Site Investigation Summary Report

Vapor Intrusion Evaluations for New York State Remedial Sites

Wellsville-Andover Landfill

NYSDEC Site # 9-02-004

Town of Wellsville
Allegany County

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Executive Summary

A preliminary soil vapor investigation was conducted at the Wellsville-Andover Landfill, NYSDEC Site ID # 9-02-004, Town of Wellsville, Allegany County, NY in March 2006. A total of two groundwater grab samples and two shallow soil vapor samples were collected from the vicinity of the site. Based on the information developed during this preliminary investigation, the New York State Department of Environmental Conservation, (NYSDEC), in consultation with the New York State Department of Health (NYSDOH), has determined that **further investigation of the site and the surrounding area is needed to address potential exposures associated with vapor intrusion.**

1. Site Background and Status

Although the soil vapor pathway has been historically evaluated at New York State sites, improvements in analytical techniques and knowledge gained from sites in New York and in other states has led to a more complete understanding of soil vapor as an environmental media of concern. Based on this additional information, New York has re-evaluated previous assumptions and decisions regarding the potential for vapor intrusion at sites. To this effort, the State has conducted a limited soil vapor investigation at the site to evaluate the vapor intrusion pathway. The Wellsville-Andover Landfill is currently listed as a Class 4 site and has an operational remedial system (pump and treat) on-site.

1.1 Site Description

The Wellsville-Andover Landfill is located in the town of Wellsville, Allegany County, New York. The site is approximately 100 acres and is a capped landfill surrounded by forested lands and private residences. It is bounded by Duffy Hollow Road to the east; Snyder Road to the west; Pixley Hill Road to the north; and a private residence to the south. The hazardous waste site consists of parcels denoted on the Allegany County Tax Map as 201.-1-20, 201.-1-15.2, and 214.-1-2.1. The original landfill was located on the northern portion of the site. In 1997, the original landfill was excavated, consolidated and capped on the southern portion of the site.

The landfill was operated by the Village of Wellsville from 1964 until 1983, and accepted both municipal and industrial wastes. The site was contaminated by volatile organic compounds (VOCs), primarily trichloroethene (TCE), vinyl chloride (VC), and cis-1,2-dichloroethene (DCE).

1.2 Site Record of Decision (ROD)

A 1994 ROD called for the following remedies:

- Consolidation of the northwest area into the south/south-central area.
- Capping the areas that contain wastes with an engineered cover that minimizes the infiltration of water to produce leachate. The cover system included a passive landfill gas venting system.
- Upgrade of the leachate collection system, which included:
  - collection of leachate and treatment at the Village wastewater treatment plant.
  - installation of an up-gradient groundwater cutoff trench to minimize leachate production.
- Evaluation of the practicability of off-site groundwater collection and treatment.

1.3 Site Geology and Groundwater Flow

The bedrock beneath the site consists of thin sandstones and siltstones, which are overlain by dense glacial till. The till encountered during the limited soil vapor investigation consisted of tight, dense clay with occasional gravel. The bedrock encountered during previous investigations is at depths of approximately 10 feet to 64 feet below grade, and is highly fractured at the surface.

Surface water flow at the site drains southwest towards an unnamed tributary to Duffy Creek. This intermittent tributary begins along the western site boundary and flows south-southeast until it converges with Duffy Creek (a Class C stream), approximately 1,500 feet southeast of the site. Duffy Creek flows south and joins Dyke Creek (a Class C stream) approximately 1.8 miles south-southeast of the site. Dyke Creek eventually flows into the Genesee River. Surface water flow generally follows the site topography, which slopes towards the south at approximately 5% to 6% grade.

Local groundwater flow in the overburden and bedrock is generally to the southeast towards Duffy Creek.

2. Soil Vapor and Groundwater Investigation

2.1 Groundwater

A total of two (2) temporary groundwater grab samples and one (1) private water supply dug well were sampled as part of the investigation. Groundwater sampling was conducted on April 12 and 13, 2006. All groundwater samples were submitted to Life Science Laboratories of East Syracuse, New York, for analysis of VOCs via USEPA Method 8260B.

2.1.1 Groundwater Grab Samples

A total of two (2) groundwater grab samples were collected from the vicinity of the site. Both samples were collected from locations where borings were installed in apparently dry soils, but upward gradients in the groundwater resulted in the points (V-2 and V-3) to be saturated with groundwater, and were subsequently utilized as groundwater sample points. The borings were installed via geoprobe push technology. At location V-2, a four (4) foot deep soil boring was left open to see if water infiltrated. Within a few hours, the open hole was filled with water at two (2) feet below grade. This water was collected with a peristaltic pump, and submitted to the lab as sample ID# 902004-GW-2. At location V-3, another four (4) foot deep boring was left open and remained dry for a few hours. Since no water was observed infiltrating the boring, a vapor implant was installed in the

boring. The implant was constructed using 6-inch sampling screen attached to dedicated laboratory grade polyethylene tubing. The borehole was backfilled with filter sand to a minimum of 6 inches above the sampling screen and then backfilled with bentonite to the ground surface. When the implant was attempted to be sampled the following day, a peristaltic pump was used to purge the soil vapor, but instead of vapors, pulled groundwater into the tubing. This groundwater was collected and submitted to the lab as sample ID# 902004-GW-3.

2.1.2 Residential Dug Well Grab Samples

One groundwater grab sample was collected from a residential dug well along Duffy Hollow Road, approximately 1,500 feet east of the landfill. This sample was collected from a garden hose attached to the downgradient pipeline from the dug well to the residence. This sample was submitted to the lab as sample ID# 902004-GW-6.

2.2 Soil Vapor

A total of two (2) shallow soil vapor samples were collected on April 13, 2006 from the vicinity of the site. Due to the shallow groundwater levels at the site, no deep soil vapor samples were collected. Soil vapor samples were collected from a depth of 4 feet below grade. Temporary soil vapor points were installed via geoprobe push technology. The implants were constructed using 6-inch sampling screen attached to dedicated laboratory grade polyethylene tubing. The borehole was backfilled with filter sand to a minimum of 6 inches above the sampling screen and then backfilled with bentonite to the ground surface. A minimum of 24 hours was provided to allow the bentonite to sufficiently hydrate prior to sampling. Helium tracer gas was used at all vapor sample locations to verify the integrity of the bentonite seal between the ground surface and the borehole sampling point. The soil vapor samples were collected over a 2-hour period into 6 liter Summa canisters and were submitted to Pace Analytical Services of Minneapolis, Minnesota, for analysis of Volatile Organic Compounds (VOCs) by USEPA Method TO-15.

Refer to Table 1 for additional field sampling information regarding the soil vapor investigation.

3. Structure Sampling

In consultation with the NYSDOH, three (3) residential structures were sampled for sub-slab vapor (or crawl space), basement, first-floor, and outdoor ambient air. One (1) structure was sampled on Duffy Hollow Road, and two (2) structures were sampled on Snyder Road. Structure

sampling was conducted on April 13, and April 28, 2006. All samples were collected over a 24-hour period into 6 liter Summa canisters and were submitted to Pace Analytical Services of Minneapolis, Minnesota, for analysis of Volatile Organic Compounds (VOCs) by USEPA Method TO-15. All indoor and outdoor ambient air samples showing trichloroethene (TCE) as non-detect via standard Method TO-15 were further analyzed by Selective Ion Monitoring (SIM) TO-15 analysis for TCE. Method TO-15 with SIMS enables an analytical detection limit of less than 0.25 micrograms per cubic meter (ug/m^3) for TCE.

Structure sampling was preceded by building surveys and household product inventories
The sampling was done in accordance with the NYSDOH February 2005 Draft Guidance for Evaluating Soil Vapor Intrusion in the State of New York.

Refer to Table 1 for additional field sampling information regarding the structure sampling..

4. Summary of Findings

4.1 Groundwater

The groundwater sampling findings are presented below. Refer to Table 2 and Figure 1 for a summary of the detected groundwater constituents.

A total of two (2) shallow groundwater grab samples were collected in the vicinity of the site. The grab samples were located in the vicinity of the temporary soil vapor points V-2 and V-3, along the western and southern landfill borders and downgradient from the landfill itself. One (1) additional sample was collected from the piping extending from a residential dug well, which was located along Duffy Hollow Road, and approximately 1,500 feet east of the landfill.

None of the site's contaminants of concern (TCE, 1,2-(cis)Dichloroethene [cis-DCE], and vinyl chloride [VC]) were detected in any of the groundwater samples.

4.2 Soil Vapor

The soil vapor sampling findings are presented below. Refer to Table 3 and Figure 1 for a summary of the detected soil vapor constituents.

None of the site's contaminants of concern (TCE, cis-DCE, and VC) were detected in any

of the soil vapor samples. However, tetrachloroethene (PCE) was detected in both samples. PCE was detected at 4.8 ug/m^3 in sample ID# 902004-V-4, and at 2.8 ug/m^3 (estimated) in sample ID# 902004-V-3. In addition, low levels of benzene, toluene, ethylbenzene, and xylene (BTEX) were detected in both soil vapor samples.

4.3 Structure Sampling

The structure sampling findings are presented below. Refer to Table 4 for a summary of detected constituents.

A total of three (3) structures were sampled. Two of these structures had basements with concrete slab floors. These two structures (sample ID#s 902004-STR-1 and 902004-STR-2) were sampled for sub-slab vapor, basement ambient air (BA), first-floor ambient air (FA), and outdoor ambient air (OA). The third structure (902004-STR-3) had a crawl space with a dirt floor. This structure was sampled for crawl space ambient air (CS), first floor ambient air (FA) and outdoor ambient air (OA).

4.3.1 Sub-Slab Vapor

TCE was detected in both sub-slab samples at 5.3 ug/m^3 (STR-1) and 0.164 ug/m^3 (STR-2). PCE and cis-DCE were detected in STR-1 at 3.5 ug/m^3 and 5.1 ug/m^3, respectively. BTEX compounds were also detected in both sub-slab samples.

4.3.2 Basement/Crawl Space Ambient Air

None of the site's contaminants of concern (TCE, 1,2-(cis)Dichloroethene [cis-DCE], and vinyl chloride [VC]) were detected in the crawl space sample. TCE was detected in both of the basement ambient air samples (2.68 and 0.213 ug/m^3, estimated). BTEX compounds were also detected in both basement ambient air samples.

4.3.3 First Floor Ambient Air

TCE was detected in the first floor ambient air in all the structures sampled. Concentrations ranged from 0.12 ug/m^3 (estimated) to 5.4 ug/m^3. PCE was detected in two (2) of the structures at concentrations of 3.7 and 3.2 ug/m^3. 1,1,1-Trichloroethane (TCA) was detected in one of the structures at 4.4 ug/m^3. BTEX

compounds were also detected in all first floor ambient air samples.

4.3.4 Outdoor Ambient Air

Low levels of TCE were detected in all the outdoor ambient air samples. Concentrations ranged from 0.0983 ug/m^3 (estimated) to 0.169 ug/m^3 (estimated). Cis-DCE was also detected in all outdoor air samples, ranging in concentration from 1.2 ug/m^3 to 2.1 ug/m^3.

5. Recommendations

Based on the distribution of the soil vapor and groundwater concentrations observed, the possibility of vapor intrusion can not be ruled out. Although some of the site-related contaminants were detected in low concentrations in the indoor air, it is possible that these detections were due to indoor sources (cleaners and other household chemicals). Due to the detection of site-related contaminants in the sub-slab vapor samples, the **NYSDEC and NYSDOH recommend follow-up structure sampling during the 2006-2007 heating season**, in accordance with the February 2005 NYSDOH Draft Guidance for Evaluating Soil Vapor Intrusion in the State of New York**.** The goal of this follow-up sampling should be to identify any indoor sources as well as monitor the structures for vapor intrusion during the heating season.

TABLE 1

FIELD SAMPLING INFORMATION

New York State Department of Environmental Conservation

Soil Vapor Intrusion Evaluation

Work Assignment # D004433-2
Wellsville-Andover Landfill
Site # 902004

Table 1. Site Sampling Summary - Wellsville-Andover Landfill

Location ID	NYSDEC Sample ID	General Location/Comments	Date	Depth to GW (ft bgs)	Depth to SG Implant Base (ft bgs)	Leak-Test Successful? (yes or no)	Start Vacuum (in. Hg)	End Vacuum (in. Hg)	Start Time	Stop Time	Duration (hours)
902004-V-1S	Not sampled	Near landfill entrance gate at top of Snyder Rd./Soil Gas Implant	4/11/2006	< 8	8.0	NA	NA	NA	NA	NA	NA
902004-V-1D	Not sampled	Near landfill entrance gate at top of Snyder Rd./Soil Gas Implant	4/11/2006	< 8	18.5	NA	NA	NA	NA	NA	NA
902004-V-2S	Not Sampled	Adjacent to residence at 3899 Snyder Road/Soil Gas Implant	4/11/2006	2	4.0	NA	NA	NA	NA	NA	NA
902004-V-2D	Not Sampled	Adjacent to residence at 3899 Snyder Road./Open borehole	4/11/2006	2	NA	NA	NA	NA	NA	NA	NA
902004-V-2D	902004-GW-2	Adjacent to residence at 3899 Snyder Road/GW sample from open borehole	4/11/2006	2	4.0	NA	NA	NA	NA	NA	NA
902004-V-3S	Not sampled	1,500 ft S.of V-2 location on Snyder Road/Soil Gas Implant	4/12/2006	NA	4.0	NA	NA	NA	NA	NA	NA
902004-V-3S	902004-GW-3	1,500 ft S.of V-2 location on Snyder Road/GW sample from soil gas implant	4/13/2006	NA	4.0	NA	NA	NA	NA	NA	NA
902004-V-4S	902004-V-4S	Western Edge of Dufy Hollow Road/Soil gas sample from implant	4/12/2006	NA	4.0	Yes	-30	-6.5	1510	1710	2
902004-V-5S	902004-V-5S	LaDue Residence at 3914 Snyder Road/Soil gas sample from implant	4/12/2006	NA	4.0	Yes	-30	-4	1347	1547	2
902004-GW-6	902004-GW-6	Ormsby Residence at 4011 Duffy Hollow Road/GW sample from spring	4/12/2006	NA	NA	NA	NA	NA	NA	NA	NA
902004-SS-1A	902004-SS-1A	Ormsby Residence at 4011 Duffy Hollow Road/Sub-slab sample	4/13/2006	NA	NA	NA	-30	-10	940	940	24

Table 1. Site Sampling Summary - Wellsville-Andover Landfill (cont'd)

Location ID	NYSDEC Sample ID	General Location/Comments	Date	Depth to GW (ft bgs)	Depth to SG Implant Base (ft bgs)	Leak-Test Successful? (yes or no)	Start Vacuum (in. Hg)	End Vacuum (in. Hg)	Start Time	Stop Time	Duration (hours)
902004-SS-1B	902004-SS-1B	Ormsby Residence at 4011 Duffy Hollow Road/Sub-slab sample	4/13/2006	NA	NA	NA	-30	-3	945	945	24
902004-BA-1	902004-BA-1	Ormsby Residence at 4011 Duffy Hollow Road/Basement sample	4/13/2006	NA	NA	NA	-28	0	952	940	24
902004-FA-1	902004-FA-1	Ormsby Residence at 4011 Duffy Hollow Road/First floor sample	4/13/2006	NA	NA	NA	-28	-2	951	951	24
902004-OA-1	902004-OA-1	Ormsby Residence at 4011 Duffy Hollow Road/Outside air sample	4/13/2006	NA	NA	NA	-30	-2	958	958	24
902004-SS-2	902004-SS-2	LaDue Residence at 3914 Snyder Road/Sub-slab sample	4/13/2006	NA	NA	NA	-30	-4	1046	1046	24
902004-BA-2	902004-BA-2	LaDue Residence at 3914 Snyder Road/Basement sample	4/13/2006	NA	NA	NA	-30	-5	1048	1048	24
902004-FA-2	902004-FA-2	LaDue Residence at 3914 Snyder Road/First floor sample	4/13/2006	NA	NA	NA	-30	-4.5	1052	1052	24
902004-OA-2	902004-OA-2	LaDue Residence at 3914 Snyder Road/Outside air sample	4/13/2006	NA	NA	NA	-30	-6.5	1102	1100	24
902004-CS-3	902004-CS-3	Rosini Residence at 3899 Snyder Road/Crawl-space air sample	4/27/2006	NA	NA	NA	-30	-3	1416	1342	22.8
902004-FA-3	902004-FA-3	Rosini Residence at 3899 Snyder Road/First-floor air sample	4/27/2006	NA	NA	NA	-30	-5	1407	740	12.9
902004-OA-3	902004-OA-3	Rosini Residence at 3899 Snyder Road/Outside air sample	4/27/2006	NA	NA	NA	-30	-5	1412	921	15.8

NA = Not Applicable
GW = Groundwater
SS = Sub-slab
BA = Basement Ambient
FA = First Floor Ambient
OA = Outside Ambient
CS = Crawl Space

TABLE 2

SUMMARY OF DETECTED CONSTITUENTS
SOIL VAPOR AND STRUCTURE (AIR) ANALYTICAL DATA

TABLE 2
VALIDATED AIR SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		H-001	H-001	H-001	H-001	H-002
Sample ID		902004-OA-1	902004-BA-1	902004-FA-1	902004-SS-1A	902004-OA-2
Matrix		Ambient Air	Indoor Air	Indoor Air	Sub-Slab Air	Ambient Air
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/13/06	04/13/06	04/13/06	04/13/06	04/13/06
Parameter	Units		(2-2)			
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/M3	2.9 UJ	1.9 J	4.4	1.5 U	1.7 U
1,1,2,2-Tetrachloroethane	UG/M3	3.7 UJ	1.9 U	2.0 U	1.9 U	2.2 U
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3	4.2 UJ	2.1 U	2.3 U	2.2 U	2.5 U
1,1,2-Trichloroethane	UG/M3	2.9 UJ	1.5 U	1.6 U	1.5 U	1.7 U
1,1-Dichloroethane	UG/M3	2.2 UJ	1.1 U	1.2 U	1.1 U	1.3 U
1,1-Dichloroethene	UG/M3	2.1 UJ	1.1 U	1.2 U	1.1 U	1.2 U
1,2,4-Trichlorobenzene	UG/M3	2.6 UJ	1.3 U	1.4 U	1.4 U	1.5 U
1,2,4-Trimethylbenzene	UG/M3	6.6 UJ	6.4 J	3.6 U	211 J	3.8 U
1,2-Dibromoethane (Ethylene dibromide)	UG/M3	4.2 UJ	2.1 U	2.3 U	2.2 U	2.5 U
1,2-Dichlorobenzene	UG/M3	3.2 UJ	1.6 U	1.7 U	1.7 U	1.8 U
1,2-Dichloroethane	UG/M3	2.2 UJ	1.1 U	1.2 U	2.6	1.3 U
1,2-Dichloroethene (cis)	UG/M3	2.1 UJ	1.1 U	1.2 U	5.1	1.2 U
1,2-Dichloroethene (trans)	UG/M3	2.1 UJ	1.1 U	1.2 U	1.1 U	1.2 U
1,2-Dichloropropane	UG/M3	2.5 UJ	1.3 U	1.3 U	1.3 U	1.4 U
1,2-Dichlorotetrafluoroethane	UG/M3	3.7 UJ	1.9 U	2.0 U	1.9 U	2.2 U
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3	6.6 UJ	3.4 U	3.6 U	48.6	3.8 U
1,3-Butadiene	UG/M3	1.2 UJ	0.60 U	0.64 U	0.62 U	0.69 U
1,3-Dichlorobenzene	UG/M3	3.2 UJ	1.6 U	1.7 U	1.7 U	1.8 U
1,3-Dichloropropene (cis)	UG/M3	2.4 UJ	1.2 U	1.3 U	1.3 U	1.4 U
1,3-Dichloropropene (trans)	UG/M3	2.4 UJ	1.2 U	1.3 U	1.3 U	1.4 U
1,4-Dichlorobenzene	UG/M3	3.2 UJ	1.6 U	1.7 U	19.0	1.8 U
2-Hexanone	UG/M3	2.2 UJ	1.1 U	1.2 U	1.1 UJ	1.3 U
4-Ethyltoluene	UG/M3	6.6 UJ	3.4 U	3.6 U	59.7	3.8 U

Flags assigned during chemistry validation are shown.

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Detection Limits shown are PQL

TABLE 2
VALIDATED AIR SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		H-001	H-001	H-001	H-001	H-002
Sample ID		902004-OA-1	902004-BA-1	902004-FA-1	902004-SS-1A	902004-OA-2
Matrix		Ambient Air	Indoor Air	Indoor Air	Sub-Slab Air	Ambient Air
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/13/06	04/13/06	04/13/06	04/13/06	04/13/06
Parameter	Units		(2-2)			
Volatile Organic Compounds						
4-Methyl-2-pentanone	UG/M3	2.2 UJ	1.1 U	1.2 U	37.0 J	1.3 U
Acetone	UG/M3	29.5 J	13.3 J	1.2	163 J	12.7 J
Benzene	UG/M3	1.7 UJ	2.6 J	2.3	36.9	1.0 U
Bromodichloromethane	UG/M3	3.7 UJ	1.9 U	2.0 U	1.9 U	2.2 U
Bromoform	UG/M3	5.5 UJ	2.8 U	3.0 U	2.9 U	3.2 U
Bromomethane	UG/M3	2.1 UJ	1.1 U	1.1 U	1.1 U	1.2 U
Carbon disulfide	UG/M3	1.7 UJ	0.84 U	0.90 U	34.0	0.97 U
Carbon tetrachloride	UG/M3	3.4 UJ	1.7 U	1.9 U	1.8 U	2.0 U
Chlorobenzene	UG/M3	2.5 UJ	1.3 U	1.3 U	1.3 U	1.4 U
Chloroethane	UG/M3	1.4 UJ	0.72 U	1.3	0.75 U	0.83 U
Chloroform	UG/M3	2.6 UJ	1.3 U	1.4 U	1.4 U	1.5 U
Chloromethane	UG/M3	1.1 UJ	0.56 U	0.60 U	0.58 U	0.65 U
Cyclohexane	UG/M3	1.8 UJ	0.91 U	0.97 U	0.94 U	1.0 U
Dibromochloromethane	UG/M3	4.5 UJ	2.3 U	2.4 U	2.3 U	2.6 U
Dichlorodifluoromethane	UG/M3	2.8 J	2.7 J	3.4	2.1	3.1 J
Ethyl acetate	UG/M3	1.9 UJ	0.98 U	1.0 U	207 J	1.1 U
Ethylbenzene	UG/M3	2.3 UJ	30.1 J	2.0	81.1	1.4 U
Heptane	UG/M3	2.2 UJ	3.1 J	1.2 U	1.1 U	1.3 U
Hexachlorobutadiene	UG/M3	5.8 UJ	2.9 U	3.1 U	3.0 UJ	3.4 U
Hexane	UG/M3	1.9 UJ	12.7 J	5.1	94.9	1.1 U
Methyl ethyl ketone (2-Butanone)	UG/M3	14.5 J	10.5 J	0.86 U	377 J	2.9 J
Methyl tert-butyl ether	UG/M3	1.9 UJ	0.98 U	1.0 U	1.0 U	1.1 U
Methylene chloride	UG/M3	13.9 J	3.8 J	2.5	12.3	1.1 U

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TABLE 2
VALIDATED AIR SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		H-001	H-001	H-001	H-001	H-002
Sample ID		902004-OA-1	902004-BA-1	902004-FA-1	902004-SS-1A	902004-OA-2
Matrix		Ambient Air	Indoor Air	Indoor Air	Sub-Slab Air	Ambient Air
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/13/06	04/13/06	04/13/06	04/13/06	04/13/06
Parameter	Units		(2-2)			
Volatile Organic Compounds						
Naphthalene	UG/M3	7.1 UJ	7.5 J	3.9 U	78.2	4.2 U
Propylene	UG/M3	0.92 UJ	0.47 U	0.50 U	0.48 U	0.54 U
Styrene	UG/M3	2.3 UJ	1.2 U	1.2 U	22.2	1.3 U
Tetrachloroethene	UG/M3	3.7 UJ	1.9 U	3.7	3.5	2.2 U
Tetrahydrofuran	UG/M3	1.6 UJ	0.80 U	0.86 U	118 J	0.92 U
Toluene	UG/M3	5.9 J	19.8 J	22.8	342 J	2.3 J
Trichloroethene	UG/M3	0.169 J	2.68 J	0.12 J	5.3	0.0983 J
Trichlorofluoromethane	UG/M3	2.9 UJ	2.6 J	3.9	2.1	1.7 U
Vinyl acetate	UG/M3	1.9 UJ	0.95 U	1.0 U	0.98 U	1.1 U
Vinyl chloride	UG/M3	1.4 UJ	0.70 U	0.74 U	0.72 U	0.80 U
Xylene (total)	UG/M3	4.6 UJ	169 J	11.4	581 J	2.7 U

Flags assigned during chemistry validation are shown.

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TABLE 2
VALIDATED AIR SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		H-002	H-002	H-002	H-002	H-003
Sample ID		902004-SS-2-DUP	902004-BA-2	902004-FA-2	902004-SS-2	902004-OA-3
Matrix		Sub-Slab Air	Indoor Air	Indoor Air	Sub-Slab Air	Ambient Air
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/13/06	04/13/06	04/13/06	04/13/06	04/28/06
Parameter	Units	Field Duplicate (1-1)	(2-2)			
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/M3	1.6 U	1.6 U	1.1 U	1.5 U	1.6 U
1,1,2,2-Tetrachloroethane	UG/M3	2.0 U	2.0 U	1.4 U	1.9 U	2.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3	2.3 U	2.3 U	1.6 U	2.2 U	2.3 U
1,1,2-Trichloroethane	UG/M3	1.6 U	1.6 U	1.1 U	1.5 U	1.6 U
1,1-Dichloroethane	UG/M3	1.2 U	1.2 U	0.82 U	1.1 U	1.2 U
1,1-Dichloroethene	UG/M3	1.2 U	1.2 U	0.81 U	1.1 U	1.2 UJ
1,2,4-Trichlorobenzene	UG/M3	1.4 U	1.4 U	0.99 U	1.4 U	1.4 U
1,2,4-Trimethylbenzene	UG/M3	18.3	24.3	17.0	14.9 J	14.0
1,2-Dibromoethane (Ethylene dibromide)	UG/M3	2.3 U	2.3 U	1.6 U	2.2 U	2.3 U
1,2-Dichlorobenzene	UG/M3	1.7 U	1.7 U	1.2 U	1.7 U	1.7 U
1,2-Dichloroethane	UG/M3	1.2 U	1.2 U	0.82 U	1.1 U	1.2 U
1,2-Dichloroethene (cis)	UG/M3	1.2 U	1.2 U	0.81 U	1.1 U	1.2 U
1,2-Dichloroethene (trans)	UG/M3	1.2 U	1.2 U	0.81 U	1.1 U	1.2 U
1,2-Dichloropropane	UG/M3	1.3 U	1.3 U	0.94 U	1.3 U	1.3 U
1,2-Dichlorotetrafluoroethane	UG/M3	5.4	5.9	1.4 U	1.9 U	2.0 U
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3	5.3	6.7	6.6	7.0 J	3.6 U
1,3-Butadiene	UG/M3	0.64 U	0.64 U	0.45 U	0.62 U	0.64 U
1,3-Dichlorobenzene	UG/M3	1.7 U	1.7 U	2.3	1.7 U	1.7 U
1,3-Dichloropropene (cis)	UG/M3	1.3 U	1.3 U	0.92 U	1.3 U	1.3 U
1,3-Dichloropropene (trans)	UG/M3	1.3 U	1.3 U	0.92 U	1.3 U	1.3 U
1,4-Dichlorobenzene	UG/M3	1.7 U	1.7 U	2.7	1.7 U	1.7 U
2-Hexanone	UG/M3	1.2 UJ	1.2 UJ	0.83 U	1.1 U	1.2 UJ
4-Ethyltoluene	UG/M3	5.1	7.0	6.7	4.3 J	3.6 U

Flags assigned during chemistry validation are shown.

Made By AMK 6/5/06
Checked By 6/5/06

Detection Limits shown are PQL

TABLE 2
VALIDATED AIR SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		H-002	H-002	H-002	H-002	H-003
Sample ID		902004-SS-2-DUP	902004-BA-2	902004-FA-2	902004-SS-2	902004-OA-3
Matrix		Sub-Slab Air	Indoor Air	Indoor Air	Sub-Slab Air	Ambient Air
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/13/06	04/13/06	04/13/06	04/13/06	04/28/06
Parameter	Units	Field Duplicate (1-1)	(2-2)			
Volatile Organic Compounds						
4-Methyl-2-pentanone	UG/M3	1.2 UJ	1.2 UJ	0.83 U	1.1 U	1.2 UJ
Acetone	UG/M3	40.0 J	40.3 J	33.8	82.5 J	1.8 J
Benzene	UG/M3	20.0	25.5	14.0	12.0 J	0.93 U
Bromodichloromethane	UG/M3	2.0 U	2.0 U	1.4 U	1.9 U	2.0 U
Bromoform	UG/M3	19.6	3.0 U	2.1 U	2.9 U	3.0 U
Bromomethane	UG/M3	6.9	1.1 U	0.79 U	1.1 U	1.1 U
Carbon disulfide	UG/M3	10.7	1.2	0.63 U	19.3 J	0.90 U
Carbon tetrachloride	UG/M3	1.9 U	1.9 U	1.3 U	1.8 U	1.9 U
Chlorobenzene	UG/M3	1.3 U	1.3 U	0.94 U	1.3 U	1.3 U
Chloroethane	UG/M3	0.77 U	0.77 U	0.54 U	0.75 U	0.77 U
Chloroform	UG/M3	1.4 U	1.4 U	0.99 U	1.4 U	1.4 U
Chloromethane	UG/M3	0.60 U	0.60 U	0.42 U	0.58 U	0.60 U
Cyclohexane	UG/M3	3.2	0.97 U	0.68 U	16.7 J	0.97 U
Dibromochloromethane	UG/M3	2.4 U	2.4 U	1.7 U	2.3 U	2.4 U
Dichlorodifluoromethane	UG/M3	87.5	96.4	73.5	44.9 J	1.8
Ethyl acetate	UG/M3	1.4	7.6	0.73 U	1.0 U	1.0 UJ
Ethylbenzene	UG/M3	12.3	16.2	13.2	7.1 J	1.3 U
Heptane	UG/M3	1.2 U	1.2 U	17.9	35.7 J	1.2 U
Hexachlorobutadiene	UG/M3	3.1 UJ	3.1 UJ	2.2 U	3.0 U	3.1 U
Hexane	UG/M3	19.1	25.6	20.8	37.4 J	1.0 U
Methyl ethyl ketone (2-Butanone)	UG/M3	10.0 J	14.9 J	9.8	18.7 J	0.86 UJ
Methyl tert-butyl ether	UG/M3	1.0 U	1.0 U	0.73 U	1.0 U	1.0 U
Methylene chloride	UG/M3	1.0 U	1.0 U	0.71 U	3.3 J	1.0 U

Flags assigned during chemistry validation are shown.

Made By AMK 6/5/06
Checked By 6/5/06

Detection Limits shown are PQL

TABLE 2
VALIDATED AIR SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		H-002	H-002	H-002	H-002	H-003
Sample ID		902004-SS-2-DUP	902004-BA-2	902004-FA-2	902004-SS-2	902004-OA-3
Matrix		Sub-Slab Air	Indoor Air	Indoor Air	Sub-Slab Air	Ambient Air
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/13/06	04/13/06	04/13/06	04/13/06	04/28/06
Parameter	Units	Field Duplicate (1-1)	(2-2)			
Volatile Organic Compounds						
Naphthalene	UG/M3	20.4	20.9	11.8	7.9 J	62.7
Propylene	UG/M3	0.50 U	0.50 U	0.35 U	0.48 U	0.50 U
Styrene	UG/M3	2.4	3.2	9.1	1.2 U	1.2 U
Tetrachloroethene	UG/M3	2.0 U	2.0 U	3.2	1.9 U	2.0 U
Tetrahydrofuran	UG/M3	0.86 U	11.8	0.60 U	0.83 U	0.86 U
Toluene	UG/M3	69.2	87.5	64.6	41.5 J	1.1 U
Trichloroethene	UG/M3	0.186 J	0.213 J	5.4	0.142 J	0.118 J
Trichlorofluoromethane	UG/M3	9.0	9.6	35.1	6.2 J	1.6 U
Vinyl acetate	UG/M3	1.0 U	1.0 U	0.71 U	0.98 U	1.0 U
Vinyl chloride	UG/M3	0.74 U	0.74 U	0.52 U	0.72 U	0.74 U
Xylene (total)	UG/M3	62.2	82.0	64.7	45.9 J	2.5 U

Flags assigned during chemistry validation are shown.

Made By AMK 6/5/06
Checked By 6/5/06

Detection Limits shown are PQL

TABLE 2
VALIDATED AIR SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		H-003	H-003	H-003	V-04S	V-05S
Sample ID		20060427-CS-3-DUP	902004-CS-3	902004-FA-3	902004-V-4S	902004-V-5S
Matrix		Indoor Air	Indoor Air	Indoor Air	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/28/06	04/28/06	04/28/06	04/13/06	04/13/06
Parameter	Units	Field Duplicate (2-2)	(2-2)			
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/M3	1.5 U	1.6 U	1.9 U	1.7 U	2.1 J
1,1,2,2-Tetrachloroethane	UG/M3	1.9 U	2.0 U	2.4 U	2.2 U	1.9 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3	2.2 U	2.3 U	2.8 U	2.5 U	2.2 UJ
1,1,2-Trichloroethane	UG/M3	1.5 U	1.6 U	1.9 U	1.7 U	1.5 UJ
1,1-Dichloroethane	UG/M3	1.1 U	1.2 U	1.4 U	1.3 U	1.1 UJ
1,1-Dichloroethene	UG/M3	1.1 U	1.2 U	1.4 UJ	1.3 U	1.1 UJ
1,2,4-Trichlorobenzene	UG/M3	1.4 U	1.4 U	1.7 U	1.6 U	1.4 UJ
1,2,4-Trimethylbenzene	UG/M3	3.4 U	3.6 U	5.2	5.0	3.7 J
1,2-Dibromoethane (Ethylene dibromide)	UG/M3	2.2 U	2.3 U	2.8 U	2.5 U	2.2 UJ
1,2-Dichlorobenzene	UG/M3	1.7 U	1.7 U	2.1 U	1.9 U	1.7 UJ
1,2-Dichloroethane	UG/M3	1.1 U	1.2 U	1.4 U	1.3 U	1.1 UJ
1,2-Dichloroethene (cis)	UG/M3	1.1 U	1.2 U	1.4 U	1.3 U	1.1 UJ
1,2-Dichloroethene (trans)	UG/M3	1.1 U	1.2 U	1.4 U	1.3 U	1.1 UJ
1,2-Dichloropropane	UG/M3	1.3 U	1.3 U	1.6 U	1.5 U	1.3 UJ
1,2-Dichlorotetrafluoroethane	UG/M3	1.9 U	2.0 U	2.4 U	2.2 U	1.9 UJ
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3	3.4 U	3.6 U	4.3 U	4.0 U	3.4 UJ
1,3-Butadiene	UG/M3	0.62 U	0.64 U	0.78 U	0.72 U	0.62 UJ
1,3-Dichlorobenzene	UG/M3	1.7 U	1.7 U	2.1 U	1.9 U	1.7 UJ
1,3-Dichloropropene (cis)	UG/M3	1.3 U	1.3 U	1.6 U	1.5 U	1.3 UJ
1,3-Dichloropropene (trans)	UG/M3	1.3 U	1.3 U	1.6 U	1.5 U	1.3 UJ
1,4-Dichlorobenzene	UG/M3	1.7 U	1.7 U	2.1 U	1.9 U	1.7 UJ
2-Hexanone	UG/M3	1.1 UJ	1.2 UJ	1.4 UJ	1.3 U	1.1 UJ
4-Ethyltoluene	UG/M3	3.4 U	3.6 U	4.3 U	4.0 U	3.4 UJ

Flags assigned during chemistry validation are shown.

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Checked By 6/5/06

Detection Limits shown are PQL

TABLE 2
VALIDATED AIR SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		H-003	H-003	H-003	V-04S	V-05S
Sample ID		20060427-CS-3-DUP	902004-CS-3	902004-FA-3	902004-V-4S	902004-V-5S
Matrix		Indoor Air	Indoor Air	Indoor Air	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/28/06	04/28/06	04/28/06	04/13/06	04/13/06
Parameter	Units	Field Duplicate (2-2)	(2-2)			
Volatile Organic Compounds						
4-Methyl-2-pentanone	UG/M3	1.1 UJ	1.2 UJ	1.4 UJ	1.3 U	3.6 J
Acetone	UG/M3	2.6 J	3.3 J	29.4 J	13.9	17.2 J
Benzene	UG/M3	0.90 U	0.93 U	1.1 U	3.2	5.1 J
Bromodichloromethane	UG/M3	1.9 U	2.0 U	2.4 U	2.2 U	1.9 UJ
Bromoform	UG/M3	2.9 U	3.0 U	3.6 U	3.3 U	2.9 UJ
Bromomethane	UG/M3	1.1 U	1.1 U	1.4 U	1.3 U	1.1 UJ
Carbon disulfide	UG/M3	0.87 U	0.90 U	1.1 U	1.0 U	12.9 J
Carbon tetrachloride	UG/M3	1.8 U	1.9 U	2.6	2.1 U	1.8 UJ
Chlorobenzene	UG/M3	1.3 U	1.3 U	1.6 U	1.5 U	1.3 UJ
Chloroethane	UG/M3	0.75 U	0.77 U	0.93 U	0.86 U	0.75 UJ
Chloroform	UG/M3	1.4 U	1.4 U	1.7 U	1.6 U	1.4 UJ
Chloromethane	UG/M3	0.58 U	0.60	0.73 U	0.67 U	0.58 UJ
Cyclohexane	UG/M3	0.94 U	0.97 U	1.2 U	1.1 U	0.94 UJ
Dibromochloromethane	UG/M3	2.3 U	2.4 U	2.9 U	2.7 U	2.3 UJ
Dichlorodifluoromethane	UG/M3	2.1	1.7	2.4	2.4	2.0 J
Ethyl acetate	UG/M3	1.0 U	1.0 U	1.3 UJ	1.2 U	1.0 UJ
Ethylbenzene	UG/M3	1.2 U	1.3 U	3.1	3.6	2.6 J
Heptane	UG/M3	1.1 U	1.2 U	3.3	1.3 U	6.0 J
Hexachlorobutadiene	UG/M3	3.0 UJ	3.1 UJ	3.8 U	3.5 U	3.0 UJ
Hexane	UG/M3	0.99 U	1.0 U	1.2 U	1.1 U	5.2 J
Methyl ethyl ketone (2-Butanone)	UG/M3	1.3 J	3.1 J	12.9 J	6.1	6.1 J
Methyl tert-butyl ether	UG/M3	1.0 U	1.0 U	1.3 U	1.2 U	1.0 UJ
Methylene chloride	UG/M3	0.98 U	7.5	1.2 U	1.1 U	1.4 J

Flags assigned during chemistry validation are shown.

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Detection Limits shown are PQL

TABLE 2
VALIDATED AIR SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		H-003	H-003	H-003	V-04S	V-05S
Sample ID		20060427-CS-3-DUP	902004-CS-3	902004-FA-3	902004-V-4S	902004-V-5S
Matrix		Indoor Air	Indoor Air	Indoor Air	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/28/06	04/28/06	04/28/06	04/13/06	04/13/06
Parameter	Units	Field Duplicate (2-2)	(2-2)			
Volatile Organic Compounds						
Naphthalene	UG/M3	3.7 U	3.9 U	6.8	4.3 U	3.7 UJ
Propylene	UG/M3	0.48 U	0.50 U	0.77	0.56 U	0.48 UJ
Styrene	UG/M3	1.2 U	1.2 U	1.5 U	2.3	3.1 J
Tetrachloroethene	UG/M3	1.9 U	2.0 U	2.4 U	4.8	2.8 J
Tetrahydrofuran	UG/M3	0.83 U	0.86 U	1.0 U	0.95 U	0.83 UJ
Toluene	UG/M3	1.1 U	1.1 U	8.0	18.2	11.3 J
Trichloroethene	UG/M3	1.5 U	1.6 U	4.26 J	1.7 U	1.5 UJ
Trichlorofluoromethane	UG/M3	1.5 U	1.6 U	1.9 U	1.7 U	1.5 UJ
Vinyl acetate	UG/M3	0.98 U	1.0 U	1.2 U	1.1 U	0.98 UJ
Vinyl chloride	UG/M3	0.72 U	0.74 U	0.90 U	0.83 U	0.72 UJ
Xylene (total)	UG/M3	2.4 U	2.5 U	13.1	11.4	10.4 J

Flags assigned during chemistry validation are shown.

Made By AMK 6/5/06
Checked By 6/5/06

Detection Limits shown are PQL

TABLE 2
VALIDATED AIR SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		V-05S
Sample ID		902004-V-5S-DUP
Matrix		Soil Gas
Depth Interval (ft)		-
Date Sampled		04/13/06
Parameter	**Units**	Field Duplicate (1-1)
Volatile Organic Compounds		
1,1,1-Trichloroethane	UG/M3	1.7 U
1,1,2,2-Tetrachloroethane	UG/M3	2.2 U
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3	2.5 U
1,1,2-Trichloroethane	UG/M3	1.7 U
1,1-Dichloroethane	UG/M3	1.3 U
1,1-Dichloroethene	UG/M3	1.2 U
1,2,4-Trichlorobenzene	UG/M3	1.5 U
1,2,4-Trimethylbenzene	UG/M3	14.7
1,2-Dibromoethane (Ethylene dibromide)	UG/M3	2.5 U
1,2-Dichlorobenzene	UG/M3	2.2
1,2-Dichloroethane	UG/M3	1.3 U
1,2-Dichloroethene (cis)	UG/M3	1.2 U
1,2-Dichloroethene (trans)	UG/M3	1.2 U
1,2-Dichloropropane	UG/M3	1.4 U
1,2-Dichlorotetrafluoroethane	UG/M3	2.2 U
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3	3.8 U
1,3-Butadiene	UG/M3	0.69 U
1,3-Dichlorobenzene	UG/M3	1.8 U
1,3-Dichloropropene (cis)	UG/M3	1.4 U
1,3-Dichloropropene (trans)	UG/M3	1.4 U
1,4-Dichlorobenzene	UG/M3	1.8 U
2-Hexanone	UG/M3	1.3 UJ
4-Ethyltoluene	UG/M3	3.8 U

Flags assigned during chemistry validation are shown.

Made By AMK 6/5/06
Checked By 6/5/06

Detection Limits shown are PQL

TABLE 2
VALIDATED AIR SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		V-05S
Sample ID		902004-V-5S-DUP
Matrix		Soil Gas
Depth Interval (ft)		-
Date Sampled		04/13/06
Parameter	**Units**	Field Duplicate (1-1)
Volatile Organic Compounds		
4-Methyl-2-pentanone	UG/M3	2.6 J
Acetone	UG/M3	73.4 J
Benzene	UG/M3	6.3
Bromodichloromethane	UG/M3	2.2 U
Bromoform	UG/M3	3.2 U
Bromomethane	UG/M3	1.2 U
Carbon disulfide	UG/M3	34.9
Carbon tetrachloride	UG/M3	2.0 U
Chlorobenzene	UG/M3	1.4 U
Chloroethane	UG/M3	0.83 U
Chloroform	UG/M3	1.5 U
Chloromethane	UG/M3	0.65 U
Cyclohexane	UG/M3	1.0 U
Dibromochloromethane	UG/M3	2.6 U
Dichlorodifluoromethane	UG/M3	1.5 U
Ethyl acetate	UG/M3	3.0
Ethylbenzene	UG/M3	4.5
Heptane	UG/M3	7.1
Hexachlorobutadiene	UG/M3	3.4 UJ
Hexane	UG/M3	9.2
Methyl ethyl ketone (2-Butanone)	UG/M3	14.1 J
Methyl tert-butyl ether	UG/M3	1.1 U
Methylene chloride	UG/M3	1.1 U

Flags assigned during chemistry validation are shown.

Made By AMK 6/5/06
Checked By 6/5/06

Detection Limits shown are PQL

TABLE 2
VALIDATED AIR SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		V-05S
Sample ID		902004-V-5S-DUP
Matrix		Soil Gas
Depth Interval (ft)		-
Date Sampled		04/13/06
Parameter	**Units**	Field Duplicate (1-1)
Volatile Organic Compounds		
Naphthalene	UG/M3	8.3
Propylene	UG/M3	6.0
Styrene	UG/M3	3.8
Tetrachloroethene	UG/M3	2.2 U
Tetrahydrofuran	UG/M3	3.5
Toluene	UG/M3	18.3
Trichloroethene	UG/M3	1.7 U
Trichlorofluoromethane	UG/M3	1.7 U
Vinyl acetate	UG/M3	1.1 U
Vinyl chloride	UG/M3	0.80 U
Xylene (total)	UG/M3	23.1

Flags assigned during chemistry validation are shown.

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Checked By 6/5/06

Detection Limits shown are PQL

TABLE 3

SUMMARY OF DETECTED CONSTITUENTS
GROUNDWATER ANALYTICAL DATA

TABLE 3
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		GW-02	GW-02	GW-03	GW-06
Sample ID		20060411-FD-1	902004-GW-2	902004-GW-3	902004-GW-6
Matrix		Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-
Date Sampled		04/11/06	04/11/06	04/13/06	04/12/06
Parameter	Units	Field Duplicate (1-1)			
Volatile Organic Compounds					
1,1,1-Trichloroethane	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	UG/L	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	UG/L	1 U	1 U	1 U	1 U
1,2-Dibromoethane (Ethylene dibromide)	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethene (cis)	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethene (trans)	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichloropropene (cis)	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichloropropene (trans)	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
2-Hexanone	UG/L	R	R	R	R
4-Methyl-2-pentanone	UG/L	5 U	5 U	5 U	5 U
Acetone	UG/L	R	R	6.05 J	R
Benzene	UG/L	0.11 J	0.5 U	0.5 U	0.5 U
Bromodichloromethane	UG/L	0.5 U	0.5 U	0.5 U	0.5 U

Flags assigned during chemistry validation are shown.

Made By AMK 6/5/06
Checked By 6/5/06

Detection Limits shown are PQL

TABLE 3
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		GW-02	GW-02	GW-03	GW-06
Sample ID		20060411-FD-1	902004-GW-2	902004-GW-3	902004-GW-6
Matrix		Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-
Date Sampled		04/11/06	04/11/06	04/13/06	04/12/06
Parameter	Units	Field Duplicate (1-1)			
Volatile Organic Compounds					
Bromoform	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	UG/L	1 U	1 U	1 U	1 U
Carbon disulfide	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Carbon tetrachloride	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	UG/L	1 U	1 U	1 U	1 U
Chloroform	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane	UG/L	1 U	1 U	1 U	1 U
Cyclohexane	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	UG/L	1 U	1 U	1 U	1 U
Ethylbenzene	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene (Cumene)	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Methyl acetate	UG/L	R	R	R	R
Methyl ethyl ketone (2-Butanone)	UG/L	R	R	R	R
Methyl tert-butyl ether	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Methylcyclohexane	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Methylene chloride	UG/L	2 U	2 U	2 U	2 U
Styrene	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	UG/L	0.12 J	0.5 U	0.10 J	0.5 U
Trichloroethene	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	UG/L	1 U	1 U	1 U	1 U

Flags assigned during chemistry validation are shown.

Made By AMK 6/5/06
Checked By 6/5/06

Detection Limits shown are PQL

TABLE 3
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		GW-02	GW-02	GW-03	GW-06
Sample ID		20060411-FD-1	902004-GW-2	902004-GW-3	902004-GW-6
Matrix		Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-
Date Sampled		04/11/06	04/11/06	04/13/06	04/12/06
Parameter	Units	Field Duplicate (1-1)			
Volatile Organic Compounds					
Vinyl chloride	UG/L	1 U	1 U	1 U	1 U
Xylene (total)	UG/L	1 U	1 U	1 U	1 U

Flags assigned during chemistry validation are shown.

Made By AMK 6/5/06
Checked By 6/5/06

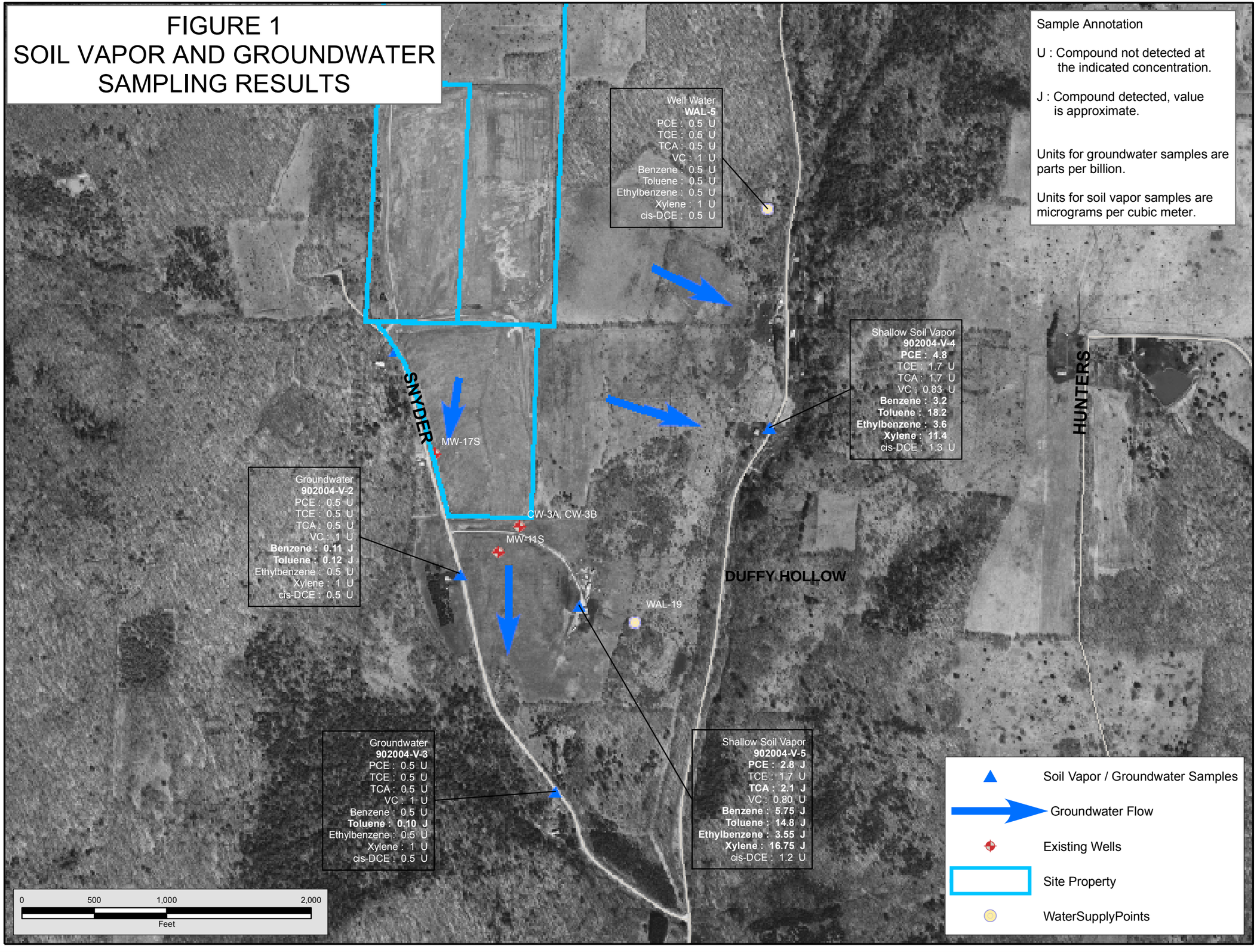
Detection Limits shown are PQL

J:\11174635.00000\DB\Program\EDMS.mdb
Printed: 6/5/2006 11:30:48 AM
[LOGDATE] > #4/01/2006# AND [MATRIX] = 'WG'

FIGURE 1

SHALLOW SOIL VAPOR AND GROUNDWATER SAMPLING RESULTS

FIGURE 1
SOIL VAPOR AND GROUNDWATER SAMPLING RESULTS



Sample Annotation

U : Compound not detected at the indicated concentration.

J : Compound detected, value is approximate.

Units for groundwater samples are parts per billion.

Units for soil vapor samples are micrograms per cubic meter.

New York State
Department of Environmental Conservation

Division of Environmental Remediation

Map Details

Created in ArcGIS 9.1

Created by T. Festa

Date of Last Revision: 06/29/2006

Wellsville-Andover Landfill
Site # 9-02-004

Allegany County
Town of Wellsville

DEC Contact:
Ross

DOH Contact:
Bethoney

Spring 2002
Aerial Photography

N
W
E
S

North American Datum 1983
UTM Zone 18N

ATTACHMENT A

URS Corp. Site Characterization Letter Report, July 2006.

LETTER REPORT

SOIL VAPOR INTRUSION EVALUATION FOR THE WELLSVILLE-ANDOVER LANDFILL SITE

SITE #9-02-004

WELLSVILLE, NEW YORK

Prepared For:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION
WORK ASSIGNMENT # D004433-2

Prepared By:

URS CORPORATION
77 GOODELL STREET
BUFFALO, NEW YORK 14203

DRAFT

JUNE 2006

TABLE OF CONTENTS

TABLES

(Following Text)

ATTACHMENTS

1.0 INTRODUCTION

The New York State Department of Environmental Conservation (NYSDEC) requested URS Corporation (URS), under it's State Superfund Standby Contract, to perform a Vapor Intrusion Evaluation at the Wellsville-Andover Landfill site (Site No. 9-02-004) in Wellsville, New York. The site consists of a capped and closed landfill that is surrounded by woodlands, agricultural land and several residences. Groundwater, soil vapor, and residential sub-slab and indoor air sampling were conducted to assess potential soil vapor intrusion of chlorinated volatile organic compounds (VOCs) into the residences that surround the landfill.

The results of this vapor intrusion evaluation are presented in this letter report. Section 2.0 includes a general description of the field activities completed. Section 3.0 provides the analytical results of the groundwater, soil vapor and residential sampling.

2.0 FIELD ACTIVITIES

The following field activities were completed at the Wellsville-Andover Landfill site during the soil vapor intrusion investigation**.** All of the fieldwork completed followed the requirements and specifications presented in the URS-prepared Work Plan, Field Sampling Plan and Health and Safety Plan.

- Site visit to mark out drilling locations;
- Drilling and installation of five shallow and one deep soil vapor implants;
- Sampling and analysis of soil vapor samples from two soil vapor implants;
- Sampling and analysis of three groundwater grab samples from soil borings and a spring;
- Scheduling of appointments for residential surveys and indoor air samples;

- Conducting interviews with homeowners and completing the indoor air quality questionnaire/residential building survey. For confidentiality purposes, homeowner questionnaires are not included in this report; and

- Collection of first floor indoor air samples, basement indoor air samples, outdoor air samples and sub-slab soil vapor samples at 3 residential locations.

Soil Vapor Implant Drilling and Installation

On April 6, 2006, representatives from URS, NYSDEC and the Town of Wellsville marked out drilling locations for soil vapor implants. Utility locators were also notified of the boring locations and completed utility mark outs.

On April 11 through 12, 2006, URS supervised the drilling and construction of temporary soil vapor implants at five locations. The locations were identified as 902004-V-1 through 902004-V-5 (see Table 1). GeoLogic NY, a drilling contractor from Homer, New York, performed the drilling. Soil vapor implant construction consisted of first drilling an approximate 3-inch diameter boring using direct-push drilling techniques and macro core drilling tools. A 6-inch long stainless steel screen (implant) was then placed in the borehole to the desired sampling depth and connected to a 3/8-inch diameter polyethylene tube brought to approximately 3-feet above ground surface. Sand or glass beads were placed in the borehole to cover the screen, and hydrated bentonite was then placed in the remainder of the borehole. Shallow soil gas implants were installed at each of the five locations, and a deep soil gas implant was installed at location 902004-V-1. Boring logs and soil vapor implant construction drawings are provided in Attachment A.

3.0 SAMPLE COLLECTION

Photographic Log

Photographs were taken during the sampling of the soil vapor implants and residences. No photos were collected for the sampling performed at the 3899 Snyder Road residence. A photographic log is provided in Attachment B.

Soil Vapor Sampling

One soil vapor sample was collected at location 902004-V-4 and location 902004-V-5 on April 13, 2006. Sample designations were 902004-V-4S and 902004-V-5S. A duplicate sample of 902004-V-5S was also collected and labeled 20060413–FD-2. Samples could not be collected at the other soil vapor implants because of shallow groundwater conditions. Soil vapor sampling and helium testing followed procedures presented in URS' approved Field Sampling Plan (URS, 2006). Samples were collected using 6-liter Summa® canisters over a two-hour period. During testing, helium tracer gas testing was conducted to ensure that the soil vapor samples were not affected by ambient air being drawn into the Summa® canisters. Soil vapor samples were shipped overnight to Pace Analytical Services (Pace) in Minneapolis, Minnesota for analysis of volatile organic compounds (VOCs) using USEPA Method TO-15.

A summary of the soil vapor samples collected is presented in Table 1. Validated analytical results are provided in the Data Usability Summary Report (DUSR) provided in Attachment C. Sample collection records are located in Attachment D and Chain of Custody forms are provided in Attachment E.

Groundwater Sampling

Three groundwater grab samples were collected from April 11 through 13, 2006. One sample, 902004-GW-2, was collected from an open borehole at location 902004-V-2. A

duplicate sample from this location was also collected and designated 200604-FD-1. A second sample, 902004-GW-3, was collected from a shallow soil vapor implant designated 902004-V-3S. A third groundwater sample was collected from a spring and designated 902004-GW-6. Groundwater samples GW-2 and GW-3 were collected using a peristaltic pump. The groundwater sample from the spring was collected from a garden hose supplied by the spring. Groundwater samples were shipped overnight to Life Science Laboratories of East Syracuse, New York.

Validated laboratory results for the groundwater samples are provided in the DUSR in Attachment C. Chain of Custody forms are provided in Attachment E.

Indoor Air, Outdoor Air, and Sub-slab Air Sampling

URS personnel performed residential building surveys and completed household product inventories prior to sampling. Procedures used followed those specified in the NYSDOH guidance (NYSDOH, 2005). URS collected indoor, sub-slab and outdoor air samples from two residences on April 13. A third residence was sampled on April 27, 2006 for indoor air, outdoor air and from a crawl space.

The samples were collected using six-liter Summa® canisters equipped with flow controller valves precalibrated at the laboratory to collect the sample over a 24-hour period. Household product inventories are provided in Attachment F. Sampling Field Logs (Summa® Canister Sampling Field Data Sheets) are presented in Attachment G and the Chain of Custody forms are provided in Attachment E.

All samples were shipped via Federal Express to Pace for analysis of VOCs using USEPA Method TO-15. Laboratory results are presented in the DUSR in Attachment B.

REFERENCES

New York State Department of Health (NYSDOH). 2005. Guidance for Evaluating Soil Vapor Intrusion in the State of New York. Public Comment Draft, February 2005.

URS Corporation (URS). 2006. Field Sampling Plan for the Vapor Intrusion Evaluations for New York State Remedial Sites.

URS. 2006. Vapor Intrusion Work Plan/Budget Estimate for Bell Aerosapce – Textron Site.

URS. 2006. Health and Safety Plan, Bell Aerospace – Textron Site.

New York State Department of Environmental Conservation

Soil Vapor Intrusion Evaluation

Work Assignment # D004433-2
Wellsville-Andover Landfill
Site # 902004

Table 1. Site Sampling Summary - Wellsville-Andover Landfill

Location ID	NYSDEC Sample ID	General Location/Comments	Date	Depth to GW (ft bgs)	Depth to SG Implant Base (ft bgs)	Leak-Test Successful? (yes or no)	Start Vacuum (in. Hg)	End Vacuum (in. Hg)	Start Time	Stop Time	Duration (hours)
902004-V-1S	Not sampled	Near landfill entrance gate at top of Snyder Rd./Soil Gas Implant	4/11/2006	< 8	8.0	NA	NA	NA	NA	NA	NA
902004-V-1D	Not sampled	Near landfill entrance gate at top of Snyder Rd./Soil Gas Implant	4/11/2006	< 8	18.5	NA	NA	NA	NA	NA	NA
902004-V-2S	Not Sampled	Adjacent to residence at 3899 Snyder Road/Soil Gas Implant	4/11/2006	2	4.0	NA	NA	NA	NA	NA	NA
902004-V-2D	Not Sampled	Adjacent to residence at 3899 Snyder Road./Open borehole	4/11/2006	2	NA	NA	NA	NA	NA	NA	NA
902004-V-2D	902004-GW-2	Adjacent to residence at 3899 Snyder Road/GW sample from open borehole	4/11/2006	2	4.0	NA	NA	NA	NA	NA	NA
902004-V-3S	Not sampled	1,500 ft S.of V-2 location on Snyder Road/Soil Gas Implant	4/12/2006	NA	4.0	NA	NA	NA	NA	NA	NA
902004-V-3S	902004-GW-3	1,500 ft S.of V-2 location on Snyder Road/GW sample from soil gas implant	4/13/2006	NA	4.0	NA	NA	NA	NA	NA	NA
902004-V-4S	902004-V-4S	Western Edge of Dufy Hollow Road/Soil gas sample from implant	4/12/2006	NA	4.0	Yes	-30	-6.5	1510	1710	2
902004-V-5S	902004-V-5S	LaDue Residence at 3914 Snyder Road/Soil gas sample from implant	4/12/2006	NA	4.0	Yes	-30	-4	1347	1547	2
902004-GW-6	902004-GW-6	Ormsby Residence at 4011 Duffy Hollow Road/GW sample from spring	4/12/2006	NA	NA	NA	NA	NA	NA	NA	NA
902004-SS-1A	902004-SS-1A	Ormsby Residence at 4011 Duffy Hollow Road/Sub-slab sample	4/13/2006	NA	NA	NA	-30	-10	940	940	24

Table 1. Site Sampling Summary - Wellsville-Andover Landfill (cont'd)

Location ID	NYSDEC Sample ID	General Location/Comments	Date	Depth to GW (ft bgs)	Depth to SG Implant Base (ft bgs)	Leak-Test Successful? (yes or no)	Start Vacuum (in. Hg)	End Vacuum (in. Hg)	Start Time	Stop Time	Duration (hours)
902004-SS-1B	902004-SS-1B	Ormsby Residence at 4011 Duffy Hollow Road/Sub-slab sample	4/13/2006	NA	NA	NA	-30	-3	945	945	24
902004-BA-1	902004-BA-1	Ormsby Residence at 4011 Duffy Hollow Road/Basement sample	4/13/2006	NA	NA	NA	-28	0	952	940	24
902004-FA-1	902004-FA-1	Ormsby Residence at 4011 Duffy Hollow Road/First floor sample	4/13/2006	NA	NA	NA	-28	-2	951	951	24
902004-OA-1	902004-OA-1	Ormsby Residence at 4011 Duffy Hollow Road/Outside air sample	4/13/2006	NA	NA	NA	-30	-2	958	958	24
902004-SS-2	902004-SS-2	LaDue Residence at 3914 Snyder Road/Sub-slab sample	4/13/2006	NA	NA	NA	-30	-4	1046	1046	24
902004-BA-2	902004-BA-2	LaDue Residence at 3914 Snyder Road/Basement sample	4/13/2006	NA	NA	NA	-30	-5	1048	1048	24
902004-FA-2	902004-FA-2	LaDue Residence at 3914 Snyder Road/First floor sample	4/13/2006	NA	NA	NA	-30	-4.5	1052	1052	24
902004-OA-2	902004-OA-2	LaDue Residence at 3914 Snyder Road/Outside air sample	4/13/2006	NA	NA	NA	-30	-6.5	1102	1100	24
902004-CS-3	902004-CS-3	Rosini Residence at 3899 Snyder Road/Crawl-space air sample	4/27/2006	NA	NA	NA	-30	-3	1416	1342	22.8
902004-FA-3	902004-FA-3	Rosini Residence at 3899 Snyder Road/First-floor air sample	4/27/2006	NA	NA	NA	-30	-5	1407	740	12.9
902004-OA-3	902004-OA-3	Rosini Residence at 3899 Snyder Road/Outside air sample	4/27/2006	NA	NA	NA	-30	-5	1412	921	15.8

NA = Not Applicable
GW = Groundwater
SS = Sub-slab
BA = Basement Ambient
FA = First Floor Ambient
OA = Outside Ambient
CS = Crawl Space

URS Corporation

TEST BORING LOG

BORING NO: 902004-V-1D
PROJECT: Wellsville Vapor Intrusion Investigation
SHEET: 1 of 1
CLIENT: NYSDEC
JOB NO.: 11174635.00000
BORING CONTRACTOR: GeoLogic NY, Inc.
BORING LOCATION: Snyder Road
GROUNDWATER:
GROUND ELEVATION: NA
DATE STARTED: 4/11/06
DATE FINISHED: 4/11/06
DRILLER: Jud Powell
GEOLOGIST: John Boyd
REVIEWED BY:

DATE	TIME	LEVEL	TYPE	TYPE	CAS.	SAMPLER	CORE	TUBE
				DIA.		2"		
				WT.		--		
				FALL		--		

* POCKET PENETROMETER READING

DEPTH FEET	SAMPLE STRATA	NO.	TYPE	RECOVERY %	COLOR	DESCRIPTION MATERIAL DESCRIPTION	USCS	REMARKS PID	REMARKS MOISTURE
		1	Macro Core	100%	Brown	0-0.3'. SILT, some organics.	ML	0 ppm	Moist
					yellow brown	0.3-1.2'. SILT, trace very fine gravel.	ML		
						1.2-1.5'. SILT, some broken fine to med. gravel.	GM		
						1.5-4.0'. SILT, trace crumbly clay w/ gray mottling.	ML		
5		2	Macro Core	96%		4-8'. SILT, trace clay and fine gravel.	ML	0 ppm	
		3	Macro Core	100%		8-11.5'. SILT, little clay and very fine to med. gravel.	GM	0 ppm	
10						11.5-12.0'. SILT and CLAY, some fine to med. gravel	CL		
		4	Macro Core	75%		12.0-12.9'. SILT, some clay.	CL	0 ppm	wet
						12.9-15.0'. SILT and CLAY, some f. to med. gravel	CL		moist
15						15.0-15.5'. Silt, trace clay.	ML		wet
					gray/br.	15.5-16.0'. SILT and CLAY	CL		
		5	Macro Core	63%		16.0-17.0'. SILT and CLAY.	CL	0 ppm	
						17.0-18.5'. SILT and CLAY, some f. to med. gravel	CL		
						Refusal on rock at 18.5'			
20									
25									
30									
35									

COMMENTS: Geoprobe 5400 using a 4' x 3" macrocore to a depth of 18.5' BGS.
Soil vapor implant installed at 18.5' bgs (see well construction diagram).

PROJECT NO. 11174635.00000
BORING NO. 902004-V-1D

URS Corporation

TEST BORING LOG

BORING NO: 902004-V-1S
PROJECT: Wellsville Vapor Intrusion Investigation
SHEET: 1 of 1
CLIENT: NYSDEC
JOB NO.: 11174635.00000
BORING CONTRACTOR: GeoLogic NY, Inc.
BORING LOCATION: Snyder Road
GROUNDWATER:
GROUND ELEVATION: NA

DATE	TIME	LEVEL	TYPE		CAS.	SAMPLER	CORE	TUBE
				TYPE		Macrocore		
				DIA.		2"		
				WT.		--		
				FALL		--		

DATE STARTED: 4/11/06
DATE FINISHED: 4/11/06
DRILLER: Jud Powell
GEOLOGIST: John Boyd
REVIEWED BY:

*** POCKET PENETROMETER READING**

DEPTH FEET	SAMPLE STRATA	SAMPLE NO.	SAMPLE TYPE	SAMPLE RECOVERY %	SAMPLE COLOR	DESCRIPTION MATERIAL DESCRIPTION	DESCRIPTION USCS	REMARKS PID	REMARKS MOISTURE
		1	Macro Core			**See boring log for 902004-V-1D for geologic descriptions.**			
5		2	Macro Core						
						Terminate boring at 8' BGS			
10									
20									
25									
30									
35									

COMMENTS: Geoprobe 5400 using a 4' x 3" macrocore to a depth of 8' BGS.
Soil vapor implant installed at 8.0' bgs (see well construction diagram).

PROJECT NO. 11174635.00000
BORING NO. 902004-V-1S

URS Corporation

TEST BORING LOG

BORING NO: 902004-V-2D
PROJECT: Wellsville Vapor Intrusion Investigation
SHEET: 1 of 1
CLIENT: NYSDEC
JOB NO.: 11174635.00000
BORING CONTRACTOR: GeoLogic NY, Inc.
BORING LOCATION: Snyder Road
GROUNDWATER:
GROUND ELEVATION: NA
DATE STARTED: 4/11/06
DATE FINISHED: 4/11/06
DRILLER: Jud Powell
GEOLOGIST: John Boyd
REVIEWED BY:

DATE	TIME	LEVEL	TYPE		CAS.	SAMPLER	CORE	TUBE
				TYPE		Macrocore		
				DIA.		2"		
				WT.		--		
				FALL		--		

* POCKET PENETROMETER READING

DEPTH FEET	SAMPLE STRATA	NO.	TYPE	RECOVERY %	COLOR	DESCRIPTION MATERIAL DESCRIPTION	USCS	REMARKS PID	REMARKS MOISTURE
		1	Macro Core	77%	Brown	0-0.3'. SILT, some organics, trace v.f. gravel.	ML	0 ppm	Moist
						0.3-1.3'. SILT, some fine -med.-sand and gravel.	GM		
					light	1.3-2.6'. SILT, some clay and v.f.to med. gravel	GM		
					brown	2.6-4.0'. SILT, little f.-med. gravel.	GM		dry
5		2	Macro Core	100%		4-8'. Clayey SILT, some broken rock fragments (limestone), gray mottling noted.	GM	0 ppm	moist
		3	Macro Core	67%		8.0-8.3'. SILT, some f-med. gravel and med. sand	GM	0 ppm	wet
10						8.3-8.8'. Rock fragments, some clayey silt.	GM		moist
						8.8-10.7'. Clayey SILT, some f-med. Gravel, tr. sand	GM		
						10.7-12.0'. Silty CLAY, little rounded f. gravel.	GM		
		4	Macro Core	100%	gray-	12.0-12.4'. SILT, some vf.-fine gravel.	GM	0 ppm	wet
15					brown	12.4-16.0'. Clayey SILT, some vf. - med. gravel, trace sand	GM		moist
						End of boring at 16'			
20									
25									
30									
35									

COMMENTS: Geoprobe 5400 using a 4' x 3" macrocore to a depth of 16' BGS.
Soil vapor implant never installed. Borehole filled with bentonite.

PROJECT NO. 11174635.00000
BORING NO. 902004-V-2D

URS Corporation

TEST BORING LOG

BORING NO: 902004-V-2S
PROJECT: Wellsville Vapor Intrusion Investigation
SHEET: 1 of 1
CLIENT: NYSDEC
JOB NO.: 11174635.00000
BORING CONTRACTOR: GeoLogic NY, Inc.
BORING LOCATION: Snyder Road
GROUNDWATER:
GROUND ELEVATION: NA

DATE	TIME	LEVEL	TYPE		CAS.	SAMPLER	CORE	TUBE
				TYPE		Macrocore		
				DIA.		2"		
				WT.		--		
				FALL		--		

*** POCKET PENETROMETER READING**

DATE STARTED: 4/11/06
DATE FINISHED: 4/11/06
DRILLER: Jud Powell
GEOLOGIST: John Boyd
REVIEWED BY:

DEPTH FEET	SAMPLE STRATA	SAMPLE NO.	SAMPLE TYPE	SAMPLE RECOVERY %	SAMPLE COLOR	DESCRIPTION MATERIAL DESCRIPTION	DESCRIPTION USCS	REMARKS PID	REMARKS MOISTURE
		1	Macro Core			**See boring log for 902004-V-2D for geologic descriptions.**			
5		2	Macro Core						
						Terminate boring at 4' BGS			
10									
20									
25									
30									
35									

COMMENTS: Geoprobe 5400 using a 4' x 3" macrocore to a depth of 4' BGS.
Soil vapor implant installed at 4.0' bgs (see well construction diagram).

PROJECT NO. 11174635.00000
BORING NO. 902004-V-2S

URS Corporation

TEST BORING LOG

BORING NO: 902004-V-3S
PROJECT: Wellsville Vapor Intrusion Investigation
SHEET: 1 of 1
CLIENT: NYSDEC
JOB NO.: 11174635.00000
BORING CONTRACTOR: GeoLogic NY, Inc.
BORING LOCATION: Snyder Road
GROUNDWATER:
GROUND ELEVATION: NA
DATE STARTED: 4/12/06
DATE FINISHED: 4/12/06
DRILLER: Jud Powell
GEOLOGIST: John Boyd
REVIEWED BY:

DATE	TIME	LEVEL	TYPE		CAS.	SAMPLER	CORE	TUBE
				TYPE		Macrocore		
				DIA.		2"		
				WT.		--		
				FALL		--		

* POCKET PENETROMETER READING

DEPTH FEET	SAMPLE STRATA	NO.	TYPE	RECOVERY %	COLOR	DESCRIPTION MATERIAL DESCRIPTION	USCS	REMARKS PID	REMARKS MOISTURE
		1	Macro Core	58%	Brown	0-0.7'. SILT, some organics and med. Sand and v.f. gravel	GM	0 ppm	moist
					light brown	0.7-4.0'. SILT, some f-med. Sand and f-med. gravel	GM	0 ppm	moist
5									
						Terminate boring at 4' BGS			
10									
20									
25									
30									
35									

COMMENTS: Geoprobe 5400 using a 4' x 3" macrocore to a depth of 4' BGS.
Soil vapor implant installed at 4.0' bgs (see well construction diagram).

PROJECT NO. 11174635.00000
BORING NO. 902004-V-3S

URS Corporation

TEST BORING LOG

BORING NO: 902004-V-4S
PROJECT: Wellsville Vapor Intrusion Investigation
SHEET: 1 of 1
CLIENT: NYSDEC
JOB NO.: 11174635.00000
BORING CONTRACTOR: GeoLogic NY, Inc.
BORING LOCATION: Duffy Hollow Road
GROUNDWATER:
GROUND ELEVATION: NA
DATE STARTED: 4/12/06
DATE FINISHED: 4/12/06
DRILLER: Jud Powell
GEOLOGIST: John Boyd
REVIEWED BY:

DATE	TIME	LEVEL	TYPE		CAS.	SAMPLER	CORE	TUBE
				TYPE		Macrocore		
				DIA.		2"		
				WT.		--		
				FALL		--		

* POCKET PENETROMETER READING

DEPTH FEET	SAMPLE STRATA	NO.	TYPE	RECOVERY %	COLOR	DESCRIPTION MATERIAL DESCRIPTION	USCS	REMARKS PID	REMARKS MOISTURE
		1	Macro Core	69%	Brown	0-0.3'. SILT, some organics and f.-med. Gravel, trace sand.	GM	0 ppm	moist
						0.3-4.0'. Clayey SILT, some f-med. Gravel and med. Sand.	GM	0 ppm	moist
5									
						Terminate boring at 4' BGS			
10									
20									
25									
30									
35									

COMMENTS: Geoprobe 5400 using a 4' x 3" macrocore to a depth of 4' BGS.
Soil vapor implant installed at 4.0' bgs (see well construction diagram).

PROJECT NO. 11174635.00000
BORING NO. 902004-V-4S

URS Corporation

TEST BORING LOG

BORING NO: 902004-V-5S

PROJECT: Wellsville Vapor Intrusion Investigation | **SHEET:** 1 of 1

CLIENT: NYSDEC | **JOB NO.:** 11174635.00000

BORING CONTRACTOR: GeoLogic NY, Inc. | **BORING LOCATION:** La Due Residence

GROUNDWATER: | **GROUND ELEVATION:** NA

DATE	TIME	LEVEL	TYPE		CAS.	SAMPLER	CORE	TUBE
				TYPE		Macrocore		
				DIA.		2"		
				WT.		--		
				FALL		--		

DATE STARTED: 4/12/06

DATE FINISHED: 4/12/06

DRILLER: Jud Powell

GEOLOGIST: John Boyd

*** POCKET PENETROMETER READING**

REVIEWED BY:

DEPTH FEET	SAMPLE STRATA	SAMPLE NO.	SAMPLE TYPE	SAMPLE RECOVERY %	DESCRIPTION COLOR	DESCRIPTION MATERIAL DESCRIPTION	USCS	REMARKS PID	REMARKS MOISTURE
		1	Macro Core	73%	Brown light brown	0-0.3'. SILT, some organics and fine gravel, trace sand.	GM	0 ppm	moist
						0.3-2.5'. Clayey SILT, some sand and f-med gravel	GM	0 ppm	moist
						2.5-4.0'. SILT and f.-med. gravel, tr. sand	GM	0 ppm	moist
5									
	Terminate boring at 4' BGS								
10									
20									
25									
30									
35									

COMMENTS: Geoprobe 5400 using a 4' x 3" macrocore to a depth of 4' BGS.

Soil vapor implant installed at 4.0' bgs (see well construction diagram).

PROJECT NO. 11174635.00000

BORING NO. 902004-V-5S

DRILLING SUMMARY

Geologist: John Boyd

Drilling Company: Geologic NY, Inc.

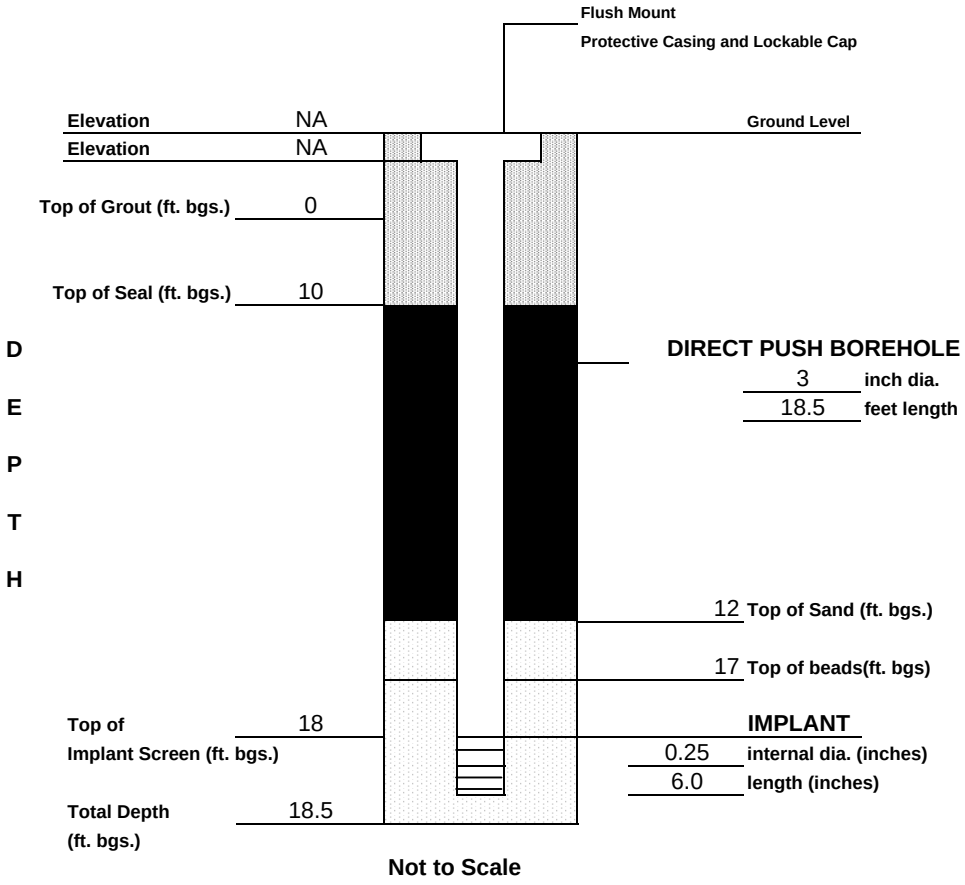
Driller: Jud Powell

Rig Make/Model: Geoprobe 5400

Date: 4/11/2006

GEOLOGIC LOG

Depth(ft.)	Description
	See Boring Log



WELL DESIGN

CASING MATERIAL		*SCREEN MATERIAL*		*FILTER MATERIAL*		
Surface:	Soil	**Type:**	6-inch stainless steel implant	**Type:** #1 Sand	**Setting:**	17.0-12.0
				Glass beads	**Setting:**	18.5-17.0
				SEAL MATERIAL		
Well:	3/8-inch OD polyethylene tubing	**Pore Diameter:**	0.0057-inch	**Type:** Bentonite	**Setting:**	12.0-10.0
				Grout	**Setting:**	10.0-0.0
				Concrete	**Setting:**	NA

COMMENTS:

Implant connected to anchor point at bottom of boring. 3/8-inch outside diameter (OD) poly tubing connected from implant to surface for soil gas sampling.

LEGEND

- Cement/Bentonite Grout
- Bentonite Seal
- Silica Sandpack

Client: NYSDEC	**Location: Wellsville, NY**	**11174635**
URS Corporation	**SOIL GAS CONDUIT CONSTRUCTION DETAILS**	**Well Number: 902004-V-1D**

J:\11174635.00000\EXCEL\[Soil Gas Well Construction Logs.xls]902004-V-1D

DRILLING SUMMARY

Geologist: John Boyd

Drilling Company: Geologic NY, Inc.

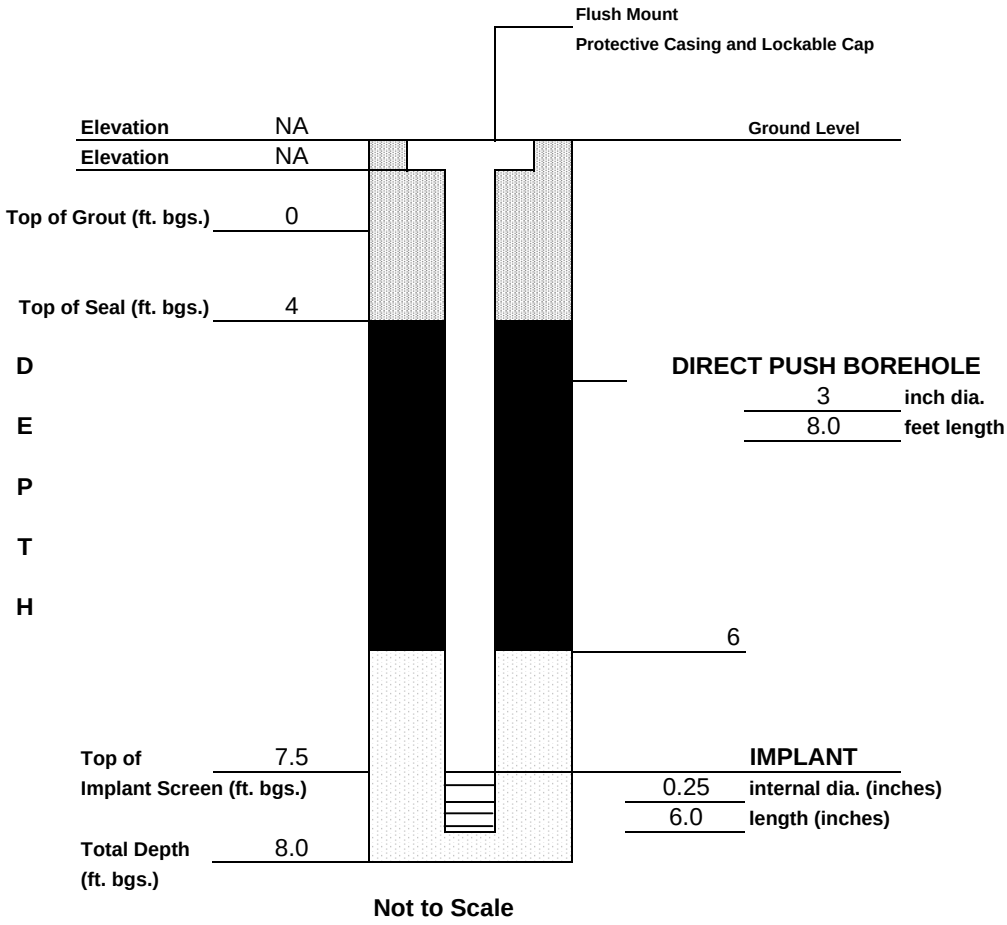
Driller: Jud Powell

Rig Make/Model: Geoprobe 5400

Date: 4/11/2006

GEOLOGIC LOG

Depth(ft.)	Description
	See Boring Log



WELL DESIGN

CASING MATERIAL		*SCREEN MATERIAL*		*FILTER MATERIAL*			
Surface:	Soil	**Type:**	6-inch stainless steel implant	**Type:**	Glass beads	**Setting:**	8.0-6.0
				SEAL MATERIAL			
Well:	3/8-inch OD polyethylene tubing	**Pore Diameter:**	0.0057-inch	**Type:**	Bentonite	**Setting:**	6.0-4.0
					Grout	**Setting:**	4.0-0.0
					Concrete	**Setting:**	NA

COMMENTS:

Implant connected to anchor point at bottom of boring. 3/8-inch outside diameter (OD) poly tubing connected from implant to surface for soil gas sampling.

LEGEND

- Cement/Bentonite Grout
- Bentonite Seal
- Silica Sandpack

Client: NYSDEC	**Location: Wellsville, NY**	**Project No.: 11174635**
URS Corporation	**SOIL GAS CONDUIT CONSTRUCTION DETAILS**	**Well Number: 902004-V-1S**

J:\11174635.00000\EXCEL\[Soil Gas Well Construction Logs.xls]902004-V-1S

DRILLING SUMMARY

Geologist: John Boyd

Drilling Company: Geologic NY, Inc.

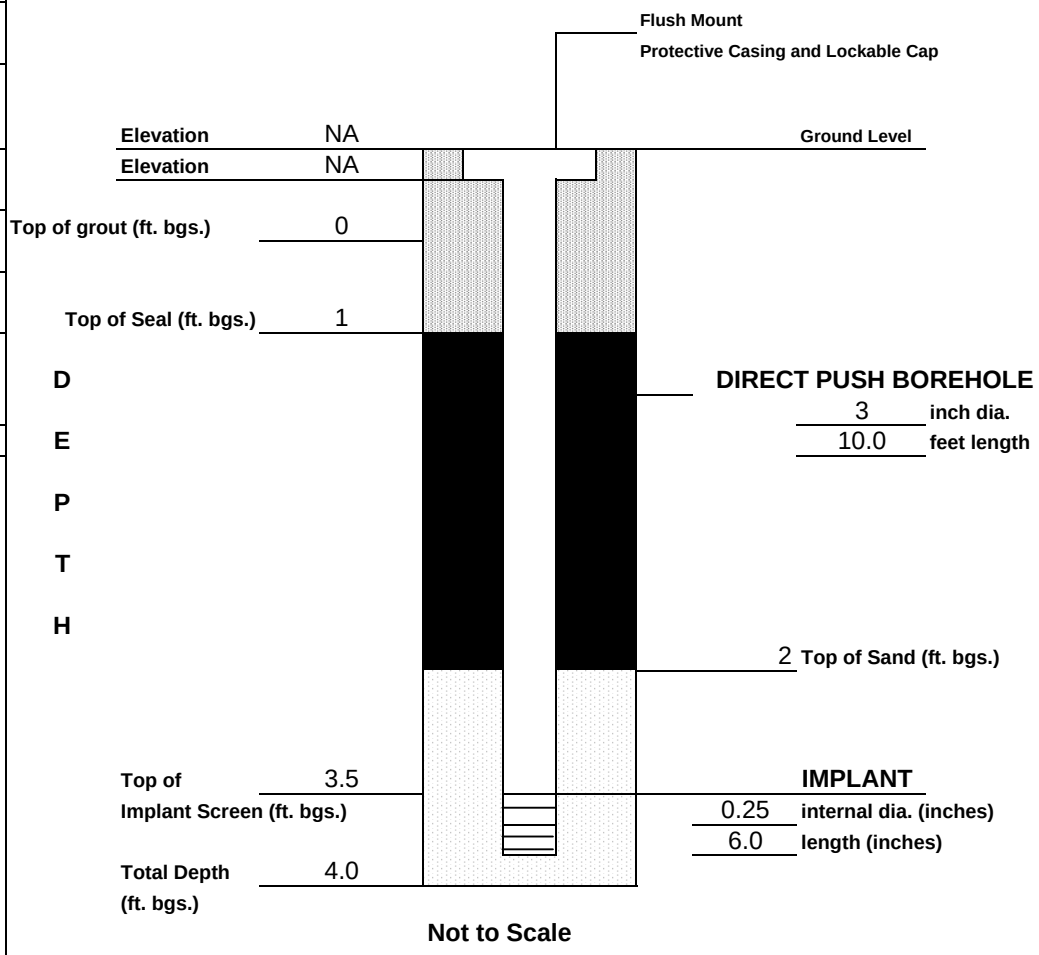
Driller: Jud Powell

Rig Make/Model: Geoprobe 5400

Date: 4/11/2006

GEOLOGIC LOG

Depth(ft.)	Description
	See Boring Log



WELL DESIGN

CASING MATERIAL		*SCREEN MATERIAL*		*FILTER MATERIAL*			
Surface:	Soil	**Type:**	6-inch stainless steel implant	**Type:**	#1 Sand	**Setting:**	4.0-2.0
				SEAL MATERIAL			
Well:	3/8-inch OD polyethylene tubing	**Pore Diameter:**	0.0057-inch	**Type:**	Bentonite	**Setting:**	2.0-1.0
					Grout	**Setting:**	1.0-0.0
					Concrete	**Setting:**	NA

COMMENTS:

Implant connected to anchor point at bottom of boring. 3/8-inch outside diameter (OD) poly tubing connected from implant to surface for soil gas sampling.

LEGEND

- Cement/Bentonite Grout
- Bentonite Seal
- Silica Sandpack

Client: NYSDEC	**Location: Wellsville, NY**	**Project No.: 11174635**
URS Corporation	**SOIL GAS CONDUIT CONSTRUCTION DETAILS**	**Well Number: 902004-V-2S**

DRILLING SUMMARY

Geologist: John Boyd

Drilling Company: Geologic NY, Inc.

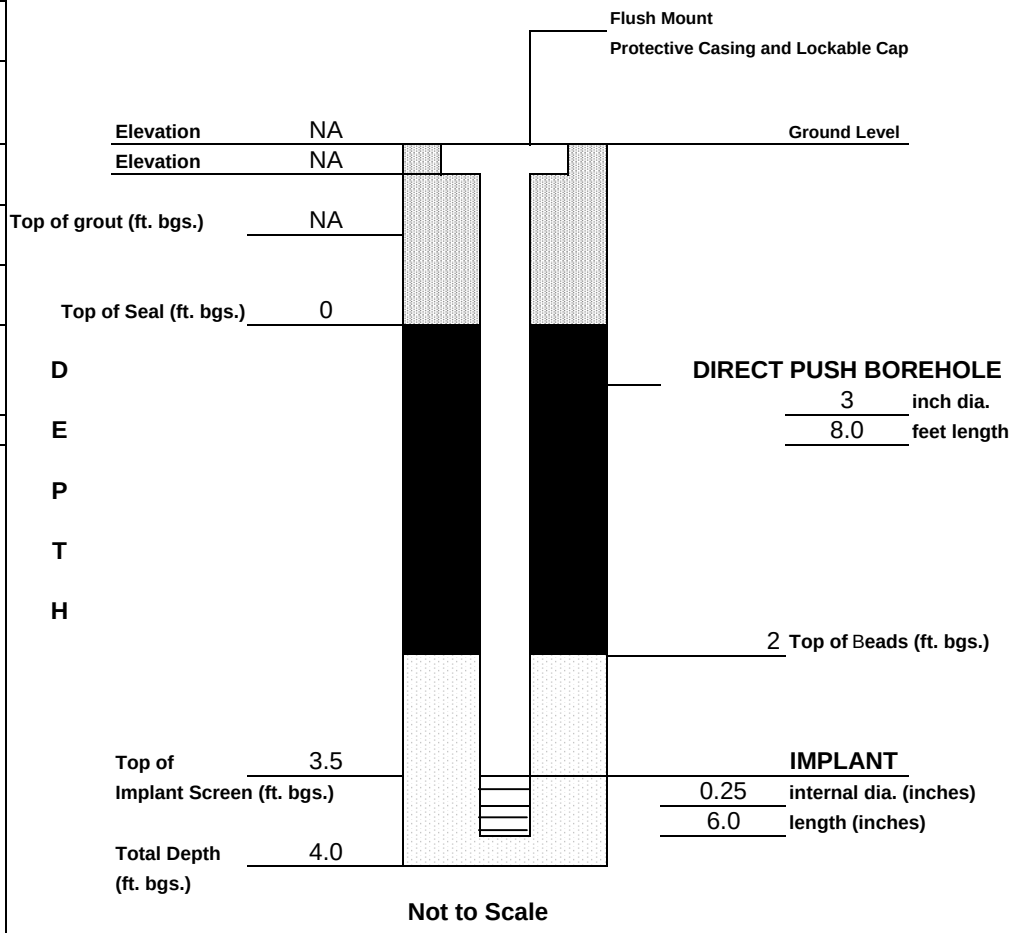
Driller: Jud Powell

Rig Make/Model: Geoprobe 5400

Date: 4/12/2006

GEOLOGIC LOG

Depth(ft.)	Description
	See Boring Log



WELL DESIGN

CASING MATERIAL	*SCREEN MATERIAL*	*FILTER MATERIAL*
Surface: Soil	**Type:** 6-inch stainless steel implant	**Type:** Glass Beads **Setting:** 4.0-2.0
Well: 3/8-inch OD polyethylene tubing	**Pore Diameter:** 0.0057-inch	***SEAL MATERIAL***
		Type: Bentonite **Setting:** 2.0-0.0
		Grout **Setting:** NA
		Concrete **Setting:** NA

COMMENTS:

Implant connected to anchor point at bottom of boring. 3/8-inch outside diameter (OD) poly tubing connected from implant to surface for soil gas sampling.

LEGEND

- Cement/Bentonite Grout
- Bentonite Seal
- Silica Sandpack

Client: NYSDEC	**Location: Wellsville, NY**	**Project No.: 11174635**
URS Corporation	**SOIL GAS CONDUIT CONSTRUCTION DETAILS**	**Well Number: 902004-V-3S**

J:\11174635.00000\EXCEL\[Soil Gas Well Construction Logs.xls]902004-V-3S

DRILLING SUMMARY

Geologist: John Boyd

Drilling Company: Geologic NY, Inc.

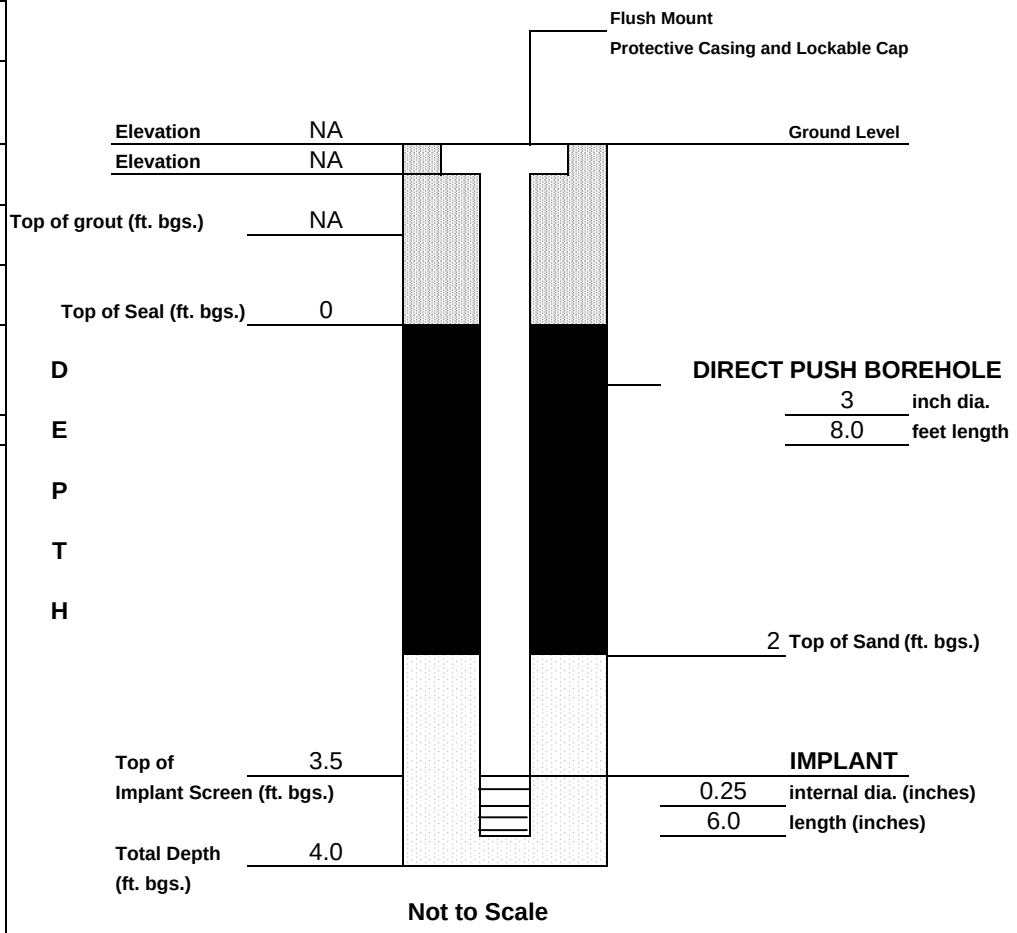
Driller: Jud Powell

Rig Make/Model: Geoprobe 5400

Date: 4/12/2006

GEOLOGIC LOG

Depth(ft.)	Description
	See Boring Log



WELL DESIGN

CASING MATERIAL	*SCREEN MATERIAL*	*FILTER MATERIAL*
Surface: Soil	**Type:** 6-inch stainless steel implant	**Type:** #1 Sand **Setting:** 4.0-2.0
Well: 3/8-inch OD polyethylene tubing	**Pore Diameter:** 0.0057-inch	***SEAL MATERIAL***
		Type: Bentonite **Setting:** 2.0-0.0
		Grout **Setting:** NA
		Concrete **Setting:** NA

COMMENTS:

Implant connected to anchor point at bottom of boring. 3/8-inch outside diameter (OD) poly tubing connected from implant to surface for soil gas sampling.

LEGEND

- Cement/Bentonite Grout
- Bentonite Seal
- Silica Sandpack

Client: NYSDEC	**Location: Wellsville, NY**	**Project No.: 11174635**
URS Corporation	**SOIL GAS CONDUIT CONSTRUCTION DETAILS**	**Well Number: 902004-V-4S**

J:\11174635.00000\EXCEL\[Soil Gas Well Construction Logs.xls]902004-V-4S

DRILLING SUMMARY

Geologist: John Boyd

Drilling Company: Geologic NY, Inc.

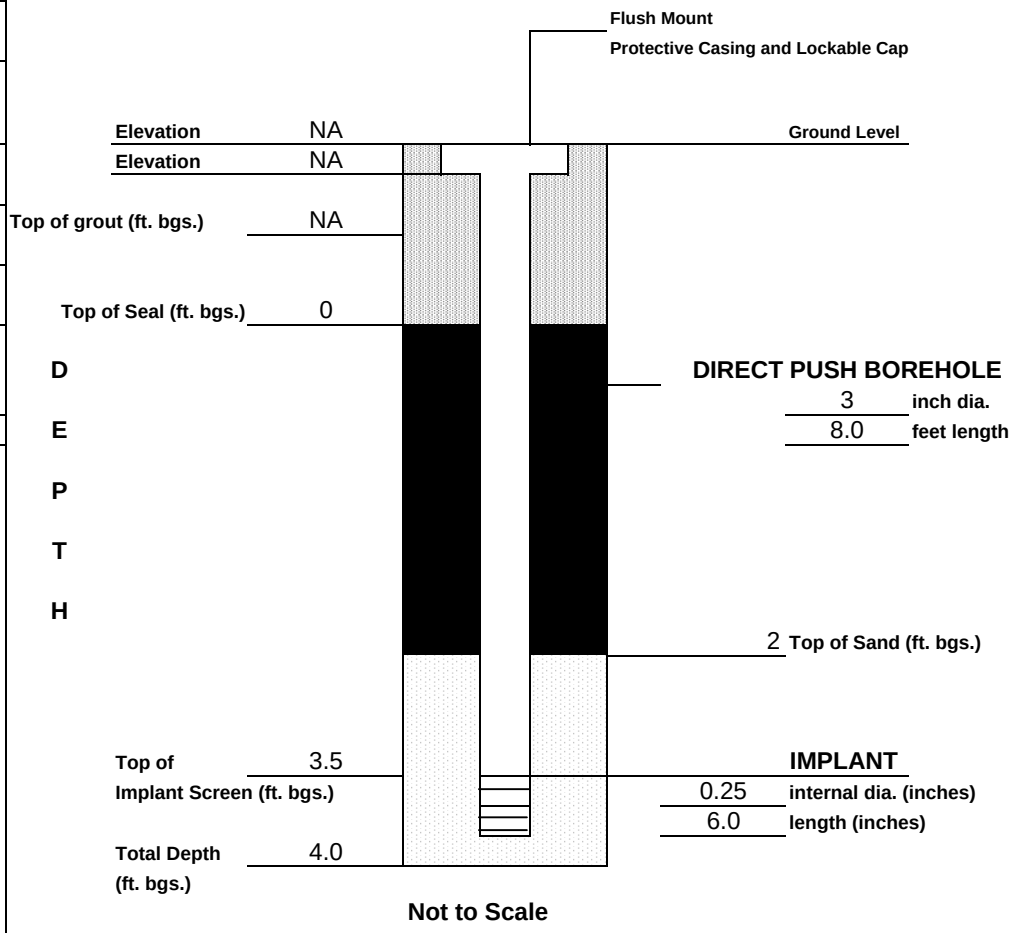
Driller: Jud Powell

Rig Make/Model: Geoprobe 5400

Date: 4/12/2006

GEOLOGIC LOG

Depth(ft.)	Description
	See Boring Log



WELL DESIGN

CASING MATERIAL	*SCREEN MATERIAL*	*FILTER MATERIAL*
Surface: Soil	**Type:** 6-inch stainless steel implant	**Type:** #1 Sand **Setting:** 4.0-2.0
Well: 3/8-inch OD polyethylene tubing	**Pore Diameter:** 0.0057-inch	***SEAL MATERIAL***
		Type: Bentonite **Setting:** 2.0-0.0
		Grout **Setting:** NA
		Concrete **Setting:** NA

COMMENTS:

Implant connected to anchor point at bottom of boring. 3/8-inch outside diameter (OD) poly tubing connected from implant to surface for soil gas sampling.

LEGEND

- Cement/Bentonite Grout
- Bentonite Seal
- Silica Sandpack

Client: NYSDEC	**Location: Wellsville, NY**	**Project No.: 11174635**
URS Corporation	**SOIL GAS CONDUIT CONSTRUCTION DETAILS**	**Well Number: 902004-V-5S**

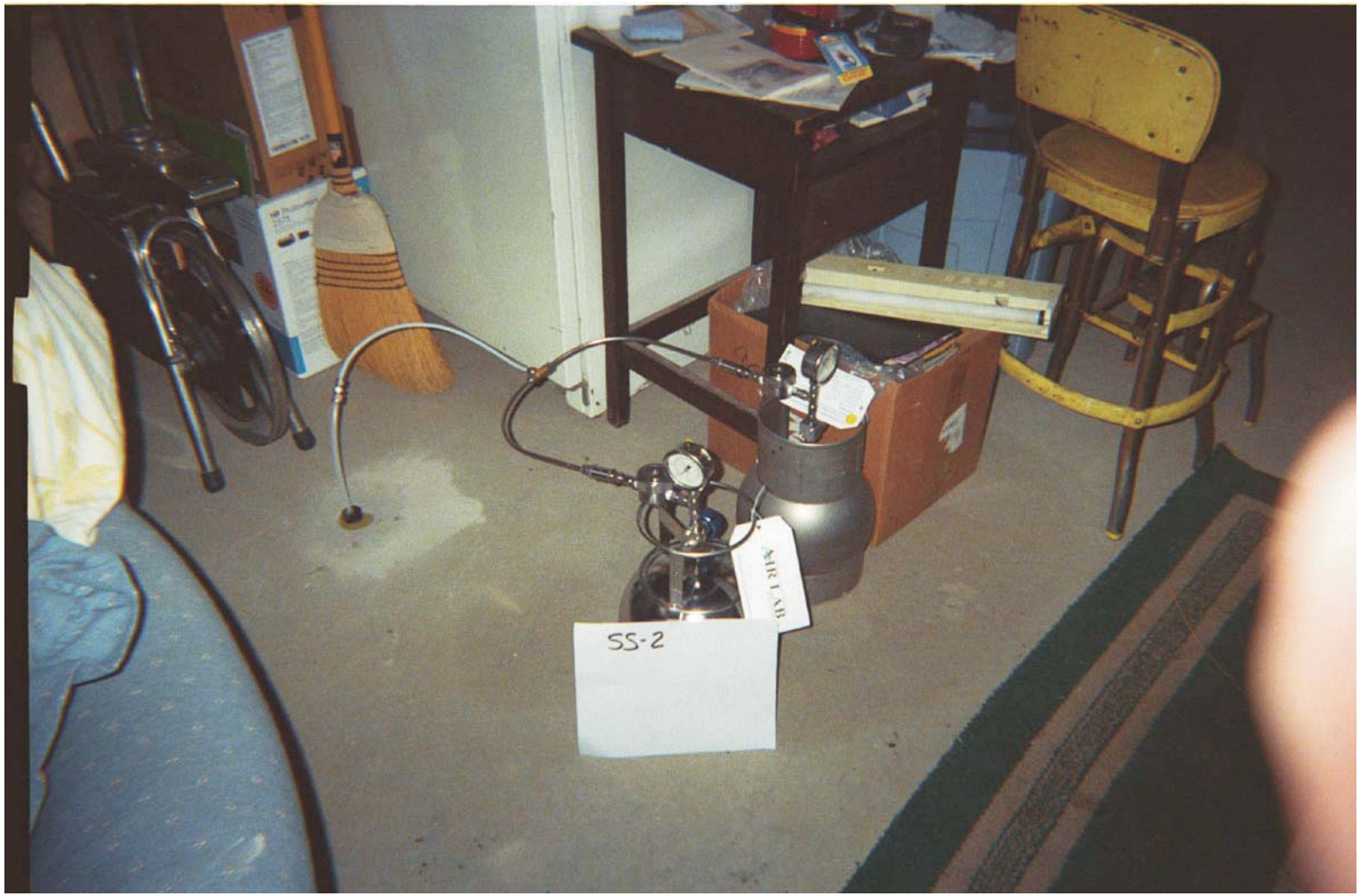
J:\11174635.00000\EXCEL\[Soil Gas Well Construction Logs.xls]902004-V-5S

902004-SS-1A
Wellsville-Andover Landfill Site

902004-SS-1B
Wellsville-Andover Landfill Site

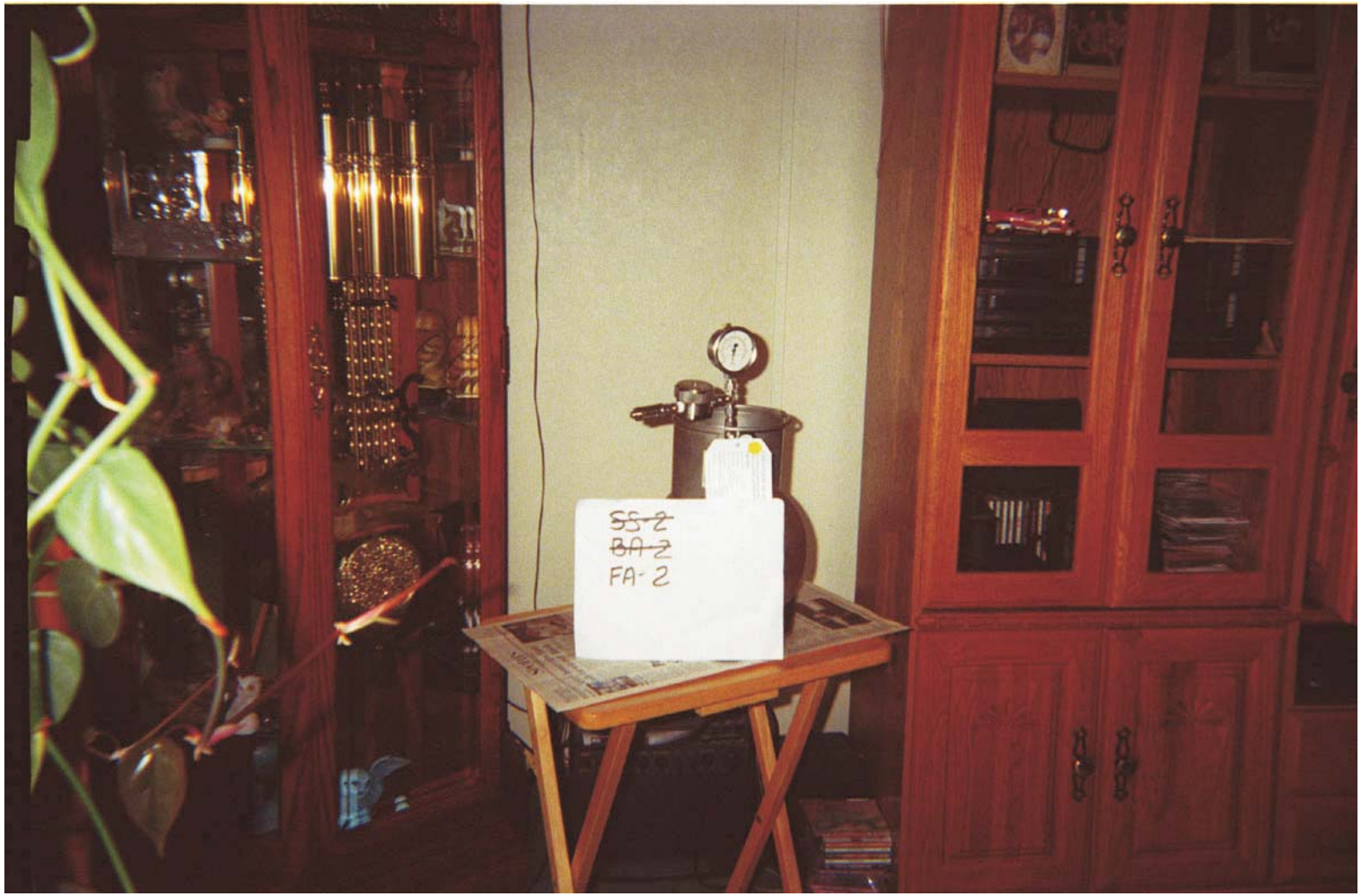
902004-BA-1
Wellsville-Andover Landfill Site

902004-FA-1
Wellsville-Andover Landfill Site



902004-SS-2
Wellsville-Andover Landfill Site

902004-BA-2
Wellsville-Andover Landfill Site



902004-FA-2
Wellsville-Andover Landfill Site

902004-OA-2
Wellsville-Andover Landfill Site

902004-OA-1
Wellsville-Andover Landfill Site

902004-V-4S
Wellsville-Andover Landfill Site

902004-V-5S
Wellsville-Andover Landfill Site

DATA USABILITY SUMMARY REPORT

WELLSVILLE-ANDOVER LANDFILL
SITE NO. 9-02-004
WORK ASSIGNMENT D004433-2

Analyses Performed by:

PACE ANALYTICAL SERVICES, INC.
and LIFE SCIENCE LABORATORIES, INC. - BRITTONFIELD

Prepared by:

URS CORPORATION
77 GOODELL STREET
BUFFALO, NY 14203

JUNE 2006

TABLE OF CONTENTS

TABLES

(Following Text)

ATTACHMENTS

I. INTRODUCTION

This Data Usability Summary Report (DUSR) has been prepared following the guidelines provided in New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation *Guidance for the Development of Data Usability Summary Reports*, dated June 1999. Analytical data for the soil gas, sub-slab, indoor and ambient air samples collected on April 13 and 28, 2006 are discussed in this DUSR. Analytical data for the groundwater samples collected on April 11 and 13, 2006 are also discussed in this DUSR.

II. ANALYTICAL METHODOLOGIES

The air data being evaluated are from the April 13 and April 28, 2006 sampling of 7 indoor air samples, 2 sub-slab air samples, 2 soil gas samples, 3 ambient air samples, and 3 field duplicates. The analytical laboratory that performed the analyses is Pace Analytical Services, Inc., located in Minneapolis, MN. The samples were analyzed for volatile organic compounds (VOCs) following USEPA Compendium Method TO-15, *Determination of VOCs in Air Collected in Specially Prepared Canisters and Analyzed By Gas Chromatography/Mass Spectrometry (GC/MS)*. The canister containing sample 902004-SS-1B was cross-contaminated with a calibration standard mix by the laboratory. Once this occurred, it was not possible to report any valid results for this sample. Selective ion monitoring (SIM) TO-15 analysis for trichloroethene (TCE) only was performed on those indoor and ambient air samples that showed TCE as being non-detect by standard Method TO-15.

The groundwater data being evaluated are from the April 11 and 13, 2006 sampling of 3 groundwater samples, 1 field duplicate, 1 matrix spike/matrix spike duplicate (MS/MSD) pair, and 1 trip blank. The analytical laboratory that performed the analyses is Life Science Laboratories, Inc. - Brittonfield located in East Syracuse, NY. The groundwater samples were analyzed for volatile organic compounds (VOCs) following USEPA Method 8260B.

A limited data validation was performed on the samples following the guidelines in USEPA Region II *Validating Canisters of Volatile Organics in Ambient Air, Rev. 0,* April 1994, and USEPA Region II *Standard Operating Procedure for the Validation of Organic Data Acquired using SW-846*

Method 8260B, SOP HW-24, Revision 1, June 1999. The validation consisted of a review of the deliverable completeness, quality control problems, and verification of sample results.

Qualifications applied to the data include 'J' (estimated concentration), 'UJ' (estimated quantitation limit), and 'R' (rejected). Documentation supporting the qualification of data is presented in Attachment A. Copies of the validated laboratory results (i.e., Form I's) are presented in Attachment B. Only problems affecting data usability are discussed in this report.

Table 1 summarizes the qualifications applied to the sample results. The validated analytical results are presented on Tables 2, 3, and 4.

III. DATA DELIVERABLE COMPLETENESS

Full deliverable data packages (i.e., NYSDEC ASP Category B or equivalent) were provided by the laboratories, and included all reporting forms and raw data necessary to fully evaluate and verify the reported analytical results.

IV. HOLDING TIMES/SAMPLE RECEIPT

All samples were received by the laboratories intact and under proper chain-of-custody.

Several air samples were analyzed outside of the USEPA Region II technical holding time for polar volatile organic compounds [i.e., acetone, 2-butanone (MEK), 4-methyl-2-pentanone (MIBK), and 2-hexanone], which is 7-days from the validated time of sample receipt (VTSR). The results for these compounds in the affected samples listed on Table 1 have been qualified 'J' or 'UJ'. Some of the samples listed on Table 1 were also analyzed outside of the USEPA Region II 14-day (from VTSR) technical holding time for other compounds. The results for the affected compounds in these samples were qualified 'J' or 'UJ'. It should be noted that all samples were analyzed within the holding time specified in the analytical method (i.e, < 30 days from sample collection).

V. NONCONFORMANCES

- Initial Calibrations

The average relative response factors (RRF) for acetone, methyl acetate, 2-butanone, and 2-hexanone were below 0.05 in the initial calibration (ICAL) standards associated with all groundwater samples and the associated trip blank. The detected result for acetone in sample 902004-GW-3 has been qualified 'J'. All other sample results for these compounds were non-detect and have been qualified 'R'.

- Continuing Calibrations

The percent difference (%D) between the ICAL average RRF and the RRF in one of the continuing calibration (CCAL) standards associated with the air samples exceeded the QC limit of 25%D for 1,1-dichlorethene and ethyl acetate. The results for these compounds in the associated air samples listed on Table1 have been qualified 'UJ'.

- Laboratory Control Samples

The recovery percentage of hexachloro-1, 3-butadiene was below the lower QC limit of 50% in one of the laboratory control samples associated with the air samples. The non-detect results for hexachloro-1,3-butadiene in the associated air samples listed on Table 1 have been qualified 'UJ'.

- Surrogate Compounds

The recovery percentage of surrogate hexane-d14 was above the QC limit of 130 in air sample 902004-BA-1. The recovery of surrogate 1,4-dichlorobenzene-d4 was above the QC limit of 130% in samples 902004-SS-2 and 902004-OA-2. The results for the detected compounds in these samples have been qualified 'J'.

The recovery percentage of surrogate hexane-d14 was below the QC limit of 70% in sample 902004-V-5S. The results for all compounds in this sample have been qualified 'J' or 'UJ'.

VI. SUMMARY

All sample analyses were found to be compliant with the method criteria, except where previously noted. Those results qualified 'J' (estimated) or 'UJ' (estimated quantitation limit) are considered conditionally usable. Those results qualified 'R' (rejected) are not usable. All other sample results are usable as reported. URS does not recommend the re-collection of any samples at this time.

Prepared By: Ann Marie Kropovitch, Chemist **Date:**

Reviewed By: James J. Lehnen, Senior Chemist **Date:**

DEFINITIONS OF USEPA REGION II DATA QUALIFIERS

U – The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J – The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R – The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

D – The sample results are reported from a separate secondary dilution analysis.

NJ – Presumptive evidence of a compound at an estimated value.

TABLE 1

SUMMARY OF DATA QUALIFICATIONS

SAMPLE ID	FRACTION	ANALYTICAL DEVIATION	QUALIFICATION
Groundwater samples 902004-GW-3, 2060411-FD-1 (902004-GW-2), 902004-GW-6, Trip Blank, and 902004-GW-3	VOCs	ICAL RRF < 0.05 for acetone, methyl acetate, 2-butanone, 2-hexanone.	Qualify detects 'J' and non-detects 'R'.
Air samples 902004-CS-3, 20060427-FD-3 (902004-CS-3), 902004-FA-3, 902004-OA-3, 902004-BA-2, 20060413-FD-1 (902004-SS-2), 20060413-FD-2 (902004-V-5S)	VOCs	Analyzed outside of the 7-day (from VTSR) technical holding time for polar compounds.	Qualify detects 'J' and non-detects 'UJ'.
Air sample 902004-SS-1A	VOCs	Analyzed outside of the 7-day (from VTSR) technical holding time for polar compounds and 14-day technical holding time for all compounds analyzed on 5/4/06 (acetone, 2-butanone, ethyl acetate, tetrahydrofuran, toluene, 1,2,4-trimethylbenzene, total xylene).	Qualify detects 'J' and non-detects 'UJ'.
Air samples 902004-BA-1, 902004-FA-1, 902004-OA-1, 902004-SS-2, 902004-BA-2, 902004-OA-2, 902004-SS-2 DUP, 902004-OA-3, 902004-FA-3	VOCs	Analyzed outside the 14 day technical holding time for TCE by SIM TO-15 analysis	Qualify detects 'J'.
902004-OA-1	VOCs	Analyzed outside the 14-day technical holding time (from VTSR).	Qualify detects 'J' and non-detects 'UJ'.
Air samples 902004-CS-3, 20060427-FD-3 (902004-CS-3), 902004-SS-1A, 902004-BA-2, 20060413-FD-1 (902004-SS-2), 20060413-FD-2 (902004-V-5S)	VOCs	%R of hexachloro-1,3-butadiene < QC limit of 50% in LCS	Qualify non-detects 'UJ'.
Air samples 902004-FA-3, 902004-OA-3	VOCs	CCAL %D > 25% for 1,1-dichlorethene and ethyl acetate	Qualify non-detect results 'UJ'.
Air sample 902004-BA-1	VOCs	%R of surrogate hexane-d14 > QC limit.	Qualify detects 'J'.
Air sample 902004-SS-2 and 902004-OA-2	VOCs	%R of surrogate 1,4-dichlorobenzene-d4 > QC limit.	Qualify detects 'J'.
Air sample 902004-V-5S	VOCs	%R of surrogate hexane-d14	Qualify detects 'J' and

TABLE 1

SUMMARY OF DATA QUALIFICATIONS

SAMPLE ID	FRACTION	ANALYTICAL DEVIATION	QUALIFICATION
		< QC limit.	non-detects 'UJ'.

ATTACHMENT A

SUPPORT DOCUMENTATION

TABLE 2
VALIDATED AIR SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		H-001	H-001	H-001	H-001	H-002
Sample ID		902004-OA-1	902004-BA-1	902004-FA-1	902004-SS-1A	902004-OA-2
Matrix		Ambient Air	Indoor Air	Indoor Air	Sub-Slab Air	Ambient Air
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/13/06	04/13/06	04/13/06	04/13/06	04/13/06
Parameter	Units		(2-2)			
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/M3	2.9 UJ	1.9 J	4.4	1.5 U	1.7 U
1,1,2,2-Tetrachloroethane	UG/M3	3.7 UJ	1.9 U	2.0 U	1.9 U	2.2 U
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3	4.2 UJ	2.1 U	2.3 U	2.2 U	2.5 U
1,1,2-Trichloroethane	UG/M3	2.9 UJ	1.5 U	1.6 U	1.5 U	1.7 U
1,1-Dichloroethane	UG/M3	2.2 UJ	1.1 U	1.2 U	1.1 U	1.3 U
1,1-Dichloroethene	UG/M3	2.1 UJ	1.1 U	1.2 U	1.1 U	1.2 U
1,2,4-Trichlorobenzene	UG/M3	2.6 UJ	1.3 U	1.4 U	1.4 U	1.5 U
1,2,4-Trimethylbenzene	UG/M3	6.6 UJ	6.4 J	3.6 U	211 J	3.8 U
1,2-Dibromoethane (Ethylene dibromide)	UG/M3	4.2 UJ	2.1 U	2.3 U	2.2 U	2.5 U
1,2-Dichlorobenzene	UG/M3	3.2 UJ	1.6 U	1.7 U	1.7 U	1.8 U
1,2-Dichloroethane	UG/M3	2.2 UJ	1.1 U	1.2 U	2.6	1.3 U
1,2-Dichloroethene (cis)	UG/M3	2.1 UJ	1.1 U	1.2 U	5.1	1.2 U
1,2-Dichloroethene (trans)	UG/M3	2.1 UJ	1.1 U	1.2 U	1.1 U	1.2 U
1,2-Dichloropropane	UG/M3	2.5 UJ	1.3 U	1.3 U	1.3 U	1.4 U
1,2-Dichlorotetrafluoroethane	UG/M3	3.7 UJ	1.9 U	2.0 U	1.9 U	2.2 U
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3	6.6 UJ	3.4 U	3.6 U	48.6	3.8 U
1,3-Butadiene	UG/M3	1.2 UJ	0.60 U	0.64 U	0.62 U	0.69 U
1,3-Dichlorobenzene	UG/M3	3.2 UJ	1.6 U	1.7 U	1.7 U	1.8 U
1,3-Dichloropropene (cis)	UG/M3	2.4 UJ	1.2 U	1.3 U	1.3 U	1.4 U
1,3-Dichloropropene (trans)	UG/M3	2.4 UJ	1.2 U	1.3 U	1.3 U	1.4 U
1,4-Dichlorobenzene	UG/M3	3.2 UJ	1.6 U	1.7 U	19.0	1.8 U
2-Hexanone	UG/M3	2.2 UJ	1.1 U	1.2 U	1.1 UJ	1.3 U
4-Ethyltoluene	UG/M3	6.6 UJ	3.4 U	3.6 U	59.7	3.8 U

Flags assigned during chemistry validation are shown.

Made By AMK 6/5/06
Checked By 6/5/06

Detection Limits shown are PQL

TABLE 2
VALIDATED AIR SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		H-001	H-001	H-001	H-001	H-002
Sample ID		902004-OA-1	902004-BA-1	902004-FA-1	902004-SS-1A	902004-OA-2
Matrix		Ambient Air	Indoor Air	Indoor Air	Sub-Slab Air	Ambient Air
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/13/06	04/13/06	04/13/06	04/13/06	04/13/06
Parameter	Units		(2-2)			
Volatile Organic Compounds						
4-Methyl-2-pentanone	UG/M3	2.2 UJ	1.1 U	1.2 U	37.0 J	1.3 U
Acetone	UG/M3	29.5 J	13.3 J	1.2	163 J	12.7 J
Benzene	UG/M3	1.7 UJ	2.6 J	2.3	36.9	1.0 U
Bromodichloromethane	UG/M3	3.7 UJ	1.9 U	2.0 U	1.9 U	2.2 U
Bromoform	UG/M3	5.5 UJ	2.8 U	3.0 U	2.9 U	3.2 U
Bromomethane	UG/M3	2.1 UJ	1.1 U	1.1 U	1.1 U	1.2 U
Carbon disulfide	UG/M3	1.7 UJ	0.84 U	0.90 U	34.0	0.97 U
Carbon tetrachloride	UG/M3	3.4 UJ	1.7 U	1.9 U	1.8 U	2.0 U
Chlorobenzene	UG/M3	2.5 UJ	1.3 U	1.3 U	1.3 U	1.4 U
Chloroethane	UG/M3	1.4 UJ	0.72 U	1.3	0.75 U	0.83 U
Chloroform	UG/M3	2.6 UJ	1.3 U	1.4 U	1.4 U	1.5 U
Chloromethane	UG/M3	1.1 UJ	0.56 U	0.60 U	0.58 U	0.65 U
Cyclohexane	UG/M3	1.8 UJ	0.91 U	0.97 U	0.94 U	1.0 U
Dibromochloromethane	UG/M3	4.5 UJ	2.3 U	2.4 U	2.3 U	2.6 U
Dichlorodifluoromethane	UG/M3	2.8 J	2.7 J	3.4	2.1	3.1 J
Ethyl acetate	UG/M3	1.9 UJ	0.98 U	1.0 U	207 J	1.1 U
Ethylbenzene	UG/M3	2.3 UJ	30.1 J	2.0	81.1	1.4 U
Heptane	UG/M3	2.2 UJ	3.1 J	1.2 U	1.1 U	1.3 U
Hexachlorobutadiene	UG/M3	5.8 UJ	2.9 U	3.1 U	3.0 UJ	3.4 U
Hexane	UG/M3	1.9 UJ	12.7 J	5.1	94.9	1.1 U
Methyl ethyl ketone (2-Butanone)	UG/M3	14.5 J	10.5 J	0.86 U	377 J	2.9 J
Methyl tert-butyl ether	UG/M3	1.9 UJ	0.98 U	1.0 U	1.0 U	1.1 U
Methylene chloride	UG/M3	13.9 J	3.8 J	2.5	12.3	1.1 U

Flags assigned during chemistry validation are shown.

Made By AMK 6/5/06
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Detection Limits shown are PQL

TABLE 2
VALIDATED AIR SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		H-001	H-001	H-001	H-001	H-002
Sample ID		902004-OA-1	902004-BA-1	902004-FA-1	902004-SS-1A	902004-OA-2
Matrix		Ambient Air	Indoor Air	Indoor Air	Sub-Slab Air	Ambient Air
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/13/06	04/13/06	04/13/06	04/13/06	04/13/06
Parameter	Units		(2-2)			
Volatile Organic Compounds						
Naphthalene	UG/M3	7.1 UJ	7.5 J	3.9 U	78.2	4.2 U
Propylene	UG/M3	0.92 UJ	0.47 U	0.50 U	0.48 U	0.54 U
Styrene	UG/M3	2.3 UJ	1.2 U	1.2 U	22.2	1.3 U
Tetrachloroethene	UG/M3	3.7 UJ	1.9 U	3.7	3.5	2.2 U
Tetrahydrofuran	UG/M3	1.6 UJ	0.80 U	0.86 U	118 J	0.92 U
Toluene	UG/M3	5.9 J	19.8 J	22.8	342 J	2.3 J
Trichloroethene	UG/M3	0.169 J	2.68 J	0.12 J	5.3	0.0983 J
Trichlorofluoromethane	UG/M3	2.9 UJ	2.6 J	3.9	2.1	1.7 U
Vinyl acetate	UG/M3	1.9 UJ	0.95 U	1.0 U	0.98 U	1.1 U
Vinyl chloride	UG/M3	1.4 UJ	0.70 U	0.74 U	0.72 U	0.80 U
Xylene (total)	UG/M3	4.6 UJ	169 J	11.4	581 J	2.7 U

Flags assigned during chemistry validation are shown.

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Checked By 6/5/06

Detection Limits shown are PQL

TABLE 2
VALIDATED AIR SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		H-002	H-002	H-002	H-002	H-003
Sample ID		902004-SS-2-DUP	902004-BA-2	902004-FA-2	902004-SS-2	902004-OA-3
Matrix		Sub-Slab Air	Indoor Air	Indoor Air	Sub-Slab Air	Ambient Air
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/13/06	04/13/06	04/13/06	04/13/06	04/28/06
Parameter	Units	Field Duplicate (1-1)	(2-2)			
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/M3	1.6 U	1.6 U	1.1 U	1.5 U	1.6 U
1,1,2,2-Tetrachloroethane	UG/M3	2.0 U	2.0 U	1.4 U	1.9 U	2.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3	2.3 U	2.3 U	1.6 U	2.2 U	2.3 U
1,1,2-Trichloroethane	UG/M3	1.6 U	1.6 U	1.1 U	1.5 U	1.6 U
1,1-Dichloroethane	UG/M3	1.2 U	1.2 U	0.82 U	1.1 U	1.2 U
1,1-Dichloroethene	UG/M3	1.2 U	1.2 U	0.81 U	1.1 U	1.2 UJ
1,2,4-Trichlorobenzene	UG/M3	1.4 U	1.4 U	0.99 U	1.4 U	1.4 U
1,2,4-Trimethylbenzene	UG/M3	18.3	24.3	17.0	14.9 J	14.0
1,2-Dibromoethane (Ethylene dibromide)	UG/M3	2.3 U	2.3 U	1.6 U	2.2 U	2.3 U
1,2-Dichlorobenzene	UG/M3	1.7 U	1.7 U	1.2 U	1.7 U	1.7 U
1,2-Dichloroethane	UG/M3	1.2 U	1.2 U	0.82 U	1.1 U	1.2 U
1,2-Dichloroethene (cis)	UG/M3	1.2 U	1.2 U	0.81 U	1.1 U	1.2 U
1,2-Dichloroethene (trans)	UG/M3	1.2 U	1.2 U	0.81 U	1.1 U	1.2 U
1,2-Dichloropropane	UG/M3	1.3 U	1.3 U	0.94 U	1.3 U	1.3 U
1,2-Dichlorotetrafluoroethane	UG/M3	5.4	5.9	1.4 U	1.9 U	2.0 U
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3	5.3	6.7	6.6	7.0 J	3.6 U
1,3-Butadiene	UG/M3	0.64 U	0.64 U	0.45 U	0.62 U	0.64 U
1,3-Dichlorobenzene	UG/M3	1.7 U	1.7 U	2.3	1.7 U	1.7 U
1,3-Dichloropropene (cis)	UG/M3	1.3 U	1.3 U	0.92 U	1.3 U	1.3 U
1,3-Dichloropropene (trans)	UG/M3	1.3 U	1.3 U	0.92 U	1.3 U	1.3 U
1,4-Dichlorobenzene	UG/M3	1.7 U	1.7 U	2.7	1.7 U	1.7 U
2-Hexanone	UG/M3	1.2 UJ	1.2 UJ	0.83 U	1.1 U	1.2 UJ
4-Ethyltoluene	UG/M3	5.1	7.0	6.7	4.3 J	3.6 U

Flags assigned during chemistry validation are shown.

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Detection Limits shown are PQL

TABLE 2
VALIDATED AIR SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		H-002	H-002	H-002	H-002	H-003
Sample ID		902004-SS-2-DUP	902004-BA-2	902004-FA-2	902004-SS-2	902004-OA-3
Matrix		Sub-Slab Air	Indoor Air	Indoor Air	Sub-Slab Air	Ambient Air
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/13/06	04/13/06	04/13/06	04/13/06	04/28/06
Parameter	Units	Field Duplicate (1-1)	(2-2)			
Volatile Organic Compounds						
4-Methyl-2-pentanone	UG/M3	1.2 UJ	1.2 UJ	0.83 U	1.1 U	1.2 UJ
Acetone	UG/M3	40.0 J	40.3 J	33.8	82.5 J	1.8 J
Benzene	UG/M3	20.0	25.5	14.0	12.0 J	0.93 U
Bromodichloromethane	UG/M3	2.0 U	2.0 U	1.4 U	1.9 U	2.0 U
Bromoform	UG/M3	19.6	3.0 U	2.1 U	2.9 U	3.0 U
Bromomethane	UG/M3	6.9	1.1 U	0.79 U	1.1 U	1.1 U
Carbon disulfide	UG/M3	10.7	1.2	0.63 U	19.3 J	0.90 U
Carbon tetrachloride	UG/M3	1.9 U	1.9 U	1.3 U	1.8 U	1.9 U
Chlorobenzene	UG/M3	1.3 U	1.3 U	0.94 U	1.3 U	1.3 U
Chloroethane	UG/M3	0.77 U	0.77 U	0.54 U	0.75 U	0.77 U
Chloroform	UG/M3	1.4 U	1.4 U	0.99 U	1.4 U	1.4 U
Chloromethane	UG/M3	0.60 U	0.60 U	0.42 U	0.58 U	0.60 U
Cyclohexane	UG/M3	3.2	0.97 U	0.68 U	16.7 J	0.97 U
Dibromochloromethane	UG/M3	2.4 U	2.4 U	1.7 U	2.3 U	2.4 U
Dichlorodifluoromethane	UG/M3	87.5	96.4	73.5	44.9 J	1.8
Ethyl acetate	UG/M3	1.4	7.6	0.73 U	1.0 U	1.0 UJ
Ethylbenzene	UG/M3	12.3	16.2	13.2	7.1 J	1.3 U
Heptane	UG/M3	1.2 U	1.2 U	17.9	35.7 J	1.2 U
Hexachlorobutadiene	UG/M3	3.1 UJ	3.1 UJ	2.2 U	3.0 U	3.1 U
Hexane	UG/M3	19.1	25.6	20.8	37.4 J	1.0 U
Methyl ethyl ketone (2-Butanone)	UG/M3	10.0 J	14.9 J	9.8	18.7 J	0.86 UJ
Methyl tert-butyl ether	UG/M3	1.0 U	1.0 U	0.73 U	1.0 U	1.0 U
Methylene chloride	UG/M3	1.0 U	1.0 U	0.71 U	3.3 J	1.0 U

Flags assigned during chemistry validation are shown.

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Detection Limits shown are PQL

TABLE 2
VALIDATED AIR SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		H-002	H-002	H-002	H-002	H-003
Sample ID		902004-SS-2-DUP	902004-BA-2	902004-FA-2	902004-SS-2	902004-OA-3
Matrix		Sub-Slab Air	Indoor Air	Indoor Air	Sub-Slab Air	Ambient Air
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/13/06	04/13/06	04/13/06	04/13/06	04/28/06
Parameter	Units	Field Duplicate (1-1)	(2-2)			
Volatile Organic Compounds						
Naphthalene	UG/M3	20.4	20.9	11.8	7.9 J	62.7
Propylene	UG/M3	0.50 U	0.50 U	0.35 U	0.48 U	0.50 U
Styrene	UG/M3	2.4	3.2	9.1	1.2 U	1.2 U
Tetrachloroethene	UG/M3	2.0 U	2.0 U	3.2	1.9 U	2.0 U
Tetrahydrofuran	UG/M3	0.86 U	11.8	0.60 U	0.83 U	0.86 U
Toluene	UG/M3	69.2	87.5	64.6	41.5 J	1.1 U
Trichloroethene	UG/M3	0.186 J	0.213 J	5.4	0.142 J	0.118 J
Trichlorofluoromethane	UG/M3	9.0	9.6	35.1	6.2 J	1.6 U
Vinyl acetate	UG/M3	1.0 U	1.0 U	0.71 U	0.98 U	1.0 U
Vinyl chloride	UG/M3	0.74 U	0.74 U	0.52 U	0.72 U	0.74 U
Xylene (total)	UG/M3	62.2	82.0	64.7	45.9 J	2.5 U

Flags assigned during chemistry validation are shown.

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Checked By 6/5/06

Detection Limits shown are PQL

TABLE 2
VALIDATED AIR SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		H-003	H-003	H-003	V-04S	V-05S
Sample ID		20060427-CS-3-DUP	902004-CS-3	902004-FA-3	902004-V-4S	902004-V-5S
Matrix		Indoor Air	Indoor Air	Indoor Air	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/28/06	04/28/06	04/28/06	04/13/06	04/13/06
Parameter	Units	Field Duplicate (2-2)	(2-2)			
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/M3	1.5 U	1.6 U	1.9 U	1.7 U	2.1 J
1,1,2,2-Tetrachloroethane	UG/M3	1.9 U	2.0 U	2.4 U	2.2 U	1.9 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3	2.2 U	2.3 U	2.8 U	2.5 U	2.2 UJ
1,1,2-Trichloroethane	UG/M3	1.5 U	1.6 U	1.9 U	1.7 U	1.5 UJ
1,1-Dichloroethane	UG/M3	1.1 U	1.2 U	1.4 U	1.3 U	1.1 UJ
1,1-Dichloroethene	UG/M3	1.1 U	1.2 U	1.4 UJ	1.3 U	1.1 UJ
1,2,4-Trichlorobenzene	UG/M3	1.4 U	1.4 U	1.7 U	1.6 U	1.4 UJ
1,2,4-Trimethylbenzene	UG/M3	3.4 U	3.6 U	5.2	5.0	3.7 J
1,2-Dibromoethane (Ethylene dibromide)	UG/M3	2.2 U	2.3 U	2.8 U	2.5 U	2.2 UJ
1,2-Dichlorobenzene	UG/M3	1.7 U	1.7 U	2.1 U	1.9 U	1.7 UJ
1,2-Dichloroethane	UG/M3	1.1 U	1.2 U	1.4 U	1.3 U	1.1 UJ
1,2-Dichloroethene (cis)	UG/M3	1.1 U	1.2 U	1.4 U	1.3 U	1.1 UJ
1,2-Dichloroethene (trans)	UG/M3	1.1 U	1.2 U	1.4 U	1.3 U	1.1 UJ
1,2-Dichloropropane	UG/M3	1.3 U	1.3 U	1.6 U	1.5 U	1.3 UJ
1,2-Dichlorotetrafluoroethane	UG/M3	1.9 U	2.0 U	2.4 U	2.2 U	1.9 UJ
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3	3.4 U	3.6 U	4.3 U	4.0 U	3.4 UJ
1,3-Butadiene	UG/M3	0.62 U	0.64 U	0.78 U	0.72 U	0.62 UJ
1,3-Dichlorobenzene	UG/M3	1.7 U	1.7 U	2.1 U	1.9 U	1.7 UJ
1,3-Dichloropropene (cis)	UG/M3	1.3 U	1.3 U	1.6 U	1.5 U	1.3 UJ
1,3-Dichloropropene (trans)	UG/M3	1.3 U	1.3 U	1.6 U	1.5 U	1.3 UJ
1,4-Dichlorobenzene	UG/M3	1.7 U	1.7 U	2.1 U	1.9 U	1.7 UJ
2-Hexanone	UG/M3	1.1 UJ	1.2 UJ	1.4 UJ	1.3 U	1.1 UJ
4-Ethyltoluene	UG/M3	3.4 U	3.6 U	4.3 U	4.0 U	3.4 UJ

Flags assigned during chemistry validation are shown.

Made By AMK 6/5/06
Checked By 6/5/06

Detection Limits shown are PQL

TABLE 2
VALIDATED AIR SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		H-003	H-003	H-003	V-04S	V-05S
Sample ID		20060427-CS-3-DUP	902004-CS-3	902004-FA-3	902004-V-4S	902004-V-5S
Matrix		Indoor Air	Indoor Air	Indoor Air	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/28/06	04/28/06	04/28/06	04/13/06	04/13/06
Parameter	Units	Field Duplicate (2-2)	(2-2)			
Volatile Organic Compounds						
4-Methyl-2-pentanone	UG/M3	1.1 UJ	1.2 UJ	1.4 UJ	1.3 U	3.6 J
Acetone	UG/M3	2.6 J	3.3 J	29.4 J	13.9	17.2 J
Benzene	UG/M3	0.90 U	0.93 U	1.1 U	3.2	5.1 J
Bromodichloromethane	UG/M3	1.9 U	2.0 U	2.4 U	2.2 U	1.9 UJ
Bromoform	UG/M3	2.9 U	3.0 U	3.6 U	3.3 U	2.9 UJ
Bromomethane	UG/M3	1.1 U	1.1 U	1.4 U	1.3 U	1.1 UJ
Carbon disulfide	UG/M3	0.87 U	0.90 U	1.1 U	1.0 U	12.9 J
Carbon tetrachloride	UG/M3	1.8 U	1.9 U	2.6	2.1 U	1.8 UJ
Chlorobenzene	UG/M3	1.3 U	1.3 U	1.6 U	1.5 U	1.3 UJ
Chloroethane	UG/M3	0.75 U	0.77 U	0.93 U	0.86 U	0.75 UJ
Chloroform	UG/M3	1.4 U	1.4 U	1.7 U	1.6 U	1.4 UJ
Chloromethane	UG/M3	0.58 U	0.60	0.73 U	0.67 U	0.58 UJ
Cyclohexane	UG/M3	0.94 U	0.97 U	1.2 U	1.1 U	0.94 UJ
Dibromochloromethane	UG/M3	2.3 U	2.4 U	2.9 U	2.7 U	2.3 UJ
Dichlorodifluoromethane	UG/M3	2.1	1.7	2.4	2.4	2.0 J
Ethyl acetate	UG/M3	1.0 U	1.0 U	1.3 UJ	1.2 U	1.0 UJ
Ethylbenzene	UG/M3	1.2 U	1.3 U	3.1	3.6	2.6 J
Heptane	UG/M3	1.1 U	1.2 U	3.3	1.3 U	6.0 J
Hexachlorobutadiene	UG/M3	3.0 UJ	3.1 UJ	3.8 U	3.5 U	3.0 UJ
Hexane	UG/M3	0.99 U	1.0 U	1.2 U	1.1 U	5.2 J
Methyl ethyl ketone (2-Butanone)	UG/M3	1.3 J	3.1 J	12.9 J	6.1	6.1 J
Methyl tert-butyl ether	UG/M3	1.0 U	1.0 U	1.3 U	1.2 U	1.0 UJ
Methylene chloride	UG/M3	0.98 U	7.5	1.2 U	1.1 U	1.4 J

Flags assigned during chemistry validation are shown.

Made By AMK 6/5/06
Checked By 6/5/06

Detection Limits shown are PQL

TABLE 2
VALIDATED AIR SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		H-003	H-003	H-003	V-04S	V-05S
Sample ID		20060427-CS-3-DUP	902004-CS-3	902004-FA-3	902004-V-4S	902004-V-5S
Matrix		Indoor Air	Indoor Air	Indoor Air	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/28/06	04/28/06	04/28/06	04/13/06	04/13/06
Parameter	**Units**	Field Duplicate (2-2)	(2-2)			
Volatile Organic Compounds						
Naphthalene	UG/M3	3.7 U	3.9 U	6.8	4.3 U	3.7 UJ
Propylene	UG/M3	0.48 U	0.50 U	0.77	0.56 U	0.48 UJ
Styrene	UG/M3	1.2 U	1.2 U	1.5 U	2.3	3.1 J
Tetrachloroethene	UG/M3	1.9 U	2.0 U	2.4 U	4.8	2.8 J
Tetrahydrofuran	UG/M3	0.83 U	0.86 U	1.0 U	0.95 U	0.83 UJ
Toluene	UG/M3	1.1 U	1.1 U	8.0	18.2	11.3 J
Trichloroethene	UG/M3	1.5 U	1.6 U	4.26 J	1.7 U	1.5 UJ
Trichlorofluoromethane	UG/M3	1.5 U	1.6 U	1.9 U	1.7 U	1.5 UJ
Vinyl acetate	UG/M3	0.98 U	1.0 U	1.2 U	1.1 U	0.98 UJ
Vinyl chloride	UG/M3	0.72 U	0.74 U	0.90 U	0.83 U	0.72 UJ
Xylene (total)	UG/M3	2.4 U	2.5 U	13.1	11.4	10.4 J

Flags assigned during chemistry validation are shown.

Made By AMK 6/5/06
Checked By 6/5/06

Detection Limits shown are PQL

TABLE 2
VALIDATED AIR SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		V-05S
Sample ID		902004-V-5S-DUP
Matrix		Soil Gas
Depth Interval (ft)		-
Date Sampled		04/13/06
Parameter	**Units**	Field Duplicate (1-1)
Volatile Organic Compounds		
1,1,1-Trichloroethane	UG/M3	1.7 U
1,1,2,2-Tetrachloroethane	UG/M3	2.2 U
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3	2.5 U
1,1,2-Trichloroethane	UG/M3	1.7 U
1,1-Dichloroethane	UG/M3	1.3 U
1,1-Dichloroethene	UG/M3	1.2 U
1,2,4-Trichlorobenzene	UG/M3	1.5 U
1,2,4-Trimethylbenzene	UG/M3	14.7
1,2-Dibromoethane (Ethylene dibromide)	UG/M3	2.5 U
1,2-Dichlorobenzene	UG/M3	2.2
1,2-Dichloroethane	UG/M3	1.3 U
1,2-Dichloroethene (cis)	UG/M3	1.2 U
1,2-Dichloroethene (trans)	UG/M3	1.2 U
1,2-Dichloropropane	UG/M3	1.4 U
1,2-Dichlorotetrafluoroethane	UG/M3	2.2 U
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3	3.8 U
1,3-Butadiene	UG/M3	0.69 U
1,3-Dichlorobenzene	UG/M3	1.8 U
1,3-Dichloropropene (cis)	UG/M3	1.4 U
1,3-Dichloropropene (trans)	UG/M3	1.4 U
1,4-Dichlorobenzene	UG/M3	1.8 U
2-Hexanone	UG/M3	1.3 UJ
4-Ethyltoluene	UG/M3	3.8 U

Flags assigned during chemistry validation are shown.

Made By AMK 6/5/06
Checked By 6/5/06

Detection Limits shown are PQL

TABLE 2
VALIDATED AIR SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		V-05S
Sample ID		902004-V-5S-DUP
Matrix		Soil Gas
Depth Interval (ft)		-
Date Sampled		04/13/06
Parameter	**Units**	Field Duplicate (1-1)
Volatile Organic Compounds		
4-Methyl-2-pentanone	UG/M3	2.6 J
Acetone	UG/M3	73.4 J
Benzene	UG/M3	6.3
Bromodichloromethane	UG/M3	2.2 U
Bromoform	UG/M3	3.2 U
Bromomethane	UG/M3	1.2 U
Carbon disulfide	UG/M3	34.9
Carbon tetrachloride	UG/M3	2.0 U
Chlorobenzene	UG/M3	1.4 U
Chloroethane	UG/M3	0.83 U
Chloroform	UG/M3	1.5 U
Chloromethane	UG/M3	0.65 U
Cyclohexane	UG/M3	1.0 U
Dibromochloromethane	UG/M3	2.6 U
Dichlorodifluoromethane	UG/M3	1.5 U
Ethyl acetate	UG/M3	3.0
Ethylbenzene	UG/M3	4.5
Heptane	UG/M3	7.1
Hexachlorobutadiene	UG/M3	3.4 UJ
Hexane	UG/M3	9.2
Methyl ethyl ketone (2-Butanone)	UG/M3	14.1 J
Methyl tert-butyl ether	UG/M3	1.1 U
Methylene chloride	UG/M3	1.1 U

Flags assigned during chemistry validation are shown.

Made By AMK 6/5/06
Checked By 6/5/06

Detection Limits shown are PQL

TABLE 2
VALIDATED AIR SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		V-05S
Sample ID		902004-V-5S-DUP
Matrix		Soil Gas
Depth Interval (ft)		-
Date Sampled		04/13/06
Parameter	**Units**	Field Duplicate (1-1)
Volatile Organic Compounds		
Naphthalene	UG/M3	8.3
Propylene	UG/M3	6.0
Styrene	UG/M3	3.8
Tetrachloroethene	UG/M3	2.2 U
Tetrahydrofuran	UG/M3	3.5
Toluene	UG/M3	18.3
Trichloroethene	UG/M3	1.7 U
Trichlorofluoromethane	UG/M3	1.7 U
Vinyl acetate	UG/M3	1.1 U
Vinyl chloride	UG/M3	0.80 U
Xylene (total)	UG/M3	23.1

Flags assigned during chemistry validation are shown.

Made By AMK 6/5/06
Checked By 6/5/06

Detection Limits shown are PQL

TABLE 3
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		GW-02	GW-02	GW-03	GW-06
Sample ID		20060411-FD-1	902004-GW-2	902004-GW-3	902004-GW-6
Matrix		Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-
Date Sampled		04/11/06	04/11/06	04/13/06	04/12/06
Parameter	Units	Field Duplicate (1-1)			
Volatile Organic Compounds					
1,1,1-Trichloroethane	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	UG/L	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	UG/L	1 U	1 U	1 U	1 U
1,2-Dibromoethane (Ethylene dibromide)	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethene (cis)	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethene (trans)	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichloropropene (cis)	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichloropropene (trans)	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
2-Hexanone	UG/L	R	R	R	R
4-Methyl-2-pentanone	UG/L	5 U	5 U	5 U	5 U
Acetone	UG/L	R	R	6.05 J	R
Benzene	UG/L	0.11 J	0.5 U	0.5 U	0.5 U
Bromodichloromethane	UG/L	0.5 U	0.5 U	0.5 U	0.5 U

Flags assigned during chemistry validation are shown.

Made By AMK 6/5/06
Checked By 6/5/06

Detection Limits shown are PQL

TABLE 3
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		GW-02	GW-02	GW-03	GW-06
Sample ID		20060411-FD-1	902004-GW-2	902004-GW-3	902004-GW-6
Matrix		Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-
Date Sampled		04/11/06	04/11/06	04/13/06	04/12/06
Parameter	Units	Field Duplicate (1-1)			
Volatile Organic Compounds					
Bromoform	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	UG/L	1 U	1 U	1 U	1 U
Carbon disulfide	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Carbon tetrachloride	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	UG/L	1 U	1 U	1 U	1 U
Chloroform	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane	UG/L	1 U	1 U	1 U	1 U
Cyclohexane	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	UG/L	1 U	1 U	1 U	1 U
Ethylbenzene	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene (Cumene)	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Methyl acetate	UG/L	R	R	R	R
Methyl ethyl ketone (2-Butanone)	UG/L	R	R	R	R
Methyl tert-butyl ether	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Methylcyclohexane	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Methylene chloride	UG/L	2 U	2 U	2 U	2 U
Styrene	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	UG/L	0.12 J	0.5 U	0.10 J	0.5 U
Trichloroethene	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	UG/L	1 U	1 U	1 U	1 U

Flags assigned during chemistry validation are shown.

Made By AMK 6/5/06
Checked By 6/5/06

Detection Limits shown are PQL

TABLE 3
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		GW-02	GW-02	GW-03	GW-06
Sample ID		20060411-FD-1	902004-GW-2	902004-GW-3	902004-GW-6
Matrix		Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-
Date Sampled		04/11/06	04/11/06	04/13/06	04/12/06
Parameter	Units	Field Duplicate (1-1)			
Volatile Organic Compounds					
Vinyl chloride	UG/L	1 U	1 U	1 U	1 U
Xylene (total)	UG/L	1 U	1 U	1 U	1 U

Flags assigned during chemistry validation are shown.

Made By AMK 6/5/06
Checked By 6/5/06

Detection Limits shown are PQL

ATTACHMENT B

VALIDATED FORM I's

TABLE 4
VALIDATED FIELD QC SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		FIELDQC
Sample ID		Trip Blank
Matrix		Water Quality
Depth Interval (ft)		-
Date Sampled		04/11/06
Parameter	**Units**	Trip Blank (1-1)
Volatile Organic Compounds		
1,1,1-Trichloroethane	UG/L	0.5 U
1,1,2,2-Tetrachloroethane	UG/L	0.5 U
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	0.5 U
1,1,2-Trichloroethane	UG/L	0.5 U
1,1-Dichloroethane	UG/L	0.5 U
1,1-Dichloroethene	UG/L	0.5 U
1,2,4-Trichlorobenzene	UG/L	1 U
1,2-Dibromo-3-chloropropane	UG/L	1 U
1,2-Dibromoethane (Ethylene dibromide)	UG/L	0.5 U
1,2-Dichlorobenzene	UG/L	0.5 U
1,2-Dichloroethane	UG/L	0.5 U
1,2-Dichloroethene (cis)	UG/L	0.5 U
1,2-Dichloroethene (trans)	UG/L	0.5 U
1,2-Dichloropropane	UG/L	0.5 U
1,3-Dichlorobenzene	UG/L	0.5 U
1,3-Dichloropropene (cis)	UG/L	0.5 U
1,3-Dichloropropene (trans)	UG/L	0.5 U
1,4-Dichlorobenzene	UG/L	0.5 U
2-Hexanone	UG/L	R
4-Methyl-2-pentanone	UG/L	5 U
Acetone	UG/L	R
Benzene	UG/L	0.5 U
Bromodichloromethane	UG/L	0.5 U

Flags assigned during chemistry validation are shown.

Made By AMK 6/5/06
Checked By 6/5/06

Detection Limits shown are PQL

TABLE 4
VALIDATED FIELD QC SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		FIELDQC
Sample ID		Trip Blank
Matrix		Water Quality
Depth Interval (ft)		-
Date Sampled		04/11/06
Parameter	**Units**	Trip Blank (1-1)
Volatile Organic Compounds		
Bromoform	UG/L	0.5 U
Bromomethane	UG/L	1 U
Carbon disulfide	UG/L	0.5 U
Carbon tetrachloride	UG/L	0.5 U
Chlorobenzene	UG/L	0.5 U
Chloroethane	UG/L	1 U
Chloroform	UG/L	0.5 U
Chloromethane	UG/L	1 U
Cyclohexane	UG/L	0.5 U
Dibromochloromethane	UG/L	0.5 U
Dichlorodifluoromethane	UG/L	1 U
Ethylbenzene	UG/L	0.5 U
Isopropylbenzene (Cumene)	UG/L	0.5 U
Methyl acetate	UG/L	R
Methyl ethyl ketone (2-Butanone)	UG/L	R
Methyl tert-butyl ether	UG/L	0.5 U
Methylcyclohexane	UG/L	0.5 U
Methylene chloride	UG/L	2 U
Styrene	UG/L	0.5 U
Tetrachloroethene	UG/L	0.5 U
Toluene	UG/L	0.5 U
Trichloroethene	UG/L	0.5 U
Trichlorofluoromethane	UG/L	1 U

Flags assigned during chemistry validation are shown.

Made By AMK 6/5/06
Checked By 6/5/06

Detection Limits shown are PQL

J:\11174635.00000\DB\Program\EDMS.mdb
Printed: 6/5/2006 11:34:14 AM
[LOGDATE] > #4/01/2006# AND [MATRIX] = 'WQ'

TABLE 4
VALIDATED FIELD QC SAMPLE ANALYTICAL RESULTS
WELLSVILLE - ANDOVER LANDFILL
NYSDEC WORK ASSIGNMENT D004433-2

Location ID		FIELDQC
Sample ID		Trip Blank
Matrix		Water Quality
Depth Interval (ft)		-
Date Sampled		04/11/06
Parameter	**Units**	Trip Blank (1-1)
Volatile Organic Compounds		
Vinyl chloride	UG/L	1 U
Xylene (total)	UG/L	1 U

Flags assigned during chemistry validation are shown.

Made By AMK 6/5/06
Checked By 6/5/06

Detection Limits shown are PQL

Summa Canister Sampling Field Data Sheet

Site: Wellsville
Samplers: Tom Boyd
Date: 4/13/06

Sample #	902004-V-45				
Location	Duffy Hollow Road, Wellsville				
Summa Canister ID	629				
Flow Controller ID	605				
Additional Tubing Added	NO/ (YES) - How much 3'	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much
Purge Time (Start)	1456				
Purge Time (Stop)	1502				
Total Purge Time (min)	6 MIN				
Purge Volume	1 LITER.				
PID Test of Purge Air	0 PPb				
Initial Tracer Gas Results	0 PPb				
Pressure Gauge - before sampling	-30+				
Sample Time (Start)	1510				
Sample Time (Stop)	1710				
Total Sample Time (min)	120 MIN				
Pressure Gauge - after sampling	-6.5				
Sample Volume	6 LITER				
Canister Pressure Went To Ambient Pressure?	YES / (NO)	YES / NO	YES / NO	YES / NO	YES / NO
Final Tracer Gas Results	0 PPM				
Associated Ambient Air Sample Number	None				

General Comments:

Summa Canister Sampling Field Data Sheet

Site: Wellsville
Samplers: John Boyd
Date: 4/13/06

Sample #	902004-V-5S	20060413-FD-2			
Location					
Summa Canister ID	633	176			
Flow Controller ID	701	A16			
Additional Tubing Added	NO/ YES - How much 3'	NO/ YES - How much 3'	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much
Purge Time (Start)	1325 1250	1325 1246			
Purge Time (Stop)	1332	1332			
Total Purge Time (min)	7 min	7 MIN			
Purge Volume	1 LITER	1 LITER			
PID Test of Purge Air	0 PPb	0 PPb			
Initial Tracer Gas Results	150 PPb	150 PPb			
Pressure Gauge - before sampling	-30+	-28			
Sample Time (Start)	1347	1347			
Sample Time (Stop)	~~1347~~ 1547	~~1347~~ 1547			
Total Sample Time (min)	120 M	120 M			
Pressure Gauge - after sampling	-4	-3			
Sample Volume	6 LITERS	6 LITERS			
Canister Pressure Went To Ambient Pressure?	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO
Final Tracer Gas Results	85,000 PPM	→			
Associated Ambient Air Sample Number	none	none			
General Comments:		Dup of 902004-V-5S			

CHAIN OF CUSTODY RECORD

URS

PROJECT NO. 11174564 (~~Wellsville - N4SDEC~~)

SITE NAME Wellsville - N4SDEC

SAMPLERS (PRINT/SIGNATURE) John Bald

LAB Life Sciences

COOLER 1 of 1

PAGE ____ of ____

DELIVERY SERVICE: Fed Ex AIRBILL NO.: ____

TESTS

BOTTLE TYPE AND PRESERVATIVE

LOCATION IDENTIFIER	DATE	TIME	COMP/ GRAB	SAMPLE ID	MATRIX	TOTAL NO.# OF CONTAINERS	8260B 40 ML	REMARKS	SAMPLE TYPE	BEGINNING DEPTH (IN FEET)	ENDING DEPTH (IN FEET)	FIELD LOT NO. # (ERPIMS)
	4/11/06	1600	GRAB	902004-GW-2	WG	3	✓		N1	-	-	-
		-		20060411-FD-1	WG	3	✓		FR	-	-	-
		1600		902004-GW-2-MS	WG	2	✓		N1	-	-	-
	↓	1600		902004-GW-2-MSD	WG	1	✓		N1	-	-	-
	4/12/06	1150		902004-GW-6	WG	3	✓		N1	-	-	-

MATRIX CODES

AA - AMBIENT AIR; SE - SEDIMENT; SH - HAZARDOUS SOLID WASTE; SL - SLUDGE; WP - DRINKING WATER; WW - WASTE WATER; WG - GROUND WATER; SO - SOIL; DC - DRILL CUTTINGS; WL - LEACHATE; GS - SOIL GAS; WC - DRILLING WATER; WO - OCEAN WATER; WS - SURFACE WATER; WQ - WATER FIELD QC; LH - HAZARDOUS LIQUID WASTE; LF - FLOATING/FREE PRODUCT ON GW TABLE

SAMPLE TYPE CODES

TB# - TRIP BLANK; SD# - MATRIX SPIKE DUPLICATE; RB# - RINSE BLANK; FR# - FIELD REPLICATE; N# - NORMAL ENVIRONMENTAL SAMPLE; MS# - MATRIX SPIKE

(# - SEQUENTIAL NUMBER (FROM 1 TO 9) TO ACCOMMODATE MULTIPLE SAMPLES IN A SINGLE DAY)

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
[signature]	4/12/06	1500	JHB		
RELINQUISHED BY (SIGNATURE) JHB	DATE	TIME	RECEIVED FOR LAB BY (SIGNATURE)	DATE	TIME

SPECIAL INSTRUCTIONS

Call Ann Marie Knopovitch, URS for Questions 716 856 5636

Distribution: Original accompanies shipment, copy to coordinator field files

CHAIN OF CUSTODY RECORD

URS

PROJECT NO. 11174635.00000

SITE NAME Wells Util 2

SAMPLERS (PRINT/SIGNATURE) JOHN Boyd

DELIVERY SERVICE: FedEx AIRBILL NO.: _____

LAB Pace

COOLER _____ of _____

PAGE 1 of 1

LOCATION IDENTIFIER	DATE	TIME	COMP/ GRAB	SAMPLE ID	MATRIX	TOTAL NO. # OF CONTAINERS	TESTS: TO-15 LL	TESTS: TO-15 LL Trip 2,2,2 ug/m3	REMARKS	SAMPLE TYPE	BEGINNING DEPTH (IN FEET)	ENDING DEPTH (IN FEET)	FIELD LOT NO. # (ERPIMS)
				BOTTLE TYPE AND PRESERVATIVE: 6 L 1Tst Summa			6 L 1Tst Summa	6 L 1Tst Summa					
	4/13/06	0940	24 hr	902004-SS-1A	GS	1	✓			N1	-	-	-
		0945		902004-SS-1B		1	✓			N1	-	-	-
		0952		902004-BA-1	AA	1		✓		N1	-	-	-
		0951		902004-FA-1		1		✓		N1	-	-	-
		0958		902004-OA-1		1		✓		N1	-	-	-
		1046		902004-SS-2		1		✓		N1	-	-	-
		1048		902004-BA-2		1		✓		N1	-	-	-
		1052		902004-FA-2		1		✓		N1	-	-	-
		1100		902004-OA-2		1		✓		N1	-	-	-
		1347		902004-V-SS	GS	1	✓			N1	-	-	-
		1510		902004-V-4S	GS	1	✓			N1	-	-	-
		-		20060413-FD-1		1		✓		FR1	-	-	-
		-		20060413-FD-2		1	✓			FR2	-	-	-

MATRIX CODES

AA - AMBIENT AIR; SE - SEDIMENT; SH - HAZARDOUS SOLID WASTE; SL - SLUDGE; WP - DRINKING WATER; WW - WASTE WATER; WG - GROUND WATER; SO - SOIL; DC - DRILL CUTTINGS; WL - LEACHATE; GS - SOIL GAS; WC - DRILLING WATER; WO - OCEAN WATER; WS - SURFACE WATER; WQ - WATER FIELD QC; LH - HAZARDOUS LIQUID WASTE; LF - FLOATING/FREE PRODUCT ON GW TABLE

SAMPLE TYPE CODES

TB# - TRIP BLANK; SD# - MATRIX SPIKE DUPLICATE; RB# - RINSE BLANK; FR# - FIELD REPLICATE; N# - NORMAL ENVIRONMENTAL SAMPLE; MS# - MATRIX SPIKE; (# - SEQUENTIAL NUMBER (FROM 1 TO 9) TO ACCOMMODATE MULTIPLE SAMPLES IN A SINGLE DAY)

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
	4/14/06	1800			
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LAB BY (SIGNATURE)	DATE	TIME

SPECIAL INSTRUCTIONS: Contact Ann Marie Kropovitch for Questions 716-856-5636

Distribution: Original accompanies shipment, copy to coordinator field files

URSF-075C/1 OF 1/CofCR/GCM

CHAIN OF CUSTODY RECORD

URS

PROJECT NO. 11174635.00000

SITE NAME Wellsville

SAMPLERS (PRINT/SIGNATURE) John Boyd

LAB Life Science

COOLER 1 of 1

PAGE 1 of 1

DELIVERY SERVICE: FedEx AIRBILL NO.: _____

LOCATION IDENTIFIER	DATE	TIME	COMP/ GRAB	SAMPLE ID	MATRIX	TOTAL NO. OF CONTAINERS	TESTS: 8260B	BOTTLE TYPE AND PRESERVATIVE: 40 ml	REMARKS	SAMPLE TYPE	BEGINNING DEPTH (IN FEET)	ENDING DEPTH (IN FEET)	FIELD LOT NO. # (ERPIMS)
GW-3	4/13/06	1748	GRAB	902004-GW-3	WG	3				N	-	-	-

MATRIX CODES

AA - AMBIENT AIR; SE - SEDIMENT; SH - HAZARDOUS SOLID WASTE; SL - SLUDGE; WP - DRINKING WATER; WW - WASTE WATER; WG - GROUND WATER; SO - SOIL; DC - DRILL CUTTINGS; WL - LEACHATE; GS - SOIL GAS; WC - DRILLING WATER; WO - OCEAN WATER; WS - SURFACE WATER; WQ - WATER FIELD QC; LH - HAZARDOUS LIQUID WASTE; LF - FLOATING/FREE PRODUCT ON GW TABLE

SAMPLE TYPE CODES

TB# - TRIP BLANK; SD# - MATRIX SPIKE DUPLICATE; RB# - RINSE BLANK; FR# - FIELD REPLICATE; N# - NORMAL ENVIRONMENTAL SAMPLE; MS# - MATRIX SPIKE; (# - SEQUENTIAL NUMBER (FROM 1 TO 9) TO ACCOMMODATE MULTIPLE SAMPLES IN A SINGLE DAY)

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
John Boyd	4/14/06	1700			
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LAB BY (SIGNATURE)	DATE	TIME

SPECIAL INSTRUCTIONS
Contact Anne Marie Krupovitch for questions. 716-856-5636

Distribution: Original accompanies shipment, copy to coordinator field files

URSF-075C/1 OF 1/CofCR/GCM

CHAIN OF CUSTODY RECORD

URS

PROJECT NO. 11174635.00000

SITE NAME Wellsville - Andover Landfill

SAMPLERS (PRINT/SIGNATURE) Rob Murphy / Rob Murphy

DELIVERY SERVICE: FED EX AIRBILL NO.: 8569 7928 1035

LAB Pace Analytical

BOX COOLER 1+2 of 2

PAGE 1 of 1

TESTS: TO-15 cc TCE < .25 ug/m3

BOTTLE TYPE AND PRESERVATIVE: 6 Liter Summa

LOCATION IDENTIFIER	DATE	TIME	COMP/ GRAB	SAMPLE ID	MATRIX	TOTAL NO. # OF CONTAINERS	REMARKS: Summa CAN#	REMARKS: Regulator #	SAMPLE TYPE	BEGINNING DEPTH (IN FEET)	ENDING DEPTH (IN FEET)	FIELD LOT NO. # (ERPIMS)
CS-3	4/27/28/06	1416 1342	24hr	902004-CS-3	AA	1	050	394	N,			
FD-3	4/27/28/06	[redacted]	|	20060427-FD-3	AA	1	708	146	FR.			
FA-3	4/27/28/06	1907 740	|	902004-FA-3	AA	1	804	323	N,			
OA-3	4/27/28/06	1412 921	↓	902004-OA-3	AA	1	040	379	N,			

MATRIX CODES

AA - AMBIENT AIR; SE - SEDIMENT; SH - HAZARDOUS SOLID WASTE; SL - SLUDGE; WP - DRINKING WATER; WW - WASTE WATER; WG - GROUND WATER; SO - SOIL; DC - DRILL CUTTINGS; WL - LEACHATE; GS - SOIL GAS; WC - DRILLING WATER; WO - OCEAN WATER; WS - SURFACE WATER; WQ - WATER FIELD QC; LH - HAZARDOUS LIQUID WASTE; LF - FLOATING/FREE PRODUCT ON GW TABLE

SAMPLE TYPE CODES

TB# - TRIP BLANK; SD# - MATRIX SPIKE DUPLICATE; RB# - RINSE BLANK; FR# - FIELD REPLICATE; N# - NORMAL ENVIRONMENTAL SAMPLE; MS# - MATRIX SPIKE

(# - SEQUENTIAL NUMBER (FROM 1 TO 9) TO ACCOMMODATE MULTIPLE SAMPLES IN A SINGLE DAY)

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
Robert J. Murphy	4/28/06	1700			
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LAB BY (SIGNATURE)	DATE	TIME

SPECIAL INSTRUCTIONS: Contact Anne Marie Krapovitch for questions 716-856-5656 Summa #626 + Regulator (2hr) Not used

Distribution: Original accompanies shipment, copy to coordinator field files

URSF-075C/1 OF 1/CofCR/GCM

4/12/06 902004-1

12. PRODUCT INVENTORY FORM

Fig 1/4

Make & Model of field instrument used: ppb RAE

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units) ppb	Photo** Y/N
Basement	Oven cleaner	15 oz	UO	Ethylene glycol	0	N
"	STARTER Logs for fireplaces	½ LB	U	None Listed	0	"
"	BEATS THE NAIL Adhesive	10.3 oz	U	Petroleum Naphtha Hexane	3131	"
"	floor Adhesive	QT	UO	Toluene	0	"
"	BARN PAINT	gal	U	MINERAL SPIRITS	0	"
"	NAPHTHA	gal	U	NAPHTHA	165	"
"	SPRAY PAINT (high heat) (5 CANS)	12 oz	UO	Acetone Xylene	19.4 ppm	"
"	409 Cleaner	22 oz	U	Label obscured	0	"
"	HOT SHOT INSECT SPRAY (2 CANS)	6 oz	U	NO CARRIER LISTED NO VOCs LISTED	0	"
"	GLAZING PUTTY	½ PINT	UO	NONE LISTED	0	"
"	ENAMEL PAINT	PINT	U	MINERAL SPIRITS	0	"
	MIN WAX Finishing WAX	16 oz	U	None Listed (NL)	0	"
	MARNISH STAIN	8 oz	U	NL	0	"
	Water repellant finish	1 qt	U	NL	0	
	Wallpaper remover	1 pt	U	NL	0	
	Linseed Oil Putty	½ pt	U	NL	0	
	Enamel Paint	1 pt	U	NL	0	
	Latex Paint and oil based paint	12 gals	U	Mineral spirits / Ethylene glycol	0	
	unknown black can no labels	3 gal	U	NL	0	

* Describe the condition of the product containers as **Unopened (UO), Used (U), or Deteriorated (D)**

** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

Basement background = 0 ppb

4/12/06 902004-1

12. PRODUCT INVENTORY FORM

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Make & Model of field instrument used: PPB RAE

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y/N
bkrd Basement Stairs	Tub & Tile Caulk	6 oz	UO	NL	0	N
	Latex Enamel	½ pt.	U	NL	0	
	Clear Finish	½ pt.	U	NL	0	
	Enamel Paint	½ pt.	U	Mineral Spirits.	0	
	Latex Enamel	1 qt.	U	obscured	0	
	All purpose Epoxy	2 x 5oz	U	NL	0	
	Wood Stain	½ pt.	U	Aliphatic hydrocarbons	0	
bkrd Dining Rm	Spray & Vac	24 oz	UO	NL	0	
"	Olde English Furniture Polish	8 oz	U	NL	0	
bkrd Hallway Pantry	Griffin Shoewax	2½ oz	U	NL	0	
	Lamp Oil	6 oz	U	pet. dist.	0	
	3 in 1 penetrant Oil	3 oz	U	pet. dist	0	
bkrd Kitchen	Liquid Wrench	11 oz	U	PCE, mineral oil polytetra fluroethylene	0	
	WD 40	13½ oz	U	pet. dist.	111	
	Acryllic Latex Enamel	8 oz	U	2-(2-methoxyethoxy) Ethanol	0	
	Butane	2.1 oz	U	NL	0	
Spa	Hot Shot Insecticide	11 oz	U	NL	0	
	Scotch-Gard	14 oz	U	propanol ~~fluoro~~ fluoroaliphatic polymer	0	

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12. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ppb RAE

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units) ppb	Photo** Y/N
~~Upper~~ Basement	rusted unk. con	1 gal	D	NL (unreadable)	0	NO
	Spray enamel	11 oz.	U	toluene, aceton, pet. dist.	0	
	Paint (Latex)	1 qt	D	NL (unreadable)	0	
	Interior enamel	1 qt	U	mineral spirits	0	
	Latex Paint 4x 1 gal	4 gals	D	NL / unreadable	0	
	Enamel paint	½ pt	U	NL	0	
	Minwax wood finish	½ pt	UO	mineral spirits	0	
	Floor Adhesive	1 gal	U	pet. dist., toluol, [illegible]	12	
	primer paint	1 qt	D	obscured / smashed	0	
	latex enamel 3 x ½ pint paint	1½ pint	U	NL	0	
	latex paint	1 qt	U	NL	0	
	Unk. paints 3 x 1 gal	3 gal	D	obscured	0	
	Anti-static spray	5 oz	U	NL	0	
	Polyurethane	1 gal	U	pet. distillates	0	
	(3) Latex Paint	3 gal ea	U	NL	0	
	Leather cond.	12 oz	U	NL	0	
	Unknown Paint	2 x 1 gal	U	NL	0	
	Speed Stripper	1 x 5 gal	U	NL	0	

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12. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ppb rae

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units) ppb	Photo** Y/N
Basement Stairs	Insecticide	12 oz	U	Pet. dist.	0	N
	DAP Glazing Cmpnd	1 pt.	U	NL	0	
	Spray ~~Lacquer~~ Lacquer	13 oz	U	Toluene	0	
	Latex Enamel	½ pt	U	NL	0	
	Beats The Nails	10.3 oz.	U	Pet Naptha, hexane	0	
	Spray Enamel	2×11 oz	U	Methylene Chloride Toluene	357	
	Silicon Sealer	28 oz	U	NL	0	
	Spray Enamel	11 oz	U	Toluene, acetone, pet. dist.	1036	
	Clear Wood Sealer	1 pt	U	pet. dist.	0	
	Shellac	1 pt.	U	alcohol	0	
	Latex Gloss Enamel	1 qt.	UO	propylene glycol	0	
	Raid Ant&Roach	16 oz	U	pet. dist.	0	
	Brake lube	4 oz	U	pet. dist.	0	
	Asphalt Base Caulk	11 oz	UO	NL	0	
	Enamel paint	2 oz	UO	pet. dist.	0	
	Radiator Sealer	5.5 oz	U	NL	0	
	Spray Paint	13 oz	U	Methylen chloride, toluene, pet. dist.	0	
	Spray Paint	16 oz	U	Aliphatic & aromatic hydrocarbons	2547	
	Minwax Polyeurethane	1 pt	U	"Pet. thinners"	0	

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12. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ppb RAE

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units) ppb	Photo** Y/N
Basement	LATEX PAINT	GAL	U	Ethylene glycol	0	N
"	GASKET Cement	303.	U	None Listed	0	N
"	3 IN 1 Oil	303	U	Ref. distillates	0	N
"	Silicone Caulk	10.3	U	None Listed	0	N
"	Enamel PAINT	1/2 PINT	U	Petrol. Distillates	0	N
"	Pressure washer w/ gasoline engine	1/2 gal	U	Gasoline	2610	N
Kitchen	Cork penetrant oil	403	U	Petroleum Distillates	0	N
"	Peek metal cleaner	500 g	UO	None Listed	0	N
"	Metal cleaner	1603	U	Petroleum distillates	129	N
"	Liquid Gold wood cleaner	903	U	" "	0	N
Bathroom	Nail polish remover	103	U	Acetone	0	N

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Basement background = 0 ppb
Kitchen background = 0 ppb
Bathroom background = 0 ppb

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ppb Rae.

List specific products found in the residence that have the potential to affect indoor air quality.

All chemicals Moved to Kitchen.

✓ ppb unless otherwise indicated.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y/N
Kitchen	FIRE Extinguisher	16oz	UO	"Dry chemical"	0	N
	PROPANE	14.1oz	UO	Propane	0	N
	Perf plus Shampoo	22oz	U	Perf plus -	0	N
	Fabric Softener	42oz	U	Not listed	22	N
	Snake	16oz	U	Ammonium Lauryl etc Iodide	0	N
	ASEPT Disinfectant	12oz	U	2-Phenylphenol, Ethanol, 4-tert-Amylphenol	2	N
	Abutra-Air Aerosol Cyst	10oz	U	Not listed.	49	N
	Shower magic	32oz	U	Not listed.	4	N
	Spray paint (orange)	17oz	U	VMS Naptha, Propane, Cyclohexanone, N-Butane, Mineral spirits	56	N
	Dawn w/ Bleach	375ml	U	Surfactants + Enzymes,	0 when closed	N
	Ammonia	64oz	U	Ammonia	66	N
	Comet (Powder)	14oz	U	Calcium carbonate, Sodium carbonate, anionic surfactants	20	N
	AJAX w/Bleach	14oz	U	Bleach, perfume	75	N
	TANDIC	24oz	U	Not listed.	0	N
	Comet Aluminum + Stainless steel cleaner	10oz	U	Not listed	0	N
	Loctite Household Cement	1oz	U	Acetone + Ethyl acetate	10.5ppm	N
	Glade plugin	—	U	-	2	N
	BUCK BEADS	5.75	U	Not listed	0	N
	Tinks #69 Doe-in-Rut Buck Lure	1oz	U	Not listed.	0	

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13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ppb RAE

List specific products found in the residence that have the potential to affect indoor air quality.

ppb (unless otherwise indicated)

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
Kitchen	ODOR ABSORBING	14oz	U	Not listed	89.	N
	ALEX Plus Acrylic latex plus silicone	5.5	UO	Not listed	0	N
	Nail Polish Remover	6fl	U	Acetone water fragrance	29	N
	Real Kill wasp & Hornet.	20.5oz	U	Tralomethrin, d-trans Allethrin other ingredients	0	N
	Lighter Fluid	5oz	U	Naptha	79	N
	ORTHO ANT stop	18.4oz	U	Tetramethrin, Sumithrin, Inert ingredients (Petroleum Distillate Xylene)	0	N
	Toilet Bowl Cleaner Lysol	24oz	U	Hydrogen chloride ~10% Other 90%	52	N
	Bissel Glass Cleaner w/ Ammonia.	19oz	U	Not listed	0	N
	Bathroom cleaner. Cuaternary	20oz	U	Not listed.	22	N
	Lemon Furniture Polish. (Turtle WAX)	10oz	U	Not listed	13	N
	Drain Cleaner.	18oz	U	2-Butoxyethanol tammonia.	0	N
	Carpet Fresh.	10.5oz	U	Not listed	0	N
	DeJIT Multi purpose Degreaser.	22oz	U	Not listed.	100	N
	Hot Shot wasp & hornet killer	14oz	U	Tralomethrin, d-trans Allethrin other ingredients	0	N
	Disinfectant.	20oz	U	n-Alkyl, Ethanol	0	N
	Body Splash	8oz	U	Denat. Alcohol, water fragrances	22	N
	Hornet Jet Bomb.	12oz	U	Diazinon, Pyrethrins, contains petroleum Distillate	384	N

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13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ppb Rae

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units) ppb	Photo ** Y / N
Kitchen	Liquid wrench	4 oz	U	Petroleum Distillates,	31	Y N
	3-in-1 oil	3oz	U	" "	0	N
	2 stroke engine oil	3.2oz	UO		0	N
	Skeeddle insect protector	4oz	U	N,N-Diethyl-m-toluamide others	0	N
	(2) BINGO DABBERS	3oz	U	Not listed	0	N
	Clorox	3qt	U	Sodium hypochlorite	0	N
	Antifreeze	1 Gallon	U	Not Listed	0	N
	Arm + Hammer Carpet Deodorizer	21oz	U	Not listed	0	N
	(2) Vaseline	8oz 20z	U	Petroleum distillates	11	N
	Avon - V. Hanoist hand cream	6	U	Glycol stearate, Glycerin, Isopropyl Palmitate, Mineral oil (others)	0	N
	Heaven Scent Perfume	—	U	Not listed.	20	N
	"Kills Rats + Mice"	4oz	U	Warfarin. Wincon	0	N

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All products which exhibited ppb RAE Readings were moved outside to shed after inventory before beginning

No Back Round Readings IN House
plastic carpet 0 ppb
No Noticeable odor today (4/27/06)