Trichlorotrifluoroethane	*TO-15*	**0.77**	***3.50***
Carbon Disulfide	*TO-15*	ND	***4.20***
trans-1,2-Dichloroethene (DCE)	*TO-15*	ND	***<1.90***
1,1-Dichloroethane	*TO-15*	ND	***<0.70***
Methyl tert-Butyl Ether	*TO-15*	ND	***11.50***
Isopropyl Alcohol	*TO-15*	**8.47**	***N/A***
2-Butanone (MEK)	*TO-15*	**4.33 DJ**	***12.00***
cis-1,2-Dichloroethene (DCE)	*TO-15*	**0.40**	***<1.90***
Hexane	*TO-15*	**24.86**	***10.20***
Ethyl Acetate	*TO-15*	ND	***5.40***
Chloroform	*TO-15*	ND	***1.10***
Tetrahydrofuran	*TO-15*	**1.47**	***N/A***
1,2-Dichloroethane	*TO-15*	ND	***<0.90***
1,1,1-Trichloroethane	*TO-15*	ND	***20.60***
Benzene	*TO-15*	**2.23**	***9.40***
Carbon Tetrachloride	*TO-15*	**0.69**	***<1.30***
Cyclohexane	*TO-15*	**0.83**	***N/A***
1,2-Dichloropropane	*TO-15*	ND	***<1.60***
Bromodichloromethane	*TO-15*	ND	***N/A***
Trichloroethene (TCE)	*TO-15*	**0.32 J**	***5.00**** [2]
1,4-Dioxane	*TO-15*	ND	***N/A***
n-Heptane	*TO-15*	**3.32**	***<3.6***
4-Methyl-2-Pentanone (MIBK)	*TO-15*	ND	***6.00***
cis-1,3-Dichloropropene	*TO-15*	ND	***<2.30***
trans-1,3-Dichloropropene	*TO-15*	ND	***<1.30***
1,1,2- Trichloroethane	*TO-15*	ND	***<1.5***
Toluene	*TO-15*	**14.94**	***43.00***
2-Hexanone (MBK)	*TO-15*	ND	***N/A***
Dibromochloromethane	*TO-15*	ND	***N/A***
1,2-Dibromoethane (EDB)	*TO-15*	ND	***<1.50***
Tetrachloroethene (PCE)	*TO-15*	**6.04**	***100.00**** [3]
Chlorobenzene	*TO-15*	ND	***<0.90***
1,1,1,2-Tetrachloroethane	*TO-15*	ND	***N/A***
Ethylbenzene	*TO-15*	**1.30**	***5.70***
m,p-Xylene	*TO-15*	**4.47**	***22.20***
Bromoform	*TO-15*	ND	***N/A***
Styrene	*TO-15*	**0.89**	***1.90***
o-Xylene	*TO-15*	**1.52**	***<7.3***
1,1,2,2-Tetrachloroethane	*TO-15*	ND	***N/A***
Isopropylbenzene	*TO-15*	ND	***N/A***
1,3,5-Trimethylbenzene	*TO-15*	**0.59**	***3.70***
4-Ethyltoluene	*TO-15*	**0.59**	***3.60***
1,2,4-Trimethylbenzene	*TO-15*	**1.97**	***9.50***
1,3-Dichlorobenzene	*TO-15*	ND	***<2.40***
Benzyl Chloride	*TO-15*	ND	***<6.80***
1,4-Dichlorobenzene	*TO-15*	ND	***5.50***
sec-Butylbenzene	*TO-15*	ND	***N/A***
4-Isopropyltoluene	*TO-15*	ND	***N/A***
1,2-Dichlorobenzene	*TO-15*	ND	***<1.20***
n-Butylbenzene	*TO-15*	ND	***<1.90***
1,2,4-Trichlorobenzene	*TO-15*	ND	***<6.80***
Hexachlorobutadiene	*TO-15*	ND	***<6.80***
Total TCE	***TO-15***	**0.32**	
Total PCE	***TO-15***	**6.04**	
Total DCE	***TO-15***	**0.40**	
Total VOCs	***TO-15***	**217.53**	

All Values reported in micrograms per cubic meters ($\mu g/m^3$)
Analytical Facility - Spectrum Analytical, Inc. - Agawam, MA
ND indicates not detected above laboratory minimum reporting limits
Values in **BOLD** indicate values detected above laboratory minimum reporting limits
N/A indicates value not available
(E) indicates values considered estimates
(J) indicates values detected above the laboratory method detection limits but below the minimum reporting limits
(BsH) indicates data for this analyte may be biased based on QC spike recoveries
(DJ) DUSR indicates analyte is present. The reported value may be associated with a higher level of uncertainty than normally expected with the analytical method

*[1] indicates indoor air guidance value established by USEPA Building Assessment and Survey Evaluation (BASE 1994-1998)

*[2] indicates NYSDOH, October 31, 2003 letter from Kim D. Desnoyers, NYSDEC Division of Environmental Remediation

*[3] indicates NYSDOH, 1997, Tetrachloroethylene Ambient Air Document, Bureau of Toxic Substance Assessment

ATTACHMENT - A
Boring Logs

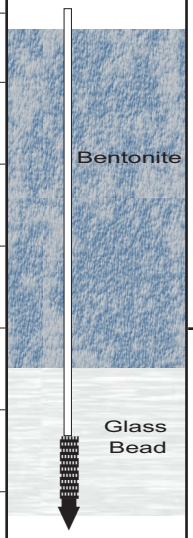
PRECISION
PES Environmental Services, Inc.
Lot 28, Curtis Industrial Park
831 Route 67
Ballston Spa, NY 12020
TEL: 518 885-4399
FAX: 518 885-4416

DRILLING LOG

Well/ Boring No.: SV-1

Project: Former ICC
Client: NYSDEC - Central Office
Project No: 4-11-002
Location: Hudson, NY
Driller: Mike Dudley
Logged by: Dan Nierenberg
Drilling Contractor: PES
Drilling Method: Geoprobe/Direct Push
Date Drilled: 12-14-2009
Date Developed: N/A
TOC Elevation: -
Total Depth of Hole: 6'
Boring Diameter: 2.25"
Screen Diameter: ½"
Length: 10"
Slot Size: -
Tubing Diameter: 3/8"OD, 3/16"ID
Length: 10'
Type: Temp Soil Vapor Probe
Glass Bead: 6'-4.5'
Bentonite Seal: 4.5' - Grade
Protective Casing: N/A

See Site Map

Depth (ft.)	Soil Vapor Probe	Soil Boring Details	Sample Type/ #	PID (ppb)	Description / Soil Classification
0–4					0-4": brown fine SAND, well sorted, with some medium SAND mixed
4–8					4-8': brown fine SAND, well sorted, with some medium SAND mixed; changing to TILL, fine SAND/SILT, with little CLAY with medium shale (bdrx) fragments
8–9					8-9': same as above

Soil Vapor Probe SV-1 Installed at 6-feet below existing grade

Glass bead pack from 6-feet to 4.5-feet below existing site grade

Granular bentonite from 4.5-feet to existing site grade

Collected soil vapor sample SV-1 on December 15, 2009

Soil vapor probes were removed and backfilled with bentonite before completion of work performed on December 15, 2009

Refusal at 9-feet below existing site grade

Appreciable Groundwater observed at 3-inches from soil boring bottom

N/A = No Sample Acquired
ND = No VOCs Detected By PID analysis
* = Sample Submitted for Laboratory Analysis

PRECISION
PES Environmental Services, Inc.
Lot 28, Curtis Industrial Park
831 Route 67
Ballston Spa, NY 12020
TEL: 518 885-4399
FAX: 518 885-4416

DRILLING LOG

Well/ Boring No.: SV-2

Project: Former ICC
Client: NYSDEC - Central Office
Project No: 4-11-002
Location: Hudson, NY
Driller: Mike Dudley
Logged by: Dan Nierenberg
Drilling Contractor: PES
Drilling Method: Geoprobe/Direct Push
Date Drilled: 5-18-2009
Date Developed: N/A
TOC Elevation: -
Total Depth of Hole: 4.5'
Boring Diameter: 2.25"
Screen Diameter: ½"
Length: 10"
Slot Size: -
Tubing Diameter: 3/8"OD, 3/16"ID
Length: 10'
Type: Temp Soil Vapor Probe
Glass Bead: 4.5'- 3'
Bentonite Seal: 3' - Grade
Protective Casing: N/A

See Site Map

Depth (ft.)	Soil Vapor Probe	Temp Monitoring Well	Sample Type/ #	PID (ppb)	Description / Soil Classification
0					Soil Vapor Probe SV-2 Installed at 4.5-feet below existing grade
1					
2					Glass bead pack from 4.5-feet to 3-feet below existing site grade
3					Granular bentonite from 3-feet to existing site grade
4					Collected soil vapor sample SV-2 on December 15, 2009
5					Soil vapor probes were removed and backfilled with bentonite before completion of work performed on December 15, 2009
6					
7					Refusal at 6.5-feet below existing site grade
8					Appreciable groundwater was observed at 5.5-feet below existing site grade
9					
10					
11					
12					
13					
14					
15					

N/A = No Sample Acquired
ND = No VOCs Detected By PID analysis
* = Sample Submitted for Laboratory Analysis

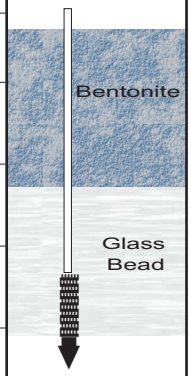
PRECISION
PES Environmental Services, Inc.
Lot 28, Curtis Industrial Park
831 Route 67
Ballston Spa, NY 12020
TEL: 518 885-4399
FAX: 518 885-4416

DRILLING LOG

Well/ Boring No.: SV-3

Project: Former ICC
Client: NYSDEC - Central Office
Project No: 4-11-002
Location: Hudson, NY
Driller: Mike Dudley
Logged by: Dan Nierenberg
Drilling Contractor: PES
Drilling Method: Geoprobe/Direct Push
Date Drilled: 12-14-2009
Date Developed: N/A
TOC Elevation: -
Total Depth of Hole: 4'
Boring Diameter: 2.25"
Screen Diameter: ½"
Length: 10"
Slot Size: -
Tubing Diameter: 3/8"OD, 3/16"ID
Length: 10'
Type: Temp Soil Vapor Probe
Glass Bead: 4' - 2.5'
Bentonite Seal: 2.5' - Grade
Protective Casing: N/A

See Site Map

Depth (ft.)	Soil Vapor Probe	Temp Monitoring Well	Sample Type/ #	PID (ppb)	Description / Soil Classification
0					Soil Vapor Probe SV-3 installed at 4-feet below existing grade
1					
2					Glass bead pack from 4-feet to 2.5-feet below existing site grade
3					Granula bentonite from 2.5-feet to existing site grade
4					Collected soil vapor sample SV-3 on December 15, 2009
5					
6					Soil vapor probes were removed and backfilled with bentonite before completion of work performed on December 15, 2009
7					
8					
9					
10					
11					
12					Drove solid point to 12-feet below existing site grade
13					Appreciable groundwater was observed at 5.70-feet below existing site grade
14					
15					

N/A = No Sample Acquired
ND = No VOCs Detected By PID analysis
* = Sample Submitted for Laboratory Analysis

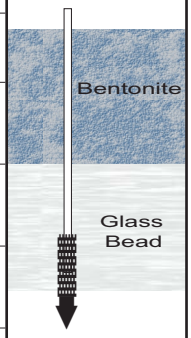
PRECISION
PES Environmental Services, Inc.
Lot 28, Curtis Industrial Park
831 Route 67
Ballston Spa, NY 12020
TEL: 518 885-4399
FAX: 518 885-4416

DRILLING LOG

Well/ Boring No.: SV-4

Project: Former ICC
Client: NYSDEC - Central Office
Project No: 4-11-002
Location: Hudson, NY
Driller: Mike Dudley
Logged by: Dan Nierenberg
Drilling Contractor: PES
Drilling Method: Geoprobe/Direct Push
Date Drilled: 12-14-2009
Date Developed: N/A
TOC Elevation: -
Total Depth of Hole: 3.5'
Boring Diameter: 2.25"
Screen Diameter: ½"
Length: 10"
Slot Size: -
Tubing Diameter: 3/8"OD, 3/16"ID
Length: 7'
Type: Temp Soil Vapor Probe
Glass Bead: 3.5' - 2'
Bentonite Seal: 2' - Grade
Protective Casing: N/A

See Site Map

Depth (ft.)	Soil Vapor Probe	Temp Monitoring Well	Sample Type/ #	PID (ppb)	Description / Soil Classification
0					Soil Vapor Probe SV-4 installed 3.5-feet below existing grade
1					
2					Glass bead pack from 3.5-feet to 2-feet below existing site grade
3					Granular bentonite from 2-feet to existing site grade
4					SV-4 did not meet helium shroud competent seal tests; found concentrations of helium above 10% in helium shroud subsequent to helium enrichment and purging; failed three (3) separate seal tests
5					
6					As directed by the NYSDEC, no soil vapor sample was collected at SV-4 location
7					
8					Soil vapor probes were removed and backfilled with bentonite before completion of work performed on December 15, 2009
9					
10					Drove solid point to 9-feet below existing site grade
11					Appreciable groundwater was observed at 5-feet below existing site grade
12					
13					
14					
15					

N/A = No Sample Acquired
ND = No VOCs Detected By PID analysis
* = Sample Submitted for Laboratory Analysis

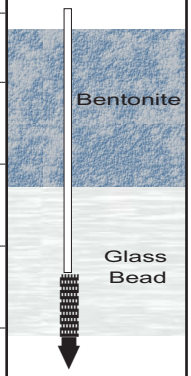
PRECISION
PES Environmental Services, Inc.
Lot 28, Curtis Industrial Park
831 Route 67
Ballston Spa, NY 12020
TEL: 518 885-4399
FAX: 518 885-4416

DRILLING LOG

Well/ Boring No.: SV-5

Project: Former ICC
Client: NYSDEC - Central Office
Project No: 4-11-002
Location: Hudson, NY
Driller: Mike Dudley
Logged by: Dan Nierenberg
Drilling Contractor: PES
Drilling Method: Geoprobe/Direct Push
Date Drilled: 12-14-2009
Date Developed: N/A
TOC Elevation: -
Total Depth of Hole: 4'
Boring Diameter: 2.25"
Screen Diameter: ½"
Length: 10"
Slot Size: -
Tubing Diameter: 3/8"OD, 3/16"ID
Length: 10'
Type: Temp Soil Vapor Probe
Glass Bead: 4' - 2.5'
Bentonite Seal: 2.5' - Grade
Protective Casing: N/A

See Site Map

Depth (ft.)	Soil Vapor Probe	Temp Monitoring Well	Sample Type/ #	PID (ppb)	Description / Soil Classification
0					Soil Vapor Probe SV-5 installed at 4-feet below existing grade
1					
2					Glass bead pack from 4-feet to 2.5-feet below existing site grade
3					Granula bentonite from 2.5-feet to existing site grade
4					
5					Collected soil vapor sample SV-5 on December 15, 2009
6					Soil vapor probes were removed and backfilled with bentonite before completion of work performed on December 15, 2009
7					
8					
9					Drove solid point to 9-feet below existing site grade
10					Appreciable groundwater was observed at 5-feet below existing site grade
11					
12					
13					
14					
15					

N/A = No Sample Acquired
ND = No VOCs Detected By PID analysis
* = Sample Submitted for Laboratory Analysis

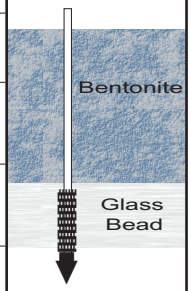
PRECISION
PES Environmental Services, Inc.
Lot 28, Curtis Industrial Park
831 Route 67
Ballston Spa, NY 12020
TEL: 518 885-4399
FAX: 518 885-4416

DRILLING LOG

Well/ Boring No.: SV-6

Project: Former ICC
Client: NYSDEC - Central Office
Project No: 4-11-002
Location: Hudson, NY
Driller: Mike Dudley
Logged by: Dan Nierenberg
Drilling Contractor: PES
Drilling Method: Geoprobe/Direct Push
Date Drilled: 12-14-2009
Date Developed: N/A
TOC Elevation: -
Total Depth of Hole: 3'
Boring Diameter: 2.25"
Screen Diameter: ½"
Length: 10"
Slot Size: -
Tubing Diameter: 3/8"OD, 3/16"ID
Length: 7'
Type: Temp Soil Vapor Probe
Glass Bead: 3' - 2.25'
Bentonite Seal: 2.25' - Grade
Protective Casing: N/A

See Site Map

Depth (ft.)	Soil Vapor Probe	Temp Monitoring Well	Sample Type/ #	PID (ppb)	Description / Soil Classification
0					Soil Vapor Probe SV-6 installed at 3-feet below existing grade
1					Glass bead pack from 3-feet to 2.25-feet below existing site grade
2					Granular bentonite from 2.25-feet to existing site grade
3					SV-6 did not meet helium shroud competent seal tests; found concentrations of helium above 10% in helium shroud subsequent to helium enrichment and purging; failed two (2) separate seal tests
4					As directed by the NYSDEC, no soil vapor sample was collected at SV-6 location
5					Soil vapor probes were removed and backfilled with bentonite before completion of work performed on December 15, 2009
6					
7					
8					
9					Drove solid point to 9-feet below existing site grade
10					Appreciable groundwater was observed at 3.8-feet below existing site grade
11					
12					
13					
14					
15					

N/A = No Sample Acquired
ND = No VOCs Detected By PID analysis
* = Sample Submitted for Laboratory Analysis

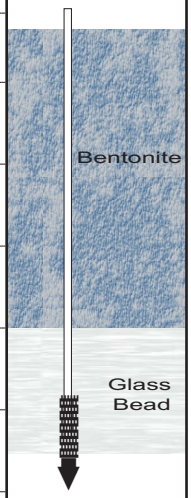
PRECISION
PES Environmental Services, Inc.
Lot 28, Curtis Industrial Park
831 Route 67
Ballston Spa, NY 12020
TEL: 518 885-4399
FAX: 518 885-4416

DRILLING LOG

Well/ Boring No.: SV-7

Project: Former ICC
Client: NYSDEC - Central Office
Project No: 4-11-002
Location: Hudson, NY
Driller: Mike Dudley
Logged by: Dan Nierenberg
Drilling Contractor: PES
Drilling Method: Geoprobe/Direct Push
Date Drilled: 12-14-2009
Date Developed: N/A
TOC Elevation: -
Total Depth of Hole: 5.5'
Boring Diameter: 2.25"
Screen Diameter: ½"
Length: 10"
Slot Size: -
Tubing Diameter: 3/8"OD, 3/16"ID
Length: 10'
Type: Temp Soil Vapor Probe
Glass Bead: 5.5' - 4'
Bentonite Seal: 4' -Grade
Protective Casing: N/A

See Site Map

Depth (ft.)	Soil Vapor Probe	Temp Monitoring Well	Sample Type/ #	PID (ppb)	Description / Soil Classification
0					Soil Vapor Probe SV-7 installed at 5.5-feet below existing grade
1					
2					Glass bead pack from 5.5-feet to 4-feet below existing site grade
3					
4					Granular bentonite from 4-feet to existing site grade
5					Upon purging SV-7, it was observed/documented that the soil vapor probe and associated tubing contained water. No soil vapor sample was collected at SV-7 location
6					
7					Soil vapor probes were removed and backfilled with bentonite before completion of work performed on December 15, 2009
8					Refusal at 6.5-feet below existing site grade
9					No appreciable groundwater was observed
10					
11					
12					
13					
14					
15					

N/A = No Sample Acquired
ND = No VOCs Detected By PID analysis
* = Sample Submitted for Laboratory Analysis

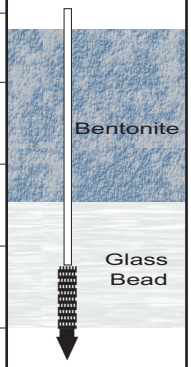
PRECISION
PES Environmental Services, Inc.
Lot 28, Curtis Industrial Park
831 Route 67
Ballston Spa, NY 12020
TEL: 518 885-4399
FAX: 518 885-4416

DRILLING LOG

Well/ Boring No.: SV-8

Project: Former ICC
Client: NYSDEC - Central Office
Project No: 4-11-002
Location: Hudson, NY
Driller: Mike Dudley
Logged by: Dan Nierenberg
Drilling Contractor: PES
Drilling Method: Geoprobe/Direct Push
Date Drilled: 12-14-2009
Date Developed: N/A
TOC Elevation: -
Total Depth of Hole: 4'
Boring Diameter: 2.25"
Screen Diameter: ½"
Length: 10"
Slot Size: -
Tubing Diameter: 3/8"OD, 3/16"ID
Length: 10'
Type: Temp Soil Vapor Probe
Glass Bead: 5.5' - 4'
Bentonite Seal: 4' -Grade
Protective Casing: N/A

See Site Map

Depth (ft.)	Soil Vapor Probe	Temp Monitoring Well	Sample Type/ #	PID (ppb)	Description / Soil Classification
0					Soil Vapor Probe SV-8 installed at 4-feet below existing grade
1					
2					Glass bead pack from 4-feet to 2.5-feet below existing site grade
3					Granular bentonite from 2.5-feet to existing site grade
4					
5					
6					Upon purging SV-8, it was observed/documented that the soil vapor probe and associated tubing contained water. No soil vapor sample was collected at SV-8 location
7					
8					Soil vapor probes were removed and backfilled with bentonite before completion of work performed on December 15, 2009
9					Refusal at 5-feet below existing site grade
10					No appreciable groundwater was observed
11					
12					
13					
14					
15					

N/A = No Sample Acquired
ND = No VOCs Detected By PID analysis
* = Sample Submitted for Laboratory Analysis

ATTACHMENT - B
Laboratory Analytical Reports

Report Date:
04-Jan-10 11:20

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

Precision Environmental Services, Inc.
831 Route 67, Lot 28
Ballston Spa, NY 12020
Attn: Daniel Nierenberg

Project: Former ICC - Greenport, NY
Project #: 4-11-002

Laboratory ID	Client Sample ID	Container	Matrix	Date Sampled	Date Received
SB05951-01	SV-2	Summa canister 6 liter	Soil Gas	15-Dec-09 11:42	18-Dec-09 13:40
SB05951-02	Upgradient Ambient	Summa canister 6 liter	Air	15-Dec-09 13:40	18-Dec-09 13:40
SB05951-03	Indoor Air Sample	Summa canister 6 liter	Air	15-Dec-09 16:05	18-Dec-09 13:40
SB05951-04	SV-1	Summa canister 6 liter	Soil Gas	15-Dec-09 11:19	18-Dec-09 13:40
SB05951-05	SV-3	Summa canister 6 liter	Soil Gas	15-Dec-09 12:32	18-Dec-09 13:40
SB05951-06	SV-5	Summa canister 6 liter	Soil Gas	15-Dec-09 13:49	18-Dec-09 13:40

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.
All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87600/E87936
Maine # MA138
New Hampshire # 2538
New Jersey # MA011/MA012
New York # 11393/11840
Pennsylvania # 68-04426/68-02924
Rhode Island # 98
USDA # S-51435
Vermont # VT-11393

Authorized by:

Hanibal C. Tayeh, Ph.D.
President/Laboratory Director

Technical Reviewer's Initial:

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes.
Please note that this report contains 22 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supercedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report is available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NY-11840, FL-E87936 and NJ-MA012).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

CASE NARRATIVE:

Samples are received and the pressure is recorded from the gauge on the canister. If a canister does not have a gauge, a vacuum gauge is attached to the valve and pressure is recorded. If the canister is below -10 psig, the can must be pressurized to 0 psig. Tedlar bags do not have the pressure recorded. The can pressure can be located within this report in the sample header information.

If a Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

EPA TO-15

Calibration:

Calibration 0912035

The %RSD for analyte Benzyl chloride is 34.7%. The calculated %RSD for the RRF for each compound in the calibration must be less than 30% with at most two exceptions up to a limit of 40%. This affected the following samples:

Indoor Air Sample
SV-1
SV-2
SV-3

Laboratory Control Samples:

9122133 BS

2-Butanone (MEK) recovery (138%) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

Indoor Air Sample
SV-5
Upgradient Ambient

9122133-BS1

Analyte out of acceptance range in QC spike but no reportable concentration present in sample.

1,2,4-Trichlorobenzene
4-Methyl-2-pentanone (MIBK)
Benzyl chloride
cis-1,3-Dichloropropene
trans-1,3-Dichloropropene

Analyte passed in CCV.

2-Butanone (MEK)

EPA TO-15

Samples:

S912638-CCV1

Analyte out of acceptance range in QC spike but no reportable concentration present in sample.

1,2,4-Trichlorobenzene

SB05951-01 *SV-2*

Elevated Reporting Limits due to the presence of high levels of non-target analytes.

SB05951-02 *Upgradient Ambient*

Data for this analyte may be biased high based on QC spike recoveries.

2-Butanone (MEK)

SB05951-03 *Indoor Air Sample*

Data for this analyte may be biased high based on QC spike recoveries.

2-Butanone (MEK)

The concentration indicated for this analyte is an estimated value. This value is considered an estimate (CLP E-flag).

Ethanol

SB05951-04 *SV-1*

This sample was not able to be analyzed for client requested reporting limits due to high concentrations of other target analytes in the sample.

SB05951-05 *SV-3*

Elevated Reporting Limits due to the presence of high levels of non-target analytes.

SB05951-06 *SV-5*

Data for this analyte may be biased high based on QC spike recoveries.

2-Butanone (MEK)

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SV-2	4-11-002	Soil Gas	15-Dec-09 11:42	18-Dec-09
SB05951-01				

CAS No.	*Analyte(s)*	*Result/Units*	**RDL*	*Result ug/m³*	**RDL*	*Flag*	*Method Ref.*	*Analyzed*	*Batch*	*Cert.*
Air Quality Analyses										
EPA TO-15		ppbv	Prepared 24-Dec-09	Dilution: 1		R05	Can pressure: -6			
115-07-1	Propene	3.96	0.500	6.82	0.86		EPA TO-15	24-Dec-09	9121907	
75-71-8	Dichlorodifluoromethane (Freon12)	0.610	0.500	3.02	2.47		"	"	"	X
74-87-3	Chloromethane	< 0.286	0.500	< 0.59	1.03	U	"	"	"	X
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.246	0.500	< 1.72	3.49	U	"	"	"	
75-01-4	Vinyl chloride	< 0.233	0.500	< 0.60	1.28	U	"	"	"	X
106-99-0	1,3-Butadiene	< 0.256	0.500	< 0.57	1.10	U	"	"	"	X
74-83-9	Bromomethane	< 0.212	0.500	< 0.82	1.94	U	"	"	"	X
75-00-3	Chloroethane	< 0.270	0.500	< 0.71	1.32	U	"	"	"	X
67-64-1	Acetone	3.59	0.500	8.53	1.19		"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 0.287	0.500	< 1.61	2.81	U	"	"	"	X
64-17-5	Ethanol	5.00	0.500	9.43	0.94		"	"	"	
107-13-1	Acrylonitrile	< 0.151	0.500	< 0.33	1.08	U	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.198	0.500	< 0.79	1.98	U	"	"	"	X
75-09-2	Methylene chloride	0.800	0.500	2.78	1.74		"	"	"	X
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 0.225	0.500	< 1.72	3.83	U	"	"	"	X
75-15-0	Carbon disulfide	0.800	0.500	2.49	1.56		"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 0.191	0.500	< 0.76	1.98	U	"	"	"	X
75-34-3	1,1-Dichloroethane	< 0.191	0.500	< 0.77	2.02	U	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 0.192	0.500	< 0.69	1.80	U	"	"	"	X
67-63-0	Isopropyl alcohol	1.54	0.500	3.78	1.23		"	"	"	X
78-93-3	2-Butanone (MEK)	0.430	0.500	1.27	1.47	J	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 0.135	0.500	< 0.54	1.98	U	"	"	"	X
110-54-3	Hexane	4.95	0.500	17.45	1.76		"	"	"	X
141-78-6	Ethyl acetate	< 0.194	0.500	< 0.70	1.80	U	"	"	"	
67-66-3	Chloroform	< 0.151	0.500	< 0.73	2.43	U	"	"	"	X
109-99-9	Tetrahydrofuran	< 0.225	0.500	< 0.66	1.47	U	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.142	0.500	< 0.57	2.02	U	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 0.137	0.500	< 0.75	2.73	U	"	"	"	X
71-43-2	Benzene	0.730	0.500	2.33	1.60		"	"	"	X
56-23-5	Carbon tetrachloride	< 0.145	0.500	< 0.91	3.15	U	"	"	"	X
110-82-7	Cyclohexane	0.890	0.500	3.06	1.72		"	"	"	X
78-87-5	1,2-Dichloropropane	< 0.172	0.500	< 0.79	2.31	U	"	"	"	X
75-27-4	Bromodichloromethane	< 0.180	0.500	< 1.21	3.35	U	"	"	"	X
79-01-6	Trichloroethene	< 0.281	0.500	< 1.51	2.69	U	"	"	"	X
123-91-1	1,4-Dioxane	< 0.391	0.500	< 1.41	1.80	U	"	"	"	
142-82-5	n-Heptane	2.13	0.500	8.73	2.05		"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.230	0.500	< 0.94	2.05	U	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.190	0.500	< 0.86	2.27	U	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.159	0.500	< 0.72	2.27	U	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 0.234	0.500	< 1.28	2.73	U	"	"	"	X
108-88-3	Toluene	6.50	0.500	24.46	1.88		"	"	"	X
591-78-6	2-Hexanone (MBK)	< 0.224	2.00	< 0.92	8.20	U	"	"	"	
124-48-1	Dibromochloromethane	< 0.193	0.500	< 1.64	4.26	U	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.150	0.500	< 1.15	3.84	U	"	"	"	X
127-18-4	Tetrachloroethene	14.1	0.500	95.61	3.39		"	"	"	X
108-90-7	Chlorobenzene	< 0.282	0.500	< 1.30	2.30	U	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 0.307	0.500	< 2.11	3.44	U	"	"	"	
100-41-4	Ethylbenzene	1.28	0.500	5.55	2.17		"	"	"	X
179601-23-1	m,p-Xylene	4.65	0.500	20.16	2.17		"	"	"	X
75-25-2	Bromoform	< 0.316	0.500	< 3.27	5.17	U	"	"	"	X
100-42-5	Styrene	< 0.187	0.500	< 0.80	2.13	U	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SV-2	4-11-002	Soil Gas	15-Dec-09 11:42	18-Dec-09
SB05951-01				

CAS No.	*Analyte(s)*	*Result/Units*	**RDL*	*Result ug/m³*	**RDL*	*Flag*	*Method Ref.*	*Analyzed*	*Batch*	*Cert.*
Air Quality Analyses										
EPA TO-15		ppbv	Prepared 24-Dec-09	Dilution: 1		R05	Can pressure: -6			
95-47-6	o-Xylene	1.07	0.500	4.64	2.17		EPA TO-15	24-Dec-09	9121907	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.436	0.500	< 2.99	3.43	U	"	"	"	X
98-82-8	Isopropylbenzene	0.900	0.500	4.42	2.46		"	"	"	
108-67-8	1,3,5-Trimethylbenzene	0.510	0.500	2.51	2.46		"	"	"	X
622-96-8	4-Ethyltoluene	0.590	0.500	2.90	2.46		"	"	"	
95-63-6	1,2,4-Trimethylbenzene	1.40	0.500	6.88	2.46		"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 0.276	0.500	< 1.66	3.01	U	"	"	"	X
100-44-7	Benzyl chloride	< 0.247	0.500	< 1.27	2.58	U	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 0.259	0.500	< 1.56	3.01	U	"	"	"	X
135-98-8	sec-Butylbenzene	< 0.264	0.500	< 1.45	2.74	U	"	"	"	
99-87-6	4-Isopropyltoluene	< 0.245	0.500	< 1.31	2.68	U	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.227	0.500	< 1.36	3.01	U	"	"	"	X
104-51-8	n-Butylbenzene	< 0.213	0.500	< 1.17	2.74	U	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.160	0.500	< 1.19	3.71	U	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.248	0.500	< 2.64	5.33	U	"	"	"	X
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*108*	*70-130 %*				"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Upgradient Ambient	4-11-002	Air	15-Dec-09 13:40	18-Dec-09
SB05951-02				

CAS No.	*Analyte(s)*	*Result/Units*	**RDL*	*Result ug/m³*	**RDL*	*Flag*	*Method Ref.*	*Analyzed*	*Batch*	*Cert.*
Air Quality Analyses										
EPA TO-15 Low Level		ppbv	Prepared 30-Dec-09	Dilution: 1			Can pressure: +1			
115-07-1	Propene	< 0.059621	0.10000	< 0.10	0.17	U	EPA TO-15	30-Dec-09	9122133	
75-71-8	Dichlorodifluoromethane (Freon12)	0.65000	0.10000	3.21	0.49		"	"	"	X
74-87-3	Chloromethane	0.73000	0.10000	1.51	0.21		"	"	"	X
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.050256	0.10000	< 0.35	0.70	U	"	"	"	
75-01-4	Vinyl chloride	< 0.053850	0.10000	< 0.14	0.26	U	"	"	"	X
106-99-0	1,3-Butadiene	< 0.050719	0.10000	< 0.11	0.22	U	"	"	"	X
74-83-9	Bromomethane	< 0.039878	0.10000	< 0.15	0.39	U	"	"	"	X
75-00-3	Chloroethane	< 0.056395	0.10000	< 0.15	0.26	U	"	"	"	X
67-64-1	Acetone	2.5600	0.50000	6.08	1.19		"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	0.28000	0.10000	1.57	0.56		"	"	"	X
64-17-5	Ethanol	2.5800	0.50000	4.86	0.94		"	"	"	
107-13-1	Acrylonitrile	< 0.029810	0.10000	< 0.06	0.22	U	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.033504	0.10000	< 0.13	0.40	U	"	"	"	X
75-09-2	Methylene chloride	0.10000	0.10000	0.35	0.35		"	"	"	X
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	0.10000	0.10000	0.77	0.77		"	"	"	X
75-15-0	Carbon disulfide	< 0.035536	0.50000	< 0.11	1.56	U	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 0.035536	0.10000	< 0.14	0.40	U	"	"	"	X
75-34-3	1,1-Dichloroethane	< 0.035536	0.10000	< 0.14	0.40	U	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 0.043253	0.10000	< 0.16	0.36	U	"	"	"	X
67-63-0	Isopropyl alcohol	0.24000	0.50000	0.59	1.23	J	"	"	"	X
78-93-3	2-Butanone (MEK)	0.36000	0.10000	1.06	0.29	BsH	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 0.024658	0.10000	< 0.10	0.40	U	"	"	"	X
110-54-3	Hexane	0.83000	0.10000	2.93	0.35		"	"	"	X
141-78-6	Ethyl acetate	< 0.036188	0.10000	< 0.13	0.36	U	"	"	"	
67-66-3	Chloroform	< 0.023691	0.10000	< 0.12	0.49	U	"	"	"	X
109-99-9	Tetrahydrofuran	< 0.046885	0.10000	< 0.14	0.29	U	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.028198	0.10000	< 0.11	0.40	U	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 0.024658	0.10000	< 0.13	0.55	U	"	"	"	X
71-43-2	Benzene	0.43000	0.10000	1.37	0.32		"	"	"	X
56-23-5	Carbon tetrachloride	0.10000	0.10000	0.63	0.63		"	"	"	X
110-82-7	Cyclohexane	< 0.097200	0.10000	< 0.33	0.34	U	"	"	"	X
78-87-5	1,2-Dichloropropane	< 0.023691	0.10000	< 0.11	0.46	U	"	"	"	X
75-27-4	Bromodichloromethane	< 0.035536	0.10000	< 0.24	0.67	U	"	"	"	X
79-01-6	Trichloroethene	< 0.053414	0.10000	< 0.29	0.54	U	"	"	"	X
123-91-1	1,4-Dioxane	< 0.021627	0.50000	< 0.08	1.80	U	"	"	"	
142-82-5	n-Heptane	0.10000	0.10000	0.41	0.41		"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.039287	0.10000	< 0.16	0.41	U	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.036188	0.10000	< 0.16	0.45	U	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.030585	0.10000	< 0.14	0.45	U	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 0.039287	0.10000	< 0.21	0.55	U	"	"	"	X
108-88-3	Toluene	0.81000	0.10000	3.05	0.38		"	"	"	X
591-78-6	2-Hexanone (MBK)	< 0.035536	0.20000	< 0.15	0.82	U	"	"	"	
124-48-1	Dibromochloromethane	< 0.044321	0.10000	< 0.38	0.85	U	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.030585	0.10000	< 0.24	0.77	U	"	"	"	X
127-18-4	Tetrachloroethene	0.10000	0.10000	0.68	0.68		"	"	"	X
108-90-7	Chlorobenzene	< 0.047873	0.10000	< 0.22	0.46	U	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 0.054282	0.10000	< 0.37	0.69	U	"	"	"	
100-41-4	Ethylbenzene	0.060000	0.10000	0.26	0.43	J	"	"	"	X
179601-23-1	m,p-Xylene	0.17000	0.10000	0.74	0.43		"	"	"	X
75-25-2	Bromoform	< 0.067702	0.10000	< 0.70	1.03	U	"	"	"	X
100-42-5	Styrene	< 0.039287	0.10000	< 0.17	0.43	U	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Upgradient Ambient SB05951-02	4-11-002	Air	15-Dec-09 13:40	18-Dec-09

CAS No.	*Analyte(s)*	*Result/Units*	**RDL*	*Result ug/m³*	**RDL*	*Flag*	*Method Ref.*	*Analyzed*	*Batch*	*Cert.*
Air Quality Analyses										
EPA TO-15 Low Level		ppbv	Prepared 30-Dec-09		Dilution: 1		Can pressure: +1			
95-47-6	o-Xylene	0.070000	0.10000	0.30	0.43	J	EPA TO-15	30-Dec-09	9122133	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.080630	0.10000	< 0.55	0.69	U	"	"	"	X
98-82-8	Isopropylbenzene	< 0.036188	0.10000	< 0.18	0.49	U	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 0.050256	0.10000	< 0.25	0.49	U	"	"	"	X
622-96-8	4-Ethyltoluene	< 0.054282	0.10000	< 0.27	0.49	U	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	0.070000	0.10000	0.34	0.49	J	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 0.058432	0.10000	< 0.35	0.60	U	"	"	"	X
100-44-7	Benzyl chloride	< 0.053850	0.10000	< 0.28	0.52	U	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 0.042158	0.10000	< 0.25	0.60	U	"	"	"	X
135-98-8	sec-Butylbenzene	< 0.047873	0.10000	< 0.26	0.55	U	"	"	"	
99-87-6	4-Isopropyltoluene	< 0.045877	0.10000	< 0.25	0.54	U	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.042158	0.10000	< 0.25	0.60	U	"	"	"	X
104-51-8	n-Butylbenzene	< 0.038078	0.10000	< 0.21	0.55	U	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.024658	0.10000	< 0.18	0.74	U	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.042158	0.10000	< 0.45	1.07	U	"	"	"	X
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*97*	*70-130 %*				"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Indoor Air Sample	4-11-002	Air	15-Dec-09 16:05	18-Dec-09
SB05951-03				

CAS No.	*Analyte(s)*	*Result/Units*	**RDL*	*Result ug/m³*	**RDL*	*Flag*	*Method Ref.*	*Analyzed*	*Batch*	*Cert.*
Air Quality Analyses										
EPA TO-15		ppbv	Prepared 24-Dec-09		Dilution: 1		Can pressure: -2			
64-17-5	Ethanol	29.6	0.500	55.81	0.94		EPA TO-15	24-Dec-09	9121907	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*100*	*70-130 %*				"	"	"	
EPA TO-15 Low Level		ppbv	Prepared 30-Dec-09		Dilution: 1		Can pressure: -2			
115-07-1	Propene	< 0.059621	0.10000	< 0.10	0.17	U	"	30-Dec-09	9122133	
75-71-8	Dichlorodifluoromethane (Freon12)	0.64000	0.10000	3.16	0.49		"	"	"	X
74-87-3	Chloromethane	0.77000	0.10000	1.59	0.21		"	"	"	X
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.050256	0.10000	< 0.35	0.70	U	"	"	"	
75-01-4	Vinyl chloride	< 0.053850	0.10000	< 0.14	0.26	U	"	"	"	X
106-99-0	1,3-Butadiene	< 0.050719	0.10000	< 0.11	0.22	U	"	"	"	X
74-83-9	Bromomethane	< 0.039878	0.10000	< 0.15	0.39	U	"	"	"	X
75-00-3	Chloroethane	< 0.056395	0.10000	< 0.15	0.26	U	"	"	"	X
67-64-1	Acetone	8.2000	0.50000	19.49	1.19		"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	9.3900	0.10000	52.77	0.56		"	"	"	X
64-17-5	Ethanol	30.510	0.50000	57.53	0.94	E	"	"	"	
107-13-1	Acrylonitrile	< 0.029810	0.10000	< 0.06	0.22	U	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.033504	0.10000	< 0.13	0.40	U	"	"	"	X
75-09-2	Methylene chloride	0.86000	0.10000	2.99	0.35		"	"	"	X
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	0.10000	0.10000	0.77	0.77		"	"	"	X
75-15-0	Carbon disulfide	< 0.035536	0.50000	< 0.11	1.56	U	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 0.035536	0.10000	< 0.14	0.40	U	"	"	"	X
75-34-3	1,1-Dichloroethane	< 0.035536	0.10000	< 0.14	0.40	U	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 0.043253	0.10000	< 0.16	0.36	U	"	"	"	X
67-63-0	Isopropyl alcohol	3.4500	0.50000	8.47	1.23		"	"	"	X
78-93-3	2-Butanone (MEK)	1.4700	0.10000	4.33	0.29	BsH	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	0.10000	0.10000	0.40	0.40		"	"	"	X
110-54-3	Hexane	7.0500	0.10000	24.86	0.35		"	"	"	X
141-78-6	Ethyl acetate	< 0.036188	0.10000	< 0.13	0.36	U	"	"	"	
67-66-3	Chloroform	< 0.023691	0.10000	< 0.12	0.49	U	"	"	"	X
109-99-9	Tetrahydrofuran	0.50000	0.10000	1.47	0.29		"	"	"	
107-06-2	1,2-Dichloroethane	< 0.028198	0.10000	< 0.11	0.40	U	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 0.024658	0.10000	< 0.13	0.55	U	"	"	"	X
71-43-2	Benzene	0.70000	0.10000	2.23	0.32		"	"	"	X
56-23-5	Carbon tetrachloride	0.11000	0.10000	0.69	0.63		"	"	"	X
110-82-7	Cyclohexane	0.24000	0.10000	0.83	0.34		"	"	"	X
78-87-5	1,2-Dichloropropane	< 0.023691	0.10000	< 0.11	0.46	U	"	"	"	X
75-27-4	Bromodichloromethane	< 0.035536	0.10000	< 0.24	0.67	U	"	"	"	X
79-01-6	Trichloroethene	0.060000	0.10000	0.32	0.54	J	"	"	"	X
123-91-1	1,4-Dioxane	< 0.021627	0.50000	< 0.08	1.80	U	"	"	"	
142-82-5	n-Heptane	0.81000	0.10000	3.32	0.41		"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.039287	0.10000	< 0.16	0.41	U	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.036188	0.10000	< 0.16	0.45	U	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.030585	0.10000	< 0.14	0.45	U	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 0.039287	0.10000	< 0.21	0.55	U	"	"	"	X
108-88-3	Toluene	3.9700	0.10000	14.94	0.38		"	"	"	X
591-78-6	2-Hexanone (MBK)	< 0.035536	0.20000	< 0.15	0.82	U	"	"	"	
124-48-1	Dibromochloromethane	< 0.044321	0.10000	< 0.38	0.85	U	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.030585	0.10000	< 0.24	0.77	U	"	"	"	X
127-18-4	Tetrachloroethene	0.89000	0.10000	6.04	0.68		"	"	"	X
108-90-7	Chlorobenzene	< 0.047873	0.10000	< 0.22	0.46	U	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 0.054282	0.10000	< 0.37	0.69	U	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Indoor Air Sample SB05951-03	4-11-002	Air	15-Dec-09 16:05	18-Dec-09

CAS No.	*Analyte(s)*	*Result/Units*	**RDL*	*Result ug/m³*	**RDL*	*Flag*	*Method Ref.*	*Analyzed*	*Batch*	*Cert.*
Air Quality Analyses										
EPA TO-15 Low Level		ppbv	Prepared 30-Dec-09		Dilution: 1		Can pressure: -2			
100-41-4	Ethylbenzene	0.30000	0.10000	1.30	0.43		EPA TO-15	30-Dec-09	9122133	X
179601-23-1	m,p-Xylene	1.0300	0.10000	4.47	0.43		"	"	"	X
75-25-2	Bromoform	< 0.067702	0.10000	< 0.70	1.03	U	"	"	"	X
100-42-5	Styrene	0.21000	0.10000	0.89	0.43		"	"	"	X
95-47-6	o-Xylene	0.35000	0.10000	1.52	0.43		"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.080630	0.10000	< 0.55	0.69	U	"	"	"	X
98-82-8	Isopropylbenzene	< 0.036188	0.10000	< 0.18	0.49	U	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	0.12000	0.10000	0.59	0.49		"	"	"	X
622-96-8	4-Ethyltoluene	0.12000	0.10000	0.59	0.49		"	"	"	
95-63-6	1,2,4-Trimethylbenzene	0.40000	0.10000	1.97	0.49		"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 0.058432	0.10000	< 0.35	0.60	U	"	"	"	X
100-44-7	Benzyl chloride	< 0.053850	0.10000	< 0.28	0.52	U	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 0.042158	0.10000	< 0.25	0.60	U	"	"	"	X
135-98-8	sec-Butylbenzene	< 0.047873	0.10000	< 0.26	0.55	U	"	"	"	
99-87-6	4-Isopropyltoluene	< 0.045877	0.10000	< 0.25	0.54	U	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.042158	0.10000	< 0.25	0.60	U	"	"	"	X
104-51-8	n-Butylbenzene	< 0.038078	0.10000	< 0.21	0.55	U	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.024658	0.10000	< 0.18	0.74	U	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.042158	0.10000	< 0.45	1.07	U	"	"	"	X
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*100*	*70-130 %*				"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SV-1	4-11-002	Soil Gas	15-Dec-09 11:19	18-Dec-09
SB05951-04				

CAS No.	*Analyte(s)*	*Result/Units*	**RDL*	*Result ug/m³*	**RDL*	*Flag*	*Method Ref.*	*Analyzed*	*Batch*	*Cert.*
Air Quality Analyses										
EPA TO-15		ppbv	Prepared 24-Dec-09	Dilution: 2		GS	Can pressure: 0			
115-07-1	Propene	8.46	1.00	14.56	1.72		EPA TO-15	24-Dec-09	9121907	
75-71-8	Dichlorodifluoromethane (Freon12)	0.560	1.00	2.77	4.94	J	"	"	"	X
74-87-3	Chloromethane	< 0.573	1.00	< 1.18	2.07	U	"	"	"	X
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.493	1.00	< 3.45	6.99	U	"	"	"	
75-01-4	Vinyl chloride	< 0.465	1.00	< 1.19	2.56	U	"	"	"	X
106-99-0	1,3-Butadiene	< 0.512	1.00	< 1.13	2.21	U	"	"	"	X
74-83-9	Bromomethane	< 0.423	1.00	< 1.64	3.88	U	"	"	"	X
75-00-3	Chloroethane	< 0.539	1.00	< 1.42	2.64	U	"	"	"	X
67-64-1	Acetone	5.54	1.00	13.16	2.38		"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 0.573	1.00	< 3.22	5.62	U	"	"	"	X
64-17-5	Ethanol	0.760	1.00	1.43	1.89	J	"	"	"	
107-13-1	Acrylonitrile	< 0.303	1.00	< 0.66	2.17	U	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.396	1.00	< 1.57	3.97	U	"	"	"	X
75-09-2	Methylene chloride	< 0.508	1.00	< 1.76	3.47	U	"	"	"	X
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 0.450	1.00	< 3.45	7.66	U	"	"	"	X
75-15-0	Carbon disulfide	2.58	1.00	8.03	3.11		"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 0.382	1.00	< 1.51	3.97	U	"	"	"	X
75-34-3	1,1-Dichloroethane	< 0.382	1.00	< 1.55	4.05	U	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 0.385	1.00	< 1.39	3.61	U	"	"	"	X
67-63-0	Isopropyl alcohol	< 0.413	1.00	< 1.01	2.45	U	"	"	"	X
78-93-3	2-Butanone (MEK)	3.40	1.00	10.03	2.95		"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 0.270	1.00	< 1.07	3.97	U	"	"	"	X
110-54-3	Hexane	2.30	1.00	8.11	3.53		"	"	"	X
141-78-6	Ethyl acetate	< 0.388	1.00	< 1.40	3.60	U	"	"	"	
67-66-3	Chloroform	0.460	1.00	2.24	4.87	J	"	"	"	X
109-99-9	Tetrahydrofuran	< 0.449	1.00	< 1.32	2.95	U	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.285	1.00	< 1.15	4.05	U	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 0.275	1.00	< 1.50	5.46	U	"	"	"	X
71-43-2	Benzene	11.0	1.00	35.09	3.19		"	"	"	X
56-23-5	Carbon tetrachloride	< 0.290	1.00	< 1.82	6.29	U	"	"	"	X
110-82-7	Cyclohexane	1.18	1.00	4.06	3.44		"	"	"	X
78-87-5	1,2-Dichloropropane	< 0.343	1.00	< 1.59	4.62	U	"	"	"	X
75-27-4	Bromodichloromethane	< 0.359	1.00	< 2.41	6.70	U	"	"	"	X
79-01-6	Trichloroethene	< 0.563	1.00	< 3.03	5.37	U	"	"	"	X
123-91-1	1,4-Dioxane	< 0.782	1.00	< 2.81	3.60	U	"	"	"	
142-82-5	n-Heptane	3.00	1.00	12.29	4.10		"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.459	1.00	< 1.88	4.10	U	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.381	1.00	< 1.73	4.54	U	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.318	1.00	< 1.44	4.54	U	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 0.468	1.00	< 2.55	5.46	U	"	"	"	X
108-88-3	Toluene	71.7	1.00	269.79	3.76		"	"	"	X
591-78-6	2-Hexanone (MBK)	< 0.447	4.00	< 1.83	16.39	U	"	"	"	
124-48-1	Dibromochloromethane	< 0.386	1.00	< 3.29	8.52	U	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.300	1.00	< 2.31	7.69	U	"	"	"	X
127-18-4	Tetrachloroethene	146	1.00	990.05	6.78		"	"	"	X
108-90-7	Chlorobenzene	< 0.564	1.00	< 2.60	4.61	U	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 0.615	1.00	< 4.23	6.87	U	"	"	"	
100-41-4	Ethylbenzene	7.18	1.00	31.13	4.34		"	"	"	X
179601-23-1	m,p-Xylene	13.1	1.00	56.79	4.34		"	"	"	X
75-25-2	Bromoform	< 0.633	1.00	< 6.54	10.34	U	"	"	"	X
100-42-5	Styrene	< 0.374	1.00	< 1.59	4.25	U	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SV-1	4-11-002	Soil Gas	15-Dec-09 11:19	18-Dec-09
SB05951-04				

CAS No.	*Analyte(s)*	*Result/Units*	**RDL*	*Result ug/m³*	**RDL*	*Flag*	*Method Ref.*	*Analyzed*	*Batch*	*Cert.*
Air Quality Analyses										
EPA TO-15		ppbv	Prepared 24-Dec-09	Dilution: 2		GS	Can pressure: 0			
95-47-6	o-Xylene	2.30	1.00	9.97	4.34		EPA TO-15	24-Dec-09	9121907	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.871	1.00	< 5.98	6.87	U	"	"	"	X
98-82-8	Isopropylbenzene	1.02	1.00	5.01	4.92		"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 0.570	1.00	< 2.80	4.92	U	"	"	"	X
622-96-8	4-Ethyltoluene	< 0.559	1.00	< 2.75	4.92	U	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	0.640	1.00	3.15	4.92	J	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 0.553	1.00	< 3.32	6.01	U	"	"	"	X
100-44-7	Benzyl chloride	< 0.493	1.00	< 2.54	5.15	U	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 0.519	1.00	< 3.12	6.01	U	"	"	"	X
135-98-8	sec-Butylbenzene	< 0.529	1.00	< 2.90	5.49	U	"	"	"	
99-87-6	4-Isopropyltoluene	< 0.491	1.00	< 2.63	5.37	U	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.454	1.00	< 2.73	6.01	U	"	"	"	X
104-51-8	n-Butylbenzene	< 0.426	1.00	< 2.34	5.49	U	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.319	1.00	< 2.37	7.42	U	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.496	1.00	< 5.29	10.66	U	"	"	"	X
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*102*	*70-130 %*				"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SV-3	4-11-002	Soil Gas	15-Dec-09 12:32	18-Dec-09
SB05951-05				

CAS No.	*Analyte(s)*	*Result/Units*	**RDL*	*Result ug/m³*	**RDL*	*Flag*	*Method Ref.*	*Analyzed*	*Batch*	*Cert.*
Air Quality Analyses										
EPA TO-15		ppbv	Prepared 24-Dec-09	Dilution: 1		R05	Can pressure: +1			
115-07-1	Propene	< 0.294	0.500	< 0.51	0.86	U	EPA TO-15	24-Dec-09	9121907	
75-71-8	Dichlorodifluoromethane (Freon12)	0.620	0.500	3.07	2.47		"	"	"	X
74-87-3	Chloromethane	< 0.286	0.500	< 0.59	1.03	U	"	"	"	X
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.246	0.500	< 1.72	3.49	U	"	"	"	
75-01-4	Vinyl chloride	< 0.233	0.500	< 0.60	1.28	U	"	"	"	X
106-99-0	1,3-Butadiene	< 0.256	0.500	< 0.57	1.10	U	"	"	"	X
74-83-9	Bromomethane	< 0.212	0.500	< 0.82	1.94	U	"	"	"	X
75-00-3	Chloroethane	< 0.270	0.500	< 0.71	1.32	U	"	"	"	X
67-64-1	Acetone	2.52	0.500	5.99	1.19		"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 0.287	0.500	< 1.61	2.81	U	"	"	"	X
64-17-5	Ethanol	0.830	0.500	1.56	0.94		"	"	"	
107-13-1	Acrylonitrile	< 0.151	0.500	< 0.33	1.08	U	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.198	0.500	< 0.79	1.98	U	"	"	"	X
75-09-2	Methylene chloride	< 0.254	0.500	< 0.88	1.74	U	"	"	"	X
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 0.225	0.500	< 1.72	3.83	U	"	"	"	X
75-15-0	Carbon disulfide	< 0.186	0.500	< 0.58	1.56	U	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 0.191	0.500	< 0.76	1.98	U	"	"	"	X
75-34-3	1,1-Dichloroethane	< 0.191	0.500	< 0.77	2.02	U	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 0.192	0.500	< 0.69	1.80	U	"	"	"	X
67-63-0	Isopropyl alcohol	< 0.207	0.500	< 0.51	1.23	U	"	"	"	X
78-93-3	2-Butanone (MEK)	1.49	0.500	4.39	1.47		"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 0.135	0.500	< 0.54	1.98	U	"	"	"	X
110-54-3	Hexane	0.290	0.500	1.02	1.76	J	"	"	"	X
141-78-6	Ethyl acetate	< 0.194	0.500	< 0.70	1.80	U	"	"	"	
67-66-3	Chloroform	< 0.151	0.500	< 0.73	2.43	U	"	"	"	X
109-99-9	Tetrahydrofuran	< 0.225	0.500	< 0.66	1.47	U	"	"	"	
107-06-2	1,2-Dichloroethane	< 0.142	0.500	< 0.57	2.02	U	"	"	"	X
71-55-6	1,1,1-Trichloroethane	0.400	0.500	2.18	2.73	J	"	"	"	X
71-43-2	Benzene	0.310	0.500	0.99	1.60	J	"	"	"	X
56-23-5	Carbon tetrachloride	< 0.145	0.500	< 0.91	3.15	U	"	"	"	X
110-82-7	Cyclohexane	< 0.214	0.500	< 0.74	1.72	U	"	"	"	X
78-87-5	1,2-Dichloropropane	< 0.172	0.500	< 0.79	2.31	U	"	"	"	X
75-27-4	Bromodichloromethane	< 0.180	0.500	< 1.21	3.35	U	"	"	"	X
79-01-6	Trichloroethene	1.87	0.500	10.05	2.69		"	"	"	X
123-91-1	1,4-Dioxane	< 0.391	0.500	< 1.41	1.80	U	"	"	"	
142-82-5	n-Heptane	1.35	0.500	5.53	2.05		"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.230	0.500	< 0.94	2.05	U	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.190	0.500	< 0.86	2.27	U	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.159	0.500	< 0.72	2.27	U	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 0.234	0.500	< 1.28	2.73	U	"	"	"	X
108-88-3	Toluene	1.94	0.500	7.30	1.88		"	"	"	X
591-78-6	2-Hexanone (MBK)	< 0.224	2.00	< 0.92	8.20	U	"	"	"	
124-48-1	Dibromochloromethane	< 0.193	0.500	< 1.64	4.26	U	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.150	0.500	< 1.15	3.84	U	"	"	"	X
127-18-4	Tetrachloroethene	5.21	0.500	35.33	3.39		"	"	"	X
108-90-7	Chlorobenzene	< 0.282	0.500	< 1.30	2.30	U	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 0.307	0.500	< 2.11	3.44	U	"	"	"	
100-41-4	Ethylbenzene	0.440	0.500	1.91	2.17	J	"	"	"	X
179601-23-1	m,p-Xylene	1.30	0.500	5.64	2.17		"	"	"	X
75-25-2	Bromoform	< 0.316	0.500	< 3.27	5.17	U	"	"	"	X
100-42-5	Styrene	< 0.187	0.500	< 0.80	2.13	U	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SV-3	4-11-002	Soil Gas	15-Dec-09 12:32	18-Dec-09
SB05951-05				

CAS No.	*Analyte(s)*	*Result/Units*	**RDL*	*Result ug/m³*	**RDL*	*Flag*	*Method Ref.*	*Analyzed*	*Batch*	*Cert.*
Air Quality Analyses										
EPA TO-15		ppbv	Prepared 24-Dec-09	Dilution: 1		R05	Can pressure: +1			
95-47-6	o-Xylene	0.330	0.500	1.43	2.17	J	EPA TO-15	24-Dec-09	9121907	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.436	0.500	< 2.99	3.43	U	"	"	"	X
98-82-8	Isopropylbenzene	< 0.259	0.500	< 1.27	2.46	U	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 0.285	0.500	< 1.40	2.46	U	"	"	"	X
622-96-8	4-Ethyltoluene	< 0.280	0.500	< 1.38	2.46	U	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	0.290	0.500	1.43	2.46	J	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 0.276	0.500	< 1.66	3.01	U	"	"	"	X
100-44-7	Benzyl chloride	< 0.247	0.500	< 1.27	2.58	U	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 0.259	0.500	< 1.56	3.01	U	"	"	"	X
135-98-8	sec-Butylbenzene	< 0.264	0.500	< 1.45	2.74	U	"	"	"	
99-87-6	4-Isopropyltoluene	< 0.245	0.500	< 1.31	2.68	U	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.227	0.500	< 1.36	3.01	U	"	"	"	X
104-51-8	n-Butylbenzene	< 0.213	0.500	< 1.17	2.74	U	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.160	0.500	< 1.19	3.71	U	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.248	0.500	< 2.64	5.33	U	"	"	"	X
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*100*	*70-130 %*				"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SV-5	4-11-002	Soil Gas	15-Dec-09 13:49	18-Dec-09
SB05951-06				

CAS No.	*Analyte(s)*	*Result/Units*	**RDL*	*Result ug/m³*	**RDL*	*Flag*	*Method Ref.*	*Analyzed*	*Batch*	*Cert.*
Air Quality Analyses										
EPA TO-15 Low Level		ppbv	Prepared 30-Dec-09	Dilution: 1			Can pressure: +1			
115-07-1	Propene	< 0.059621	0.10000	< 0.10	0.17	U	EPA TO-15	31-Dec-09	9122133	
75-71-8	Dichlorodifluoromethane (Freon12)	0.58000	0.10000	2.87	0.49		"	"	"	X
74-87-3	Chloromethane	< 0.050719	0.10000	< 0.10	0.21	U	"	"	"	X
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	< 0.050256	0.10000	< 0.35	0.70	U	"	"	"	
75-01-4	Vinyl chloride	< 0.053850	0.10000	< 0.14	0.26	U	"	"	"	X
106-99-0	1,3-Butadiene	< 0.050719	0.10000	< 0.11	0.22	U	"	"	"	X
74-83-9	Bromomethane	< 0.039878	0.10000	< 0.15	0.39	U	"	"	"	X
75-00-3	Chloroethane	< 0.056395	0.10000	< 0.15	0.26	U	"	"	"	X
67-64-1	Acetone	4.6500	0.50000	11.05	1.19		"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	0.21000	0.10000	1.18	0.56		"	"	"	X
64-17-5	Ethanol	0.87000	0.50000	1.64	0.94		"	"	"	
107-13-1	Acrylonitrile	< 0.029810	0.10000	< 0.06	0.22	U	"	"	"	
75-35-4	1,1-Dichloroethene	< 0.033504	0.10000	< 0.13	0.40	U	"	"	"	X
75-09-2	Methylene chloride	< 0.050256	0.10000	< 0.17	0.35	U	"	"	"	X
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	0.070000	0.10000	0.54	0.77	J	"	"	"	X
75-15-0	Carbon disulfide	0.16000	0.50000	0.50	1.56	J	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 0.035536	0.10000	< 0.14	0.40	U	"	"	"	X
75-34-3	1,1-Dichloroethane	0.71000	0.10000	2.87	0.40		"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 0.043253	0.10000	< 0.16	0.36	U	"	"	"	X
67-63-0	Isopropyl alcohol	0.10000	0.50000	0.25	1.23	J	"	"	"	X
78-93-3	2-Butanone (MEK)	2.9500	0.10000	8.70	0.29	BsH	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 0.024658	0.10000	< 0.10	0.40	U	"	"	"	X
110-54-3	Hexane	0.11000	0.10000	0.39	0.35		"	"	"	X
141-78-6	Ethyl acetate	< 0.036188	0.10000	< 0.13	0.36	U	"	"	"	
67-66-3	Chloroform	0.18000	0.10000	0.88	0.49		"	"	"	X
109-99-9	Tetrahydrofuran	0.23000	0.10000	0.68	0.29		"	"	"	
107-06-2	1,2-Dichloroethane	< 0.028198	0.10000	< 0.11	0.40	U	"	"	"	X
71-55-6	1,1,1-Trichloroethane	0.13000	0.10000	0.71	0.55		"	"	"	X
71-43-2	Benzene	0.17000	0.10000	0.54	0.32		"	"	"	X
56-23-5	Carbon tetrachloride	0.60000	0.10000	3.77	0.63		"	"	"	X
110-82-7	Cyclohexane	< 0.097200	0.10000	< 0.33	0.34	U	"	"	"	X
78-87-5	1,2-Dichloropropane	< 0.023691	0.10000	< 0.11	0.46	U	"	"	"	X
75-27-4	Bromodichloromethane	< 0.035536	0.10000	< 0.24	0.67	U	"	"	"	X
79-01-6	Trichloroethene	< 0.053414	0.10000	< 0.29	0.54	U	"	"	"	X
123-91-1	1,4-Dioxane	< 0.021627	0.50000	< 0.08	1.80	U	"	"	"	
142-82-5	n-Heptane	< 0.028198	0.10000	< 0.12	0.41	U	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 0.039287	0.10000	< 0.16	0.41	U	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.036188	0.10000	< 0.16	0.45	U	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.030585	0.10000	< 0.14	0.45	U	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 0.039287	0.10000	< 0.21	0.55	U	"	"	"	X
108-88-3	Toluene	1.1700	0.10000	4.40	0.38		"	"	"	X
591-78-6	2-Hexanone (MBK)	< 0.035536	0.20000	< 0.15	0.82	U	"	"	"	
124-48-1	Dibromochloromethane	< 0.044321	0.10000	< 0.38	0.85	U	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.030585	0.10000	< 0.24	0.77	U	"	"	"	X
127-18-4	Tetrachloroethene	2.8000	0.10000	18.99	0.68		"	"	"	X
108-90-7	Chlorobenzene	< 0.047873	0.10000	< 0.22	0.46	U	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 0.054282	0.10000	< 0.37	0.69	U	"	"	"	
100-41-4	Ethylbenzene	0.39000	0.10000	1.69	0.43		"	"	"	X
179601-23-1	m,p-Xylene	1.8100	0.10000	7.85	0.43		"	"	"	X
75-25-2	Bromoform	< 0.067702	0.10000	< 0.70	1.03	U	"	"	"	X
100-42-5	Styrene	< 0.039287	0.10000	< 0.17	0.43	U	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SV-5 SB05951-06	4-11-002	Soil Gas	15-Dec-09 13:49	18-Dec-09

CAS No.	*Analyte(s)*	*Result/Units*	**RDL*	*Result ug/m³*	**RDL*	*Flag*	*Method Ref.*	*Analyzed*	*Batch*	*Cert.*
Air Quality Analyses										
EPA TO-15 Low Level		ppbv	Prepared 30-Dec-09	Dilution: 1			Can pressure: +1			
95-47-6	o-Xylene	1.8300	0.10000	7.93	0.43		EPA TO-15	31-Dec-09	9122133	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.080630	0.10000	< 0.55	0.69	U	"	"	"	X
98-82-8	Isopropylbenzene	0.15000	0.10000	0.74	0.49		"	"	"	
108-67-8	1,3,5-Trimethylbenzene	0.28000	0.10000	1.38	0.49		"	"	"	X
622-96-8	4-Ethyltoluene	0.42000	0.10000	2.06	0.49		"	"	"	
95-63-6	1,2,4-Trimethylbenzene	1.4200	0.10000	6.98	0.49		"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 0.058432	0.10000	< 0.35	0.60	U	"	"	"	X
100-44-7	Benzyl chloride	< 0.053850	0.10000	< 0.28	0.52	U	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 0.042158	0.10000	< 0.25	0.60	U	"	"	"	X
135-98-8	sec-Butylbenzene	< 0.047873	0.10000	< 0.26	0.55	U	"	"	"	
99-87-6	4-Isopropyltoluene	< 0.045877	0.10000	< 0.25	0.54	U	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 0.042158	0.10000	< 0.25	0.60	U	"	"	"	X
104-51-8	n-Butylbenzene	< 0.038078	0.10000	< 0.21	0.55	U	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 0.024658	0.10000	< 0.18	0.74	U	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.042158	0.10000	< 0.45	1.07	U	"	"	"	X
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*101*	*70-130 %*				"	"	"	

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 9121907 - General Air Prep										
Blank (9121907-BLK1)				Prepared & Analyzed: 24-Dec-09						
Propene	BRL	0.500	ppbv							U
Dichlorodifluoromethane (Freon12)	BRL	0.500	ppbv							U
Chloromethane	BRL	0.500	ppbv							U
1,2-Dichlorotetrafluoroethane (Freon 114)	BRL	0.500	ppbv							U
Vinyl chloride	BRL	0.500	ppbv							U
1,3-Butadiene	BRL	0.500	ppbv							U
Bromomethane	BRL	0.500	ppbv							U
Chloroethane	BRL	0.500	ppbv							U
Acetone	BRL	0.500	ppbv							U
Trichlorofluoromethane (Freon 11)	BRL	0.500	ppbv							U
Ethanol	BRL	0.500	ppbv							U
Acrylonitrile	BRL	0.500	ppbv							U
1,1-Dichloroethene	BRL	0.500	ppbv							U
Methylene chloride	BRL	0.500	ppbv							U
1,1,2-Trichlorotrifluoroethane (Freon 113)	BRL	0.500	ppbv							U
Carbon disulfide	BRL	0.500	ppbv							U
trans-1,2-Dichloroethene	BRL	0.500	ppbv							U
1,1-Dichloroethane	BRL	0.500	ppbv							U
Methyl tert-butyl ether	BRL	0.500	ppbv							U
Isopropyl alcohol	BRL	0.500	ppbv							U
2-Butanone (MEK)	BRL	0.500	ppbv							U
cis-1,2-Dichloroethene	BRL	0.500	ppbv							U
Hexane	BRL	0.500	ppbv							U
Ethyl acetate	BRL	0.500	ppbv							U
Chloroform	BRL	0.500	ppbv							U
Tetrahydrofuran	BRL	0.500	ppbv							U
1,2-Dichloroethane	BRL	0.500	ppbv							U
1,1,1-Trichloroethane	BRL	0.500	ppbv							U
Benzene	BRL	0.500	ppbv							U
Carbon tetrachloride	BRL	0.500	ppbv							U
Cyclohexane	BRL	0.500	ppbv							U
1,2-Dichloropropane	BRL	0.500	ppbv							U
Bromodichloromethane	BRL	0.500	ppbv							U
Trichloroethene	BRL	0.500	ppbv							U
1,4-Dioxane	BRL	0.500	ppbv							U
n-Heptane	BRL	0.500	ppbv							U
4-Methyl-2-pentanone (MIBK)	BRL	0.500	ppbv							U
cis-1,3-Dichloropropene	BRL	0.500	ppbv							U
trans-1,3-Dichloropropene	BRL	0.500	ppbv							U
1,1,2-Trichloroethane	BRL	0.500	ppbv							U
Toluene	BRL	0.500	ppbv							U
2-Hexanone (MBK)	BRL	2.00	ppbv							U
Dibromochloromethane	BRL	0.500	ppbv							U
1,2-Dibromoethane (EDB)	BRL	0.500	ppbv							U
Tetrachloroethene	BRL	0.500	ppbv							U
Chlorobenzene	BRL	0.500	ppbv							U
1,1,1,2-Tetrachloroethane	BRL	0.500	ppbv							U
Ethylbenzene	BRL	0.500	ppbv							U
m,p-Xylene	BRL	0.500	ppbv							U
Bromoform	BRL	0.500	ppbv							U
Styrene	BRL	0.500	ppbv							U
o-Xylene	BRL	0.500	ppbv							U
1,1,2,2-Tetrachloroethane	BRL	0.500	ppbv							U
Isopropylbenzene	BRL	0.500	ppbv							U

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 9121907 - General Air Prep										
Blank (9121907-BLK1)				Prepared & Analyzed: 24-Dec-09						
1,3,5-Trimethylbenzene	BRL	0.500	ppbv							U
4-Ethyltoluene	BRL	0.500	ppbv							U
1,2,4-Trimethylbenzene	BRL	0.500	ppbv							U
1,3-Dichlorobenzene	BRL	0.500	ppbv							U
Benzyl chloride	BRL	0.500	ppbv							U
1,4-Dichlorobenzene	BRL	0.500	ppbv							U
sec-Butylbenzene	BRL	0.500	ppbv							U
4-Isopropyltoluene	BRL	0.500	ppbv							U
1,2-Dichlorobenzene	BRL	0.500	ppbv							U
n-Butylbenzene	BRL	0.500	ppbv							U
1,2,4-Trichlorobenzene	BRL	0.500	ppbv							U
Hexachlorobutadiene	BRL	0.500	ppbv							U
Surrogate: 4-Bromofluorobenzene	*9.41*		ppbv	*10.0*		*94*	*70-130*			
LCS (9121907-BS1)				Prepared & Analyzed: 24-Dec-09						
Propene	10.2		ppbv	10.0		102	70-130			
Dichlorodifluoromethane (Freon12)	10.3		ppbv	10.0		103	70-130			
Chloromethane	9.85		ppbv	10.0		98	70-130			
1,2-Dichlorotetrafluoroethane (Freon 114)	10.2		ppbv	10.0		102	70-130			
Vinyl chloride	10.4		ppbv	10.0		104	70-130			
1,3-Butadiene	10.4		ppbv	10.0		104	70-130			
Bromomethane	10.0		ppbv	10.0		100	70-130			
Chloroethane	9.67		ppbv	10.0		97	70-130			
Acetone	10.5		ppbv	10.0		105	70-130			
Trichlorofluoromethane (Freon 11)	9.80		ppbv	10.0		98	70-130			
Ethanol	12.2		ppbv	10.0		122	68.6-138			
Acrylonitrile	8.73		ppbv	10.0		87	60-160			
1,1-Dichloroethene	9.89		ppbv	10.0		99	70-130			
Methylene chloride	9.62		ppbv	10.0		96	70-130			
1,1,2-Trichlorotrifluoroethane (Freon 113)	9.78		ppbv	10.0		98	70-130			
Carbon disulfide	9.54		ppbv	10.0		95	70-130			
trans-1,2-Dichloroethene	9.71		ppbv	10.0		97	70-130			
1,1-Dichloroethane	9.59		ppbv	10.0		96	70-130			
Methyl tert-butyl ether	9.88		ppbv	10.0		99	70-130			
Isopropyl alcohol	10.5		ppbv	10.0		105	70-130			
2-Butanone (MEK)	10.1		ppbv	10.0		101	70-130			
cis-1,2-Dichloroethene	9.63		ppbv	10.0		96	70-130			
Hexane	9.79		ppbv	10.0		98	70-130			
Ethyl acetate	9.58		ppbv	10.0		96	70-130			
Chloroform	9.59		ppbv	10.0		96	70-130			
Tetrahydrofuran	10.3		ppbv	10.0		103	70-130			
1,2-Dichloroethane	9.64		ppbv	10.0		96	70-130			
1,1,1-Trichloroethane	9.93		ppbv	10.0		99	70-130			
Benzene	9.46		ppbv	10.0		95	70-130			
Carbon tetrachloride	9.71		ppbv	10.0		97	70-130			
Cyclohexane	9.73		ppbv	10.0		97	70-130			
1,2-Dichloropropane	9.93		ppbv	10.0		99	70-130			
Bromodichloromethane	9.77		ppbv	10.0		98	70-130			
Trichloroethene	10.1		ppbv	10.0		101	70-130			
1,4-Dioxane	11.6		ppbv	10.0		116	60-160			
n-Heptane	10.1		ppbv	10.0		101	70-130			
4-Methyl-2-pentanone (MIBK)	10.3		ppbv	10.0		103	70-130			
cis-1,3-Dichloropropene	10.2		ppbv	10.0		102	70-130			
trans-1,3-Dichloropropene	10.3		ppbv	10.0		103	70-130			

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 9121907 - General Air Prep										
LCS (9121907-BS1)				Prepared & Analyzed: 24-Dec-09						
1,1,2-Trichloroethane	9.85		ppbv	10.0		98	70-130			
Toluene	9.76		ppbv	10.0		98	70-130			
2-Hexanone (MBK)	9.57		ppbv	10.0		96	70-130			
Dibromochloromethane	9.19		ppbv	10.0		92	70-130			
1,2-Dibromoethane (EDB)	9.92		ppbv	10.0		99	70-130			
Tetrachloroethene	9.79		ppbv	10.0		98	70-130			
Chlorobenzene	9.44		ppbv	10.0		94	70-130			
1,1,1,2-Tetrachloroethane	9.29		ppbv	10.0		93	60-160			
Ethylbenzene	9.63		ppbv	10.0		96	70-130			
m,p-Xylene	19.6		ppbv	20.0		98	70-130			
Bromoform	7.13		ppbv	10.0		71	70-130			
Styrene	10.0		ppbv	10.0		100	70-130			
o-Xylene	9.99		ppbv	10.0		100	70-130			
1,1,2,2-Tetrachloroethane	9.44		ppbv	10.0		94	70-130			
Isopropylbenzene	8.25		ppbv	10.0		82	60-160			
1,3,5-Trimethylbenzene	9.89		ppbv	10.0		99	70-130			
4-Ethyltoluene	9.84		ppbv	10.0		98	70-130			
1,2,4-Trimethylbenzene	10.2		ppbv	10.0		102	70-130			
1,3-Dichlorobenzene	9.73		ppbv	10.0		97	70-130			
Benzyl chloride	11.1		ppbv	10.0		111	70-130			
1,4-Dichlorobenzene	9.46		ppbv	10.0		95	70-130			
sec-Butylbenzene	9.39		ppbv	10.0		94	60-160			
4-Isopropyltoluene	8.33		ppbv	10.0		83	60-160			
1,2-Dichlorobenzene	9.55		ppbv	10.0		96	70-130			
n-Butylbenzene	8.08		ppbv	10.0		81	60-160			
1,2,4-Trichlorobenzene	12.1		ppbv	10.0		121	70-130			
Hexachlorobutadiene	9.74		ppbv	10.0		97	70-130			
Surrogate: 4-Bromofluorobenzene	*10.1*		ppbv	*10.0*		*101*	*70-130*			
Batch 9122133 - General Air Prep										
Blank (9122133-BLK1)				Prepared & Analyzed: 30-Dec-09						
Propene	BRL	0.10000	ppbv							U
Dichlorodifluoromethane (Freon12)	BRL	0.10000	ppbv							U
Chloromethane	BRL	0.10000	ppbv							U
1,2-Dichlorotetrafluoroethane (Freon 114)	BRL	0.10000	ppbv							U
Vinyl chloride	BRL	0.10000	ppbv							U
1,3-Butadiene	BRL	0.10000	ppbv							U
Bromomethane	BRL	0.10000	ppbv							U
Chloroethane	BRL	0.10000	ppbv							U
Acetone	BRL	0.50000	ppbv							U
Trichlorofluoromethane (Freon 11)	BRL	0.10000	ppbv							U
Ethanol	BRL	0.50000	ppbv							U
Acrylonitrile	BRL	0.10000	ppbv							U
1,1-Dichloroethene	BRL	0.10000	ppbv							U
Methylene chloride	BRL	0.10000	ppbv							U
1,1,2-Trichlorotrifluoroethane (Freon 113)	BRL	0.10000	ppbv							U
Carbon disulfide	BRL	0.50000	ppbv							U
trans-1,2-Dichloroethene	BRL	0.10000	ppbv							U
1,1-Dichloroethane	BRL	0.10000	ppbv							U
Methyl tert-butyl ether	BRL	0.10000	ppbv							U
Isopropyl alcohol	BRL	0.50000	ppbv							U
2-Butanone (MEK)	BRL	0.10000	ppbv							U
cis-1,2-Dichloroethene	BRL	0.10000	ppbv							U
Hexane	BRL	0.10000	ppbv							U

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 9122133 - General Air Prep										
Blank (9122133-BLK1)				Prepared & Analyzed: 30-Dec-09						
Ethyl acetate	BRL	0.10000	ppbv							U
Chloroform	BRL	0.10000	ppbv							U
Tetrahydrofuran	BRL	0.10000	ppbv							U
1,2-Dichloroethane	BRL	0.10000	ppbv							U
1,1,1-Trichloroethane	BRL	0.10000	ppbv							U
Benzene	BRL	0.10000	ppbv							U
Carbon tetrachloride	BRL	0.10000	ppbv							U
Cyclohexane	BRL	0.10000	ppbv							U
1,2-Dichloropropane	BRL	0.10000	ppbv							U
Bromodichloromethane	BRL	0.10000	ppbv							U
Trichloroethene	BRL	0.10000	ppbv							U
1,4-Dioxane	BRL	0.50000	ppbv							U
n-Heptane	BRL	0.10000	ppbv							U
4-Methyl-2-pentanone (MIBK)	BRL	0.10000	ppbv							U
cis-1,3-Dichloropropene	BRL	0.10000	ppbv							U
trans-1,3-Dichloropropene	BRL	0.10000	ppbv							U
1,1,2-Trichloroethane	BRL	0.10000	ppbv							U
Toluene	BRL	0.10000	ppbv							U
2-Hexanone (MBK)	BRL	0.20000	ppbv							U
Dibromochloromethane	BRL	0.10000	ppbv							U
1,2-Dibromoethane (EDB)	BRL	0.10000	ppbv							U
Tetrachloroethene	BRL	0.10000	ppbv							U
Chlorobenzene	BRL	0.10000	ppbv							U
1,1,1,2-Tetrachloroethane	BRL	0.10000	ppbv							U
Ethylbenzene	BRL	0.10000	ppbv							U
m,p-Xylene	BRL	0.10000	ppbv							U
Bromoform	BRL	0.10000	ppbv							U
Styrene	BRL	0.10000	ppbv							U
o-Xylene	BRL	0.10000	ppbv							U
1,1,2,2-Tetrachloroethane	BRL	0.10000	ppbv							U
Isopropylbenzene	BRL	0.10000	ppbv							U
1,3,5-Trimethylbenzene	BRL	0.10000	ppbv							U
4-Ethyltoluene	BRL	0.10000	ppbv							U
1,2,4-Trimethylbenzene	BRL	0.10000	ppbv							U
1,3-Dichlorobenzene	BRL	0.10000	ppbv							U
Benzyl chloride	BRL	0.10000	ppbv							U
1,4-Dichlorobenzene	BRL	0.10000	ppbv							U
sec-Butylbenzene	BRL	0.10000	ppbv							U
4-Isopropyltoluene	BRL	0.10000	ppbv							U
1,2-Dichlorobenzene	BRL	0.10000	ppbv							U
n-Butylbenzene	BRL	0.10000	ppbv							U
1,2,4-Trichlorobenzene	BRL	0.10000	ppbv							U
Hexachlorobutadiene	BRL	0.10000	ppbv							U
Surrogate: 4-Bromofluorobenzene	*9.2600*		ppbv	*10.0*		*93*	*70-130*			
LCS (9122133-BS1)				Prepared & Analyzed: 30-Dec-09						
Propene	2.3500		ppbv	2.00		118	70-130			
Dichlorodifluoromethane (Freon12)	2.3000		ppbv	2.00		115	70-130			
Chloromethane	2.1700		ppbv	2.00		108	70-130			
1,2-Dichlorotetrafluoroethane (Freon 114)	2.2800		ppbv	2.00		114	70-130			
Vinyl chloride	2.3600		ppbv	2.00		118	70-130			
1,3-Butadiene	2.4400		ppbv	2.00		122	70-130			
Bromomethane	2.3200		ppbv	2.00		116	70-130			
Chloroethane	2.3000		ppbv	2.00		115	70-130			

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 9122133 - General Air Prep										
LCS (9122133-BS1)				Prepared & Analyzed: 30-Dec-09						
Acetone	2.4500		ppbv	2.00		122	70-130			
Trichlorofluoromethane (Freon 11)	2.1800		ppbv	2.00		109	70-130			
Ethanol	2.6900		ppbv	2.00		134	70-178			
Acrylonitrile	1.8300		ppbv	2.00		92	60-160			
1,1-Dichloroethene	2.4300		ppbv	2.00		122	70-130			
Methylene chloride	2.2800		ppbv	2.00		114	70-130			
1,1,2-Trichlorotrifluoroethane (Freon 113)	2.2800		ppbv	2.00		114	70-130			
Carbon disulfide	2.3500		ppbv	2.00		118	70-130			
trans-1,2-Dichloroethene	2.4400		ppbv	2.00		122	70-130			
1,1-Dichloroethane	2.3400		ppbv	2.00		117	70-130			
Methyl tert-butyl ether	2.5600		ppbv	2.00		128	70-130			
Isopropyl alcohol	2.4700		ppbv	2.00		124	70-130			
2-Butanone (MEK)	2.7700		ppbv	2.00		138	70-130			Z-2
cis-1,2-Dichloroethene	2.5100		ppbv	2.00		126	70-130			
Hexane	2.4300		ppbv	2.00		122	70-130			
Ethyl acetate	2.4500		ppbv	2.00		122	70-130			
Chloroform	2.2600		ppbv	2.00		113	70-130			
Tetrahydrofuran	2.3900		ppbv	2.00		120	70-130			
1,2-Dichloroethane	2.3200		ppbv	2.00		116	70-130			
1,1,1-Trichloroethane	2.3100		ppbv	2.00		116	70-130			
Benzene	2.3900		ppbv	2.00		120	70-130			
Carbon tetrachloride	2.2100		ppbv	2.00		110	70-130			
Cyclohexane	2.2400		ppbv	2.00		112	70-130			
1,2-Dichloropropane	2.4300		ppbv	2.00		122	70-130			
Bromodichloromethane	2.3000		ppbv	2.00		115	70-130			
Trichloroethene	2.4600		ppbv	2.00		123	70-130			
1,4-Dioxane	2.5600		ppbv	2.00		128	60-160			
n-Heptane	2.5800		ppbv	2.00		129	70-130			
4-Methyl-2-pentanone (MIBK)	2.7800		ppbv	2.00		139	70-130			QC2
cis-1,3-Dichloropropene	2.7100		ppbv	2.00		136	70-130			QC2
trans-1,3-Dichloropropene	2.8200		ppbv	2.00		141	70-130			QC2
1,1,2-Trichloroethane	2.4100		ppbv	2.00		120	70-130			
Toluene	2.5500		ppbv	2.00		128	70-130			
2-Hexanone (MBK)	2.3300		ppbv	2.00		116	70-130			
Dibromochloromethane	2.1400		ppbv	2.00		107	70-130			
1,2-Dibromoethane (EDB)	2.4700		ppbv	2.00		124	70-130			
Tetrachloroethene	2.3700		ppbv	2.00		118	70-130			
Chlorobenzene	2.2300		ppbv	2.00		112	70-130			
1,1,1,2-Tetrachloroethane	1.7900		ppbv	2.00		90	60-160			
Ethylbenzene	2.5100		ppbv	2.00		126	70-130			
m,p-Xylene	4.9400		ppbv	4.00		124	70-130			
Bromoform	1.5200		ppbv	2.00		76	70-130			
Styrene	2.2400		ppbv	2.00		112	70-130			
o-Xylene	2.5000		ppbv	2.00		125	70-130			
1,1,2,2-Tetrachloroethane	2.2100		ppbv	2.00		110	70-130			
Isopropylbenzene	1.7300		ppbv	2.00		86	60-160			
1,3,5-Trimethylbenzene	2.5900		ppbv	2.00		130	70-130			
4-Ethyltoluene	2.4600		ppbv	2.00		123	70-130			
1,2,4-Trimethylbenzene	2.5900		ppbv	2.00		130	70-130			
1,3-Dichlorobenzene	2.3600		ppbv	2.00		118	70-130			
Benzyl chloride	2.7200		ppbv	2.00		136	70-130			QC2
1,4-Dichlorobenzene	2.3100		ppbv	2.00		116	70-130			
sec-Butylbenzene	1.9000		ppbv	2.00		95	60-160			
4-Isopropyltoluene	1.6500		ppbv	2.00		82	60-160			

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 9122133 - General Air Prep										
LCS (9122133-BS1)				Prepared & Analyzed: 30-Dec-09						
1,2-Dichlorobenzene	2.2700		ppbv	2.00		114	70-130			
n-Butylbenzene	1.5700		ppbv	2.00		78	60-160			
1,2,4-Trichlorobenzene	2.8400		ppbv	2.00		142	70-130			QC2
Hexachlorobutadiene	2.1500		ppbv	2.00		108	70-130			
Surrogate: 4-Bromofluorobenzene	*9.8200*		ppbv	*10.0*		*98*	*70-130*			

Notes and Definitions

Z-2	Analyte passed in CCV.
U	Analyte included in the analysis, but not detected
R05	Elevated Reporting Limits due to the presence of high levels of non-target analytes.
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
J	Detected above the Method Detection Limit but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
GS	This sample was not able to be analyzed for client requested reporting limits due to high concentrations of other target analytes in the sample.
E	The concentration indicated for this analyte is an estimated value. This value is considered an estimate (CLP E-flag).
BsH	Data for this analyte may be biased high based on QC spike recoveries.
BRL	Below Reporting Limit - Analyte NOT DETECTED at or above the reporting limit
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

A plus sign (+) in the Method Reference column indicates the method is not accredited by NELAC.

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Validated by:
Hanibal C. Tayeh, Ph.D.
Nicole Leja

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Chain of Custody Record/Field Test Data Sheets for Air Analyses

SB05951

Page 1 of 2

Special Handling:
- [x] Standard TAT - 7 to 10 business days
- [ ] Rush TAT - Date Needed: _____

· All TATs subject to laboratory approval.
Min. 24-hour notification needed for rushes.

Report To: PRECISION ENVIRO. SVCS.	**Invoice To:** PES		
831 RT 67, LOT 2B		**Project No.:** 4-11-002	
BALLSTON SPA, NY 12020		**Site Name:** FORMER ICC	
		Location: GREENPORT **State:** NY	
Tel #: 518-885-4373	**Attn:**	**Sampler (s):** DAN NIERENBERG	
Project Manager: DAN NIERENBERG	**P.O. No.:** FORMER ICC RQN:		

Can ID	Can Size (L)	Outgoing Canister Pressure ("Hg) (Lab)	Incoming Canister Pressure ("Hg) (Lab)	Flow Reg. ID	Flow Controller Readout (ml/min)	Lab Id: 05951	Sample Id:	Sample Date(s)	Time Start (24 hr clock)	Time Stop (24 hr clock)	Canister Pressure in Field ("Hg) (Start)	Canister Pressure in Field ("Hg) (Stop)	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Analysis: TO-15 SIM	Matrix: Indoor (Ambient Air)	Matrix: Soil Gas	Check box if canister is returned unused
LABORATORY USE ONLY																		
7647	6L	-30		58	80.5													X
1010				2869	79.9	-01	SV-2	12/15/09	11:15	11:42	-28	-2	N/A	N/A	X		X	
5584				2847	80.4													X
0271				49	80.5	-02	UPGRADIENT AMBIENT	12/15/09	12:46	13:40	-30	-2	N/A	N/A	X	X		
0268				2889	80.2													X
4613				2842	80.5	-03	INDOOR AIR SAMPLE	12/15/09	15:24	16:05	-25	-3	60°	60°	X	X		

Client Use		Ambient Temperature (Fahrenheit) Maximum	Ambient Temperature (Fahrenheit) Minimum	Ambient Pressure (inches of Hg) Maximum	Ambient Pressure (inches of Hg) Minimum
	Start	41.5	38	29.88	29.88
	Stop	40	39	29.93	29.90

Special Instructions/QC Requirements & Comments: STANDARD TAT

Date of Request:	12/4/09	# Summa Canisters:	16
Requested by:	Dan Nierenberg	# Flow Controllers:	16
Company:	Precision Env.	Flow Rate/Setting:	1HR.
Location:	Ballston Spa, NY	Date Needed:	12/11

*I attest that that all media relinquished from Spectrum Analytical, Inc. have been received in good working condition and agree to the terms and conditions as listed on the back of this document.**

Signed: [signature] Date: 12-11-09

Printed: James M. Bishop Jr.

* *Please contact SA's Air Department immediately at (800) 789-9115 if you experience any technical difficulties or suspect any QC issue(s) with air media.*

☐ E-mail results DNIERENBERG@PRECISION-ENVIRONMENTAL NY.COM

EDD format

Relinquished by:	Received by:	Date:	Time:
[signature]	[signature]	12-18-9	1005
Tess Justice	[signature]	12/18/09	1340

11 Almgren Drive · Agawam, MA 01001 · 1-800-789-9115 · 413-789-9018 · FAX 413-789-4076 · www.spectrum-analytical.com

20.2

05951

SPECTRUM ANALYTICAL, INC.
Featuring
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Chain of Custody Record/Field Test Data Sheets for Air Analyses

Page 2 of 2

Special Handling:
- [x] Standard TAT - 7 to 10 business days
- [ ] Rush TAT - Date Needed: _____

· All TATs subject to laboratory approval.
Min. 24-hour notification needed for rushes.

Report To: PRECISION ENVIRO. SVCS.	**Invoice To:** PES		
831 Rt 67, Lot 28		**Project No.:** 4-11-002	
BALLSTON SPA, NEW YORK		**Site Name:** FORMER ICC	
12020		**Location:** GREENPORT **State:** NY	
Tel #: 518-885-4399	**Attn:**	**Sampler (s):** DAN NIERENBERG	
Project Manager: Dan Nierenberg	**P.O. No.:** FORMER ICC **RQN:**		

Can ID	Can Size (L)	Outgoing Canister Pressure ("Hg) (Lab)	Incoming Canister Pressure ("Hg) (Lab)	Flow Reg. ID	Flow Controller Readout (ml/min)	Lab Id: 05951	Sample Id:	Sample Date(s)	Time Start (24 hr clock)	Time Stop (24 hr clock)	Canister Pressure in Field ("Hg) (Start)	Canister Pressure in Field ("Hg) (Stop)	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Analysis: TO-15 SIM	Matrix: Indoor /Ambient Air	Matrix: Soil Gas	Check box if canister is returned unused
LABORATORY USE ONLY																		
4638	6	-30		2967	80.2													X
4623				37	80.5	-04	SV-1	12/15/09	10:48	11:19	-28	-2	N/A	N/A	X		X	
1006				826	80.3													X
0614				35	80.1													X
0667				2870	80.4													X
486				1314	80.2													X
0263				54	80.1	-05	SV-3	12/15/09	11:45	12:32	-30	-4	N/A	N/A	X		X	
4568				8	80.2													X
5582				2876	80.2	-06	SV-5	12/15/09	13:09	13:49	-27	-2	N/A	N/A	X		X	
488				51	80.3													X

Client Use		Ambient Temperature (Fahrenheit) Maximum	Ambient Temperature (Fahrenheit) Minimum	Ambient Pressure (inches of Hg) Maximum	Ambient Pressure (inches of Hg) Minimum
	Start	41.5	38	29.88	29.88
	Stop	40	39	29.93	29.90

Special Instructions/QC Requirements & Comments:
STANDARD TAT
per client req

Date of Request:	12/4/09	# Summa Canisters:	16
Requested by:	Dan Nierenberg	# Flow Controllers:	16
Company:	Precision Env.	Flow Rate/Setting:	1 HR
Location:	Ballston Spa, NY	Date Needed:	12/11

*I attest that that all media relinquished from Spectrum Analytical, Inc. have been received in good working condition and agree to the terms and conditions as listed on the back of this document.**

Signed: [signature] Date: 12-11-09

Printed: Raymond Bishop Jr.

Relinquished by:	Received by:	Date:	Time:
[signature]	[signature]	12-8-9	1005
[signature]	[signature]	12/8/09	1340

* Please contact SA's Air Department immediately at (800) 789-9115 if you experience any technical difficulties or suspect any QC issue(s) with air media.

[x] E-mail results DNIERENBERG@PRECISION-ENVIRONMENTALNY.COM
EDD format

11 Almgren Drive • Agawam, MA 01001 • 1-800-789-9115 • 413-789-9018 • FAX 413-789-4076 • www.spectrum-analytical.com

20.2

ATTACHMENT - C
Data Usability Summary Report

PRECISION
ENVIRONMENTAL SERVICES, INC.

ALPHA
GEOSCIENCE

Geology
Hydrology
Remediation
Water Supply

January 22, 2010

Mr. Dan Nierenberg
Precision Environmental Services, Inc.
Curtis Industrial Park
831 Rt. 67, Lot 28.
Ballston Spa, New York 12020

Re: Data Usability Summary Report
Former ICC Project
December 2009 Air Sampling Event

Dear Mr. Nierenberg:

The data usability summary report and data validation summary are attached to this letter for the Former ICC, December 2009 air sampling event. The data for Spectrum Analytical, Inc., SDG# 05951 were mostly acceptable with some issues that are identified and discussed in the validation summaries. There were no data that were qualified as unusable (R) in the data pack.

A list of common data validation acronyms and data validation qualifers is attached to this letter to assist you interpreting the validation summaries. If you have any questions concerning the work performed, please contact me at (518) 348-6995. Thank you for the opportunity to assist Precision Environmental Services, Inc.

Sincerely,
Alpha Geoscience

Donald Anné

Donald Anné
Senior Chemist

DCA:dca
attachments

Z:\projects\2010\10600-10620\10602- former icc\former icc-101.ltr.wpd

Data Validation Acronyms

AA	Atomic absorption, flame technique
BHC	Hexachlorocyclohexane
BFB	Bromofluorobenzene
CCB	Continuing calibration blank
CCC	Calibration check compound
CCV	Continuing calibration verification
CN	Cyanide
CRDL	Contract required detection limit
CRQL	Contract required quantitation limit
CVAA	Atomic adsorption, cold vapor technique
DCAA	2,4-Dichlophenylacetic acid
DCB	Decachlorobiphenyl
DFTPP	Decafluorotriphenyl phosphine
ECD	Electron capture detector
FAA	Atomic absorption, furnace technique
FID	Flame ionization detector
FNP	1-Fluoronaphthalene
GC	Gas chromatography
GC/MS	Gas chromatography/mass spectrometry
GPC	Gel permeation chromatography
ICB	Initial calibration blank
ICP	Inductively coupled plasma-atomic emission spectrometer
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standard
LCS	Laboratory control sample
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate
MSA	Method of standard additions
MS/MSD	Matrix spike/matrix spike duplicate
PID	Photo ionization detector
PCB	Polychlorinated biphenyl
PCDD	Polychlorinated dibenzodioxins
PCDF	Polychlorinated dibenzofurans
QA	Quality assurance
QC	Quality control
RF	Response factor
RPD	Relative percent difference
RRF	Relative response factor
RRF(number)	Relative response factor at concentration of the number following
RT	Retention time
RRT	Relative retention time
SDG	Sample delivery group
SPCC	System performance check compound
TCX	Tetrachloro-m-xylene
%D	Percent difference
%R	Percent recovery
%RSD	Percent relative standard deviation

Data Validation Qualifiers Used in the QA/QC Reviews for USEPA Region II

U	=	Not detected. The associated number indicates the approximate sample concentration necessary to be detected significantly greater than the level of the highest associated blank.
R	=	Unreliable result; data is rejected or unusable. Analyte may or may not be present in the sample. Supporting data or information is necessary to confirm the result.
N	=	Tentative identification. Analyte is considered present. Special methods may be needed to confirm its presence or absence during future sampling efforts.
J	=	Analyte is present. Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.
UJ	=	Not detected, quantitation limit may be inaccurate or imprecise.

Note: These qualifiers are used for data validation purposes. The data validation qualifiers may differ from the qualifiers that the laboratory assigns to the data. Refer to the laboratory analytical report for the definitions of the laboratory qualifiers.

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Data Usability Summary Report for
Spectrum Analytical, Inc., SDG# 05951

6 Summa Air Samples
Collected December 15, 2009

Prepared by: Donald Anné
January 22, 2010

The data package contains the documentation required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appeared legible and complete. The data pack contained the results of TO-15 volatile analysis for 6 summa air samples.

The overall performances of the analyses are acceptable. Spectrum Analytical, Inc. did fulfill the requirements of the analytical method.

The data are acceptable with some issues that are identified in the accompanying data validation reviews. The following data were flagged:

- The volatile result for ethanol in sample Indoor Air Sample was quantitated using data that were extrapolated beyond the highest calibration standard and flagged "E" by the laboratory. The result for ethanol marked "E" in the low level sample was qualified as estimated (J).

- The positive volatile results for 2-butanone were flagged as "estimated" (J) in samples Upgradient Ambient, Indoor Air Sample (low level), and SV-5 because the percent recovery for 2-butanone was above QC limits for the associated LCS.

All data are considered usable, with estimated (J) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation reviews.

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Geology
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QA/QC Review of TO-15 Volatiles Data
for Spectrum Analytical, Inc., SDG# 05951

6 Summa Air Samples
Collected December 15, 2009

Prepared by: Donald Anné
January 22, 2010

Holding Times: Samples were analyzed within the EPA recommended holding times.

GC/MS Tuning and Mass Calibration: The BFB tuning criteria were within control limits.

Initial Calibration: The average RRFs for target compounds were above the allowable minimum (0.050), as required.

The %RSDs for ethyl acetate and benzyl chloride were above the allowable maximum (30%) for Air1 on 12-16-09. The %RSDs for ethanol, ethyl acetate, tetrahydrofuran, 2-hexanone, styrene, and benzyl chloride were above the allowable maximum (30%) for Air1 on 12-29-09. Positive results of these compounds should be considered estimated (J) in associated samples.

Continuing Calibration: The RRF50s for target compounds were above the allowable minimum (0.050), as required.

The %D for 1,2,4-trichlorobenzene was above the allowable maximum (30%) on 12-24-09 (A35320.D). Positive results of 1,2,4-trichlorobenzene should be considered estimated (J) in associated samples.

Blanks: The analyses of method blanks reported target compounds as not detected.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Surrogate Recovery: The surrogate recoveries were within control limits for air samples and trip blank.

679 Plank Road ▪ Clifton Park, New York 12065 ▪ (518) 348-6995 ▪ FAX (518) 348-6966
www.alphageoscience.com

Laboratory Control Sample: The percent recoveries (%Rs) for target compounds were within QC limits for LCS 9121907-BS1.

The %Rs for 2-butanone, 4-methyl-2-pentanone, cis-1,2-dichloropropene, trans-1,2-dichloropropene, benzyl chloride, and 1,2,4-trichlorobenzene were above QC limits for LCS 9122133-BS1. Positive results for these compounds should be considered estimated (J) in associated samples.

Compound ID: Checked compounds were within GC quantitation limits. The mass spectra for detected compounds contained the primary and secondary ions, as outlined in the method.

There are results for ethanol in sample Indoor Air Sample that was quantitated by extrapolating data above the highest calibration standard and marked 'E' by the laboratory. The result for ethanol is flagged as 'E' in the low level sample should be considered estimated (J). It is recommended that the higher level result for ethanol in sample Indoor Air Sample be used. The lower level results for samples Indoor Air Sample should be used for all other compounds.

LETTER OF TRANSMITTAL

ALPHA GEOSCIENCE
679 Plank Road
Clifton Park, NY 12065
(518) 348 -6995 Phone
(518) 348-6966 FAX

TO: Mr. Dan Nierenberg
Precision Environmental Services, Inc
Curtis Industrial Park
831 Rt. 67, Lot 28
Ballston Spa, NY 12020

FROM: Don Anne'

DATE: 1/22/2010

SUBJECT: Data Validation
Former ICC
December 2009 Air Samples

WE ARE TRANSMITTING THE FOLLOWING ITEMS:

_____ Photographs
_____ Maps/Plans
_____ Report(s)
_____ Letter(s)
_____ Disk(s)
__X__ Other: Data Pack

Originals	Copies	Description of Materials
1		Spectrum Analytical, Inc. Data Pack, SDG# 05951

These Materials are Transmitted:

_____ For your use
_____ For your approval
_____ For your review and comment
_____ Approved as submitted
_____ Approved as noted
__X__ Returned after loaned to us
_____ Returned for revision

Please:
_____ Return original to us
_____ Submit after revision
_____ Retain for your files
_____ Other

REMARKS:

Returned upon completion of data validation.

ADDITIONAL COPIES TO:

SIGNATURE:

Donald Anne'