SITE MANAGEMENT

ANNUAL REPORT
2012 CALENDAR YEAR

WORK ASSIGNMENT D007622-07

ROSE VALLEY LANDFILL — SITE NO. 622017
RUSSIA (T) — HERKIMER (C), NY

Prepared for:
NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
625 Broadway, Albany, New York

Joe Martens, Commissioner

DIVISION OF ENVIRONMENTAL REMEDIATION

URS Corporation
77 Goodell Street
Buffalo, New York 14203

July 2013

ROSE VALLEY LANDFILL
2012 ANNUAL REPORT
SITE MANAGEMENT

SITE # 622017

TOWN OF RUSSIA, HERKIMER COUNTY, NEW YORK

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PREPARED BY:

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77 GOODELL STREET

BUFFALO, NEW YORK 14203

JULY 2013

TABLE OF CONTENTS

TABLES

FIGURES

APPENDICES

1.0 INTRODUCTION

1.1 General

This Site Management Annual Report for 2012 has been prepared under New York State Department of Environmental Conservation (NYSDEC) URS Work Assignment No. D007622-07 for the Rose Valley Landfill site (Figure 1). The purpose of this Annual Report is to provide a record of the long-term maintenance of the cap, wells and stormwater management features associated with remediation at the Rose Valley Landfill and to monitor the effectiveness of natural attenuation. This report is the third annual report as called for by Section 6.3 of the Conceptual Operation, Monitoring and Maintenance Plan (COMMP) (URS, November 2006). The COMMP was modified based upon comments from the NYSDEC. The modified plan, re-titled as the Site Management Plan (SMP) was submitted to the Department, reviewed, and approved in September 2010.

The purpose of the site management as presented in the Record of Decision (ROD) is to provide guidance for the operation and maintenance of the site relative to:

- Maintaining the capped area;
- Long term monitoring of the natural attenuation of the groundwater plume by and within the downslope wetlands; and
- Documenting the effectiveness of natural attenuation.

1.2 Project Background

The NYSDEC proposed a remedy in the ROD dated March 30, 2001. The recommendation involved:

- On-site disposal of contaminated surface soils from the older septic disposal pit into the on-site landfill;
- Installing a new cap on the landfill to reduce infiltration through the wastes;
- Installing a new residential well in a deeper, clean aquifer for the impacted residence; and
- Long-term monitoring of the leachate and contaminated groundwater plume by monitoring natural attenuation.

A description of the project site can be found in Section 2.0.

2.0 SITE DESCRIPTION

The Rose Valley Landfill is a privately owned, unlined dump that was open from 1963 to 1985. The site is located in Russia Township in Herkimer County as part of a 91-acre parcel (since subdivided into two parcels in 1986). The site is bounded to the east by Military Road, to the west by Bromley Road, and to the southwest by Rose Valley Road (Figure 2). A NYSDEC Class C stream locally known as Finch Brook separates the site from Military Road. Finch Brook is a tributary of Hurricane Brook (also a NYSDEC Class C stream).

The landfill is located on the side of a hill that has approximately 120 feet of relief. A steep, 60-foot-high sand embankment extends above the landfill to the west. The site is characterized by high relief, with sharp drops in elevation from southwest to northeast and a moderate, even south to southwest slope. The gradient across the western portion of the property is less severe, sloping in the opposite direction.

The area surrounding the site is sparsely populated, with few known permanent residents. At the time that the ROD was issued, a private well immediately adjacent to the landfill entrance on Rose Valley Road (and downgradient of the landfill) was found to be contaminated with site-related contaminants. A new replacement drinking water well into the deeper aquifer has since been installed at the residence; it is being monitored by the Herkimer County Department of Health.

The remedial design of the landfill closure was completed and the construction of the landfill cap was completed in 2007. A 6-foot high chain-link fence was constructed to limit access to the landfill cap area.

3.0 MONITORING ACTIVITIES

Monitoring activities were performed during October 2012 in accordance with the SMP (URS, September 2010). Site monitoring consisted of the collection of groundwater samples from ten (10) wells and surface water samples from four (4) locations, shown on Figure 2. Seven of the groundwater wells are "Sentry Wells" (i.e., SW-01S, SW-01D, SW-02S, SW-02D SW-03S, SW-04S and SW-04D) and three are monitoring wells (i.e., MW-03, MW-04 and MW-16). Sentry Wells are constructed the same as monitoring wells, but are called Sentry Wells because they are located between the landfill and nearby residential drinking water wells or a surface water body. The monitoring wells are located within the wetland, east of the landfill. Surface water samples locations are: at the toe of the embankment (SWTR-1T); at the entrance of the downgradient stream (SWTR-1E); at the North Detention Pond (NDP); and at the South Detention Pond (SDP). A copy of the field notes from the 2012 monitoring activities is provided in Appendix A.

3.1 Groundwater Hydraulic Monitoring

On October 17, 2012, synoptic groundwater level measurements were obtained from fourteen wells (i.e., seven Sentry Wells and seven monitoring wells). The water level measurements are provided in Table 1. Four of the Sentry Wells (i.e., SW-01S, SW-02S, SW-03S and SW-04S) and the three monitoring wells (MW-03, MW-04, and MW-16) are shallow wells. Three of the Sentry Wells (i.e., SW-01D, SW-02D and SW-04D) and four of the monitoring wells (MW-02, MW-14, MW-15 and MW-17) are deep wells. One of the deep wells east of the landfill is an artesian well (i.e., SW-04D), and previous efforts to measure the water column (April 2010 and July 2011) were unsuccessful. Monitoring wells MW-14, MW-15 and MW-17 were added to the hydraulic monitoring list in the SMP (URS, September 2010). These wells were added to the list in 2011 due to the artesian condition found in well SW-04D, which prevented the creation of a deep potentiometric surface map.

A potentiometric surface map based on the water level measurements from the shallow wells, using a 10.0-foot contour interval, is provided in Figure 3. A potentiometric surface map based on the water level measurements from the deep wells, using a 10.0-foot contour interval, is provided in Figure 4.

The shallow groundwater flow is to the east-northeast towards Military Road. The deep groundwater flow is in the same general direction.

3.2 Groundwater Sampling

On October 17 and 18, 2012, URS collected groundwater samples from seven Sentry Wells and three monitoring wells plus quality control (QC) samples using low-flow sampling procedures.

Prior to sample collection, standing water was purged from each well with a either a GeoPump2 peristaltic pump or Grundfos Redi-Flow 2 submersible pump using dedicated/disposable high-density polyethylene (HDPE) tubing. Wells were purged at a rate of two-liters per minute or less and the purge rate was adjusted to minimize draw down. During the purging of the well, water quality parameters (i.e., pH, specific conductivity, temperature, dissolved oxygen, turbidity) were measured using a Horiba U-52 Multi-parameter instrument with a flow-through cell. The water quality parameters were documented on a purge log. Samples were collected after the water quality parameters stabilized. Well purge logs are provided in Appendix B and a Photographic Log is provided in Appendix C. Purge water was disposed of on the ground up-gradient of the well locations, as per the direction of the Department.

All groundwater samples were shipped via common courier under chain-of custody (COC) to URS' standby subcontract laboratory, H2M Labs, Inc (H2M)., located in Melville, NY, a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory. The samples were analyzed for target compound list (TCL) volatile organic compounds (VOCs) plus tentatively identified compounds (TICs) following United States Environmental Protection Agency (USEPA) SW846 Method 8260B.

3.2.1 Groundwater Results

NYSDEC Analytical Services Protocol (ASP) Category B data deliverables was received by URS. The data was reviewed in accordance with the requirements outlined in *Guidance for Data Deliverables and the Development of Data Usability Summary Reports (DUSR), Appendix 2B, DER-10/Technical Guidance for Site Investigation and Remediation* (NYSDEC, May 2010). Data summary tables, Form I's and Form Ie's (TICs) are provided in the DUSR and include the reporting limit for each non-detected compound. A copy of the DUSR may be found in Appendix D.

A summary of the detected compounds in the groundwater samples are provided in Table 2. Results exceeding TOGS 1.1.1 Class GA groundwater standards or guidance values are

indicated with a circle. The locations of detected compounds that have exceeded their respective criteria are shown on Figure 5. Only two VOCs [i.e., 1,1-dichloroethane (15 µg/L, MW-04) and cis-1,2-dichloroethene (5.0 µg/L, MW-03)] were detected above TOGS 1.1.1 Class GA limits in the groundwater samples. No VOCs exceeded TOGS No. 1.1.1 standards or guidance values in the samples from Sentry Wells (i.e., SW-01D, SW-01S, SW-02D, SW-02S SW-03S, SW-04D, and SW-04S) or monitoring well MW-16. A historical summary of detected results in groundwater is provided in Table 3 and shown on Figure 6. Results from the 2012 sampling event are consistent with the 2010 and 2011 sampling events.

3.3 Surface Water/Detention Pond Sampling

On October 18, 2012, URS collected surface water samples from locations SWTR-1T and SWTR-1E, the North Detention Pond (NDP) and the South Detention Pond (SDP), plus QC samples. At each location the surface water sample was collected by immersing pre-cleaned, laboratory grade sample bottles as close to the middle of the water body as possible without disturbing the sediment. During the collection of the surface water samples, water quality parameters (i.e., pH, specific conductivity, temperature, dissolved oxygen, turbidity) were measured using a Horiba U-52 Multi-parameter instrument. The water quality parameters were documented on a sample log, which may be found in Appendix B. Photographs of surface water sampling are provided in Appendix C.

All surface samples were shipped via common courier under COC to H2M. The samples were analyzed for TCL VOCs plus TICs following USEPA SW846 Method 8260B.

3.3.1 Surface Water/Detention Pond Results

No VOCs were detected in the 2012 surface water samples. Figure 7 shows only the location of samples collected since no VOCs exceeded TOGS No. 1.1.1 Class C standards or guidance values in the surface water. A historical summary of detected results in surface water is provided in Table 4. Table 5 lists criteria that required calculation, per TOGS No. 1.1.1 for Class C surface waters. VOCs results from the 2012 sampling event are consistent with the 2010 and 2011 sampling events, with the exception of SWTR-1T, where several VOCs were previously detected but did not exceed criteria.

4.0 SITE MAINTENANCE

4.1 Monitoring Well Inspections

During the 2012 groundwater sampling event, a well inspection was performed. All wells appeared to be in good condition. URS keyed alike locks which were found to be either missing from the well casing or non-functional in the 2010 inspection and replaced during the 2011 inspection were intact. The monitoring well inspection logs may be found in Appendix E.

4.2 Landfill Inspection

A landfill inspection was performed by URS accompanied by NYSDEC personnel in August 2012 and during the October 2012 groundwater sampling event. A copy of the completed landfill inspection form from the October 2012 site visit can be found in Appendix F. The August 2012 site inspection is documented in the construction reports which may be found in Appendix G. The landfill cap components appeared to be in good condition. The landfill fence was also inspected and was found to be in good condition.

In the areas surrounding the landfill cap, the following was observed:

- Ruts up to approximately one foot deep and one foot wide were present in the gravel access road which leads to the landfill;
- The geotech fabric was exposed due to erosion alongside the main access road;
- It was noted that the quantity of silt and sediment in the detention ponds appears to have increased since the last site inspection;
- The area north of the cap between the North Detention Pond and the all-terrain vehicle recreational area/hill shows considerable erosion; and
- Hogweed, a non-native invasive species, observed near the main gate in 2011 was not encountered in 2012.

Two new trash piles were observed at the back entrance from Military Road. The piles included municipal solid waste and construction and demolition debris. In the sand borrow area east of the landfill where the Department had previously removed over 500 discarded tires and other trash, more tires have been discarded, along with deer carcasses and other trash. Photographs taken during the landfill inspection can be found in Appendix C.

4.3 Maintenance Performed

The following subsections describe site maintenance activities.

4.3.1 Monitoring Well Maintenance

No monitoring well maintenance was necessary or performed at the time this report was prepared.

4.3.2 Routine Maintenance

The landfill cap was mowed in August 2012 by Marcy Excavation Services, LLC., (MES) a subcontractor to the NYSDEC call-out contractor Environmental Products & Services of Vermont (EPS). The mowing activities were documented on the construction reports which may be found in Appendix G. No other routine maintenance was performed at the time this report was prepared.

4.3.3 Intermittent Maintenance

In August 2012, the following maintenance activities were performed on the site by MES:

- Three landfill gas vents damaged by gun shots were repaired; and
- Additional jersey barriers were placed at the entrance to a side access road onto the landfill. The placement of additional jersey barriers were necessary in order to prevent dumping on the site.

The maintenance activities were documented on the construction reports which may be found in Appendix G. No other intermittent maintenance was performed at the time this report was prepared.

5.0 SUMMARY AND RECOMMENDATIONS

A summary of the annual monitoring and recommendations are provided below.

5.1 Groundwater Hydraulic Monitoring

Shallow and deep groundwater flows in an east-northeast direction. In addition to the wells sampled, four additional wells (i.e., MW-02, MW-14, MW-15 and MW-17) were measured in order to provide the deep groundwater contours. It is recommended that these wells continue to be measured during future monitoring events.

5.2 Groundwater Quality Monitoring

Two VOCs (cis-1,2-dichoroethene and 1,1-dichloroethane) exceed TOGS 1.1.1 Class GA standards and guidance values in the 2012 groundwater samples at two locations, MW-03 and MW-04. There were no VOC exceedances in the Sentry Wells. Historical results of the ten wells are provided in Table 3 and Figure 6. The concentrations of the VOCs in the 2012 sampling event are slightly higher when compared with the 2010 and 2011 results at MW-03 and MW-04 and suggest an increasing trend.

5.3 Surface Water/Detention Pond Quality Monitoring

No VOCs were detected in the four surface water locations from the 2012 sampling event. Historically, no VOCs exceeded the TOGS 1.1.1 Class C surface water standards and guidance values. Historical data from the surface water sampling locations is provided in Table 4.

5.4 Monitoring Well Maintenance

No maintenance was necessary for the monitoring wells.

5.5 Landfill Maintenance

All landfill cap components appeared to be sound. The landfill was mowed in August 2012. Erosion was noted on the west side of the landfill at the toe drain/channel interface and on the north side of the site, north of the stone-lined drainage channel. Ruts have formed in the gravel on the landfill road.

During the October 18, 2012 site inspection, new trash dumping piles were observed at the back entrance from Military Road. The trash piles included municipal solid waste along with construction and demolition debris. In the area where the Department had previously removed over 500 discarded tires, more tires have been discarded, along with deer carcasses and other municipal trash. The NYSDEC will

monitor erosion and dumping during the next monitoring event. Corrective action may be necessary to mitigate the erosion and to remove the trash based on future observations.

TABLES

TABLE 1
GROUNDWATER ELEVATION MEASUREMENTS
ROSE VALLEY LANDFILL

Location ID / Type	Northing	Easting	Ground Elevation (ft)	Casing Elevation (ft)	Meas.point (Riser)Elev.(ft)	Geol. Zone	Specific Gravity	Date / Time	Depth to Water (ft)	Water Elev. (ft)	Product Thick. (ft)	Corrected Water Elev. (ft)	Remark
MW-02	1601925.82	356255.39			1305.15	B							
WL								8/17/2004 1415	58.38	1246.77	0.00		
WL								7/12/2011 1313	57.55	1247.60	0.00		
WL								10/17/2012 1028	60.59	1244.56	0.00		
MW-03	1602437.498	357450.2192			1175.58	A							
WL								8/19/2004 1210	3.31	1172.27	0.00		
WL								4/21/2010 0000	3.03	1172.55	0.00		
WL								7/12/2011 1335	3.01	1172.57	0.00		
WL								10/17/2012 1223	2.85	1172.73	0.00		
MW-04	1602588.989	357572.8098			1172.46	A							
WL								8/19/2004 1310	2.56	1169.90	0.00		
WL								4/21/2010 0000	2.63	1169.83	0.00		
WL								7/12/2011 1345	2.54	1169.92	0.00		
WL								10/17/2012 1234	2.40	1170.06	0.00		
MW-14	1602932.523	356221.9497			1317.83	B							
WL								8/19/2004 1610	96.74	1221.09	0.00		
WL								7/12/2011 1520	98.55	1219.28	0.00		
WL								10/17/2012 1129	98.42	1219.41	0.00		
MW-16	1602287.308	357950.8887			1152.58	A							
WL								8/18/2004 1320	4.00	1148.58	0.00		
WL								4/21/2010 0000	3.00	1149.58	0.00		
WL								7/12/2011 1400	3.56	1149.02	0.00		
WL								10/17/2012 1208	3.30	1149.28	0.00		
MW-17	1602592.476	356386.6381			1311.72	B							
WL								8/17/2004 1715	87.30	1224.42	0.00		
WL								7/12/2011 1505	86.69	1225.03	0.00		
WL								10/17/2012 1121	87.06	1224.66	0.00		

NM - No Measurement

The value noted in the column labeled Specific Gravity is an assumed value for free product, if found.

Geologic Zone:

A Shallow Unconfined Aquifer

B Deep Unconfined Aquifer

TABLE 1
GROUNDWATER ELEVATION MEASUREMENTS
ROSE VALLEY LANDFILL

Location ID / Type	Northing	Easting	Ground Elevation (ft)	Casing Elevation (ft)	Meas.point (Riser)Elev.(ft)	Geol. Zone	Specific Gravity	Date / Time	Depth to Water (ft)	Water Elev. (ft)	Product Thick. (ft)	Corrected Water Elev. (ft)	Remark
SW-01D	1601823.93	355356.06	1262.0		1264.70	B							
WL								8/17/2004 1025	68.64	1196.06	0.00		
WL								4/21/2010 0000	67.13	1197.57	0.00		
WL								7/12/2011 1437	67.37	1197.33	0.00		
WL								10/17/2012 1048	68.71	1195.99	0.00		
SW-01S	1601817.02	355346.13	1260.5		1263.17	A							
WL								8/17/2004 1020	19.32	1243.85	0.00		
WL								4/21/2010 0000	19.05	1244.12	0.00		
WL								7/12/2011 1435	18.56	1244.61	0.00		
WL								10/17/2012 1045	20.82	1242.35	0.00		
SW-02D	1601370.34	355721.25			1257.00	B							
WL								8/16/2004 1600	70.49	1186.51	0.00		
WL								4/21/2010 0000	70.10	1186.90	0.00		
WL								7/12/2011 1450	70.73	1186.27	0.00		
WL								10/17/2012 1106	70.97	1186.03	0.00		
SW-02S	1601367.21	355730.86			1257.20	A							
WL								8/16/2004 1700	12.05	1245.15	0.00		
WL								4/21/2010 0000	12.36	1244.84	0.00		
WL								7/12/2011 1448	11.30	1245.90	0.00		
WL								10/17/2012 1108	13.95	1243.25	0.00		
SW-03S	1601483.4	355518.17			1257.67	A							
WL								8/17/2004 0925	12.73	1244.94	0.00		
WL								4/21/2010 0000	12.81	1244.86	0.00		
WL								7/12/2011 1440	11.85	1245.82	0.00		
WL								10/17/2012 1058	14.52	1243.15	0.00		

NM - No Measurement

The value noted in the column labeled Specific Gravity is an assumed value for free product, if found.

Geologic Zone:

A Shallow Unconfined Aquifer

B Deep Unconfined Aquifer

Filter = (((tblGWD.LOCID) Like "SW-*" Or (tblGWD.LOCID)="MW-02" Or (tblGWD.LOCID)="MW-03" Or (tblGWD.LOCID)="MW-04" Or (tblGWD.LOCID)="MW-14" Or (tblGWD.LOCID)="MW-16" Or (tblGWD.LOCID)="MW-17"))

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TABLE 1
GROUNDWATER ELEVATION MEASUREMENTS
ROSE VALLEY LANDFILL

Location ID / Type	Northing	Easting	Ground Elevation (ft)	Casing Elevation (ft)	Meas.point (Riser)Elev.(ft)	Geol. Zone	Specific Gravity	Date / Time	Depth to Water (ft)	Water Elev. (ft)	Product Thick. (ft)	Corrected Water Elev. (ft)	Remark
SW-04D	1602328.65	358265.16	1149.0		1148.65	B							
WL								8/18/2004 1205	NM	-	NM	-	Artesian well
WL								4/21/2010 0000	NM	-	NM	-	Artesian well
WL								7/12/2011 1415	NM	-	NM	-	Artesian well
WL								10/17/2012 1152	NM	-	NM	-	Artesian well
SW-04S	1602315.5	358278.21	1148.3		1148.00	A							
WL								8/18/2004 1225	3.76	1144.24	0.00		
WL								4/21/2010 0000	2.83	1145.17	0.00		
WL								7/12/2011 1420	3.40	1144.60	0.00		
WL								10/17/2012 1153	3.20	1144.80	0.00		

NM - No Measurement

The value noted in the column labeled Specific Gravity is an assumed value for free product, if found.

Geologic Zone:

A Shallow Unconfined Aquifer

B Deep Unconfined Aquifer

TABLE 2
SUMMARY OF DETECTED COMPOUNDS IN 2012 GROUNDWATER SAMPLES
ROSE VALLEY LANDFILL

Location ID			MW-03	MW-04	MW-16	SW-01D	SW-01S
Sample ID			MW-03	MW-04	MW-16	SW-01D	SW-01S
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			10/18/12	10/18/12	10/18/12	10/17/12	10/17/12
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5	3 J	15			
1,2-Dichloroethene (cis)	UG/L	5	11	3 J			
Dichlorodifluoromethane	UG/L	5		1 J			

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. April 2000, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell - Not detected. J - The reported concentration is an estimated value.

Only Detected Results Reported.

I:\11176167\DB\Program\EDMS.mde
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WHERE [LOGDATE] >= #10/17/2012# AND [MATRIX] = 'WG';

TABLE 2
SUMMARY OF DETECTED COMPOUNDS IN 2012 GROUNDWATER SAMPLES
ROSE VALLEY LANDFILL

Location ID			SW-02D	SW-02D	SW-02S	SW-03S	SW-04D
Sample ID			FD-101712	SW-02D	SW-02S	SW-03S	SW-04D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			10/17/12	10/17/12	10/17/12	10/17/12	10/17/12
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)				
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5			1 J		
1,1-Dichloroethane	UG/L	5					
1,2-Dichloroethene (cis)	UG/L	5					
Dichlorodifluoromethane	UG/L	5					

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. April 2000, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell - Not detected. J - The reported concentration is an estimated value.

Only Detected Results Reported.

I:\11176167\DB\Program\EDMS.mde
Printed: 6/19/2013 10:41:36 AM
WHERE [LOGDATE] >= #10/17/2012# AND [MATRIX] = 'WG';

TABLE 2
SUMMARY OF DETECTED COMPOUNDS IN 2012 GROUNDWATER SAMPLES
ROSE VALLEY LANDFILL

Location ID			SW-04S
Sample ID			SW-04S
Matrix			Groundwater
Depth Interval (ft)			-
Date Sampled			10/17/12
Parameter	**Units**	**Criteria***	
Volatile Organic Compounds			
1,1,1-Trichloroethane	UG/L	5	
1,1-Dichloroethane	UG/L	5	
1,2-Dichloroethene (cis)	UG/L	5	
Dichlorodifluoromethane	UG/L	5	

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. April 2000, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell - Not detected. J - The reported concentration is an estimated value.

Only Detected Results Reported.

TABLE 3
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
ROSE VALLEY LANDFILL

Location ID			MW-03	MW-03	MW-03	MW-03	MW-04
Sample ID			MW-03	MW-03	MW-03	MW-03	MW-04
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			08/19/04	04/21/10	07/13/11	10/18/12	08/19/04
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5	4 J	2.3	2.2	3 J	16
1,2-Dichloroethene (cis)	UG/L	5	16	7.1	8.0	11	3 J
Chloroethane	UG/L	5					
Dichlorodifluoromethane	UG/L	5		0.75 J			
Metals							
Aluminum	UG/L	-	164 B		NA	NA	131 B
Antimony	UG/L	3	3.7 B		NA	NA	
Arsenic	UG/L	25			NA	NA	
Barium	UG/L	1000	60.4 B	47.6	NA	NA	17.2 B
Cadmium	UG/L	5	0.25 B		NA	NA	
Calcium	UG/L	-	220,000	225,000	NA	NA	156,000
Chromium	UG/L	50			NA	NA	
Cobalt	UG/L	-	2.0 B		NA	NA	1.1 B
Copper	UG/L	200			NA	NA	1.5 B
Iron	UG/L	300	918	252	NA	NA	1,190
Magnesium	UG/L	35000	23,500	18,600	NA	NA	26,800
Manganese	UG/L	300	2,210 J	2,450	NA	NA	304 J
Nickel	UG/L	100	5.6 B		NA	NA	13.5 B
Potassium	UG/L	-	3,950 B	3,320	NA	NA	1,070 B
Silver	UG/L	50			NA	NA	
Sodium	UG/L	20000	5,940	3,800	NA	NA	16,600
Vanadium	UG/L	-			NA	NA	
Zinc	UG/L	2000			NA	NA	

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. April 2000, Class GA.

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Concentration Exceeds Criteria

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B (metals or inorganics) - The reported concentration is above the method detection limit but below the quantitation limit.
NA - Not analyzed.

Only Detected Results Reported.

TABLE 3
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
ROSE VALLEY LANDFILL

Location ID			MW-04	MW-04	MW-04	MW-16	MW-16
Sample ID			MW-04	MW-04	MW-04	MW-16	MW-16
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/21/10	07/13/11	10/18/12	08/18/04	04/21/10
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5	9.3	10	15		
1,2-Dichloroethene (cis)	UG/L	5	2.3	2.4	3 J		
Chloroethane	UG/L	5		0.35 J			
Dichlorodifluoromethane	UG/L	5	0.86 J		1 J		
Metals							
Aluminum	UG/L	-		NA	NA	964 J	
Antimony	UG/L	3		NA	NA		
Arsenic	UG/L	25		NA	NA	3.5 B	
Barium	UG/L	1000	16.0	NA	NA	59.6 B	31.0
Cadmium	UG/L	5		NA	NA	1.0 B	
Calcium	UG/L	-	171,000	NA	NA	88,400	77,900
Chromium	UG/L	50		NA	NA		
Cobalt	UG/L	-		NA	NA	1.0 B	
Copper	UG/L	200		NA	NA		
Iron	UG/L	300	1,050	NA	NA	17,100	16,600
Magnesium	UG/L	35000	31,700	NA	NA	9,330	8,150
Manganese	UG/L	300	525	NA	NA	1,260 J	1,090
Nickel	UG/L	100		NA	NA		
Potassium	UG/L	-	1,130	NA	NA	1,080 B	
Silver	UG/L	50		NA	NA	2.0 BJ	
Sodium	UG/L	20000	14,100	NA	NA	9,150	5,800
Vanadium	UG/L	-		NA	NA	2.5 B	
Zinc	UG/L	2000		NA	NA	8.7 B	

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. April 2000, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

- = No standard or guidance value. Blank cell or ND - Not detected. J - The reported concentration is an estimated value.
B (metals or inorganics) - The reported concentration is above the method detection limit but below the quantitation limit.
NA - Not analyzed.

Only Detected Results Reported.

TABLE 3
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
ROSE VALLEY LANDFILL

Location ID			MW-16	MW-16	SW-01D	SW-01D	SW-01D
Sample ID			MW-16	MW-16	SW-1D	DUP-2	SW-01D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/13/11	10/18/12	08/17/04	04/21/10	04/21/10
Parameter	**Units**	**Criteria***				Field Duplicate (1-1)	
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5					
1,2-Dichloroethene (cis)	UG/L	5					
Chloroethane	UG/L	5					
Dichlorodifluoromethane	UG/L	5					
Metals							
Aluminum	UG/L	-	NA	NA			
Antimony	UG/L	3	NA	NA			
Arsenic	UG/L	25	NA	NA			
Barium	UG/L	1000	NA	NA	61.9 B	71.2	70.2
Cadmium	UG/L	5	NA	NA	0.24 B		
Calcium	UG/L	-	NA	NA	17,500	28,600	27,600
Chromium	UG/L	50	NA	NA	1.6 B		
Cobalt	UG/L	-	NA	NA	0.54 B		
Copper	UG/L	200	NA	NA	0.96 B		
Iron	UG/L	300	NA	NA	65.4 B	292 J	631 J
Magnesium	UG/L	35000	NA	NA	9,700	14,000	13,500
Manganese	UG/L	300	NA	NA	8.3 B	8.8	11.8
Nickel	UG/L	100	NA	NA	1.6 B		
Potassium	UG/L	-	NA	NA	1,780 B	1,940	1,890
Silver	UG/L	50	NA	NA			
Sodium	UG/L	20000	NA	NA	15,200	10,200	9,900
Vanadium	UG/L	-	NA	NA			
Zinc	UG/L	2000	NA	NA	11.0 B		

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. April 2000, Class GA.

Flags assigned during chemistry validation are shown.

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B (metals or inorganics) - The reported concentration is above the method detection limit but below the quantitation limit.
NA - Not analyzed.

Only Detected Results Reported.

TABLE 3
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
ROSE VALLEY LANDFILL

Location ID			SW-01D	SW-01D	SW-01S	SW-01S	SW-01S
Sample ID			SW-01D	SW-01D	SW-1S	SW-01S	FD-071211
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/12/11	10/17/12	08/17/04	04/21/10	07/12/11
Parameter	**Units**	**Criteria***					Field Duplicate (1-1)
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5					
1,2-Dichloroethene (cis)	UG/L	5					
Chloroethane	UG/L	5					
Dichlorodifluoromethane	UG/L	5					
Metals							
Aluminum	UG/L	-	NA	NA	215	5,830	NA
Antimony	UG/L	3	NA	NA			NA
Arsenic	UG/L	25	NA	NA			NA
Barium	UG/L	1000	NA	NA	27.3 B	33.4	NA
Cadmium	UG/L	5	NA	NA	0.56 B		NA
Calcium	UG/L	-	NA	NA	146,000	109,000	NA
Chromium	UG/L	50	NA	NA	11.2	6.9	NA
Cobalt	UG/L	-	NA	NA	1.3 B		NA
Copper	UG/L	200	NA	NA	4.0 B		NA
Iron	UG/L	300	NA	NA	419 R	3,700	NA
Magnesium	UG/L	35000	NA	NA	4,430 B	4,000	NA
Manganese	UG/L	300	NA	NA	44.7 R	50.5	NA
Nickel	UG/L	100	NA	NA	6.3 B		NA
Potassium	UG/L	-	NA	NA	1,520 B	2,080	NA
Silver	UG/L	50	NA	NA	0.41 B		NA
Sodium	UG/L	20000	NA	NA	3,050 B	2,100	NA
Vanadium	UG/L	-	NA	NA		6.6	NA
Zinc	UG/L	2000	NA	NA	14.4 B		NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. April 2000, Class GA.

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Concentration Exceeds Criteria

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NA - Not analyzed.

Only Detected Results Reported.

TABLE 3
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
ROSE VALLEY LANDFILL

Location ID			SW-01S	SW-01S	SW-02D	SW-02D	SW-02D
Sample ID			SW-01S	SW-01S	SW-2D	SW-02D	SW-02D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/12/11	10/17/12	08/16/04	04/22/10	07/12/11
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5					
1,2-Dichloroethene (cis)	UG/L	5					
Chloroethane	UG/L	5					
Dichlorodifluoromethane	UG/L	5					
Metals							
Aluminum	UG/L	-	NA	NA		443	NA
Antimony	UG/L	3	NA	NA			NA
Arsenic	UG/L	25	NA	NA			NA
Barium	UG/L	1000	NA	NA	84.4 B	65.7	NA
Cadmium	UG/L	5	NA	NA	0.25 B		NA
Calcium	UG/L	-	NA	NA	44,100	62,800	NA
Chromium	UG/L	50	NA	NA	3.0 B	4.1	NA
Cobalt	UG/L	-	NA	NA	0.55 B		NA
Copper	UG/L	200	NA	NA	5.6 B		NA
Iron	UG/L	300	NA	NA	51.2 B	433	NA
Magnesium	UG/L	35000	NA	NA	19,800	22,300	NA
Manganese	UG/L	300	NA	NA	2.8 B	10.2	NA
Nickel	UG/L	100	NA	NA	3.3 B		NA
Potassium	UG/L	-	NA	NA	9,580	1,870	NA
Silver	UG/L	50	NA	NA			NA
Sodium	UG/L	20000	NA	NA	11,300	7,500	NA
Vanadium	UG/L	-	NA	NA			NA
Zinc	UG/L	2000	NA	NA	11.7 B		NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. April 2000, Class GA.

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TABLE 3
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
ROSE VALLEY LANDFILL

Location ID			SW-02D	SW-02D	SW-02S	SW-02S	SW-02S
Sample ID			FD-101712	SW-02D	SW-2S	SW-02S	SW-02S
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			10/17/12	10/17/12	08/16/04	04/22/10	07/12/11
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)				
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5			3 J	1.9	
1,1-Dichloroethane	UG/L	5					
1,2-Dichloroethene (cis)	UG/L	5					
Chloroethane	UG/L	5					
Dichlorodifluoromethane	UG/L	5					
Metals							
Aluminum	UG/L	-	NA	NA	250		NA
Antimony	UG/L	3	NA	NA			NA
Arsenic	UG/L	25	NA	NA			NA
Barium	UG/L	1000	NA	NA	16.2 B	2.9	NA
Cadmium	UG/L	5	NA	NA			NA
Calcium	UG/L	-	NA	NA	53,500	57,400	NA
Chromium	UG/L	50	NA	NA	3.5 B		NA
Cobalt	UG/L	-	NA	NA	0.79 B		NA
Copper	UG/L	200	NA	NA	4.3 B		NA
Iron	UG/L	300	NA	NA	418 R		NA
Magnesium	UG/L	35000	NA	NA	2,670 B	2,240	NA
Manganese	UG/L	300	NA	NA	50.4 R		NA
Nickel	UG/L	100	NA	NA	2.9 B		NA
Potassium	UG/L	-	NA	NA	444 B		NA
Silver	UG/L	50	NA	NA			NA
Sodium	UG/L	20000	NA	NA	746 B	1,000	NA
Vanadium	UG/L	-	NA	NA			NA
Zinc	UG/L	2000	NA	NA	11.5 B		NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. April 2000, Class GA.

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TABLE 3
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
ROSE VALLEY LANDFILL

Location ID			SW-02S	SW-03S	SW-03S	SW-03S	SW-03S
Sample ID			SW-02S	SW-3S	SW-03S	SW-03S	SW-03S
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			10/17/12	08/16/04	04/22/10	07/12/11	10/17/12
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5	1 J				
1,1-Dichloroethane	UG/L	5					
1,2-Dichloroethene (cis)	UG/L	5					
Chloroethane	UG/L	5					
Dichlorodifluoromethane	UG/L	5					
Metals							
Aluminum	UG/L	-	NA	197 B		NA	NA
Antimony	UG/L	3	NA			NA	NA
Arsenic	UG/L	25	NA			NA	NA
Barium	UG/L	1000	NA	27.6 B	8.8	NA	NA
Cadmium	UG/L	5	NA	0.29 B		NA	NA
Calcium	UG/L	-	NA	95,400	74,400	NA	NA
Chromium	UG/L	50	NA	2.3 B		NA	NA
Cobalt	UG/L	-	NA	0.78 B		NA	NA
Copper	UG/L	200	NA	4.3 B		NA	NA
Iron	UG/L	300	NA	394 R		NA	NA
Magnesium	UG/L	35000	NA	4,380 B	3,040	NA	NA
Manganese	UG/L	300	NA	32.4 R		NA	NA
Nickel	UG/L	100	NA	2.3 B		NA	NA
Potassium	UG/L	-	NA	2,640 B	1,910	NA	NA
Silver	UG/L	50	NA			NA	NA
Sodium	UG/L	20000	NA	63,500	22,600	NA	NA
Vanadium	UG/L	-	NA			NA	NA
Zinc	UG/L	2000	NA	21.4		NA	NA

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TABLE 3
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
ROSE VALLEY LANDFILL

Location ID			SW-04D	SW-04D	SW-04D	SW-04D	SW-04S
Sample ID			SW-04D	SW-04D	SW-04D	SW-04D	SW-04S
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			08/18/04	04/21/10	07/13/11	10/17/12	08/18/04
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5					
1,2-Dichloroethene (cis)	UG/L	5					
Chloroethane	UG/L	5					
Dichlorodifluoromethane	UG/L	5					
Metals							
Aluminum	UG/L	-	1,120 J	1,800	NA	NA	914 J
Antimony	UG/L	3			NA	NA	
Arsenic	UG/L	25			NA	NA	
Barium	UG/L	1000	18.4 B	14.7	NA	NA	123 B
Cadmium	UG/L	5		2.4	NA	NA	0.68 B
Calcium	UG/L	-	10,700	12,200	NA	NA	105,000
Chromium	UG/L	50	1.1 B		NA	NA	59.5
Cobalt	UG/L	-	0.81 B		NA	NA	2.2 B
Copper	UG/L	200			NA	NA	4.8 B
Iron	UG/L	300	1,360	1,630	NA	NA	3,040
Magnesium	UG/L	35000	1,750 B	1,960	NA	NA	11,200
Manganese	UG/L	300	36.1 J	38.7	NA	NA	775 J
Nickel	UG/L	100	1.2 B		NA	NA	43.1 J
Potassium	UG/L	-	1,160 B	1,170	NA	NA	6,150 J
Silver	UG/L	50			NA	NA	
Sodium	UG/L	20000	32,700	32,000	NA	NA	11,700
Vanadium	UG/L	-	1.8 B		NA	NA	2.2 B
Zinc	UG/L	2000	5.5 B		NA	NA	12.6 B

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Concentration Exceeds Criteria

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TABLE 3
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
ROSE VALLEY LANDFILL

Location ID			SW-04S	SW-04S	SW-04S
Sample ID			SW-04S	SW-04S	SW-04S
Matrix			Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-
Date Sampled			04/21/10	07/13/11	10/17/12
Parameter	**Units**	**Criteria***			
Volatile Organic Compounds					
1,1,1-Trichloroethane	UG/L	5			
1,1-Dichloroethane	UG/L	5			
1,2-Dichloroethene (cis)	UG/L	5			
Chloroethane	UG/L	5		0.48 J	
Dichlorodifluoromethane	UG/L	5			
Metals					
Aluminum	UG/L	-	336	NA	NA
Antimony	UG/L	3		NA	NA
Arsenic	UG/L	25		NA	NA
Barium	UG/L	1000	26.1	NA	NA
Cadmium	UG/L	5		NA	NA
Calcium	UG/L	-	92,700	NA	NA
Chromium	UG/L	50		NA	NA
Cobalt	UG/L	-		NA	NA
Copper	UG/L	200		NA	NA
Iron	UG/L	300	8,870	NA	NA
Magnesium	UG/L	35000	6,900	NA	NA
Manganese	UG/L	300	2,080	NA	NA
Nickel	UG/L	100		NA	NA
Potassium	UG/L	-	1,940	NA	NA
Silver	UG/L	50		NA	NA
Sodium	UG/L	20000	4,300	NA	NA
Vanadium	UG/L	-		NA	NA
Zinc	UG/L	2000		NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. April 2000, Class GA.

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NA - Not analyzed.

Only Detected Results Reported.

TABLE 4
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN SURFACE/DETENTION POND WATER SAMPLES
ROSE VALLEY LANDFILL

Location ID			NDP	NDP	NDP	NDP	SDP
Sample ID			NDP	FD-071311	NDP-WS	NDP-WS	DUP-1
Matrix			Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/20/10	07/13/11	07/13/11	10/18/12	04/20/10
Parameter	**Units**	**Criteria***		Field Duplicate (1-1)			Field Duplicate (1-1)
Volatile Organic Compounds							
Acetone	UG/L	-					
Benzene	UG/L	10					
Chlorobenzene	UG/L	5					
Metals							
Aluminum	UG/L	100 ionic		NA	NA	NA	1,570
Barium	UG/L	-	32.5	NA	NA	NA	51.8
Calcium	UG/L	-	123,000	NA	NA	NA	77,200
Cobalt	UG/L	5		NA	NA	NA	
Iron	UG/L	300	1,650	NA	NA	NA	2,790
Magnesium	UG/L	-	15,900	NA	NA	NA	16,200
Manganese	UG/L	-	720	NA	NA	NA	101 J
Nickel	UG/L	calc, diss		NA	NA	NA	
Potassium	UG/L	-	3,700	NA	NA	NA	7,760
Sodium	UG/L	-	4,000	NA	NA	NA	6,200
Miscellaneous Parameters							
Hardness (calculated)	MG/L	-	373	NA	NA	NA	259

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. April 2000, Class C.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

- = No standard or guidance value. Blank cell or ND - Not detected. J - The reported concentration is an estimated value.
NA - Not analyzed.

Only Detected Results Reported.

TABLE 4
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN SURFACE/DETENTION POND WATER SAMPLES
ROSE VALLEY LANDFILL

Location ID			SDP	SDP	SDP	SDP	SWTR-1E
Sample ID			SDP	SDP-WS	FD-101812	SDP-WS	SWTR-1E
Matrix			Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/20/10	07/13/11	10/18/12	10/18/12	04/20/10
Parameter	**Units**	**Criteria***			Field Duplicate (1-1)		
Volatile Organic Compounds							
Acetone	UG/L	-					
Benzene	UG/L	10					
Chlorobenzene	UG/L	5					
Metals							
Aluminum	UG/L	100 ionic	1,460	NA	NA	NA	
Barium	UG/L	-	49.7	NA	NA	NA	22.3
Calcium	UG/L	-	74,600	NA	NA	NA	88,400
Cobalt	UG/L	5		NA	NA	NA	
Iron	UG/L	300	2,360	NA	NA	NA	230
Magnesium	UG/L	-	15,800	NA	NA	NA	12,800
Manganese	UG/L	-	71.3 J	NA	NA	NA	25.4
Nickel	UG/L	calc, diss		NA	NA	NA	
Potassium	UG/L	-	7,650	NA	NA	NA	5,570
Sodium	UG/L	-	6,100	NA	NA	NA	6,600
Miscellaneous Parameters							
Hardness (calculated)	MG/L	-	251	NA	NA	NA	273

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. April 2000, Class C.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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NA - Not analyzed.

Only Detected Results Reported.

TABLE 4
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN SURFACE/DETENTION POND WATER SAMPLES
ROSE VALLEY LANDFILL

Location ID			SWTR-1E	SWTR-1E	SWTR-1T	SWTR-1T	SWTR-1T
Sample ID			SWTR-1E	SWTR-1E	SWTR-1T	SWRT-1T	SWTR-1T
Matrix			Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/13/11	10/18/12	04/21/10	07/13/11	10/18/12
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Acetone	UG/L	-			9.4	20 J	
Benzene	UG/L	10				1.8 J	
Chlorobenzene	UG/L	5			0.75 J	3.3 J	
Metals							
Aluminum	UG/L	100 ionic	NA	NA		NA	NA
Barium	UG/L	-	NA	NA	117	NA	NA
Calcium	UG/L	-	NA	NA	122,000	NA	NA
Cobalt	UG/L	5	NA	NA	7.1	NA	NA
Iron	UG/L	300	NA	NA	10,500	NA	NA
Magnesium	UG/L	-	NA	NA	26,100	NA	NA
Manganese	UG/L	-	NA	NA	385	NA	NA
Nickel	UG/L	calc, diss	NA	NA	12.0	NA	NA
Potassium	UG/L	-	NA	NA	70,800	NA	NA
Sodium	UG/L	-	NA	NA	65,400	NA	NA
Miscellaneous Parameters							
Hardness (calculated)	MG/L	-	NA	NA	412	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. April 2000, Class C.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

- = No standard or guidance value. Blank cell or ND - Not detected. J - The reported concentration is an estimated value.
NA - Not analyzed.

Only Detected Results Reported.

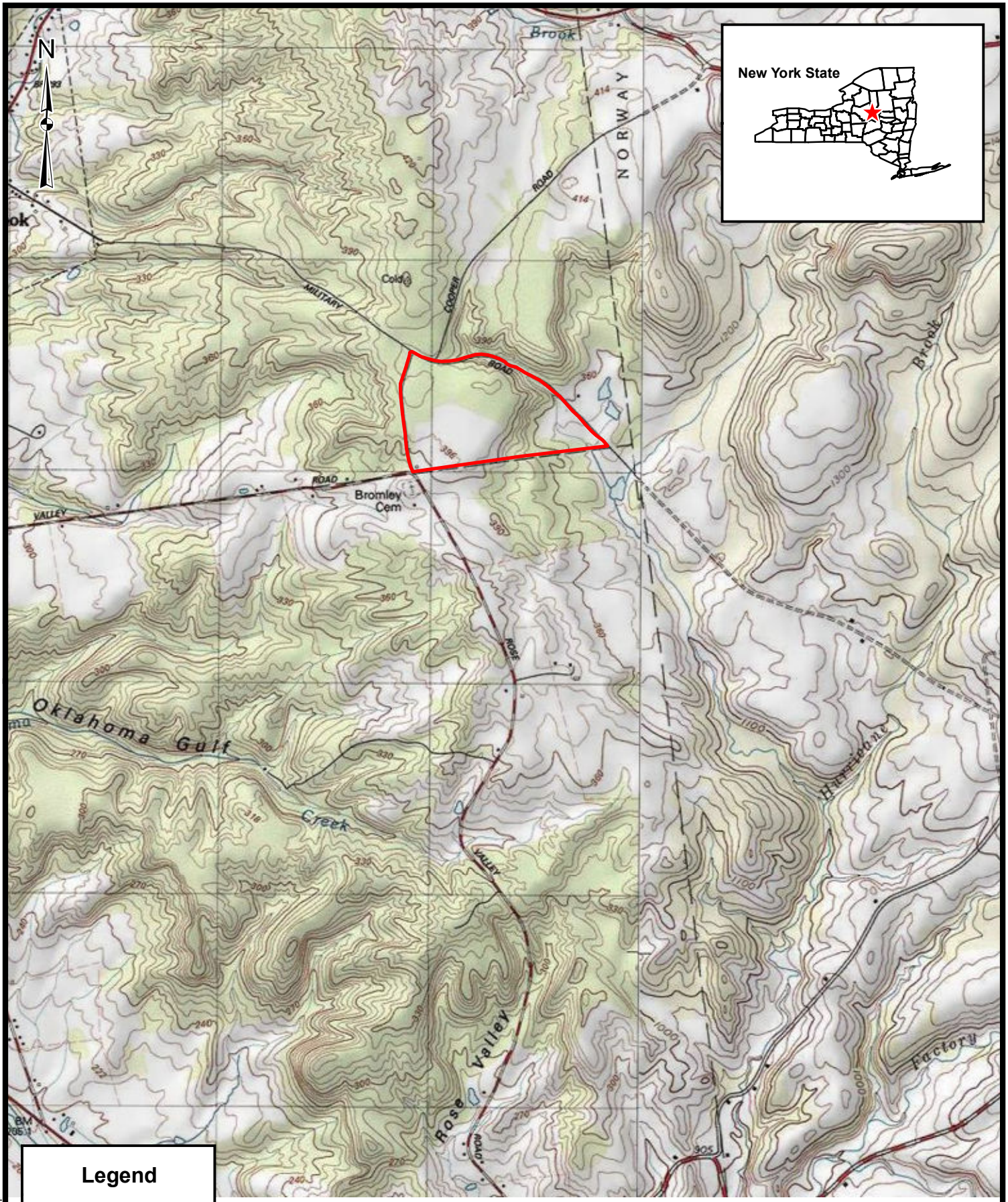
TABLE 5
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN SURFACE WATER
CRITERIA FOR CLASS C SURFACE WATERS REQUIRING CALCULATION
ROSE VALLEY LANDFILL

		Sample ID	NDP		DUP-1 (SDP)		SDP		SWTR-1E		SWTR-1T	
		Sample Date	04/20/10		04/20/10		04/20/10		04/20/10		04/21/10	
	Units	Criteria Applies To	Criteria	Result	Criteria	Result	Criteria	Result	Criteria	Result	Criteria	Result
Metals												
Hardness (calculated)	MG/L	Not applicable	--	373	--	259	--	251	--	273	--	412
Nickel	UG/L	Dissolved form	158		117		113		122		172	12.0

Criteria:
NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. April 2000, Class C.

-- - No criteria
Blank cell - not detected
Only detected results shown.

FIGURES



URS

ROSE VALLEY LANDFILL
SITE LOCATION

FIGURE 1

I:\11176167\GIS\2012 Annual Report\01 SITE LOCATION.mxd 6/14/2013 MDL

N

Cooper Rd

MW-14

MW-15

MW-17

JERSEY BARRIER WITH FENCE

MW-04

NDP

MW-03

MW-16

SW-04D

SW-04S

SWTR-1E

SWTR-1T

SDP

APPROXIMATE AREA OF WETLANDS

Bromley Rd

MW-02

SW-01D

SW-01S

LANDFILL FENCE

Rose Valley Rd

Military Rd

SW-03S

NEARBY RESIDENCES

SW-02D

SW-02S

Legend

- Groundwater Monitoring Well
- Surface Water Sampling Location
- Residential Buildings

300 0 300 Feet

ROSE VALLEY LANDFILL
SITE PLAN

URS

FIGURE 2

I:\11176167\GIS\2012 Annual Report\02 SITE PLAN.mxd 6/20/2013 MDL

N

Cooper Rd

JERSEY BARRIER WITH FENCE

MW-04, 1170.06

MW-03, 1172.73

SW-04S, 1144.80

MW-16, 1149.28

1150

1160

1170

1180

1190

1200

1210

1220

1230

1240

LANDFILL FENCE

Bromley Rd

SW-01S, 1242.35

Rose Valley Rd

SW-03S, 1243.15

SW-02S, 1243.25

Military Rd

Legend

- Groundwater Monitoring Well
- 1240 Groundwater Contours (FT AMSL)

FT AMSL = Feet Above Mean Sea Level

300 0 300 Feet

ROSE VALLEY LANDFILL
POTENTIOMETRIC SURFACE (SHALLOW)
OCTOBER 17, 2012

URS

FIGURE 3

I:\11176167\GIS\2012 Annual Report\03 GW CONTOURS SHALLOW 121017.mxd 6/19/2013 MDL

N

Cooper Rd

MW-14, 1219.41

MW-15, 1224.29

MW-17, 1224.66

JERSEY BARRIER WITH FENCE

SW-04D, NM

Military Rd

Bromley Rd

MW-02, 1244.56

SW-01D, 1195.99

1240

1230

1220

1210

1200

1190

LANDFILL FENCE

Rose Valley Rd

SW-02D, 1186.03

Legend

- Groundwater Monitoring Well
- 1240 Groundwater Contours (FT AMSL)

FT AMSL = Feet Above Mean Sea Level

300 0 300 Feet

ROSE VALLEY LANDFILL
POTENTIOMETRIC SURFACE (DEEP)
OCTOBER 17, 2012

URS

FIGURE 4

I:\11176167\GIS\2012 Annual Report\04 GW CONTOURS DEEP 121017.mxd 6/18/2013 MDL

N

Cooper Rd

MW-03	TOGS	10/12
VOCs:		
1,2-Dichloroethene (cis)	5	11

MW-04	TOGS	10/12
VOCs:		
1,1-Dichloroethane	5	15

MW-16

SW-04D

SW-04S

Bromley Rd

SW-01D

SW-01S

Rose Valley Rd

SW-03S

SW-02D

SW-02S

Military Rd

Legend

- One or More Compounds Exceed Criteria
- No Compounds Exceed Criteria

Location ID | Sample Date

MW-04	TOGS	10/12
VOCs:		
1,1-Dichloroethane	5	15

Compound | Criteria Value | Concentration

Note:
NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. April 2000, Class GA criteria used to determine exceedances.

300 0 300 Feet

ROSE VALLEY LANDFILL GROUNDWATER EXCEEDANCES OCTOBER 2012

URS

FIGURE 5

I:\11176167\GIS\2012 Annual Report\05 WGRES.mxd 6/20/2013 MDL

MW-03	TOGS	4/10	7/11	10/12
VOCs:				
1,2-Dichloroethene (cis)	5	7.1	8	11
Metals:				
Antimony	3	ND	NS	NS
Iron	300	252	NS	NS
Manganese	300	2450	NS	NS

MW-04	TOGS	4/10	7/11	10/12
VOCs:				
1,1-Dichloroethane	5	9.3	10	15
Metals:				
Iron	300	1050	NS	NS
Manganese	300	525	NS	NS

SW-04D	TOGS	4/10	7/11	10/12
Metals:				
Iron	300	1630	NS	NS
Sodium	20000	32000	NS	NS

SW-04S	TOGS	4/10	7/11	10/12
Metals:				
Chromium	50	ND	NS	NS
Iron	300	8870	NS	NS
Manganese	300	2080	NS	NS

MW-16	TOGS	4/10	7/11	10/12
Metals:				
Iron	300	16600	NS	NS
Manganese	300	1090	NS	NS

SW-01S	TOGS	4/10	7/11	10/12
Metals:				
Iron	300	3700	NS	NS

SW-01D	TOGS	4/10	7/11	10/12
Metals:				
Iron	300	631	NS	NS

SW-03S	TOGS	4/10	7/11	10/12
Metals:				
Sodium	20000	22600	NS	NS

SW-02D	TOGS	4/10	7/11	10/12
Metals:				
Iron	300	433	NS	NS

Legend

- One or More Compounds Exceed Criteria
- No Compounds Exceed Criteria

Location ID | Sample Date

MW-04	TOGS	10/12
VOCs:		
1,1-Dichloroethane	5	15

Compound | Criteria Value | Concentration

Notes: ND - Not Detected; NS - Not Sampled for this parameter; NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. April 2000, Class GA criteria used to determine exceedances.

300 0 300 Feet

ROSE VALLEY LANDFILL HISTORICAL GROUNDWATER EXCEEDANCES

URS

FIGURE 6

I:\11176167\GIS\2012 Annual Report\06 WGRES HISTORICAL (REV).mxd 6/20/2013 MDL

N

Cooper Rd

Bromley Rd

Rose Valley Rd

Military Rd

NDP

SWTR-1T

SWTR-1E

SDP

Legend

- One or More Compounds Exceed Criteria
- No Compounds Exceed Criteria

Location ID | Sample Date

MW-04	TOGS	7/11
VOCs:		
1,1-Dichloroethane	5	10

Compound | Criteria Value | Concentration

Note:
NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. April 2000, Class C criteria used to determine exceedances.

300 0 300 Feet

ROSE VALLEY LANDFILL
SURFACE WATER/ DETENTION POND EXCEEDANCES OCTOBER 2012

URS

FIGURE 7

I:\11176167\GIS\2012 Annual Report\07 WSRES.mxd 6/20/2013 MDL

APPENDIX A

FIELD NOTES

Location Rose Valley LF Date 10/12/12

Project / Client NYSDEC 45-65°F
SUNNY - Lt wind

Weather - Mostly Sunny ~50°

0945 - Arrive @ the site.
URS Personnel - Chuck D. + Tim I.
Setup Polaris Utility vehicle + equipment

1300 - Stop for lunch and Motel check-in

1400 - Return to Landfill
Calibrate U-52 w/ Flow Cell

	Actual	Reading
ph	4.0	4.0
Cond.	4.49	4.48
Turb.	0.0	0.9

14:15 set up @ SW 03S.
using geopump w/ Horiba U52 to purge the Required 3 Well Volumes - Flow rate 500 ml

15:02 collected sample + MS/MSD

15:15 set up at SW-02S

15:49 collected sample @ SW-02S

15:55 set up at location SW-02D collected Field dupe at this Location - Grundfos pump used at this location due to depth (79.42')

16:35 collected sample

Location Rose Valley LF Date 10/17/12

Project / Client NYSDEC

Water Levels

	DTW	DTB	Time	Comment
MW-02	60.59	76.70	10:28	Soft Bottom
MW-03	2.85	17.26	12:23	SB
MW-04	2.40	17.51	12:34	SB
MW-16	3.30	11.63	12:08	SB
SW-04D	artesian	84.42	11:52	SB
SW-04S	~~3.80~~ 3.20	8.21	11:53	HB
SW-01S	20.82	28.41	10:45	HB loose riser top 10' feet SB
SW-01D	68.71	83.95	10:48	
SW-02S	13.95 ~~20.04~~	20.04	11:08	SB
SW-02D	70.97	79.42	11:06	SB
MW-15	88.07	90.80	11:23	SB No Lock
MW-17	87.06	98.95	11:21	SB No lock
MW-14	98.42	109.60	11:29	SB
SW-03S	14.52	18.30	1058	SB well box full of H2O

No Riser cap

soft Bottom = SB
hard bottom = HB

Location RVLF Date 10/17/12
Project / Client NYSDEC

16:45 movedto SW-1S
17:29 collected sample
already set up @ SW-1D
17:35 ish started purging w/
Grundfos
18:00 collected sample
18 30 2 - 40ml vials were collected
@ each location for TCL VOCs +
TICs analysis
- Polaris loaded up on trailer
- URS offsite

TW

Location Rose Valley Land Fill Date 10/18/12
Project / Client NYSDEC Sunny

- Meet Mike Mason @ 7:15ish for breakfast
8:30 mobe / pack equip / truck
after brief site tour set up at
SW-04S - notes from tour
during site tour we noted
new dumping (2 loads) occurred
@ back entrance from Military Rd.
Municipal solid waste + C&D debris;
also noted more dumping has
occurred on Military Rd where
large tire cleanup occurred - (State
removed almost 500 tires) now
several new tires dumped along
w/ deer carcass and other trash.
10:35 collected sample @
SW-04S
10:40 set up @ SW-04D
this is an artesian well,
adjustments were made to geopump
so flow rate could be pumped at max
rate which is 1 l/m
11:10 collected sample SW-04D
pumped approx for 25 mins -

Location Rose Valley LF Date 10/18/12

Project / Client NYSDEC

11:35 ish moved to MW-16
12:27 collected sample
Note - during purging for this well we purged at lowest flow rate, which was ≈ 90 ml/min.
12:30 ish prepared for collection of surface water SWTR-1E
12:37 collected SWTR-1E
~13-14:00 lunch - off site
14-15:00 Engineering inspection of landfill conducted by Mike Mason, NYSDEC + Chuck URS
NO deficiencies of any consequence noted - Landfill cap in great shape. see inspection form for note + photos.
15:00 set up @ MW-4
15:33 collected MW-4 sample using geo pump
15:40 set up at MW-3.
16:23 collected last GND H2O Sample MW-3.
16:30 collected NDP-WS. and collected MS and MSD @

Location RVLF Date 10/18/12 thursday -

Project / Client DEC cloudy 60° F

this location
16:45 collect surface H2O Sample SWTR-1T.
17:05 collected South Detention Pond SDP-WS - also collected Dupe at this location
18:00 secured Ranger and packed up all gear - left site -

10/19/12 traveled back to URS BUFFALO.

APPENDIX B

MONITORING WELL PURGE LOGS/ SURFACE WATER SAMPLE LOG

SURFACE WATER SAMPLING - SAMPLE COLLECTION DATA SHEET

Project Name: *Rose Valley Landfill*

Project Num ***11176716***

Sampling Crew Members: *C. Dusel, T. Ifkovich*

Supervisor: C. Dusel

Date of Sample Collection: *10/18/2012*

Sample I.D. Number	***Sample Location***	***Est. Stream Width***	***Est. Stream Depth***	***Est. Stream Velocity***	***pH***	***Temp. ^{0}C***	***Diss. O_2 (mg/L)***	***Turb. (NTU)***	***Cond. (mS/cm)***	***ORP (mV)***	***Time***	***Sample Analysis***	***Sample Description***
NDP	NDP	Not measured	Not measured	Not measured	7.99	14.54	7.14	15.6	0.565	7	1630	VOCs	Surface water & MS/MSD
SDP	SDP	Not measured	Not measured	Not measured	7.76	13.79	3.10	22.2	0.522	30	1705	VOCs	Surface water & FD-101812
SWTR-1E	SWTR-1E	Not measured	Not measured	Not measured	7.75	12.20	4.58	0.2	0.449	-92	1237	VOCs	Surface water
SWTR-1T	SWTR-1T	Not measured	Not measured	Not measured	7.00	14.11	0.34	>1000	1.11	-54	1645	VOCs	Surface water

Additional Comments:

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: 11176716.00004 Site: Rose Valley Landfill Well #: MW-3

Sampling Personnel: C. Dusel, T. Ifkovich Date: 10/18/12 Company: URS Corporation

Purging/ Sampling Device: Geopump Tubing Type: HDPE Tubing Inlet: Screen Midpoint

Measuring Point: TOC Initial Depth to Water: 2.85 Depth to Well Bottom: 17.26 Well Diameter: 2" Screen Length: 10'

Casing Type: PVC Volume in 1 Well Casing (liters): 8.9 Estimated Purge Volume (liters): 9.8

Sample ID: MW-03 Sample Time: 1623 QA/QC: None

Sample Parameters: TCL VOC + TICs

PURGE PARAMETERS

TIME	pH	TEMP (^{0}C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	ORP (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (btor)
1548	7.09	15.93	0.823	4.72	5.3	38	250	2.85
1553	6.93	14.81	0.840	2.40	0.0	30	250	3.41
1558	6.88	14.42	0.846	0.96	0.0	27	250	3.43
1603	6.86	14.33	0.850	0.16	0.0	27	300	3.43
1608	6.84	14.14	0.853	0.00	0.0	26	300	3.43
1613	6.83	14.11	0.852	0.00	0.0	26	300	3.43
1618	6.83	13.96	0.853	0.00	0.0	25	300	3.43
1623	6.82	13.92	0.853	0.00	0.0	24	300	3.43
Tolerance:	**0.1**	**---**	**3%**	**10%**	**10%**	**+ or - 10**	**---**	

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft ($vol_{cyl} = \pi r^2 h$)

Comments:

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: 11176716.00004 Site: Rose Valley Landfill Well #: MW-4

Sampling Personnel: C. Dusel, T. Ifkovich Date: 10/18/12 Company: URS Corporation

Purging/ Sampling Device: Geopump Tubing Type: HDPE Tubing Inlet: Screen Midpoint

Measuring Point: TOC Initial Depth to Water: 2.40 Depth to Well Bottom: 17.51 Well Diameter: 2" Screen Length: 10'

Casing Type: PVC Volume in 1 Well Casing (liters): 9.3 Estimated Purge Volume (liters): 8.5

Sample ID: MW-04 Sample Time: 1533 QA/QC: None

Sample Parameters: TCL VOC + TICs

PURGE PARAMETERS

TIME	pH	TEMP (^{0}C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	ORP (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (btor)
1458	7.51	14.20	0.794	0.00	5.6	-21	200	2.40
1503	7.35	14.18	0.796	0.00	2.0	-17	250	2.68
1508	7.25	13.89	0.786	0.00	4.6	-14	250	2.70
1513	7.21	13.79	0.785	0.00	6.8	-7	250	2.73
1518	7.17	13.78	0.785	0.00	7.3	-5	250	2.76
1523	7.15	13.74	0.785	0.00	0.0	-4	250	2.78
1528	7.14	13.63	0.786	0.00	0.0	-3	250	2.79
1533	7.13	13.63	0.787	0.00	0.7	-3	250	2.80
Tolerance:	**0.1**	**---**	**3%**	**10%**	**10%**	**+ or - 10**	**---**	

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft ($vol_{cyl} = \pi r^2 h$)

Comments:

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: 11176716.00004 Site: Rose Valley Landfill Well #: MW-16

Sampling Personnel: C. Dusel, T. Ifkovich Date: 10/18/12 Company: URS Corporation

Purging/ Sampling Device: Geopump Tubing Type: HDPE Tubing Inlet: Screen Midpoint

Measuring Point: TOC Initial Depth to Water: 3.30 Depth to Well Bottom: 11.63 Well Diameter: 2" Screen Length: 8'

Casing Type: PVC Volume in 1 Well Casing (liters): 5.1 Estimated Purge Volume (liters): 4.7

Sample ID: MW-16 Sample Time: 1227 QA/QC: None

Sample Parameters: TCL VOC + TICs

PURGE PARAMETERS

TIME	pH	TEMP (^{0}C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	ORP (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (btor)
1137	8.39	14.15	0.406	0.00	28.0	-47	100	3.30
1142	7.72	14.19	0.407	0.00	21.9	-63	100	4.09
1147	7.40	14.21	0.390	0.00	28.5	-74	100	4.50
1152	7.24	14.86	0.386	0.00	22.2	-73	90	4.57
1157	7.18	15.57	0.382	0.00	17.4	-76	90	4.65
1202	7.15	15.95	0.385	0.00	15.9	-77	90	4.72
1207	7.13	16.35	0.387	0.00	19.0	-78	90	4.79
1212	7.12	16.63	0.383	0.00	13.9	-80	90	4.86
1217	7.11	16.77	0.382	0.00	10.8	-81	90	4.91
1222	7.10	16.86	0.382	0.00	8.7	-81	90	4.96
1227	7.10	16.90	0.383	0.00	8.7	-81	90	5.04
Tolerance:	**0.1**	**---**	**3%**	**10%**	**10%**	**+ or - 10**	**---**	

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft ($vol_{cyl} = \pi r^2 h$)

Comments:

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: 11176716.00004 Site: Rose Valley Landfill Well #: SW-01S

Sampling Personnel: C. Dusel, T. Ifkovich Date: 10/17/12 Company: URS Corporation

Purging/ Sampling Device: Geopump Tubing Type: HDPE Tubing Inlet: Screen Midpoint

Measuring Point: TOC Initial Depth to Water: 20.82 Depth to Well Bottom: 28.41 Well Diameter: 2" Screen Length: 10'

Casing Type: PVC Volume in 1 Well Casing (liters): 4.7 Estimated Purge Volume (liters): 8.9

Sample ID: SW-01S Sample Time: 1729 QA/QC: None

Sample Parameters: TCL VOC + TICs

PURGE PARAMETERS

TIME	pH	TEMP (^{0}C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	ORP (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (btor)
1654	7.31	12.73	0.491	0.76	149	148	300	20.82
1659	7.03	12.39	0.486	0.17	34.6	164	300	21.24
1704	6.98	12.33	0.465	0.66	20.2	171	300	21.60
1709	6.95	12.47	0.466	0.40	129	175	240	21.75
1714	6.94	12.39	0.481	0.27	134	180	240	21.85
1719	6.93	12.45	0.494	0.07	167	182	200	21.95
1724	6.93	12.47	0.504	0.01	171	183	200	21.99
1729	6.93	12.51	0.509	0.00	173	184	200	22.04
Tolerance:	**0.1**	**---**	**3%**	**10%**	**10%**	**+ or - 10**	**---**	

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft (vol $_{cyl} = \pi r^2 h$)

Comments:

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: 11176716.00004 Site: Rose Valley Landfill Well #: SW-01D

Sampling Personnel: C. Dusel, T. Ifkovich Date: 10/17/12 Company: URS Corporation

Purging/ Sampling Device: Grundfos Tubing Type: HDPE Tubing Inlet: Screen Midpoint

Measuring Point: TOC Initial Depth to Water: 68.71 Depth to Well Bottom: 83.95 Well Diameter: 2" Screen Length: 10'

Casing Type: PVC Volume in 1 Well Casing (liters): 9.4 Estimated Purge Volume (liters): 16.0

Sample ID: SW-01D Sample Time: 1800 QA/QC: None

Sample Parameters: TCL VOC + TICs

PURGE PARAMETERS

TIME	pH	TEMP (^{0}C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	ORP (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (btor)
1730	7.46	11.98	0.221	0.00	28.7	148	900	68.71
1735	7.89	14.88	0.224	0.00	8.9	2	900	69.65
1740	8.00	15.69	0.222	0.00	5.4	-23	450	69.81
1745	8.10	16.68	0.221	0.00	4.2	-43	450	70.05
1750	8.14	16.50	0.220	0.00	1.1	-47	250	70.13
1755	8.16	16.71	0.219	0.00	0.0	-49	250	70.15
1800	8.17	16.79	0.219	0.00	0.0	-50	250	70.17
Tolerance:	**0.1**	**---**	**3%**	**10%**	**10%**	**+ or - 10**	**---**	

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft (vol $_{cyl} = \pi r^2 h$)

Comments:

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: 11176716.00004 Site: Rose Valley Landfill Well #: SW-02S

Sampling Personnel: C. Dusel, T. Ifkovich Date: 10/17/12 Company: URS Corporation

Purging/ Sampling Device: Geopump Tubing Type: HDPE Tubing Inlet: Screen Midpoint

Measuring Point: TOC Initial Depth to Water: 13.95 Depth to Well Bottom: 20.04 Well Diameter: 2" Screen Length: 10'

Casing Type: PVC Volume in 1 Well Casing (liters): 3.8 Estimated Purge Volume (liters): 15.0

Sample ID: SW-02S Sample Time: 1549 QA/QC: None

Sample Parameters: TCL VOC + TICs

PURGE PARAMETERS

TIME	pH	TEMP (^{0}C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	ORP (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (btor)
1519	8.26	17.63	0.225	6.85	30.4	133	500	13.95
1524	8.03	16.62	0.223	6.54	30.8	141	500	13.95
1529	7.93	16.14	0.226	6.24	11.7	147	500	13.95
1534	7.89	15.88	0.227	6.30	7.8	149	500	13.95
1539	7.86	15.93	0.226	6.33	3.9	151	500	13.95
1544	7.86	16.18	0.223	6.38	1.2	152	500	13.95
1549	7.85	16.06	0.225	6.40	0.5	152	500	13.95
Tolerance:	**0.1**	**---**	**3%**	**10%**	**10%**	**+ or - 10**	**---**	

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft ($vol_{cyl} = \pi r^2 h$)

Comments:

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: 11176716.00004 Site: Rose Valley Landfill Well #: SW-02D

Sampling Personnel: C. Dusel, T. Ifkovich Date: 10/17/12 Company: URS Corporation

Purging/ Sampling Device: Grundfos Tubing Type: HDPE Tubing Inlet: Screen Midpoint

Measuring Point: TOC Initial Depth to Water: 70.95 Depth to Well Bottom: 79.42 Well Diameter: 2" Screen Length: 10'

Casing Type: PVC Volume in 1 Well Casing (liters): 5.2 Estimated Purge Volume (liters): 60.0

Sample ID: SW-02D Sample Time: 1635 QA/QC: FD-101712

Sample Parameters: TCL VOC + TICs

PURGE PARAMETERS

TIME	pH	TEMP (^{0}C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	ORP (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (btor)
1605	7.71	14.07	0.396	0.00	0.0	125	2,000	70.95
1610	7.73	13.13	0.395	0.00	0.0	118	2,000	70.99
1615	7.76	13.01	0.391	0.00	0.0	105	2,000	70.99
1620	7.79	12.96	0.383	0.00	0.0	96	2,000	70.99
1625	7.79	12.96	0.382	0.00	0.0	90	2,000	70.99
1630	7.80	12.96	0.380	0.00	0.0	87	2,000	70.99
1635	7.81	12.96	0.378	0.00	0.0	85	2,000	70.99
Tolerance:	**0.1**	**---**	**3%**	**10%**	**10%**	**+ or - 10**	**---**	

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft ($vol_{cyl} = \pi r^2 h$)

Comments:

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: 11176716.00004 Site: Rose Valley Landfill Well #: SW-03S

Sampling Personnel: C. Dusel, T. Ifkovich Date: 10/17/12 Company: URS Corporation

Purging/ Sampling Device: Geopump Tubing Type: HDPE Tubing Inlet: Screen Midpoint

Measuring Point: TOC Initial Depth to Water: 14.52 Depth to Well Bottom: 18.80 Well Diameter: 2" Screen Length: 10'

Casing Type: PVC Volume in 1 Well Casing (liters): 2.6 Estimated Purge Volume (liters): 15.0

Sample ID: SW-03S Sample Time: 1502 QA/QC: MS/MSD

Sample Parameters: TCL VOC + TICs

PURGE PARAMETERS

TIME	pH	TEMP (^{0}C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	ORP (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (btor)
1432	6.27	18.88	0.568	5.57	38.6	183	500	14.52
1437	7.02	17.33	0.611	5.10	23.6	159	500	14.55
1442	7.23	16.55	0.613	4.70	10.2	156	500	14.55
1447	7.31	16.43	0.614	4.47	6.0	155	500	14.55
1452	7.36	16.47	0.612	4.36	3.8	154	500	14.55
1457	7.38	16.44	0.610	4.28	3.0	155	500	14.55
1502	7.40	16.45	0.604	4.21	0.6	155	500	14.55
Tolerance:	**0.1**	**---**	**3%**	**10%**	**10%**	**+ or - 10**	**---**	

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft ($vol_{cyl} = \pi r^2 h$)

Comments:

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: 11176716.00004 Site: Rose Valley Landfill Well #: SW-04S

Sampling Personnel: C. Dusel, T. Ifkovich Date: 10/18/12 Company: URS Corporation

Purging/ Sampling Device: Geopump Tubing Type: HDPE Tubing Inlet: Screen Midpoint

Measuring Point: TOC Initial Depth to Water: 3.20 Depth to Well Bottom: 8.21 Well Diameter: 2" Screen Length: 8'

Casing Type: PVC Volume in 1 Well Casing (liters): 3.1 Estimated Purge Volume (liters): 6.0

Sample ID: SW-04S Sample Time: 1035 QA/QC: None

Sample Parameters: TCL VOC + TICs

PURGE PARAMETERS

TIME	pH	TEMP (^{0}C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	ORP (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (btor)
1005	7.61	11.85	0.540	0.00	168	12	200	3.20
1010	7.07	13.29	0.524	0.00	139	-41	200	3.70
1015	6.97	13.65	0.524	0.00	74.6	-45	200	3.68
1020	6.93	13.88	0.530	0.00	30.4	-49	200	3.70
1025	6.90	14.18	0.531	0.00	23.7	-54	200	3.71
1030	6.87	14.37	0.532	0.00	23.8	-56	200	3.73
1035	6.87	14.50	0.532	0.00	20.5	-57	200	3.75
Tolerance:	**0.1**	**---**	**3%**	**10%**	**10%**	**+ or - 10**	**---**	

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft (vol $_{cyl} = \pi r^2 h$)

Comments:

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: 11176716.00004 Site: Rose Valley Landfill Well #: SW-04D

Sampling Personnel: C. Dusel, T. Ifkovich Date: 10/18/12 Company: URS Corporation

Purging/ Sampling Device: Geopump Tubing Type: HDPE Tubing Inlet: Screen Midpoint

Measuring Point: TOC Initial Depth to Water: 0.00 Depth to Well Bottom: 84.42 Well Diameter: 2" Screen Length: 8'

Casing Type: PVC Volume in 1 Well Casing (liters): 52.1 Estimated Purge Volume (liters): 25.0

Sample ID: SW-04D Sample Time: 1110 QA/QC: None

Sample Parameters: TCL VOC + TICs

PURGE PARAMETERS

TIME	pH	TEMP (^{0}C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	ORP (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (btor)
1045	7.73	11.88	0.152	0.00	60.9	-169	1,000	0.00
1050	8.71	11.58	0.152	0.00	62.9	-193	1,000	0.00
1055	8.95	11.57	0.152	0.00	85.8	-195	1,000	0.00
1100	9.07	11.56	0.152	0.00	112	-197	1,000	0.00
1105	9.11	11.54	0.152	0.00	117	-198	1,000	0.00
1110	9.13	11.53	0.152	0.00	120	-197	1,000	0.00
Tolerance:	**0.1**	**---**	**3%**	**10%**	**10%**	**+ or - 10**	**---**	

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft ($vol_{cyl} = \pi r^2 h$)

Comments: Artesian well.

APPENDIX C

PHOTOGRAPHIC LOG

ROSE VALLEY LANDFILL
2012 SITE MANAGEMENT
PHOTOGRAPHIC LOG

Photo 1: 10/17/12 Front gate at entrance to site at intersection of Rose Valley Road and Bromley Road, looking southeast.

Photo 2: 10/17/12 Area where hogweed plant was found in July 2011 on south side near front entrance gate, looking southeast. No hogweed was present in 2012.

ROSE VALLEY LANDFILL
2012 SITE MANAGEMENT
PHOTOGRAPHIC LOG

Photo 3: 10/17/12 Erosion/rilling in access road. Conditions are similar to those documented in July 2011 site inspection.

Photo 4: 10/17/12 Close-up of erosion/rilling in access road shown in Photo 3.

ROSE VALLEY LANDFILL
2012 SITE MANAGEMENT
PHOTOGRAPHIC LOG

Photo 5: 10/17/12 Jersey barrier installed near Military Road to limit site access and trash disposal.

Photo 6: 10/17/12 Trash dumped on the northern side of the Jersey barrier between the barrier and Military Road.

ROSE VALLEY LANDFILL
2012 SITE MANAGEMENT
PHOTOGRAPHIC LOG

Photo 7: 10/17/12 Close up of the trash/debris that has been dumped.

Photo 8: 10/17/12 Looking south over barrier where dumping used to occur.

ROSE VALLEY LANDFILL
2012 SITE MANAGEMENT
PHOTOGRAPHIC LOG

Photo 9: Standing near North Detention Pond looking in a westerly direction at toe of landfill and drain chutes.

Photo 10: 10/17/12 Standing near North Detention Pond looking in a southwesterly direction. The edge of the wetland is in the foreground and green landfill vegetative cover in background.

ROSE VALLEY LANDFILL
2012 SITE MANAGEMENT
PHOTOGRAPHIC LOG

Photo 11: 10/17/12 Corrugated metal standpipe in North Detention Pond, barely visible due to vegetative growth.

Photo 12: 10/17/12 North Detention Pond. Sediment accumulation is evident.

ROSE VALLEY LANDFILL
2012 SITE MANAGEMENT
PHOTOGRAPHIC LOG

Photo 13: 10/17/12 North Detention Pond. Some four-wheeler/all-terrain vehicles have driven directly through the North Detention Pond.

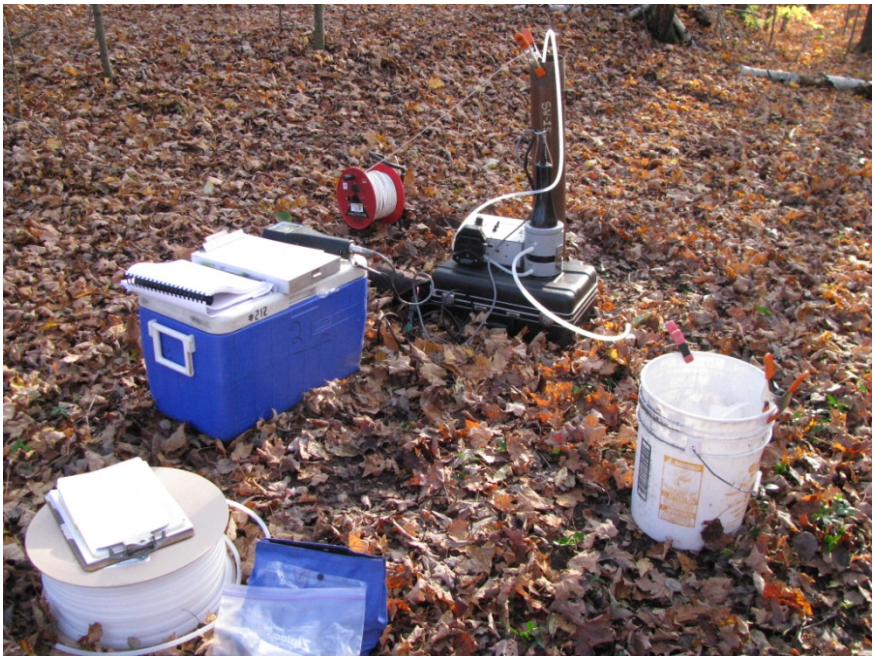


Photo 14: 10/17/12 Typical low-flow groundwater sampling set-up. Photo taken at sentry well SW-01S.

ROSE VALLEY LANDFILL
2012 SITE MANAGEMENT
PHOTOGRAPHIC LOG

Photo 15: 10/18/12 Tires continue to be discarded in ravine along Military Road. The NYSDEC had removed and disposed of several hundred discarded tires from this location.

Photo 16: 10/18/12 Dumped deer carcasses in ravine along Military Road.

ROSE VALLEY LANDFILL
2012 SITE MANAGEMENT
PHOTOGRAPHIC LOG

Photo 17: 10/18/12 Trash and empty barrels in ravine along Military Road, southeast of the location where tires have been discarded.

Photo 18: 10/18/12 Looking east at landfill. The rilling/erosion in this area is starting to re-occur. Erosion is up to 1 foot across and 1 foot deep.

ROSE VALLEY LANDFILL
2012 SITE MANAGEMENT
PHOTOGRAPHIC LOG

Photo 19: 10/18/12 Looking north at main all-terrain vehicle recreation area/hill in background. The edge of the landfill is in the foreground.

Photo 20: 10/18/12 Close-up of main all-terrain vehicle recreation area/hill and perimeter swale.

ROSE VALLEY LANDFILL
2012 SITE MANAGEMENT
PHOTOGRAPHIC LOG

Photo 21: 10/18/12 Temporary shelter located at top of all-terrain vehicle recreation area/hill.

Photo 22: 10/18/12 Looking east along northern side of landfill near North Detention Pond.

ROSE VALLEY LANDFILL
2012 SITE MANAGEMENT
PHOTOGRAPHIC LOG

Photo 23: 10/18/12 Standing on north side of landfill looking southeast at rip-rap lined drain chutes.

Photo 24: 10/18/12 Erosion occurring north of landfill, exposing fabric. Continued monitoring is advised.

ROSE VALLEY LANDFILL
2012 SITE MANAGEMENT
PHOTOGRAPHIC LOG

Photo 25: 10/18/12 Erosion occurring at area where rip-rap terminates. Looking east towards North Detention Pond.

Photo 26: 10/18/12 Looking southeast at South Detention Pond.

ROSE VALLEY LANDFILL
2012 SITE MANAGEMENT
PHOTOGRAPHIC LOG

Photo 27: 10/18/12 Construction and demolition debris being discarded west of landfill/site.

Photo 28: 10/18/12 Typical low-flow groundwater sampling set-up. Photo taken at location MW-04.

ROSE VALLEY LANDFILL
2012 SITE MANAGEMENT
PHOTOGRAPHIC LOG

Photo 29: 10/18/12 Standing in North Detention Pond area, looking in a westerly direction at landfill.

Photo 30: 10/18/12 Sampling surface water at the North Detention Pond.

ROSE VALLEY LANDFILL
2012 SITE MANAGEMENT
PHOTOGRAPHIC LOG

Photo 31: 10/18/12 West side of South Detention Pond looking west at landfill.

Photo 32: 10/18/12 Close-up of gas vent.

ROSE VALLEY LANDFILL
2012 SITE MANAGEMENT
PHOTOGRAPHIC LOG

Photo 33: 10/18/12 Wildlife along southern edge of landfill.

Photo 34: 10/18/12 Erosion exposing geotextile fabric at along site access road, approximately half way between front gate and actual landfill.

APPENDIX D

DATA USABILITY SUMMARY REPORT

DATA USABILITY SUMMARY REPORT

ROSE VALLEY LANDFILL SITE MANAGEMENT
GROUNDWATER SAMPLING EVENT
NYSDEC WORK ASSIGNMENT #D007622-07

ROSE VALLEY LANDFILL

HERKIMER COUNTY, NEW YORK

SITE NO. 622017

Analyses Performed by:

H2M LABS, INC.
575 BROAD HOLLOW ROAD
MELVILLE, NY 11747

Prepared for:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION

Prepared by:

URS CORPORATION
77 GOODELL STREET
BUFFALO, NY 14203

DECEMBER 2012

TABLE OF CONTENTS

TABLES
(Following Text)

ATTACHMENTS

1.0 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 *DER-10 Technical Guidance for Site Investigation and Remediation, Appendix 2B-Guidance for Data Deliverables and the Development of Data Usability and Summary Reports,* May 2010. Discussed in this DUSR are analytical data for 14 groundwater samples, 2 field duplicates, 1 matrix spike/matrix spike duplicate (MS/MSD) pair, and 1 trip blank collected by URS personnel between October 17-18, 2012 from the Rose Valley Landfill site. The samples were collected in support of NYSDEC Work Assignment # D007622-07, Site No. 622017.

2.0 ANALYTICAL METHODOLOGIES/DATA VALIDATION PROCEDURES

All samples were sent to H2M Labs, Inc. (Melville, NY) and analyzed for volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method SW8260B, plus tentatively identified compounds (TICs).

A limited data validation was performed following the guidelines in the following USEPA Region II document:

- *Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B, SOP HW-24, Rev. 2, August 2008.*

The limited validation included: a review of completeness of all required deliverables; holding times; a review of quality control (QC) results [blanks, instrument tunings, calibration standards, duplicate analyses, and MS/MSD/laboratory control sample (LCS) recoveries] to determine if the data are within the protocol-required limits and specifications; a determination that all samples were analyzed using established and agreed upon analytical protocols; an evaluation of the raw data to confirm the results provided in the data summary sheets; and a review of laboratory data qualifiers.

Data qualifiers applied to the results during the validation included 'J' (estimated concentration), 'UJ' (estimated quantitation limit), and 'U' (non-detect). Definitions of USEPA Region II data qualifiers are presented at the end of this text. A summary of data qualifications is provided on Table 1. The validated analytical results are presented on Tables 2 and 3. Copies of the validated laboratory results

(i.e., Form 1's) are presented in Attachment A. Documentation supporting the qualification of data is presented in Attachment B. Only analytical deviations affecting data usability are discussed in this report.

3.0 DATA DELIVERABLE COMPLETENESS

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

4.0 PRESERVATION/SAMPLE RECEIPT/HOLDING TIMES

All samples were received by the laboratory intact, properly preserved, and under proper chain-of-custody (COC).

All samples were analyzed within the required holding times.

5.0 NON-CONFORMANCES

Instrument Calibration

The percent difference (%D) between the initial calibration (ICAL) average relative response factor (RRF) and the RRF in one or more of the continuing calibration standards (CCALs) associated with the samples was greater than 20% for one or more of the following VOCs: 1,2-dibromo-3-chloropropane, 1,1,2-trichloro-1,2,2-trifluoroethane, 1,2,4-trichlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 2-hexanone, 4-methyl-3-pentanone, acetone, bromomethane, chloromethane, carbon tetrachloride, dichlorodifluoromethane, styrene, and/or tetrachloroethene. The results for these compounds in the associated samples listed in Table 1 were qualified 'J' or 'UJ'.

The laboratory applied a 'Z' qualifier to those samples where the associated CCAL exhibited a %D greater than 15%. The QC guidelines specified in the validation document noted above are 20%. As appropriate the 'Z' qualifier has either been crossed off or replaced with a 'J/UJ' (if %D > 20%) by the data reviewer.

Blank/Instrument Contamination

Acetone was detected in the laboratory method blanks and the trip blank. The results for acetone in the associated samples listed on Table 1 were less than 10 times the blank results The acetone results in these samples have been qualified 'U' at the quantitation limit (QL).

Field Duplicate Samples

The field duplicates generally exhibited good analytical precision. Note, USEPA Region II validation guidelines do not require qualification of VOC analytical results based upon field duplicate precision.

6.0 SAMPLE RESULTS AND REPORTING

All quantitation/detection limits were reported in accordance with method requirements and were adjusted for sample volume and dilution factors.

7.0 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 'U' are considered non-detect. URS does not recommend the recollection of any samples at this time.

Prepared By: Ann Marie Kropovitch, Chemist **Date:** 12/11/12

Reviewed By: Peter R. Fairbanks, Senior Chemist **Date:** 12/11/12

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 positive value is the result of an analysis at a secondary dilution factor

TABLE 1
SUMMARY OF DATA QUALIFICATIONS
ROSE VALLEY LANDFILL SITE

SAMPLE ID	FRACTION	ANALYTICAL DEVIATION	QUALIFICATION
NDP-WS, SDP-WS, FD-101812 (SDP-WS), SWTR-1E, and TB-101812	VOA	%D between the ICAL average RRF and the CCAL RRF >20% for 1,2-dibromo-3-chloropropane, 1,1,2-trichloro-1,2,2-trifluoroethane, 1,2,4-trichlorobenzene, 2-hexanone, 4-methyl-3-pentanone, bromomethane, dichlorodifluoromethane, and styrene.	Qualify non-detect results 'UJ'.
SWTR-1T	VOA	%D between the ICAL average RRF and the CCAL RRF >20% for 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, acetone, chloromethane, dichlorodifluoromethane, and tetrachloroethene.	Qualify non-detect results 'UJ'.
MW-04, MW-16, SW-01D, SW-01S, SW-02D, FD-101712 (SW-02D), SW-02S, SW-03S, and SW-04S	VOA	%D between the ICAL average RRF and the CCAL RRF >20% for chloromethane and dichlorodifluoromethane.	Qualify detected results 'J' and non-detect results 'UJ'.
MW-03 and SW-04D	VOA	%D between the ICAL average RRF and the CCAL RRF >20% for bromomethane, carbon tetrachloride, and dichlorodifluoromethane.	Qualify non-detect results 'UJ'.
NDP-WS, SDP-WS, FD-101812 (SDP-WS), and SWTR-1T	VOA	Method blanks/trip blank contamination for acetone and samples < 10x blank result.	Qualify detected results 'U' at QL

TABLE 2
VALIDATED GROUNDWATER SAMPLE RESULTS
ROSE VALLEY LANDFILL

Location ID		MW-03	MW-04	MW-16	NDP	SDP
Sample ID		MW-03	MW-04	MW-16	NDP-WS	FD-101812
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		10/18/12	10/18/12	10/18/12	10/18/12	10/18/12
Parameter	Units					Field Duplicate (1-1)
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	UG/L	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	10 U	10 U	10 U	10 UJ	10 UJ
1,1,2-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	UG/L	3 J	15	10 U	10 U	10 U
1,1-Dichloroethene	UG/L	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	UG/L	10 U	10 U	10 U	10 UJ	10 UJ
1,2-Dibromo-3-chloropropane	UG/L	10 U	10 U	10 U	10 UJ	10 UJ
1,2-Dibromoethane (Ethylene dibromide)	UG/L	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (cis)	UG/L	11	3 J	10 U	10 U	10 U
1,2-Dichloroethene (trans)	UG/L	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	UG/L	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U
1,3-Dichloropropene (cis)	UG/L	10 U	10 U	10 U	10 U	10 U
1,3-Dichloropropene (trans)	UG/L	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U
2-Hexanone	UG/L	10 U	10 U	10 U	10 UJ	10 UJ
4-Methyl-2-pentanone	UG/L	10 U	10 U	10 U	10 UJ	10 UJ
Acetone	UG/L	10 U	10 U	10 U	10 U	10 U
Benzene	UG/L	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	UG/L	10 U	10 U	10 U	10 U	10 U

Flags assigned during chemistry validation are shown.

Made By: AMK 12/6/12
Checked By: PRF 12/7/12

Detection Limits shown are PQL

TABLE 2
VALIDATED GROUNDWATER SAMPLE RESULTS
ROSE VALLEY LANDFILL

Location ID		MW-03	MW-04	MW-16	NDP	SDP
Sample ID		MW-03	MW-04	MW-16	NDP-WS	FD-101812
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		10/18/12	10/18/12	10/18/12	10/18/12	10/18/12
Parameter	Units					Field Duplicate (1-1)
Volatile Organic Compounds						
Bromoform	UG/L	10 U	10 U	10 U	10 U	10 U
Bromomethane	UG/L	10 UJ	10 U	10 U	10 UJ	10 UJ
Carbon disulfide	UG/L	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	UG/L	10 UJ	10 U	10 U	10 U	10 U
Chlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U
Chloroethane	UG/L	10 U	10 U	10 U	10 U	10 U
Chloroform	UG/L	10 U	10 U	10 U	10 U	10 U
Chloromethane	UG/L	10 U	10 UJ	10 UJ	10 U	10 U
Cyclohexane	UG/L	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	UG/L	10 U	10 U	10 U	10 U	10 U
Dichlorodifluoromethane	UG/L	10 UJ	1 J	10 UJ	10 UJ	10 UJ
Ethylbenzene	UG/L	10 U	10 U	10 U	10 U	10 U
Isopropylbenzene (Cumene)	UG/L	10 U	10 U	10 U	10 U	10 U
Methyl acetate	UG/L	10 U	10 U	10 U	10 U	10 U
Methyl ethyl ketone (2-Butanone)	UG/L	10 U	10 U	10 U	10 U	10 U
Methyl tert-butyl ether	UG/L	10 U	10 U	10 U	10 U	10 U
Methylcyclohexane	UG/L	10 U	10 U	10 U	10 U	10 U
Methylene chloride	UG/L	10 U	10 U	10 U	10 U	10 U
Styrene	UG/L	10 U	10 U	10 U	10 UJ	10 UJ
Tetrachloroethene	UG/L	10 U	10 U	10 U	10 U	10 U
Toluene	UG/L	10 U	10 U	10 U	10 U	10 U
Trichloroethene	UG/L	10 U	10 U	10 U	10 U	10 U
Trichlorofluoromethane	UG/L	10 U	10 U	10 U	10 U	10 U

Flags assigned during chemistry validation are shown.

Made By: AMK 12/6/12
Checked By: PRF 12/7/12

Detection Limits shown are PQL

TABLE 2
VALIDATED GROUNDWATER SAMPLE RESULTS
ROSE VALLEY LANDFILL

Location ID		MW-03	MW-04	MW-16	NDP	SDP
Sample ID		MW-03	MW-04	MW-16	NDP-WS	FD-101812
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		10/18/12	10/18/12	10/18/12	10/18/12	10/18/12
Parameter	Units					Field Duplicate (1-1)
Volatile Organic Compounds						
Vinyl chloride	UG/L	10 U	10 U	10 U	10 U	10 U
Xylene (total)	UG/L	10 U	10 U	10 U	10 U	10 U

Flags assigned during chemistry validation are shown.

Made By: AMK 12/6/12
Checked By: PRF 12/7/12

Detection Limits shown are PQL

Advanced Selection: amk-temp
I:\11178167\DB\Program\EDMS.mde
Printed: 12/11/2012 10:38:58 AM
[LOGDATE] > #10/18/2012# AND [SACODE] <> 'TB'

TABLE 2
VALIDATED GROUNDWATER SAMPLE RESULTS
ROSE VALLEY LANDFILL

Location ID		SDP	SW-01D	SW-01S	SW-02D	SW-02D
Sample ID		SDP-WS	SW-01D	SW-01S	FD-101712	SW-02D
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		10/18/12	10/17/12	10/17/12	10/17/12	10/17/12
Parameter	Units				Field Duplicate (1-1)	
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	UG/L	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	10 UJ	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	UG/L	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	UG/L	10 UJ	10 U	10 U	10 U	10 U
1,2-Dibromo-3-chloropropane	UG/L	10 UJ	10 U	10 U	10 U	10 U
1,2-Dibromoethane (Ethylene dibromide)	UG/L	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (cis)	UG/L	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (trans)	UG/L	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	UG/L	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U
1,3-Dichloropropene (cis)	UG/L	10 U	10 U	10 U	10 U	10 U
1,3-Dichloropropene (trans)	UG/L	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U
2-Hexanone	UG/L	10 UJ	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	UG/L	10 UJ	10 U	10 U	10 U	10 U
Acetone	UG/L	10 U	10 U	10 U	10 U	10 U
Benzene	UG/L	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	UG/L	10 U	10 U	10 U	10 U	10 U

Flags assigned during chemistry validation are shown.

Made By: AMK 12/6/12
Checked By: PRF 12/7/12

Detection Limits shown are PQL

TABLE 2
VALIDATED GROUNDWATER SAMPLE RESULTS
ROSE VALLEY LANDFILL

Location ID		SDP	SW-01D	SW-01S	SW-02D	SW-02D
Sample ID		SDP-WS	SW-01D	SW-01S	FD-101712	SW-02D
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		10/18/12	10/17/12	10/17/12	10/17/12	10/17/12
Parameter	Units				Field Duplicate (1-1)	
Volatile Organic Compounds						
Bromoform	UG/L	10 U	10 U	10 U	10 U	10 U
Bromomethane	UG/L	10 UJ	10 U	10 U	10 U	10 U
Carbon disulfide	UG/L	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	UG/L	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U
Chloroethane	UG/L	10 U	10 U	10 U	10 U	10 U
Chloroform	UG/L	10 U	10 U	10 U	10 U	10 U
Chloromethane	UG/L	10 U	10 UJ	10 UJ	10 UJ	10 UJ
Cyclohexane	UG/L	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	UG/L	10 U	10 U	10 U	10 U	10 U
Dichlorodifluoromethane	UG/L	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Ethylbenzene	UG/L	10 U	10 U	10 U	10 U	10 U
Isopropylbenzene (Cumene)	UG/L	10 U	10 U	10 U	10 U	10 U
Methyl acetate	UG/L	10 U	10 U	10 U	10 U	10 U
Methyl ethyl ketone (2-Butanone)	UG/L	10 U	10 U	10 U	10 U	10 U
Methyl tert-butyl ether	UG/L	10 U	10 U	10 U	10 U	10 U
Methylcyclohexane	UG/L	10 U	10 U	10 U	10 U	10 U
Methylene chloride	UG/L	10 U	10 U	10 U	10 U	10 U
Styrene	UG/L	10 UJ	10 U	10 U	10 U	10 U
Tetrachloroethene	UG/L	10 U	10 U	10 U	10 U	10 U
Toluene	UG/L	10 U	10 U	10 U	10 U	10 U
Trichloroethene	UG/L	10 U	10 U	10 U	10 U	10 U
Trichlorofluoromethane	UG/L	10 U	10 U	10 U	10 U	10 U

Flags assigned during chemistry validation are shown.

Made By: AMK 12/6/12
Checked By: PRF 12/7/12

Detection Limits shown are PQL

TABLE 2
VALIDATED GROUNDWATER SAMPLE RESULTS
ROSE VALLEY LANDFILL

Location ID		SDP	SW-01D	SW-01S	SW-02D	SW-02D
Sample ID		SDP-WS	SW-01D	SW-01S	FD-101712	SW-02D
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		10/18/12	10/17/12	10/17/12	10/17/12	10/17/12
Parameter	Units				Field Duplicate (1-1)	
Volatile Organic Compounds						
Vinyl chloride	UG/L	10 U	10 U	10 U	10 U	10 U
Xylene (total)	UG/L	10 U	10 U	10 U	10 U	10 U

Flags assigned during chemistry validation are shown.

Made By: AMK 12/6/12
Checked By: PRF 12/7/12

Detection Limits shown are PQL

Advanced Selection: amk-temp
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Printed: 12/11/2012 10:38:58 AM
[LOGDATE] > #10/16/2012# AND [SACODE] <> "TB"

TABLE 2
VALIDATED GROUNDWATER SAMPLE RESULTS
ROSE VALLEY LANDFILL

Location ID		SW-02S	SW-03S	SW-04D	SW-04S	SWTR-1E
Sample ID		SW-02S	SW-03S	SW-04D	SW-04S	SWTR-1E
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		10/17/12	10/17/12	10/17/12	10/17/12	10/18/12
Parameter	Units					
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/L	1 J	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	UG/L	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	10 U	10 U	10 U	10 U	10 UJ
1,1,2-Trichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	UG/L	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 UJ
1,2-Dibromo-3-chloropropane	UG/L	10 U	10 U	10 U	10 U	10 UJ
1,2-Dibromoethane (Ethylene dibromide)	UG/L	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	UG/L	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (cis)	UG/L	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (trans)	UG/L	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	UG/L	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U
1,3-Dichloropropene (cis)	UG/L	10 U	10 U	10 U	10 U	10 U
1,3-Dichloropropene (trans)	UG/L	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U
2-Hexanone	UG/L	10 U	10 U	10 U	10 U	10 UJ
4-Methyl-2-pentanone	UG/L	10 U	10 U	10 U	10 U	10 UJ
Acetone	UG/L	10 U	10 U	10 U	10 U	10 U
Benzene	UG/L	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	UG/L	10 U	10 U	10 U	10 U	10 U

Flags assigned during chemistry validation are shown.

Made By: AMK 12/6/12
Checked By: PRF 12/7/12

Detection Limits shown are PQL

TABLE 2
VALIDATED GROUNDWATER SAMPLE RESULTS
ROSE VALLEY LANDFILL

Location ID		SW-02S	SW-03S	SW-04D	SW-04S	SWTR-1E
Sample ID		SW-02S	SW-03S	SW-04D	SW-04S	SWTR-1E
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		10/17/12	10/17/12	10/17/12	10/17/12	10/18/12
Parameter	Units					
Volatile Organic Compounds						
Bromoform	UG/L	10 U	10 U	10 U	10 U	10 U
Bromomethane	UG/L	10 U	10 U	10 UJ	10 U	10 UJ
Carbon disulfide	UG/L	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	UG/L	10 U	10 U	10 UJ	10 U	10 U
Chlorobenzene	UG/L	10 U	10 U	10 U	10 U	10 U
Chloroethane	UG/L	10 U	10 U	10 U	10 U	10 U
Chloroform	UG/L	10 U	10 U	10 U	10 U	10 U
Chloromethane	UG/L	10 UJ	10 UJ	10 U	10 UJ	10 U
Cyclohexane	UG/L	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	UG/L	10 U	10 U	10 U	10 U	10 U
Dichlorodifluoromethane	UG/L	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Ethylbenzene	UG/L	10 U	10 U	10 U	10 U	10 U
Isopropylbenzene (Cumene)	UG/L	10 U	10 U	10 U	10 U	10 U
Methyl acetate	UG/L	10 U	10 U	10 U	10 U	10 U
Methyl ethyl ketone (2-Butanone)	UG/L	10 U	10 U	10 U	10 U	10 U
Methyl tert-butyl ether	UG/L	10 U	10 U	10 U	10 U	10 U
Methylcyclohexane	UG/L	10 U	10 U	10 U	10 U	10 U
Methylene chloride	UG/L	10 U	10 U	10 U	10 U	10 U
Styrene	UG/L	10 U	10 U	10 U	10 U	10 UJ
Tetrachloroethene	UG/L	10 U	10 U	10 U	10 U	10 U
Toluene	UG/L	10 U	10 U	10 U	10 U	10 U
Trichloroethene	UG/L	10 U	10 U	10 U	10 U	10 U
Trichlorofluoromethane	UG/L	10 U	10 U	10 U	10 U	10 U

Flags assigned during chemistry validation are shown.

Made By: AMK 12/6/12
Checked By: PRF 12/7/12

Detection Limits shown are PQL

TABLE 2
VALIDATED GROUNDWATER SAMPLE RESULTS
ROSE VALLEY LANDFILL

Location ID		SW-02S	SW-03S	SW-04D	SW-04S	SWTR-1E
Sample ID		SW-02S	SW-03S	SW-04D	SW-04S	SWTR-1E
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		10/17/12	10/17/12	10/17/12	10/17/12	10/18/12
Parameter	Units					
Volatile Organic Compounds						
Vinyl chloride	UG/L	10 U	10 U	10 U	10 U	10 U
Xylene (total)	UG/L	10 U	10 U	10 U	10 U	10 U

Flags assigned during chemistry validation are shown.

Made By: AMK 12/6/12
Checked By: PRF 12/7/12

Detection Limits shown are PQL

TABLE 2
VALIDATED GROUNDWATER SAMPLE RESULTS
ROSE VALLEY LANDFILL

Location ID		SWTR-1T
Sample ID		SWTR-1T
Matrix		Groundwater
Depth Interval (ft)		-
Date Sampled		10/18/12
Parameter	**Units**	
Volatile Organic Compounds		
1,1,1-Trichloroethane	UG/L	10 U
1,1,2,2-Tetrachloroethane	UG/L	10 U
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	10 U
1,1,2-Trichloroethane	UG/L	10 U
1,1-Dichloroethane	UG/L	10 U
1,1-Dichloroethene	UG/L	10 U
1,2,4-Trichlorobenzene	UG/L	10 U
1,2-Dibromo-3-chloropropane	UG/L	10 U
1,2-Dibromoethane (Ethylene dibromide)	UG/L	10 U
1,2-Dichlorobenzene	UG/L	10 UJ
1,2-Dichloroethane	UG/L	10 U
1,2-Dichloroethene (cis)	UG/L	10 U
1,2-Dichloroethene (trans)	UG/L	10 U
1,2-Dichloropropane	UG/L	10 U
1,3-Dichlorobenzene	UG/L	10 UJ
1,3-Dichloropropene (cis)	UG/L	10 U
1,3-Dichloropropene (trans)	UG/L	10 U
1,4-Dichlorobenzene	UG/L	10 UJ
2-Hexanone	UG/L	10 U
4-Methyl-2-pentanone	UG/L	10 U
Acetone	UG/L	10 UJ
Benzene	UG/L	10 U
Bromodichloromethane	UG/L	10 U

Flags assigned during chemistry validation are shown.

Made By: AMK 12/6/12
Checked By: PRF 12/7/12

Detection Limits shown are PQL

TABLE 2
VALIDATED GROUNDWATER SAMPLE RESULTS
ROSE VALLEY LANDFILL

Location ID		SWTR-1T
Sample ID		SWTR-1T
Matrix		Groundwater
Depth Interval (ft)		-
Date Sampled		10/18/12
Parameter	**Units**	
Volatile Organic Compounds		
Bromoform	UG/L	10 U
Bromomethane	UG/L	10 U
Carbon disulfide	UG/L	10 U
Carbon tetrachloride	UG/L	10 U
Chlorobenzene	UG/L	10 U
Chloroethane	UG/L	10 U
Chloroform	UG/L	10 U
Chloromethane	UG/L	10 UJ
Cyclohexane	UG/L	10 U
Dibromochloromethane	UG/L	10 U
Dichlorodifluoromethane	UG/L	10 UJ
Ethylbenzene	UG/L	10 U
Isopropylbenzene (Cumene)	UG/L	10 U
Methyl acetate	UG/L	10 U
Methyl ethyl ketone (2-Butanone)	UG/L	10 U
Methyl tert-butyl ether	UG/L	10 U
Methylcyclohexane	UG/L	10 U
Methylene chloride	UG/L	10 U
Styrene	UG/L	10 U
Tetrachloroethene	UG/L	10 UJ
Toluene	UG/L	10 U
Trichloroethene	UG/L	10 U
Trichlorofluoromethane	UG/L	10 U

Flags assigned during chemistry validation are shown.

Made By: AMK 12/6/12
Checked By: PRF 12/7/12

Detection Limits shown are PQL

TABLE 2
VALIDATED GROUNDWATER SAMPLE RESULTS
ROSE VALLEY LANDFILL

Location ID		SWTR-1T
Sample ID		SWTR-1T
Matrix		Groundwater
Depth Interval (ft)		-
Date Sampled		10/18/12
Parameter	Units	
Volatile Organic Compounds		
Vinyl chloride	UG/L	10 U
Xylene (total)	UG/L	10 U

Flags assigned during chemistry validation are shown.

Made By: AMK 12/6/12
Checked By: PRF 12/7/12

Detection Limits shown are PQL

TABLE 3
VALIDATED FIELD QC SAMPLE RESULTS
ROSE VALLEY LANDFILL

Location ID		FIELDQC
Sample ID		TB-101812
Matrix		Water Quality
Depth Interval (ft)		-
Date Sampled		10/18/12
Parameter	Units	Trip Blank (1-1)
Volatile Organic Compounds		
1,1,1-Trichloroethane	UG/L	10 U
1,1,2,2-Tetrachloroethane	UG/L	10 U
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	10 UJ
1,1,2-Trichloroethane	UG/L	10 U
1,1-Dichloroethane	UG/L	10 U
1,1-Dichloroethene	UG/L	10 U
1,2,4-Trichlorobenzene	UG/L	10 UJ
1,2-Dibromo-3-chloropropane	UG/L	10 UJ
1,2-Dibromoethane (Ethylene dibromide)	UG/L	10 U
1,2-Dichlorobenzene	UG/L	10 U
1,2-Dichloroethane	UG/L	10 U
1,2-Dichloroethene (cis)	UG/L	10 U
1,2-Dichloroethene (trans)	UG/L	10 U
1,2-Dichloropropane	UG/L	10 U
1,3-Dichlorobenzene	UG/L	10 U
1,3-Dichloropropene (cis)	UG/L	10 U
1,3-Dichloropropene (trans)	UG/L	10 U
1,4-Dichlorobenzene	UG/L	10 U
2-Hexanone	UG/L	10 UJ
4-Methyl-2-pentanone	UG/L	10 UJ
Acetone	UG/L	6 J
Benzene	UG/L	10 U
Bromodichloromethane	UG/L	10 U

Flags assigned during chemistry validation are shown.

Made By: AMK 12/6/12
Checked By: PRF 12/7/12

Detection Limits shown are PQL

TABLE 3
VALIDATED FIELD QC SAMPLE RESULTS
ROSE VALLEY LANDFILL

Location ID		FIELDQC
Sample ID		TB-101812
Matrix		Water Quality
Depth Interval (ft)		-
Date Sampled		10/18/12
Parameter	Units	Trip Blank (1-1)
Volatile Organic Compounds		
Bromoform	UG/L	10 U
Bromomethane	UG/L	10 UJ
Carbon disulfide	UG/L	10 U
Carbon tetrachloride	UG/L	10 U
Chlorobenzene	UG/L	10 U
Chloroethane	UG/L	10 U
Chloroform	UG/L	10 U
Chloromethane	UG/L	10 U
Cyclohexane	UG/L	10 U
Dibromochloromethane	UG/L	10 U
Dichlorodifluoromethane	UG/L	10 UJ
Ethylbenzene	UG/L	10 U
Isopropylbenzene (Cumene)	UG/L	10 U
Methyl acetate	UG/L	10 U
Methyl ethyl ketone (2-Butanone)	UG/L	10 U
Methyl tert-butyl ether	UG/L	10 U
Methylcyclohexane	UG/L	10 U
Methylene chloride	UG/L	14
Styrene	UG/L	10 UJ
Tetrachloroethene	UG/L	10 U
Toluene	UG/L	10 U
Trichloroethene	UG/L	10 U
Trichlorofluoromethane	UG/L	10 U

Flags assigned during chemistry validation are shown.

Made By: AMK 12/6/12
Checked By: PRF 12/7/12

Detection Limits shown are PQL

TABLE 3
VALIDATED FIELD QC SAMPLE RESULTS
ROSE VALLEY LANDFILL

Location ID		FIELDQC
Sample ID		TB-101812
Matrix		Water Quality
Depth Interval (ft)		-
Date Sampled		10/18/12
Parameter	Units	Trip Blank (1-1)
Volatile Organic Compounds		
Vinyl chloride	UG/L	10 U
Xylene (total)	UG/L	10 U

Flags assigned during chemistry validation are shown.

Made By: AMK 12/6/12
Checked By: PRF 12/7/12

Detection Limits shown are PQL

ATTACHMENT A

VALIDATED FORM 1's

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-03

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16548.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/26/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U J
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U J
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl tert-butyl ether	10	U
75-34-3	1,1-Dichloroethane	3	J Z
156-59-2	cis-1,2-Dichloroethene	11	Z
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon tetrachloride	10	U J
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-03

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16548.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/26/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U

URS143 V33

1F

EPA SAMPLE NO.

MW-03

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16548.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/26/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

CONCENTRATION UNITS:

Number TICs found: 0 (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

URS143 V34

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-04

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16522.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/25/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	1	UJ
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl tert-butyl ether	10	U
75-34-3	1,1-Dichloroethane	15	
156-59-2	cis-1,2-Dichloroethene	3	J
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-04

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16522.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/25/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U

URS143 V41

1F

EPA SAMPLE NO.

MW-04

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16522.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/25/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

CONCENTRATION UNITS:

Number TICs found: 0 (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

URS143 V42

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-16

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16523.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/25/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl tert-butyl ether	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-16

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16523.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/25/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U

URS143 V50

1F

EPA SAMPLE NO.

MW-16

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16523.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/25/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

CONCENTRATION UNITS:

Number TICs found: 0 (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

NDP-WS

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS142

Matrix: (soil/water) WATER Lab Sample ID: 1210B69-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16592.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/29/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U J
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U J
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U J
67-64-1	Acetone	10 ~~3~~	~~JZ~~ U
75-15-0	Carbon disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl tert-butyl ether	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U J
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U J
124-48-1	Dibromochloromethane	10	U

12/5/12

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NDP-WS

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS142

Matrix: (soil/water) WATER Lab Sample ID: 1210B69-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16592.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/29/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U UJ
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U UJ
120-82-1	1,2,4-Trichlorobenzene	10	U UJ

12/5/12

1F

EPA SAMPLE NO.

NDP-WS

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS142

Matrix: (soil/water) WATER Lab Sample ID: 1210B69-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16592.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/29/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

CONCENTRATION UNITS:

Number TICs found: 0 (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

URS142 V35

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SDP-WS

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS142

Matrix: (soil/water) WATER Lab Sample ID: 1210B69-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16593.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/29/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U J
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U J
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U J
67-64-1	Acetone	10 ~~2~~	~~JZ~~ U
75-15-0	Carbon disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl tert-butyl ether	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U J
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U J
124-48-1	Dibromochloromethane	10	U

12/5/12

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SDP-WS

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS142

Matrix: (soil/water) WATER Lab Sample ID: 1210B69-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16593.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/29/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U

11/5/12

URS142 V50

1F

EPA SAMPLE NO.

SDP-WS

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS142

Matrix: (soil/water) WATER Lab Sample ID: 1210B69-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16593.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/29/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

CONCENTRATION UNITS:

Number TICs found: 0 (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

SDP-WS

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

FD-101812

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS142

Matrix: (soil/water) WATER Lab Sample ID: 1210B69-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16595.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/29/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U J
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U J
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U J
67-64-1	Acetone	10 ~~2~~	~~J~~ U
75-15-0	Carbon disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl tert-butyl ether	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U J
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U J
124-48-1	Dibromochloromethane	10	U

12/15/12

URS142 V25

SDP-WS

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FD-101812

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS142

Matrix: (soil/water) WATER Lab Sample ID: 1210B69-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16595.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/29/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U J
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U J
120-82-1	1,2,4-Trichlorobenzene	10	U J

12/5/12

URS142 V26

SOP-WS

1F

EPA SAMPLE NO.

FD-101812

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS142

Matrix: (soil/water) WATER Lab Sample ID: 1210B69-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16595.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/29/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

CONCENTRATION UNITS:

Number TICs found: 0 (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

SW-01D

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16524.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/25/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl tert-butyl ether	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U

10/26/12

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-01D

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16524.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/25/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U

URS143 V65

1F

EPA SAMPLE NO.

SW-01D

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16524.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/25/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

CONCENTRATION UNITS:

Number TICs found: 0 (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

URS143 V66

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

SW-01S

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16525.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/25/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl tert-butyl ether	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U

12/6/12

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-01S

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16525.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/25/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U

URS143 V72

1F

EPA SAMPLE NO.

SW-01S

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16525.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/25/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

CONCENTRATION UNITS:

Number TICs found: 0 (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

URS143 V73

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-02D

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-006A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16526.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/25/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl tert-butyl ether	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-02D

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-006A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16526.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/25/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U

URS143 V79

1F

EPA SAMPLE NO.

SW-02D

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-006A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16526.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/25/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

CONCENTRATION UNITS:

Number TICs found: 0 (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

URS143 V80

SW-C2D

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FD-101712

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-012A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16533.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/26/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U UJ
74-87-3	Chloromethane	10	U UJ
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl tert-butyl ether	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U

SW-020

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FD-101712

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-012A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16533.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/26/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U

12/5/12

URS143 V26

SW-02D

1F

EPA SAMPLE NO.

FD-101712

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-012A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16533.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/26/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

CONCENTRATION UNITS:

Number TICs found: 0 (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

CLM 12/5/12

URS143 V27

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-02S

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-007A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16527.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/25/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl tert-butyl ether	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	1	J
110-82-7	Cyclohexane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U

11/5/12

URS143 V85

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-02S

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-007A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16527.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/25/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U

URS143 V86

1F

EPA SAMPLE NO.

SW-02S

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-007A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16527.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/25/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

CONCENTRATION UNITS:

Number TICs found: 0 (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

SW-03S

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-008A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16528.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/25/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl tert-butyl ether	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U

12/5/12

URS143 V93

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-03S

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-008A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16528.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/25/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U

URS143 V94

1F

EPA SAMPLE NO.

SW-03S

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-008A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16528.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/25/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

Number TICs found: 0 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

URS143 V95

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-04D

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-009A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16541.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/26/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U J
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U J
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl tert-butyl ether	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon tetrachloride	10	U J
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U

12/4/12

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-04D

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-009A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16541.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/26/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U

URS143 V101

1F

EPA SAMPLE NO.

SW-04D

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-009A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16541.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/26/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

CONCENTRATION UNITS:

Number TICs found: 0 (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

URS143 V102

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-04S

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-010A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16532.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/26/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U J
74-87-3	Chloromethane	10	U J
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl tert-butyl ether	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U

12/5/12

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-04S

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-010A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16532.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/26/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U

URS143 V108

1F

EPA SAMPLE NO.

SW-04S

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Matrix: (soil/water) WATER Lab Sample ID: 1210B72-010A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16532.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/26/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

CONCENTRATION UNITS:

Number TICs found: 0 (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

URS143 V109

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SWTR-1E

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS142

Matrix: (soil/water) WATER Lab Sample ID: 1210B69-006A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16597.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/29/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U J
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U J
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U J
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl tert-butyl ether	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U J
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U J
124-48-1	Dibromochloromethane	10	U

dwf 2/5/13

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SWTR-1E

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS142

Matrix: (soil/water) WATER Lab Sample ID: 1210B69-006A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16597.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/29/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U J
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U J
120-82-1	1,2,4-Trichlorobenzene	10	U J

12/5/12

URS142 V58

1F

EPA SAMPLE NO.

SWTR-1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS142

Matrix: (soil/water) WATER Lab Sample ID: 1210B69-006A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16597.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/29/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

CONCENTRATION UNITS:

Number TICs found: 0 (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

URS142 V59

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SWTR-1T

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS142

Matrix: (soil/water) WATER Lab Sample ID: 1210B69-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16614.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 11/01/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U J
74-87-3	Chloromethane	10	U J
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U
67-64-1	Acetone	10 ~~2~~	~~BJ~~ UJ
75-15-0	Carbon disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl tert-butyl ether	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U J
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U

12/5/12

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SWTR-1T

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS142

Matrix: (soil/water) WATER Lab Sample ID: 1210B69-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16614.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 11/01/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U

11/5/12

URS142 V65

1F

EPA SAMPLE NO.

SWTR-1T

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS142

Matrix: (soil/water) WATER Lab Sample ID: 1210B69-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16614.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 11/01/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

CONCENTRATION UNITS:

Number TICs found: 0 (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB-101812

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS142

Matrix: (soil/water) WATER Lab Sample ID: 1210B69-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16596.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/29/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U J
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U J
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U J
67-64-1	Acetone	6	J
75-15-0	Carbon disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene chloride	14	
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl tert-butyl ether	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U J
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U J
124-48-1	Dibromochloromethane	10	U

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB-101812

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS142

Matrix: (soil/water) WATER Lab Sample ID: 1210B69-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16596.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/29/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U J
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U J
120-82-1	1,2,4-Trichlorobenzene	10	U J

12/5/12

URS142 V73

1F

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

TB-101812

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS142

Matrix: (soil/water) WATER Lab Sample ID: 1210B69-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16596.

Level: (low/med) LOW Date Received: 10/20/12

% Moisture: not dec. Date Analyzed: 10/29/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

CONCENTRATION UNITS:

Number TICs found: 0 (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

ATTACHMENT B

SUPPORT DOCUMENTATION

CHAIN OF CUSTODY RECORD

URS

PROJECT NO. 11176167.00002 | SITE NAME Rose Valley Landfill

SAMPLERS (PRINT/SIGNATURE) Tim Ifkovich / Tim Ifkovich Check Dusel

LAB HZM | COOLER 1 of 1 | PAGE 1 of 2

DELIVERY SERVICE: Fedex AIRBILL NO.:

TESTS: TCL VOCs TICs

BOTTLE TYPE AND PRESERVATIVE: 40ml Vial HCl

LOCATION IDENTIFIER	DATE	TIME	COMP/ GRAB	SAMPLE ID	MATRIX	TOTAL NO.# OF CONTAINERS	40ml Vial HCl	REMARKS	SAMPLE TYPE	BEGINNING DEPTH (IN FEET)	ENDING DEPTH (IN FEET)	FIELD LOT NO.# (IRPIMS ONLY)
SW-03S	10/17/12	1502	G	SW-03S	WG	2	2	1210B72-008	N,			
SW-03S	10/17/12	~~1549~~ 1502	G	SW-03S-MS	WG	2	2		MS,			
SW-03S	10/17/12	1502	G	SW-03S-SD	WG	2	2		SD,			
SW-02S	10/17/12	1549	G	SW-02S	WG	2	2	007 10/27/12	N,			
SW-02D	10/17/12	1635	G	SW-02D	WG	2	2	006	N,			
Duplicate	10/17/12	—	G	FD-101712	WG	2	2	012 (SW-02D)	FD,			
SW-01S	10/17/12	1729	G	SW-01S	WG	2	2	005	N,			
SW-01D	10/17/12	1800	G	SW-01D	WG	2	2	004	N,			
SW-04S	10/18/12	1035	G	SW-04S	WG	2	2	010	N,			
SW-04D	10/18/12	1110	G	SW-04D	WG	2	2	009	N,			
MW-16	10/18/12	1227	G	MW-16	WG	2	2	003	N,			
SWTR-1E	10/18/12	1257	G	SWTR-1E	WS	2	2	1210B09 SOIL	N,	JDA 10/24/12		
MW-04	10/18/12	1533	G	MW-04	WG	2	2	1210B72 007	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
Tim Ifkovich	10/18/12	2200	Fed Ex		
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LAB BY (SIGNATURE)	DATE	TIME
Fed Ex	10/20/12	1430	[signature]	10/20/12	1430
[signature]	10/22/12	01:00	[signature]	10/22/12	10:00

SPECIAL INSTRUCTIONS: Contact George Kisluk w/ any questions. 716-923-1321

Distribution: Original accompanies shipment, copy to coordinator field files

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

URS143 S6

URS142

CHAIN OF CUSTODY RECORD

URS

PROJECT NO.	SITE NAME
11176167.00002	Rose Valley Landfill

SAMPLERS (PRINT/SIGNATURE): Tim Iskovich / Tim Gilbert Chuck Dusel

DELIVERY SERVICE: Fedex AIRBILL NO.:

LAB: H2M

COOLER: 1 of 1

PAGE: 2 of 2

TESTS: TCL VOCs + TICs

BOTTLE TYPE AND PRESERVATIVE: 40ml Vial HCl

LOCATION IDENTIFIER	DATE	TIME	COMP/ GRAB	SAMPLE ID	MATRIX	TOTAL NO. OF CONTAINERS	40ml Vial HCl	REMARKS	SAMPLE TYPE	BEGINNING DEPTH (IN FEET)	ENDING DEPTH (IN FEET)	FIELD LOT NO.# (IRPIMS ONLY)
MW-03	10/18/12	1623	G	MW-03	WG	2	2	1210B72-001	N			
NDP	10/18/12	1630	G	NDP-WS	WS	2	2	1210B69-001	N			
NDP	10/18/12	1630	G	NDP-WS-MS	WS	2	2		MS			
NDP	10/18/12	1630	G	NDP-WS-SD	WS	2	2		SD			
SWTR-1T	10/18/12	1645	G	SWTR-1T	WS	2	2	003	N			
SDP	10/18/12	1705	G	SDP-WS	WS	2	2	002	N			
Duplicate	10/18/12	[redacted]	G	FD-101812	WS	2	2	004	FD			
Trip blank	10/18/12	—	—	TB-101812	TB	2		005				

SDP-WS

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
Tim Gilbert	10/18/12	2200	Fed Ex		
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LAB BY (SIGNATURE)	DATE	TIME
Fed Ex	10/20/12	1430	[signature]	10/20/12	1431
[signature]	10/22/12	1010	[signature]	10/22/12	10:00

SPECIAL INSTRUCTIONS: Contact George Kislok w/ any questions 716-923-1321

Distribution: Original accompanies shipment, copy to coordinator field files

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

URS142 S7

H 2 M labs

575 Broad Hollow Road tel 631.694.3040
Melville, NY 11747 fax 631.420.8436

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 10/22/12
SDG #: URS142

For Sample(s):

NDP-WS	TB-101812
SDP-WS	SWTR-1E
SWTR-1T	SB-102512
FD-101812	

The above sample(s) and blanks was/were analyzed for a select list of volatile organic analytes by EPA method 8260B.

All Q.C. data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

Sample NDP-WS was analyzed as matrix spike/matrix spike duplicate (MS/MSD). Several percent recoveries and RPDs were outside of Q.C. limits. . Lab fortified blanks were analyzed. All percent recoveries were within or above Q.C. limits except for a 67% recovery for styrene in LFB102912 (low limit 71%).

Linear responses with average RFs or linear regression calibration were used as required.

In the continuing calibration verification (CCV's) some compounds had %D's above 15%. These compounds are notes on Form VII. Results for these analytes are regarded as estimated and are flagged with a "Z" qualifier if found in samples associated with that calibration.

Low levels of acetone and 1,2,4-trichlorobenzene were present in some method blanks. These analytes were flagged with a "B" qualifier if present in samples associated with these blanks.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: November 14, 2012

****
* *
* *
****
Joann M. Slavin
Senior Vice President

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK110112

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS142

Lab File ID: 12\G16611A Lab Sample ID: VBLK110112

Date Analyzed: 11/01/12 Time Analyzed: 19:36

GC Column: Rtx-624 ID: .18 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5972-2

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LFB110112	LFB110112	12\G16612A	20:06
02	SWTR-1T	1210B69-003A	12\G16614.	21:05
03	NDP-WSMS	1210B69-001AMS	12\G16616.	22:05
04	NDP-WSMSD	1210B69-001AMSD	12\G16617.	22:35

COMMENTS: _____

_____

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLK110112

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS142

Matrix: (soil/water) WATER Lab Sample ID: VBLK110112

Sample wt/vol: 5 (g/mL) ML Lab File ID: 12\G16611A

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 11/01/12

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U
67-64-1	Acetone	1	JZ
75-15-0	Carbon disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl tert-butyl ether	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS142

Lab File ID: 12\G16577. BFB Injection Date: 10/29/12

Instrument ID: HP5972-2 BFB Injection Time: 7:53

GC Column: Rtx-624 ID: .18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.8
75	30.0 - 60.0% of mass 95	44.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.1 (0.2)1
174	Greater than 50.0% of mass 95	75.3
175	5.0 - 9.0% of mass 174	5.3 (7.0)1
176	95.0 - 101.0% of mass 174	72.0 (95.7)1
177	5.0 - 9.0% of mass 176	4.8 (6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	12\G16579.	10/29/12	8:44
02	VBLK102912	VBLK102912	12\G16581.	10/29/12	9:44
03	LFB102912	LFB102912	12\G16582.	10/29/12	10:14
04	NDP-WS	1210B69-001A	12\G16592.	10/29/12	15:11
05	SDP-WS	1210B69-002A	12\G16593.	10/29/12	15:40
06	FD-101812	1210B69-004A	12\G16595.	10/29/12	17:16
07	TB-101812	1210B69-005A	12\G16596.	10/29/12	17:45
08	SWTR-1E	1210B69-006A	12\G16597.	10/29/12	18:15
09	SB-102512	1210B69-007A	12\G16598.	10/29/12	18:45

7B

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS142

Instrument ID: HP5972-2 Calibration Date: 10/29/12 Time: 8:44

Lab File ID: 12\G16579. Init. Calib. Date(s): 03/03/12 03/03/12

EPA Sample No.(VSTD050##): VSTD050 Init. Calib. Times: 10:49 14:27

Heated Purge: (Y/N) N

GC Column: Rtx-624 ID: .18 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	2.766	1.822		-34.1	
Chloromethane	2.871	2.502	0.100	-12.9	
Vinyl chloride	2.339	2.333		-0.3	20.0
Bromomethane	1.346	1.637		21.6	
Chloroethane	1.336	1.525		14.1	
Trichlorofluoromethane	2.667	3.063		14.8	
1,1-Dichloroethene	1.506	1.683		11.8	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.455	1.796		23.4	
Acetone	0.845	0.710		-15.9	
Carbon disulfide	5.561	6.199		11.5	
Methyl Acetate	1.976	2.091		5.8	
Methylene chloride	2.052	2.198		7.1	
trans-1,2-Dichloroethene	1.764	2.029		15.1	
Methyl tert-butyl ether	5.973	6.098		2.1	
1,1-Dichloroethane	3.444	3.737	0.100	8.5	
cis-1,2-Dichloroethene	1.964	2.229		13.5	
2-Butanone	1.393	1.220		-12.4	
Chloroform	3.320	3.585		8.0	20.0
1,1,1-Trichloroethane	0.458	0.441		-3.7	
Cyclohexane	0.463	0.482		4.2	
Carbon tetrachloride	0.355	0.364		2.6	
Benzene	1.212	1.251		3.2	
1,2-Dichloroethane	2.853	2.756		-3.4	
Trichloroethene	0.303	0.311		2.7	
Methylcyclohexane	0.364	0.375		2.9	
1,2-Dichloropropane	0.351	0.341		-2.8	20.0
Bromodichloromethane	0.457	0.441		-3.5	
cis-1,3-Dichloropropene	0.565	0.548		-3.1	
4-Methyl-2-pentanone	0.571	0.416		-27.1	
Toluene	1.347	1.184		-12.1	20.0
trans-1,3-Dichloropropene	0.560	0.551		-1.6	
1,1,2-Trichloroethane	0.319	0.310		-2.8	
Tetrachloroethene	0.244	0.216		-11.5	
2-Hexanone	0.392	0.289		-26.4	
Dibromochloromethane	0.365	0.347		-4.9	

All other compounds must meet a minimum RRF of 0.010.

7B

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS142

Instrument ID: HP5972-2 Calibration Date: 10/29/12 Time: 8:44

Lab File ID: 12\G16579. Init. Calib. Date(s): 03/03/12 03/03/12

EPA Sample No.(VSTD050##): VSTD050 Init. Calib. Times: 10:49 14:27

Heated Purge: (Y/N) N

GC Column: Rtx-624 ID: .18 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
1,2-Dibromoethane	0.399	0.321		-19.5	
Chlorobenzene	0.950	0.755	0.300	-20.5	
Ethylbenzene	0.466	0.380		-18.4	20.0
Xylene (total)	0.572	0.461		-19.5	
Styrene	1.027	0.763		-25.7	
Bromoform	0.254	0.248	0.100	-2.4	
Isopropylbenzene	1.399	1.130		-19.2	
1,1,2,2-Tetrachloroethane	0.503	0.406	0.300	-19.3	
1,3-Dichlorobenzene	0.625	0.556		-11.0	
1,4-Dichlorobenzene	0.643	0.579		-10.0	
1,2-Dichlorobenzene	0.609	0.541		-11.1	
1,2-Dibromo-3-chloropropane	0.099	0.065		-34.7	
1,2,4-Trichlorobenzene	0.390	0.278		-28.8	

All other compounds must meet a minimum RRF of 0.010.

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS142

Lab File ID: 12\G16609. BFB Injection Date: 11/01/12

Instrument ID: HP5972-2 BFB Injection Time: 18:41

GC Column: Rtx-624 ID: .18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.3
75	30.0 - 60.0% of mass 95	43.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.1 (0.2)1
174	Greater than 50.0% of mass 95	78.9
175	5.0 - 9.0% of mass 174	5.6 (7.2)1
176	95.0 - 101.0% of mass 174	76.4 (96.9)1
177	5.0 - 9.0% of mass 176	5.0 (6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	12\G16610A	11/01/12	19:06
02	VBLK110112	VBLK110112	12\G16611A	11/01/12	19:36
03	LFB110112	LFB110112	12\G16612A	11/01/12	20:06
04	SWTR-1T	1210B69-003A	12\G16614.	11/01/12	21:05
05	NDP-WSMS	1210B69-001AMS	12\G16616.	11/01/12	22:05
06	NDP-WSMSD	1210B69-001AMSD	12\G16617.	11/01/12	22:35

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS142

Instrument ID: HP5972-2 Calibration Date: 11/01/12 Time: 19:06

Lab File ID: 12\G16610A Init. Calib. Date(s): 03/03/12 03/03/12

EPA Sample No.(VSTD050##): VSTD050 Init. Calib. Times: 10:49 14:27

Heated Purge: (Y/N) N

GC Column: Rtx-624 ID: .18 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	2.766	1.769		-36.0	
Chloromethane	2.871	2.195	0.100	-23.5	
Vinyl chloride	2.339	2.063		-11.8	20.0
Bromomethane	1.346	1.392		3.4	
Chloroethane	1.336	1.271		-4.9	
Trichlorofluoromethane	2.667	2.472		-7.3	
1,1-Dichloroethene	1.506	1.577		4.7	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.455	1.573		8.1	
Acetone	0.845	0.641		-24.1	
Carbon disulfide	5.561	5.885		5.8	
Methyl Acetate	1.976	1.877		-5.0	
Methylene chloride	2.052	2.247		9.5	
trans-1,2-Dichloroethene	1.764	1.972		11.8	
Methyl tert-butyl ether	5.973	5.701		-4.6	
1,1-Dichloroethane	3.444	3.445	0.100	0.0	
cis-1,2-Dichloroethene	1.964	2.138		8.9	
2-Butanone	1.393	1.171		-16.0	
Chloroform	3.320	3.383		1.9	20.0
1,1,1-Trichloroethane	0.458	0.493		7.7	
Cyclohexane	0.463	0.521		12.6	
Carbon tetrachloride	0.355	0.422		18.9	
Benzene	1.212	1.411		16.4	
1,2-Dichloroethane	2.853	2.546		-10.8	
Trichloroethene	0.303	0.355		17.3	
Methylcyclohexane	0.364	0.420		15.2	
1,2-Dichloropropane	0.351	0.380		8.3	20.0
Bromodichloromethane	0.457	0.491		7.4	
cis-1,3-Dichloropropene	0.565	0.636		12.5	
4-Methyl-2-pentanone	0.571	0.570		-0.1	
Toluene	1.347	1.610		19.6	20.0
trans-1,3-Dichloropropene	0.560	0.596		6.5	
1,1,2-Trichloroethane	0.319	0.339		6.2	
Tetrachloroethene	0.244	0.308		26.2	
2-Hexanone	0.392	0.401		2.2	
Dibromochloromethane	0.365	0.400		9.7	

All other compounds must meet a minimum RRF of 0.010.

7B

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS142

Instrument ID: HP5972-2 Calibration Date: 11/01/12 Time: 19:06

Lab File ID: 12\G16610A Init. Calib. Date(s): 03/03/12 03/03/12

EPA Sample No.(VSTD050##): VSTD050 Init. Calib. Times: 10:49 14:27

Heated Purge: (Y/N) N

GC Column: Rtx-624 ID: .18 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
1,2-Dibromoethane	0.399	0.411		3.0	
Chlorobenzene	0.950	1.028	0.300	8.3	
Ethylbenzene	0.466	0.516		10.8	20.0
Xylene (total)	0.572	0.628		9.7	
Styrene	1.027	1.157		12.7	
Bromoform	0.254	0.277	0.100	9.0	
Isopropylbenzene	1.399	1.553		11.0	
1,1,2,2-Tetrachloroethane	0.503	0.538	0.300	7.0	
1,3-Dichlorobenzene	0.625	0.777		24.3	
1,4-Dichlorobenzene	0.643	0.807		25.4	
1,2-Dichlorobenzene	0.609	0.758		24.5	
1,2-Dibromo-3-chloropropane	0.099	0.083		-16.6	
1,2,4-Trichlorobenzene	0.390	0.400		2.5	

All other compounds must meet a minimum RRF of 0.010.

H 2 M labs

575 Broad Hollow Road
Melville, NY 11747

tel 631.694.3040
fax 631.420.8436

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 10/22/12
SDG #: URS143

For Sample(s):

MW-03	SW-02S
MW-04	SW-03S
MW-16	SW-04D
SW-01D	SW-04S
SW-01S	FD-101712
SW-02D	SB-102512

The above sample(s) and blanks was/were analyzed for a select list of volatile organic analytes by EPA method 8260B.

All Q.C. data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

Sample SW-03S was analyzed as matrix spike/matrix spike duplicate (MS/MSD). All percent recoveries and RPDs were met except for twenty two analytes with high recoveries. Lab fortified blanks were analyzed. All percent recoveries were within or above Q.C. limits.

Linear responses with average RFs or linear regression calibration were used as required.

In the continuing calibration verification (CCV's) some compounds had %D's above 15%. These compounds are notes on Form VII. Results for these analytes are regarded as estimated and are flagged with a "Z" qualifier if found in samples associated with that calibration.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: November 15, 2012

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* *
* *
****

Joann M. Slavin
Senior Vice President

URS143 S12

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Lab File ID: 12\G16511. BFB Injection Date: 10/25/12

Instrument ID: HP5972-2 BFB Injection Time: 15:07

GC Column: Rtx-624 ID: .18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.9
75	30.0 - 60.0% of mass 95	45.8
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.2 (0.3)1
174	Greater than 50.0% of mass 95	71.8
175	5.0 - 9.0% of mass 174	5.3 (7.4)1
176	95.0 - 101.0% of mass 174	71.2 (99.1)1
177	5.0 - 9.0% of mass 176	4.9 (6.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	12\G16513.	10/25/12	15:58
02	VBLK102512	VBLK102512	12\G16515.	10/25/12	16:57
03	LFB102512	LFB102512	12\G16516.	10/25/12	17:27
04	MW-04	1210B72-002A	12\G16522.	10/25/12	20:25
05	MW-16	1210B72-003A	12\G16523.	10/25/12	20:55
06	SW-01D	1210B72-004A	12\G16524.	10/25/12	21:24
07	SW-01S	1210B72-005A	12\G16525.	10/25/12	21:54
08	SW-02D	1210B72-006A	12\G16526.	10/25/12	22:24
09	SW-02S	1210B72-007A	12\G16527.	10/25/12	22:53
10	SW-03S	1210B72-008A	12\G16528.	10/25/12	23:23
11	SW-03SMS	1210B72-008AMS	12\G16529.	10/25/12	23:52
12	SW-03SMSD	1210B72-008AMSD	12\G16530.	10/26/12	0:22
13	SW-04S	1210B72-010A	12\G16532.	10/26/12	1:21
14	FD-101712	1210B72-012A	12\G16533.	10/26/12	1:51
15	SB-102512	1210B72-013A	12\G16534.	10/26/12	2:20

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Instrument ID: HP5972-2 Calibration Date: 10/25/12 Time: 15:58

Lab File ID: 12\G16513. Init. Calib. Date(s): 03/03/12 03/03/12

EPA Sample No.(VSTD050##): VSTD050 Init. Calib. Times: 10:49 14:27

Heated Purge: (Y/N) N

GC Column: Rtx-624 ID: .18 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	2.766	1.665		-39.8	
Chloromethane	2.871	2.212	0.100	-23.0	
Vinyl chloride	2.339	2.031		-13.2	20.0
Bromomethane	1.346	1.425		5.8	
Chloroethane	1.336	1.271		-4.9	
Trichlorofluoromethane	2.667	2.463		-7.7	
1,1-Dichloroethene	1.506	1.664		10.5	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.455	1.672		14.9	
Acetone	0.845	0.720		-14.8	
Carbon disulfide	5.561	6.428		15.6	
Methyl Acetate	1.976	2.169		9.8	
Methylene chloride	2.052	2.356		14.8	
trans-1,2-Dichloroethene	1.764	2.074		17.6	
Methyl tert-butyl ether	5.973	6.421		7.5	
1,1-Dichloroethane	3.444	3.851	0.100	11.8	
cis-1,2-Dichloroethene	1.964	2.302		17.2	
2-Butanone	1.393	1.313		-5.8	
Chloroform	3.320	3.787		14.1	20.0
1,1,1-Trichloroethane	0.458	0.513		12.0	
Cyclohexane	0.463	0.484		4.6	
Carbon tetrachloride	0.355	0.420		18.3	
Benzene	1.212	1.426		17.7	
1,2-Dichloroethane	2.853	2.897		1.5	
Trichloroethene	0.303	0.348		15.0	
Methylcyclohexane	0.364	0.347		-4.8	
1,2-Dichloropropane	0.351	0.391		11.4	20.0
Bromodichloromethane	0.457	0.525		14.9	
cis-1,3-Dichloropropene	0.565	0.656		16.0	
4-Methyl-2-pentanone	0.571	0.588		3.0	
Toluene	1.347	1.488		10.5	20.0
trans-1,3-Dichloropropene	0.560	0.672		20.1	
1,1,2-Trichloroethane	0.319	0.363		13.8	
Tetrachloroethene	0.244	0.252		3.2	
2-Hexanone	0.392	0.416		6.0	
Dibromochloromethane	0.365	0.429		17.6	

All other compounds must meet a minimum RRF of 0.010.

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Lab File ID: 12\G16535. BFB Injection Date: 10/26/12

Instrument ID: HP5972-2 BFB Injection Time: 15:33

GC Column: Rtx-624 ID: .18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.6
75	30.0 - 60.0% of mass 95	48.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.4 (0.5)1
174	Greater than 50.0% of mass 95	69.5
175	5.0 - 9.0% of mass 174	5.1 (7.3)1
176	95.0 - 101.0% of mass 174	67.6 (97.3)1
177	5.0 - 9.0% of mass 176	4.5 (6.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	12\G16536.	10/26/12	15:54
02	VBLK102612	VBLK102612	12\G16538.	10/26/12	16:53
03	LFB102612	LFB102612	12\G16539.	10/26/12	17:23
04	SW-04D	1210B72-009A	12\G16541.	10/26/12	18:22
05	MW-03	1210B72-001A	12\G16548.	10/26/12	21:50

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: H2M LABS INC Contract: _____

Lab Code: H2M Case No.: URS SAS No.: _____ SDG No.: URS143

Instrument ID: HP5972-2 Calibration Date: 10/26/12 Time: 15:54

Lab File ID: 12\G16536. Init. Calib. Date(s): 03/03/12 03/03/12

EPA Sample No.(VSTD050##): VSTD050 Init. Calib. Times: 10:49 14:27

Heated Purge: (Y/N) N

GC Column: Rtx-624 ID: .18 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	2.766	1.954		-29.4	
Chloromethane	2.871	2.624	0.100	-8.6	
Vinyl chloride	2.339	2.271		-2.9	20.0
Bromomethane	1.346	1.674		24.3	
Chloroethane	1.336	1.480		10.8	
Trichlorofluoromethane	2.667	3.115		16.8	
1,1-Dichloroethene	1.506	1.670		10.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.455	1.741		19.7	
Acetone	0.845	0.751		-11.1	
Carbon disulfide	5.561	6.274		12.8	
Methyl Acetate	1.976	2.199		11.3	
Methylene chloride	2.052	2.291		11.7	
trans-1,2-Dichloroethene	1.764	2.041		15.7	
Methyl tert-butyl ether	5.973	6.752		13.0	
1,1-Dichloroethane	3.444	3.970	0.100	15.3	
cis-1,2-Dichloroethene	1.964	2.296		16.9	
2-Butanone	1.393	1.329		-4.6	
Chloroform	3.320	3.934		18.5	20.0
1,1,1-Trichloroethane	0.458	0.518		13.1	
Cyclohexane	0.463	0.521		12.6	
Carbon tetrachloride	0.355	0.429		20.9	
Benzene	1.212	1.365		12.6	
1,2-Dichloroethane	2.853	3.178		11.4	
Trichloroethene	0.303	0.329		8.7	
Methylcyclohexane	0.364	0.388		6.5	
1,2-Dichloropropane	0.351	0.380		8.3	20.0
Bromodichloromethane	0.457	0.524		14.7	
cis-1,3-Dichloropropene	0.565	0.642		13.5	
4-Methyl-2-pentanone	0.571	0.514		-9.9	
Toluene	1.347	1.396		3.7	20.0
trans-1,3-Dichloropropene	0.560	0.638		14.0	
1,1,2-Trichloroethane	0.319	0.344		7.8	
Tetrachloroethene	0.244	0.245		0.4	
2-Hexanone	0.392	0.360		-8.3	
Dibromochloromethane	0.365	0.395		8.3	

All other compounds must meet a minimum RRF of 0.010.

APPENDIX E

WELL INSPECTION FORMS

MONITORING WELL INSPECTION FORM

SITE NAME: Rose Valley Landfill
JOB#: 11176716
DATE: 10/17/2012
TIME: 12:23
WELL ID: MW-03

EXTERIOR INSPECTION

PROTECTIVE CASING: OK
LOCK/HASP: OK
HINGE/ LID: OK
WELL PAD: OK
BOLLARDS: None
LABEL/ID: None
OTHER: Thick vegetation surrounding well.

INTERIOR INSPECTION

WELL RISER: OK
ANULAR SPACE: OK
WELL CAP: OK
WATER LEVEL: 2.85
DEPTH TO BOTTOM: 17.26 HARD/SOFT BOTTOM Soft
OTHER:

COMMENTS:

SIGNATURE INSPECTOR: Tim Sheard SIGNATURE APPROVAL:
LOCK KEY # 2246

MONITORING WELL INSPECTION FORM

SITE NAME: Rose Valley Landfill
JOB#: 11176716
DATE: 10/17/2012
TIME: 12:34
WELL ID: MW-4

EXTERIOR INSPECTION

PROTECTIVE CASING: OK
LOCK/HASP: OK
HINGE/ LID: OK
WELL PAD: OK
BOLLARDS: None
LABEL/ID: None
OTHER:

INTERIOR INSPECTION

WELL RISER: OK
ANULAR SPACE: OK
WELL CAP: OK
WATER LEVEL: 2.40
DEPTH TO BOTTOM: 17.51 HARD/SOFT BOTTOM Soft
OTHER:

COMMENTS:

SIGNATURE INSPECTOR: Tim Gillespie SIGNATURE APPROVAL:
LOCK KEY # 2246

MONITORING WELL INSPECTION FORM

SITE NAME: Rose Valley Landfill

JOB#: 11176716

DATE: 10/17/2012

TIME: 12:08

WELL ID: MW-16

EXTERIOR INSPECTION

PROTECTIVE CASING: OK

LOCK/HASP: OK

HINGE/ LID: OK

WELL PAD: OK

BOLLARDS: None

LABEL/ID: None

OTHER:

INTERIOR INSPECTION

WELL RISER: OK

ANULAR SPACE: OK

WELL CAP: OK

WATER LEVEL: 3.30

DEPTH TO BOTTOM: 11.63 HARD/SOFT BOTTOM Soft

OTHER:

COMMENTS:

SIGNATURE INSPECTOR: Tim [signature] SIGNATURE APPROVAL: [signature]

LOCK KEY # 2246

MONITORING WELL INSPECTION FORM

SITE NAME: Rose Valley Landfill

JOB#: 11176716

DATE: 10/17/2012

TIME: 10:45

WELL ID: SW-01S

EXTERIOR INSPECTION

PROTECTIVE CASING: OK

LOCK/HASP: OK

HINGE/ LID: OK

WELL PAD: OK

BOLLARDS: None

LABEL/ID: None

OTHER:

INTERIOR INSPECTION

WELL RISER: OK

ANULAR SPACE: OK

WELL CAP: OK

WATER LEVEL: 20.82

DEPTH TO BOTTOM: 28.41 HARD/SOFT BOTTOM Hard

OTHER:

COMMENTS:

SIGNATURE INSPECTOR: Tim Sullivan SIGNATURE APPROVAL:

LOCK KEY # 2246

MONITORING WELL INSPECTION FORM

SITE NAME: Rose Valley Landfill
JOB#: 11176716
DATE: 10/17/2012
TIME: 10:48
WELL ID: SW-01D

EXTERIOR INSPECTION

PROTECTIVE CASING: OK
LOCK/HASP: OK
HINGE/ LID: OK
WELL PAD: OK
BOLLARDS: None
LABEL/ID: None
OTHER:

INTERIOR INSPECTION

WELL RISER: OK
ANULAR SPACE: OK
WELL CAP: OK
WATER LEVEL: 68.71
DEPTH TO BOTTOM: 83.95 HARD/SOFT BOTTOM Soft
OTHER:

COMMENTS:

SIGNATURE INSPECTOR: Tim Gilbert SIGNATURE APPROVAL:
LOCK KEY # 2246

MONITORING WELL INSPECTION FORM

SITE NAME: Rose Valley Landfill
JOB#: 11176716
DATE: 10/17/2012
TIME: 11:08
WELL ID: SW-02S

EXTERIOR INSPECTION

PROTECTIVE CASING: OK
LOCK/HASP: OK
HINGE/ LID: OK
WELL PAD: OK
BOLLARDS: None
LABEL/ID: None
OTHER:

INTERIOR INSPECTION

WELL RISER: OK
ANULAR SPACE: OK
WELL CAP: OK
WATER LEVEL: 13.95
DEPTH TO BOTTOM: 20.04 HARD/SOFT BOTTOM Soft
OTHER:

COMMENTS:

SIGNATURE INSPECTOR: Tim Ifkovic SIGNATURE APPROVAL:
LOCK KEY # 2246

MONITORING WELL INSPECTION FORM

SITE NAME: Rose Valley Landfill

JOB#: 11176716

DATE: 10/17/2012

TIME: 11:06

WELL ID: SW-02D

EXTERIOR INSPECTION

PROTECTIVE CASING: OK

LOCK/HASP: OK

HINGE/ LID: OK

WELL PAD: OK

BOLLARDS: None

LABEL/ID: None

OTHER:

INTERIOR INSPECTION

WELL RISER: OK

ANULAR SPACE: OK

WELL CAP: OK

WATER LEVEL: 70.97

DEPTH TO BOTTOM: 79.42 HARD/SOFT BOTTOM Soft

OTHER:

COMMENTS:

SIGNATURE INSPECTOR: Tim [signature] SIGNATURE APPROVAL: [signature]

LOCK KEY # 2246

MONITORING WELL INSPECTION FORM

SITE NAME: Rose Valley Landfill
JOB#: 11176716
DATE: 10/17/2012
TIME: 10:58
WELL ID: SW-03S

EXTERIOR INSPECTION

PROTECTIVE CASING: OK
LOCK/HASP: OK
HINGE/ LID: OK
WELL PAD: OK
BOLLARDS: None
LABEL/ID: None
OTHER:

INTERIOR INSPECTION

WELL RISER: OK
ANULAR SPACE: OK
WELL CAP: OK
WATER LEVEL: 14.52
DEPTH TO BOTTOM: 18.8 HARD/SOFT BOTTOM Soft
OTHER:

COMMENTS:

SIGNATURE INSPECTOR: Tim Sprecher SIGNATURE APPROVAL:
LOCK KEY # 2246

MONITORING WELL INSPECTION FORM

SITE NAME: Rose Valley Landfill
JOB#: 11176716
DATE: 10/17/2012
TIME: 11:53
WELL ID: SW-04S

EXTERIOR INSPECTION

PROTECTIVE CASING: OK
LOCK/HASP: OK
HINGE/ LID: OK
WELL PAD: OK
BOLLARDS: None
LABEL/ID: None
OTHER:

INTERIOR INSPECTION

WELL RISER: OK
ANULAR SPACE: OK
WELL CAP: OK
WATER LEVEL: 3.20
DEPTH TO BOTTOM: 8.21 HARD/SOFT BOTTOM Hard
OTHER:

COMMENTS:

SIGNATURE INSPECTOR: Tim Affrick SIGNATURE APPROVAL:
LOCK KEY # 2246

MONITORING WELL INSPECTION FORM

SITE NAME: Rose Valley Landfill
JOB#: 11176716
DATE: 10/17/2012
TIME: 11:52
WELL ID: SW-04D

EXTERIOR INSPECTION

PROTECTIVE CASING: OK
LOCK/HASP: OK
HINGE/ LID: OK
WELL PAD: OK
BOLLARDS: None
LABEL/ID: None
OTHER:

INTERIOR INSPECTION

WELL RISER: OK
ANULAR SPACE: OK
WELL CAP: OK
WATER LEVEL: Not Measured
DEPTH TO BOTTOM: 84.42 HARD/SOFT BOTTOM Soft
OTHER:

COMMENTS: Artesian well.

SIGNATURE INSPECTOR: Tim Dflanck SIGNATURE APPROVAL:
LOCK KEY # 2246

APPENDIX F

LANDFILL INSPECTION FORM

ROSE VALLEY LANDFILL SITE – POST CLOSURE

NYSDEC SITE NO. 6-22-017

INSPECTION LOG SHEET

Date: 10/18/12 **Inspector:** Chuck Diesel

Weather: Sunny **Signature:** C. Diesel

Temperature: ≈ 65°F **Company:** URS Corp.

Type: Winter Spring Summer (Fall)
(Circle One)

Item Inspected	Maintenance Needed (Y/N)	Comments	Inspector's Initials
Drainage Channel	N	Structurally sound -	C.D.
Groundwater Monitoring Wells	N	continue to lubricate locks w/ WD-40 annually	C.D.
Perimeter Access Road	N	repaired in August 2012. Minor erosion occurring	C.D.
Vegetative Cover	Y	Mowing required in Spring 2013	C.D.
Repaired Vegetation	N	N/A	C.D.
Final Cover Layers (Cap Settlement, etc.)	N	good condition	C.D.
Gas Vents	N	two vents were repaired in Aug. 2012	C.D.
Fence and Gates	N	good condition	C.D.
Other Items: (Specify) North & South Detention Ponds	Y	at some point sediment removal - A fair amount of sediment in both basins -	C.D.
Other Items: (Specify) Jersey Barriers / North Back entrance	Y	Some C&D debris dumping should be cleaned up.	C.D.

TABLE 2

LANDFILL CAP AND SITE STORMWATER MANAGEMENT SYSTEM

MINIMUM CHECKLIST FOR ROUTINE INSPECTIONS

Component	Item	Number/Location/ Area Checked	Condition
Cap Grading	Obvious subsidences, depressions, or cracks None Evidence of ponded water None Stressed vegetation None Signs of erosion occurring at a localized change in grade Evidence of Breaching of toe None Animal burrows None Other:	entire Cap was inspected	Only erosion of concern is actually North of the cap between the North Detention pond and ATV hill. Took photos in August and October 2012. Will monitor. Would be very difficult to repair.
Cap Vegetation and Repaired Vegetation	Areas of sparse, dead, or missing vegetation None Small rill erosion No Animal burrows No Other:	entire cap	Cap was mowed in August 2012. Very good stand of green vegetation will need mowing in Spring 2013
Drainage Channel	Missing or displaced stones None Woody vegetation growing in the stones or grass cover Minor	all channels inspected	Minor woody brush growing up through stones in drainage channel
GW Monitoring Wells	Condition of lock and cover Signs of damage to casing or collar Condition of weep hole from casing Evidence of tampering Other:	All - see individual monitoring well inspection forms.	New locks in 2011 WD-40 to all locks - 10 M. Wells were sampled + water level measurements made

Component	Item	Number/Location/ Area Checked	Condition
Fences, Gates and Perimeter Access Road	Cutting or bending of fence fabric No Missing locks, hinges, etc. from gates none Motorbike or snowmobile tracks Shotgun shell casings No Beer cans or other trash Other signs of access or vandalism Condition of access road surface Other:	entire fence line inspected	Minimal tire tracks from ATV observed on top of landfill some recent CED type trash disposal see photos.
Gas Vent	Integrity of pipes and joints good Plumbness and differential settlement none Obstruction of vents by bird, insect or animal nests No Corrosion or deterioration of pipes or supports No Localized browning of vegetation None Other:	spot checked	two gas vents replaced - repaired August 2012 remainder in good condition

APPENDIX G

2012 INTERMITTENT MAINTENANCE

CONSTRUCTION REPORTS
AND
PHOTO LOGS

URS

PERIODIC INSPECTION REPORT
DATE: Wed., August 8,, 2012

ROSE VALLEY LANDFILL
NYSDEC SITE No. 6-22-017

TEMPERATURE:	80's	**SKIES**:	High Haze
WIND:	Still	**PRECIPITATION**:	None

Periodic site visit to observe and document the following:

1. Repair of gas vents that were damaged by gun shots.
2. Placement of jersey barriers at the entrance to a side access road onto the landfill
3. General cap conditions after mowing (to occur today and tomorrow).

On-site at 9:15 A.M. Met with Michael Mason and Kris Keenan of the NYSDEC. Eric Hale and one other employee were on-site for Marcy Excavation Services (MES).

MES was on-site to install jersey barriers across an old access road onto the landfill (as well as to perform periodic mowing of the cap). This road has been used by unknown persons to gain access to the landfill property so that they can dump debris there. Mike Mason stated that the jersey barriers are not intended to keep ATVs or three-wheeled vehicles off of the property, only larger vehicles hauling waste.

The barriers were in place when I arrived. After discussion, the NYSDEC instructed MES to move one jersey barrier slightly closer to the edge of the road to make the passageway there even tighter.

Subsequently, the NYSDEC and I toured the landfill cap.

Mike Mason pointed out the three gas vent risers that had been repaired (determination made by observing the coupling used to join the new section to the old). He expressed no concerns with the work.

We walked the berms of both stormwater management ponds. No issues were noted.

The vegetative cover of the cap appeared to be very healthy, with no apparent bare spots or erosion.

Off-site for lunch at 11:30. After lunch, the NYSDEC returned to their offices, and I returned to the landfill for further inspection and documentation.

Offsite at 2:30 P.M.

PHOTO LOG – SEE ATTACHED 9 IMAGES.

PREPARED BY:	Randy West	TITLE:	Resident Engineer
REVIEWED BY:	Chuck Dusel	TITLE:	Project Manager

PHOTO 1: Jersey barriers across side accesss road leading onto landfill.

PHOTO 2: Excavator used to position jersey barriers. Note fork attachment in bucket.

PHOTO 3: Jersey barriers in place, allowing for passage of smaller vehicles (ATVs, etc.), but not trucks

PHOTO 4: Same as in PHOTO 3. The front barrier was subsequently slid farther to the right to make passage on that side more difficult.

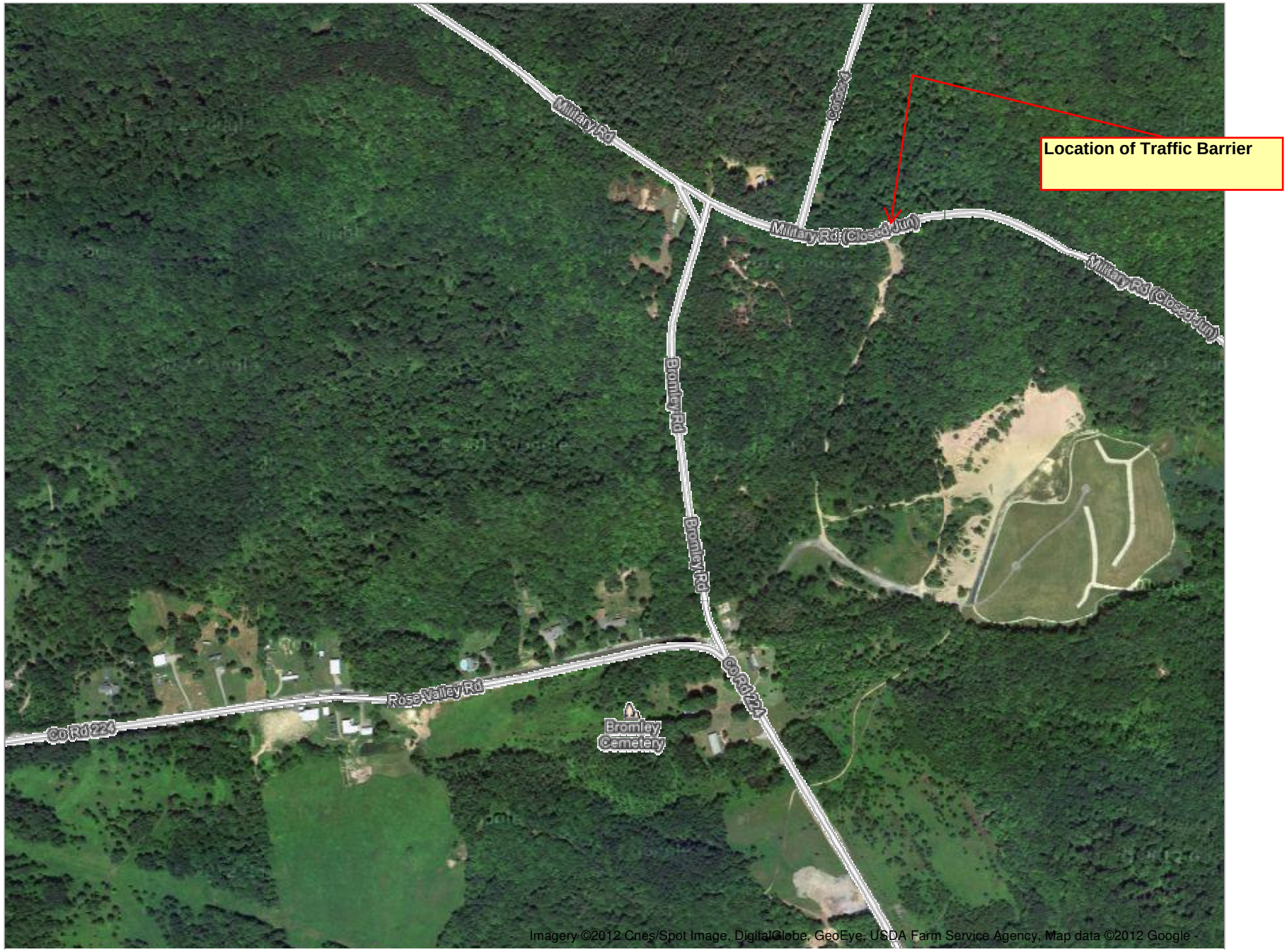
PHOTO 5: Equipment brought by Marcy for cap mowing.

PHOTO 6: Outflow structure of south stormwater management pond. Note cleanliness of gravel blanket. The gravel does not appear to have been inundated.

PHOTO 7: Repaired gas vent riser near mid-cap swale.

PHOTO 8: Second repaired gas vent riser.

PHOTO 9: Third repaired gas vent riser in area just mowed


Location of Traffic Barrier
Military Rd
Military Rd (Closed to Thru)
Military Rd (Closed to Thru)
Bromley Rd
Bromley Rd
Rose Valley Rd
CR 224
CR 224
Bromley Cemetery
Imagery ©2012 Cnes/Spot Image, DigitalGlobe, GeoEye, USDA Farm Service Agency, Map data ©2012 Google

PERIODIC INSPECTION REPORT
DATE: Thurs., August 9, 2012

ROSE VALLEY LANDFILL
NYSDEC SITE No. 6-22-017

TEMPERATURE:	80's	**SKIES**:	High Haze
WIND:	Still	**PRECIPITATION**:	None

Periodic site visit to observe and document the following:

1. Repair of gas vents that were damaged by gun shots.
2. Placement of jersey barriers at the entrance to a side access road onto the landfill
3. General cap conditions after mowing (to occur today and tomorrow).

On-site at 9:45 A.M.

Conducted inspection of landfill after mowing by Marcy Excavation Services.

With the exception noted below, the cap and stormwater management system appear to be in excellent condition. The stone lining of the swales and downchutes is exceptionally clean, with no evidence of high flows at all. No leaf litter or other debris is present in the channel lining.

Only concern: the diversion channel around the north side of the landfill is head cutting, so that there is now an approximately 6-foot high vertical discontinuity in the channel bottom at about the mid-point of the landfill. See photo 10.

It appears that the headcutting has been stopped, however, by the effects of the geotextile that underlay the downstream end of the channel armor, of which a length of about 10 feet has failed. It is unclear if this equilibrium will persist as the geotextile degrades. It is also unclear, even assuming that the headcutting has stopped, if the adjacent sides of the landfill will hold. It was, however, the north bank of the channel that appeared to be eroding, which can also be seen in the pictures. Thus, the erosion is occurring on the side of the channel away from the landfill.

However, if the headcutting continues, there could be significant erosion of, and damage to, the landfill cap. It will be much less costly to repair this situation now than after any such failure has occurred. I would recommend that we begin to evaluate measures to control or stop this erosion (headcutting).

The situation can be monitored by noting the tree that occurs at location of the discontinuity. Should future inspections reveal that the discontinuity has moved upslope of that tree, quick action will be required.

Offsite at 2:00 P.M.

PHOTO LOG – SEE ATTACHED 10 IMAGES.

PREPARED BY: Randy West TITLE: Resident Engineer

REVIEWED BY: Chuck Dusel TITLE: Project Manager

PHOTO 1: Look downslope and east along the southern boundary of the landfill at the south stormwater management pond. Note that not all of the cap had been mowed by this time.

PHOTO 2: Look north at the general condition of the vegetative cover and stone.

PHOTO 3: Look north at the cleanliness of the stone lining of a swale and downchute.

PHOTO 4: Look east along the northern edge of the landfill at the north stormwater management pond. The erosion problem discussed in the report occurs at about the midpoint of this picture.

PHOTO 5: Look west from the north stormwater management pond at a portion of the final cover that Marcy did not mow. Note that this is the area in which there were two slides during construction. I discussed with Marcy's man on-site, and did not raise any objection to the area remaining un-mowed at the time. Given the steepness of the slope, this area should be minimally maintained, only to correct any erosion that may occur (none was noted) and to remove woody vegetation..

PHOTO 6: Look east from the landfill at the north stormwater management pond.

PHOTO 7: Look north along the western fence and vandalism barrier. Note the degree to which the sand has accumulated against the barriers.

PHOTO 8: Look south along the western fence and vandalism barrier. Note the degree to which the sand has accumulated against the barriers.

PHOTO 9: The northeast corner of the landfill perimeter. Beyond the small rise, the ground slopes steeply down, ultimately to the north stormwater management pond. The erosional problem discussed in this report occurs about halfway to the pond. Note the channel cut under barrier by stormwater runoff from the adjacent hill to the north (left). That stormwater flows under the fence and then is picked up and carried downhill by the channel whose end has collapsed as can be seen in the next photo. Thus, this flow pattern appears to be contributing to the above-mentioned erosion problem, though to an uncertain degree.

PHOTO 10: Look northwest at the erosion problem discussed in this report. Note the location of the fence and trees for future reference.