2009 ANNUAL REPORT
POWELL ROAD LANDFILL

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1.0 INTRODUCTION

This report is the 2009 Annual Report for Powell Road Landfill (PRL) in Montgomery County, Ohio. Included in this report are data on systems operation and maintenance, system and facility inspections, corrective actions, monitoring events and sampling results, and an evaluation of the effectiveness of each of the remedial action components.

Pursuant to the approved Remedial Design documents and the approved Operation and Maintenance (O&M) Plan, the remedial action components covered in this Annual Report include:

- Site Security,
- Landfill Cover,
- Surface-Water Controls,
- Landfill Gas Extraction/Treatment,
- Leachate/Condensate Extraction and Storage,
- Landfill Gas Monitoring, and
- Ground-Water Monitoring.

Remedial Action (RA) activities at PRL were conducted in accordance with the approved Powell Road Landfill O&M Plan, April 2002 revision. Semiannual RA Progress Reports were prepared by Waste Management and were submitted to U.S. EPA and Ohio EPA per the requirements of UAO's, V-W-98-C-466 and V-W-98-C-465 and per the frequency approved by U.S. EPA on May 10, 2004. Copies of the semiannual reports are included in Appendix A. Quarterly inspections were performed on March 11, 2009, June 8, 2009, September 18, 2009, and November 23, 2009. Copies of the quarterly inspection reports are included in Appendix B of this annual report.

2.0 SITE SECURITY

Site access is controlled by perimeter fencing. All fencing has three strands of barbed wire on the top. The vehicle site entrance from Powell Road is secured with gates and locks. All other access points are gated and locked. Signs are posted on all gates and at 200-foot intervals along the perimeter fence as a warning to potential trespassers. Quarterly inspections must include identification of fencing, barbed wire, gates, locks, and signs that require repair or replacement. Repairs are to be made as soon as possible after discovery.

2.1 Inspection

The site security systems were inspected once per quarter in 2009. Site security items that were inspected included condition of perimeter fencing, presence and condition of signs posted on gates and perimeter fencing, security of the site access road, and whether undesirable uses of the property were being prevented. The quarterly inspection forms are included in Appendix B.

For all four quarters, the inspectors determined that the security systems were performing as intended and were effective at preventing undesirable use or unauthorized access of the property.

2.2 Corrective Action

The March 11, 2009 quarterly inspection report indicated that two of the yellow site specific EPA signs were missing from the northwest part of the perimeter fence. One of the signs was found and reattached and a new sign was installed on April 29, 2009. Some vegetation on the perimeter fence was noted on the inspection reports from March 11, June 8, and September 18, 2009. Vegetation on the fences was eradicated in November 2009. Minor damage to the perimeter fence in the southeast corner of the site was noted on the inspection report from September 18, 2009. Repairs to the fence were completed in October 2009.

3.0 FINAL COVER

3.1 Description

The PRL landfill cover is constructed over the waste mass. The constructed landfill cover system includes (from bottom to top):

- A low permeability, compacted, soil barrier layer, with a minimum compacted thickness of 24 inches, constructed to limit surface water infiltration into the waste mass,
- A grading layer placed over the soil barrier layer in areas where the surface of the placed/existing barrier grades were less than the required minimum 3 percent grade,
- A 12-inch thick granular drainage layer to drain infiltrated surface water off the soil barrier and grading layers to prevent unstable soil conditions from developing,
- A geotextile layer, placed over the granular drainage layer, to prevent overlying soils from clogging the drainage layer, and
- An 18-inch thick vegetative soil layer designed to sustain plant growth, reduce erosion, promote drainage, and provide frost protection.

3.2 Maintenance

Annual maintenance of the final cover system consists of mowing the grass at least two times per year. The landfill was mowed in June and September 2009.

3.3 Inspection

The final cover was inspected once per quarter in 2009. The purpose of the quarterly inspections is to identify and record on the inspection report any areas of sparse vegetation, areas where erosion has taken place in the form of surface scour or formation of rills or gullies, locations of any animal intrusions, and any areas which have settled enough to trap surface water.

Items evaluated and noted on the quarterly inspection form during quarterly inspections of the final cover include:

- Final cover erosion,
- Top slope good drainage,
- Side slope good drainage,
- Evidence of gas or leachate, and
- Vegetation quality and density.

The quarterly inspections indicated no problems with regard to erosion or drainage and there was no evidence of gas or leachate. A small area of sparse vegetation near gas/leachate extraction well G/L-17 was noted on the inspection reports for March 11 and June 8, 2009.

3.4 Corrective Action

The area of sparse vegetation near gas/leachate extraction well G/L-17 was reseeded prior to the September 18, 2009 quarterly inspection.

4.0 SURFACE-WATER DRAINAGE CONTROL AND FLOOD PROTECTION

4.1 Description

The surface-water drainage control system consists of diversion swales on the final cover, perimeter drainage channels, culverts, and stone riprap. Ditches and channels are grass-lined and are designed to handle flow from a 25-year, 24-hour storm. Riprap is provided where surface-water velocities cannot be controlled by vegetation alone. Corrugated steel culverts are used where a perimeter channel must cross an access road.

Due to the close proximity of the Great Miami River to the PRL, a flood protection system is necessary to protect the final cover system during flood events. The existing trees and vegetation surrounding the landfill and the vegetative cover of the landfill provide adequate erosion control for the 100-year flood and constitute the flood-protection mechanisms. Mature trees and brush that currently exist between the Great Miami River and the landfill reduce the velocity of floodwaters that might come in contact with the landfill. The vegetative cover installed on the landfill cap within the floodplain is a deep-rooted, flood-resistant seed mix. The root system of the established vegetative cover holds the landfill final cover soils in place during flooding.

4.2 Maintenance

The surface-water ditches and channels require mowing and, from time to time, reshaping to better control runoff. Ditches and channels are mowed on the same schedule as the landfill cover to control excess vegetation within the ditches. Ditches and channels are mowed at least two times per year and the ditches and channels are cleaned out as a corrective action when necessary. The ditches and channels were mowed in June and September 2009.

Corrective actions which may be required for the drainage-control/flood-protection system include periodic removal of silt, repair of gravel roadways, and repair of eroded grass channels. If erosion occurs repeatedly in a specific area, a design engineer may be consulted to determine if

riprap is necessary. Any required final cover materials, riprap, vegetation, or culverts shall be obtained and placed in accordance with Technical Specifications in Section 6.0 of the O&M Plan.

4.3 Inspection

The surface water drainage-control/flood-protection system was inspected once per quarter in 2009. Inspection reports and Surface Water Control Inspection Logs are included in Appendix B.

Items evaluated and noted on the quarterly inspection form for the surface-water drainage system are:

- Appropriate runoff controls,
- Diversion ditches,
- Perimeter ditches,
- Perimeter stone,
- Outlet structures, and
- Roads.

Items evaluated on the Surface Water Control Inspection Log are:

- Erosion and sediment control measures,
- Non-structural practices including surface grading, vegetative cover, mulch, and channel riprap,
- Structural practices including silt fencing and ditch checks,
- Surface grading,
- Vegetative cover,
- Riprap channel lining,
- Discharge locations checked for sediment buildup, and
- Vehicles tracking sediment off-site.

4.4 Corrective Action

The quarterly inspection reports did not identify any surface-water drainage items that needed attention in 2009. The Surface Water Control Inspection Logs did not note any deficiencies in the Surface Water Control System. No corrective actions were necessary in 2009.

5.0 LEACHATE/CONDENSATE MANAGEMENT SYSTEM AND COMPRESSED AIR SUPPLY SYSTEM

5.1 Description

The leachate/condensate-extraction system consists of 3 leachate-extraction wells, 26 dual gas/leachate-extraction wells, well pumps, dual gas/leachate-header piping, 3 leachate/gas condensate-knockout sumps, 2 leachate/condensate-knockout pumps, force mains, a gravity leachate/condensate main, a leachate/condensate storage tank, and a load out facility and pump. Pneumatic pumps are installed in leachate/condensate Knockouts 1 and 2 and those leachate wells and dual leachate/gas-extraction wells which contain leachate in sufficiently recoverable quantities as defined by the approved Remedial Design. Leachate is pumped out of the wells and discharged into the dual gas/leachate header where it flows by gravity to one of three leachate/gas-condensate knockouts. At Knockouts 1 and 2, the accumulated liquid is pumped to a high point in the header piping system. From the high point, the liquid flows by gravity to Knockout 3. Leachate/gas condensate flows by gravity from Knockout 3 to the leachate storage tank. The landfill gas and leachate extraction systems are shown on Figure No. 1.

Well pumps and knockout pumps are pneumatically powered. An air compressor and associated equipment is housed in the Air Compressor Building, shown on Figure 1, located near the Blower/Flare Station. From the compressor, a network of underground 2-inch diameter compressed air supply piping feeds each of the well and sump pumps.

5.2 Operation

5.2.1 Pneumatic Pumps

The knockout pumps and well pumps operate automatically when activated by liquid levels within the knockout or well. They are not expected to require adjustments to operate. The pump regulators are subject to freezing and need to be checked periodically during cold weather. The regulators and leachate discharge lines need to be thawed out when they are found to be frozen.

5.2.2 Air Compressor

The air compressor is operated full-time when the leachate extraction system is in operation. All of the knockout pumps and well pumps are powered by compressed air. In the event of a high level alarm in the leachate/condensate storage tank, the air compressor is automatically shut down so that the pumps cannot pump any more leachate. This condition occurred two times in January 2009 as noted on the Auto-Dialer Call-Out Summaries in Appendix C. In both cases, the leachate/condensate storage tank was pumped out on the same day, and the air compressor restarted automatically.

5.2.3 Leachate Storage Tank

The leachate storage tank contains level switches which signal the controller to activate notification lights and the auto-dialer. In the event of a high-level alarm, the controller shuts down the air compressor. The level switches, controls, and alarms for the leachate storage tank functioned properly in 2009 with only routine maintenance.

5.2.4 Auto-Dialer

The auto-dialer notifies individuals of tank-level information (1/2-full, 3/4-full, or full), air compressor system shutdown, and flare system shutdown according to a pre-programmed call list

and continues dialing until an individual acknowledges the call. The auto-dialer protocol was revised in February 2010 and is included in Appendix C. The auto-dialer functioned properly in 2009.

5.3 Maintenance

Maintenance for well pumps, knockout pumps, the air compressor, storage tank pump, auto-dialer, level switches, etc., is performed in accordance with the Maintenance Schedule in Appendix D of the O&M Plan or as maintenance requirements are identified during inspection or operation of the system. All maintenance is performed in accordance with the manufacturers' recommendations.

5.4 Inspection

The 30-year O&M Schedule included in Appendix D of the O&M Plan calls for quarterly inspections and checks of the leachate management system, and for semiannual cleaning of the flame arrestor on the vent for the leachate/condensate storage tank, and semiannual inspection of the compressed air distribution piping system for signs of leakage. The required inspections and maintenance activities have been performed in accordance with the O&M plan in 2009. Landfill Systems Equipment Inspection Reports are included in Appendix B and Landfill Gas and Condensate Collection Systems Maintenance Summary Reports are included in Appendix D. Compressor and sump inspection information also is included on the Blower/Flare Station Data Reports in Appendix E.

The system components inspected, evaluated, and noted on the quarterly inspection forms in Appendix B for the leachate/condensate management system and the compressed air supply system include:

- Collection sumps and risers.
- Electrical components.

- Mechanical components.
- Extraction wells/pumps.
- Storage tank.
- Leachate loading pad.
- Security of system.
- Auto-dialer.

The quarterly inspection reports show no deficiencies for these system components.

5.5 Corrective Action

The following corrective actions were performed on the leachate management and compressed air supply systems in 2009.

- On February 5, 2009 the air dryer lines from the compressor were found to be full of water and were frozen. The lines were disconnected and thawed and drained before they were replaced. Heat tape was installed on the air dryer lines on February 25, 2009.

- The flare required a manual restart after a power outage on June 27, 2009. The flare ignition system was inspected and a new temperature control sensor was installed on July 2, 2009. Also on July 2, 2009, a the master relay on the control panel was replaced and a new starter motor for the air compressor was installed.

- On July 29, 2009, the actuating valve that controls the flow of compressed air to the extraction wells was found to be stuck closed. The relay that controls the actuating valve was replaced on August 7, 2009.

5.6 Leachate Levels

5.6.1 Monitoring

Leachate levels were measured monthly in 2009 with the exceptions of January, May, July, and November and are recorded on the Well Field Monitoring Data sheets in Appendix F. The purpose of leachate-level monitoring is to determine whether the leachate management system is effective at maintaining or reducing leachate levels within the landfill and to evaluate whether sufficient recoverable depth of leachate is present in any of the wells that do not have leachate extraction pumps installed. "Recoverable depth" of leachate in a well is defined as 18 inches or more. If the amount of liquid in any well without a pump is determined to be more than 18 inches and remains above 18 inches for the next two months, a leachate extraction pump will be installed in that well.

For background information on leachate-level monitoring prior to 2000 and information pertaining to initial pump installation and extraction pump operation and maintenance, refer to RA Technical Memorandum No. 7, "Leachate Pump Installations, Leachate Levels", dated January 11, 2000.

5.6.2 Results

Leachate levels in the extraction wells without pumps were all below 18 inches during the four quarterly sets of measurements in March, June, September and December 2009 except for G/L-6 which had 2.65 feet of fluid on December 9, 2009.

5.6.3 Corrective Action

- The pumps in the east sump and G/L-20 were not cycling on January 22, 2009. The pumps were removed, cleaned, and replaced.

- A broken sample port was replaced at G/L-15 on January 22, 2009.

- The pump in the west sump was not cycling on February 5, 2009. The pump was removed, cleaned, and replaced. The air regulator was found to be defective. The regulator from G/L-4 was used to replace the regulator at the west sump. The regulator for G/L-4 was replaced on March 11, 2009.

- On February 25, 2009, cycle counters were replaced at G/L-8 and G/L-14.

- On February 26, 2009, the pumps at G/L-7, G/L-8, G/L-20, and G/L-26 were removed, cleaned and replaced. A hole in the discharge tubing at G/L-8 also was repaired.

- On April 29 2009, a split in the discharge tubing at G/L-20 was repaired.

- On June 8, 2009, a cracked piece of Kanaflex tubing was replaced at L-1.

- All of the leachate extraction pumps were removed, cleaned, and replaced between June 9-12, 2009.

- On August 14, 2009, a cracked piece of Kanaflex tubing was replaced at G/L-16 and sample ports were replaced at G/L-17 and G/L-23.

- On September 29, 2009, new cycle counters were installed at G/L-1 and G/L-22. Maintenance on the pumps at G/L-12 and G/L-17 also was performed.

- On September 30, 2009, the pumps at G/L-20 and G/L-24 were repaired.

- On October 21, 2009, the pumps at G/L-9 and G/L-20 were not cycling. The pump at G/L-20 was removed, cleaned, and replaced. The pump at G/L-9 was removed and a torn section of discharge tubing was repaired.

- On December 9, 2009, the pump at G/L-20 was not cycling and could not be repaired so it was replaced with a new pump on December 10. The pump at G/L-22 also was not working and was removed for repair or replacement. The pump was repaired and replaced on January 25, 2010.

5.7 Leachate Volume Monitoring

A monthly summary of the quantity of leachate hauled in 2009 is included in Appendix G. All leachate was removed from the site via tanker truck and was hauled by Veolia Industrial to the United Wastewater Treatment Facility for disposal. The total amount of leachate removed from PRL in 2009 was 413,000 gallons. Appendix G also includes a graph of leachate hauled per month versus precipitation. This graph shows that the highest volume of leachate production from PRL coincides with periods of high rainfall when ground-water levels are high and ground-water infiltrates the solid waste from below.

5.8 Leachate Quality Monitoring

The required annual leachate sample was collected and analyzed in May 2009 in accordance with Section 2.9 of the approved O&M Plan. Leachate analytical results are summarized on Table H-1 in Appendix H. Only detected VOCs, SVOCs, pesticides, herbicides, and PCBs are listed on Table H-1. The leachate sample was analyzed for all the parameters of the approved reduced leachate monitoring analyte list. The analytical data on Table H-1 show consistency in the parameters detected with some variation in the detected concentrations between events.

6.0 LANDFILL GAS MANAGEMENT SYSTEM

6.1 Description

Landfill gas (LFG) is collected from a network of 26 dual gas/leachate extraction wells. The design allows for simultaneous extraction of gas and leachate from the landfill. A blower is used to create a vacuum within the headers and wells to extract the gas from the landfill. The collected landfill gas is conveyed through buried high-density polyethylene (HDPE) pipes (laterals) connected to a common buried main HDPE header. The landfill gas is conveyed to a flare for combustion. Condensate from the landfill gas extraction system is separated from the gas and combines with extracted leachate in three knockouts located at low points within the header system. The landfill gas and leachate extraction systems are shown on Figure No. 1.

6.2 Operation

The landfill gas extraction system includes the wells, wellhead assemblies, transmission piping and valves, blower, and flare. The landfill gas extraction system components need to be operated simultaneously to result in a balanced system.

6.2.1 Normal Operation

The gas/leachate wells are required to be monitored quarterly for oxygen content, percent methane, differential pressure (to determine flow), gas temperature, cover settlement and desiccation, vegetative stress, and the physical condition of the wellhead. These measurements and observations are made in order to determine the overall physical condition and operating status of the gas well system.

Quarterly monitoring of the blower/flare station also is required for oxygen, methane content, gas temperature and flow rate, blower amps, flare temperature, and physical condition of equipment.

These measurements and observations are made in order to determine the overall physical condition and operating status of the blower/flare station.

The system was inspected, monitored, and adjusted by gas system operations specialists from American Environmental Group, Ltd. once per month in 2009. Appendix I contains the Well Field Monitoring Data Reports for 2009. The reports document methane and oxygen concentrations, applied vacuum, and any adjustments made to the control valve for improving operations at each well. Blower/ Flare Station Data reports are included in Appendix E. These reports document vacuum, percent methane, percent oxygen, and total system flow in cubic feet per minute (cfm) at the blower/ flare station. The flare operates for 12 hours each day from 8:00 am to 8:00 pm. This operating cycle prevents flare outages due to insufficient gas flow or low gas quality.

6.2.2 Downtime

Monthly downtime reports for the gas extraction and leachate/condensate management systems are included in Appendix J. The auto-dialer call-out summary reports that itemize the date and reason for each call-out and the response by the gas system contractor are included in Appendix C.

6.3 Maintenance

Maintenance for landfill gas header valves, the flare, and blower is carried out in accordance with the O&M Plan, as identified during inspection or operation of the system, and in accordance with the manufacturer's recommendations.

The 30-year O&M schedule included in Appendix D of the O&M Plan calls for the flare stack to be drained, the blower to be lubricated, and several checks on the system to be performed quarterly. In addition, the flame arrestor is to be cleaned semiannually. These maintenance activities were carried out in 2009. Other maintenance activities were performed as necessary in 2009 as

described on the Landfill Gas and Condensate Collection System Maintenance Summary Reports in Appendix D.

6.3.1 Landfill Gas Header

Maintenance on the landfill gas header is expected to be minimal based on experience from other sites. The most typical concerns are crushing due to unexpected traffic or excavation, and water blockage due to settlement of waste. Since the landfill header is designed as a looped system, repair on an individual segment or leg would not impact the entire system. The repair area could be isolated by valves or temporary plugs. There were no landfill gas header system breaks or blockages in 2009.

6.3.2 Valves

The landfill gas transmission valves and valves at the wellheads are plastic. During inspections, the valve handles were turned to determine if each valve was operable. Excessive resistance could mean partial blockage of the valve. There were no operational problems with the valves in 2009.

6.3.3 Flare

Scheduled inspections of the flare are performed to monitor the physical condition of the stack metal and flame arrestor. The stack will be replaced when excessive corrosion or perforation of the metal stack is noted. No such deterioration has occurred. The flame arrestor is maintained in accordance with the manufacturer's requirements included in Appendix F-9 of the O&M Plan. During each inspection, the drain plug at the base of the flare stack was opened and any accumulated condensate was collected and disposed in the leachate/condensate storage tank.

Maintenance of the area near the pad on which the flare is mounted includes removal of vegetation/weeds by spraying or cutting. Weeds and vegetation were removed during 2009. Concrete surface maintenance is limited to repairs on an as-needed basis.

6.3.4 Blower

An Aerovent Model 26/6-HPB-3500-15 high pressure, fan-type blower provides vacuum extraction to the well field and discharges the gas to a Landfill Gas Specialties flare package model PCF61816 utility flare for thermal destruction. The O&M Manual for the flare system is included in Appendix F-9 of the PRL O&M Plan.

6.4 Inspection

The landfill gas management system was inspected at least once per quarter in 2009 and inspection reports are included in Appendix B. The inspections were performed to identify gas system components in need of repair. The inspections included observation and operation of all system components to identify any damage and verify optimal operation.

The components of the landfill gas management system noted on the quarterly inspection forms include:

- Electrical components,
- Mechanical components,
- Extraction wells,
- Flare/blower operation, and
- Security of system.

Maintenance on the extraction wells is described in Section 5.6.3. No other deficiencies were noted on the quarterly inspection forms in 2009.

6.5 Corrective Action

No corrective action was necessary for the landfill gas management system in 2009.

7.0 LANDFILL GAS MIGRATION MONITORING SYSTEM

7.1 Description

The landfill gas migration monitoring system consists of Sierra monitors within structures and permanent gas monitoring probes near the property boundaries. The landfill gas monitoring system is shown on Figure No. 2.

Horizontal and vertical layout of the gas monitoring probes is based on site-specific geologic conditions. The gas probes are horizontally positioned outside the limits of waste and in line with off-site structures. Their depths were determined based on the estimated bottom of refuse elevation in the landfill and the ground-water elevation.

The landfill gas migration monitoring system includes six permanent gas monitoring probes (GP-1 through GP-6). These probes are located along the north and northeast perimeters of the landfill as shown on Figure No. 2. The installation of the six gas probes is documented in a report titled, "Perimeter Gas Monitoring Probe Construction Report," February 2000, prepared by SCS Engineers, and is included in Appendix E of the Explosive Gas Monitoring Plan (October 2000).

The landfill gas migration monitoring system at Powell Road Landfill also includes two Sierra Model 2001 Combustible Gas Monitors. One is installed in the house located at 4010 Powell Road. The other is located within the Compressor Building. The monitors continuously check atmospheric concentrations of combustible gas with a trigger level of 1 percent v/v (20 percent LEL). If the trigger level is reached or exceeded, both audio and visual alarms alert the occupants to the presence of elevated levels of combustible gas within the structure. (Occupants would then follow

the instructions included in the "Residential Emergency Procedure", included in Appendix F of the Explosive Gas Monitoring Plan as Exhibit 10.)

7.2 Inspection

The landfill gas migration monitoring system was inspected at least once per quarter in 2009. The quarterly inspections were performed to identify any system components in need of repair. Inspection reports in Appendix B did not note any deficiencies. The Sierra Combustible Gas Monitors also were inspected quarterly and copies of the inspection forms are included in Appendix K.

7.3 Corrective Action

No corrective actions were required in 2009.

7.4 Monitoring

Landfill gas monitoring was performed in accordance with the approved explosive gas monitoring plan. Each monitoring station must be monitored at the following minimum frequencies:

1. Quarterly monitoring, for a minimum of 1 year following approval of the Explosive Gas Monitoring Plan.

2. Semiannually thereafter until released from the requirement by the Director of the Ohio EPA in accordance with OAC 3745-27-12(L) and with the approval of the U.S. EPA.

Gas monitoring at the site follows safety and procedural methods included in the "Standard Monitoring Procedures" portion of the Explosive Gas Monitoring Plan.

7.4.1 Sampling

Sampling of the landfill gas monitoring probes was performed quarterly in 2009. The following information was recorded:

1. Percent methane,
2. Gas pressure in the probe,
3. Water level in the probe,
4. Ambient barometric pressure, and
5. Observed weather conditions at the time of sampling.

The results are recorded on the Permanent Gas Monitoring Probe Reports included in Appendix L.

7.4.2 Results

Very low pressure readings ranging from -0.06 to 0.01 inches w.c. were recorded in 2009 as noted on the monitoring reports. No methane was detected and there were no alarms from the Sierra Combustible Gas Monitors.

7.4.3 Corrective Action

No corrective actions were required.

8.0 GROUND-WATER MONITORING SYSTEM

8.1 Description

The ground-water monitoring system at PRL consists of 19 monitoring wells for the collection of ground-water samples and five monitoring wells that are used only for measurement of ground-water levels. The monitoring well locations are shown on Figure No. 2.

Ground-water monitoring wells MW02AR, MW04AR, MW05AR, MW07AR, MW16A, MW17A, and MW18A are downgradient site monitoring wells completed in the shallow zone north of the Great Miami River. MW07AR is used only for water-level measurements. MW12A is an upgradient well completed in the shallow zone.

Monitoring wells MW02B, MW04BRR, MW05BR, MW16B, MW17B, and MW18B are downgradient monitoring wells completed in the primary aquifer north of the Great Miami River. Monitoring wells MW13B, MW13C, MW14B, MW15B, and MW15C are primary aquifer monitoring wells south of the Great Miami River. MW12B is the upgradient primary aquifer monitoring well.

Monitoring wells MW3S, MW3D, MW4S, and MW4D are shallow and deep primary aquifer well pairs that belong to the City of Dayton. These wells are used only for ground-water level measurements.

The purpose of the ground-water monitoring program is to generate data that can be used to evaluate the effectiveness of the containment components of the remedial action at reducing risks and achieving cleanup levels in the ground water in the shallow zone adjacent to PRL. The program also monitors for changes in ground-water flow and potential migration of contaminated ground water from the site.

8.2 Inspection

The ground-water monitoring system was inspected once per quarter in 2009 and the quarterly inspection forms are included in Appendix B. The purpose of the quarterly inspections is to identify any system components in need of repair.

Items evaluated during the quarterly inspections are:

- Construction integrity,
- Security of wells, and
- Identification of wells.

None of these items required attention during 2009.

The ground-water monitoring system was also inspected during ground-water monitoring events. Monitoring Well Integrity Reports are included in Appendix M for inspections conducted on May 4 and November 2, 2009. The report form includes 22 questions in four categories. The categories are:

- Location/Identification
- Surface Seal
- External Casing
- Internal Casing

An explanation of items marked "no" on the inspection forms is included with each form in Appendix M. All items marked "no" were either unavoidable or done on purpose as explained in the appendix. There were no items marked indicating damage or poor physical condition of ground-water monitoring wells in 2009.

8.3 Corrective Action

The ground-water monitoring system did not require any corrective action in 2009.

8.4 Monitoring

8.4.1 Sampling

Ground-water samples were collected from site ground-water monitoring wells in May and November 2009, in accordance with the site-specific Ground-Water Monitoring Plan (Appendix H to the O&M Plan). During each ground-water monitoring event, samples were collected and analyzed for the parameters required for regular semiannual monitoring and additional parameters for monitored natural attenuation.

8.4.2 Results

Ground-water quality results for the Powell Road Landfill are summarized in Appendix N on Tables N-1 (VOCs), N-2 (Metals), and N-3 (Wet Chemistry Analytes). The validated data plus trend plots for the 2009 ground-water monitoring events were submitted to the Agencies in separate data reports. Non-CLP analyses were done by TestAmerica (fka Severn Trent Laboratories). Data validation was performed by Eagon & Associates, Inc., in accordance with the "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 2004", "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999", and the TestAmerica method SOPs.

8.4.3 Conclusions

The ground-water study report, submitted to the Agencies in January 2003, and the 2008 update to the ground-water study report submitted in April 2008, demonstrated that the containment components of the remedial action, in conjunction with natural attenuation, have been and continue

to be effective at reducing concentrations of volatile organic compounds in ground-water downgradient of PRL. The results of the second five-year review by U.S. EPA supported the conclusions of the 2008 ground-water study report. Ground-water monitoring results from 2009 show continuing declines in VOC concentrations and reduction of overall ground-water risks.

9.0 EVALUATION OF THE REMEDIAL ACTION

9.1 Introduction

The purpose of this section is to report on the effectiveness of the remedial action components at meeting the design goals and protecting human health and the environment at Powell Road Landfill in 2009. The remedial action components covered in this Annual Report include:

- Site security,
- Final cover,
- Surface-water drainage and flood control,
- Leachate/condensate management system,
- Landfill gas management system,
- Landfill gas migration monitoring, and
- Ground-water monitoring.

9.2 Evaluations

In this section, each of the above components is evaluated as to its effectiveness in meeting performance standards in 2009.

The site security system was effective at preventing undesirable access or use of the site.

The final cover system was effective in reducing infiltration of surface water into the waste mass.

Surface-water drainage was maintained to effectively route water off the final cover system so that ponding did not occur and infiltration of surface water into the final cover was minimized. The flood protection system was maintained to reduce the erosive effects of flooding of the Great Miami River on the landfill. Mature trees, brush, and grasses located between the landfill and the river were not disturbed or mowed in 2009 so as to maintain the natural buffers which reduce the velocity of flood waters that came in contact with the landfill. The vegetative cover installed on the lower reaches of the landfill is a deep-rooted flood-resistant seed mix which was maintained in 2009 to hold the final cover soils in place during flooding.

The leachate/condensate management system was effective at reducing leachate levels within the landfill. Approximately 413,000 gallons of leachate were removed from the PRL in 2009. Much of the leachate was extracted during times when ground-water levels were very high due to high precipitation amounts and flooding of the Great Miami River.

The landfill gas management system was maintained to effectively remove and combust landfill gas from the PRL such that migration of combustible concentrations of methane gas did not occur.

The landfill gas migration monitoring system was properly maintained and monitored in 2009. There were no methane detections at the gas monitoring probes and there were no alarms from the Sierra monitors.

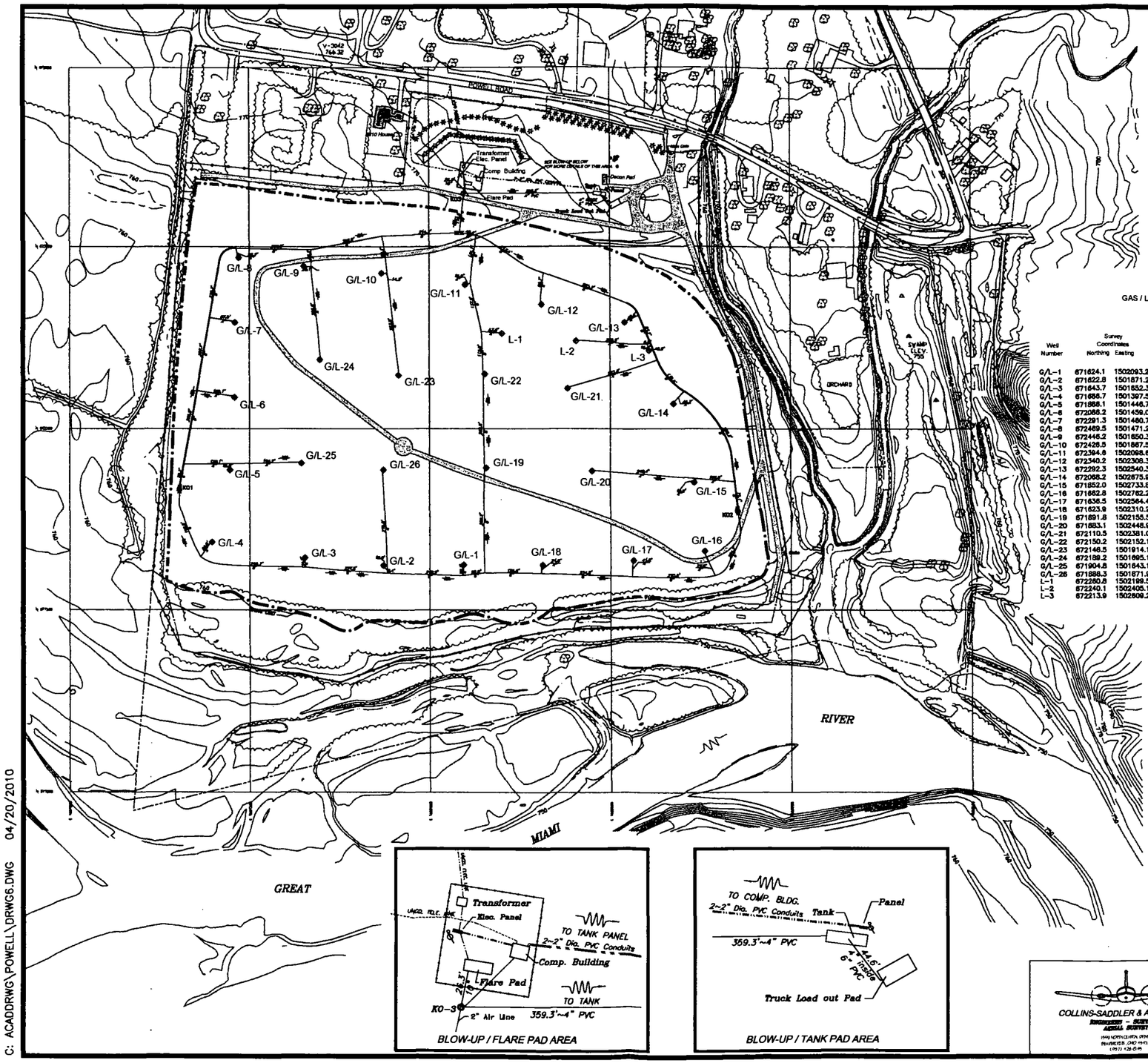
The ground-water monitoring system was maintained and ground-water samples were collected and analyzed in May and November 2009 in accordance with the site-specific Ground-Water Monitoring Plan. The update to the ground-water study report submitted to the Agencies in 2009 demonstrated that the containment components of the remedial action, in conjunction with natural attenuation, have been effective at reducing concentrations of VOCs and reducing overall ground-water risks in ground-water downgradient of PRL. The second five-year review by U.S. EPA in 2008 agreed with the conclusions of the ground-water study. Ground-water monitoring results

from 2009 continue to show declining VOC concentrations and reduction of risks from ground water.

In summary, the remedial action components at Powell Road Landfill were effective at meeting the performance standards in 2009.

FIGURES

FIGURES



LEGEND

- LEACHATE WELL
- GAS LEACHATE WELLS
- GAS CONTROL VALVE
- GAS SUMPS (KNOCKOUTS)
- OLD CHAIN LINK FENCE
- NEW 6' HIGH, CHAINLINK FENCE
- GRAVEL ROADS
- TREES (NEW)
- UNDG. ELECTRIC
- UNDG. TELEPHONE
- WASTE LIMIT
- PROPERTY LINE

GAS / LEACHATE WELL CONSTRUCTION SUMMARY
POWELL ROAD LANDFILL

Well Number	Survey Coordinates Northing	Survey Coordinates Easting	Top of Casing Elevation (feet MSL)	Ground Elevation (feet MSL)	Stick Up (feet)	Total Depth (feet TOC)	Gas Screen Interval (feet TOC)	Leachate Screen Interval (feet TOC)	Pump Installed
G/L-1	671624.1	1502093.2	792.82	788.7	6.1	41.90	22.9–35.9	36.4–41.4	yes
G/L-2	671622.8	1501871.2	795.38	789.3	6.1	43.55	20.0–31.0	33.0–43.0	yes
G/L-3	671643.7	1501552.3	797.89	791.8	6.1	46.35	20.8–25.8	27.8–46.8	yes
G/L-4	671666.7	1501397.5	796.50	790.7	5.8	36.60	21.1–24.1	26.1–36.1	yes
G/L-5	671888.1	1501446.7	794.83	788.7	6.1	40.80	23.3–33.3	35.3–40.3	no
G/L-6	672088.2	1501459.0	791.99	786.1	5.9	39.95	22.4–32.4	34.4–39.4	no
G/L-7	672291.3	1501460.7	793.85	787.8	6.1	39.90	18.9–23.9	25.9–39.4	yes
G/L-8	672489.5	1501471.2	793.52	787.2	6.3	40.95	20.4–33.4	35.4–40.4	yes
G/L-9	672446.2	1501650.3	792.25	786.1	6.2	41.15	20.6–33.6	35.6–40.6	yes
G/L-10	672426.5	1501867.5	794.93	788.6	6.3	43.70	23.2–36.2	38.2–43.2	yes
G/L-11	672394.6	1502088.6	795.70	789.8	5.9	44.75	21.2–37.2	39.2–44.2	yes
G/L-12	672340.2	1502308.3	797.92	792.2	5.7	47.40	20.6–39.9	41.9–46.9	yes
G/L-13	672292.3	1502540.3	796.06	790.0	6.1	47.60	21.1–40.1	42.1–47.1	yes
G/L-14	672068.2	1502675.9	788.55	782.9	5.6	36.20	20.7–28.7	30.7–35.7	yes
G/L-15	671852.0	1502733.8	791.33	785.6	5.7	40.25	21.7–32.7	34.7–39.7	no
G/L-16	671682.8	1502782.2	787.75	781.8	6.0	37.40	--	20.9–36.9	no
G/L-17	671636.5	1502564.4	790.18	784.4	5.8	37.85	21.3–28.3	30.3–37.3	yes
G/L-18	671623.9	1502310.2	789.82	784.0	5.6	39.20	20.7–31.7	33.7–38.7	yes
G/L-19	671891.8	1502155.5	808.18	802.0	6.2	55.50	--	31.0–55.0	yes
G/L-20	671883.1	1502448.9	800.58	794.6	6.0	41.90	28.2–34.4	36.4–41.4	yes
G/L-21	672110.5	1502381.0	802.46	796.0	6.5	54.40	30.7–41.9	43.9–53.9	yes
G/L-22	672150.2	1502152.1	805.88	799.7	6.2	53.95	29.9–46.4	48.4–53.4	yes
G/L-23	672146.5	1501914.1	807.40	801.4	6.0	52.60	31.1–35.1	37.1–52.1	yes
G/L-24	672189.2	1501695.1	804.02	797.8	6.2	50.90	29.4–43.4	45.4–50.4	yes
G/L-25	671904.8	1501843.1	806.44	800.6	5.8	52.75	30.7–35.7	37.7–51.7	yes
G/L-26	671888.3	1501871.9	810.93	804.8	6.1	60.85	38.3–53.3	55.3–60.3	yes
L-1	672260.8	1502199.5	799.48	795.8	3.7	48.60	--	28.6–48.1	no
L-2	672240.1	1502405.1	799.71	795.5	4.2	47.50	--	27.5–47.5	no
L-3	672213.9	1502609.2	786.29	782.7	3.6	29.10	--	18.9–28.6	no

REV	DATE	DESCRIPTION	DR BY	APP BY
3.	5-05-06	WELL TABLE MODIFIED BY EAGON & ASSOCIATES, INC		
2.	2-28-00	LABELING OF HOUSE, DECON PAD & MAIN GATE		
1.	9-28-00	4" PVC FROM KO-3 TO TANK		

DES BY
DRN BY BDK
CHK BY
ENV BY
ORV BY
APP BY

PROJECT NO. 88-1639 DATE: MAY 2006

PROJECT: REMEDIAL ACTION CONSTRUCTION RECORD DRAWINGS - POWELL ROAD LANDFILL

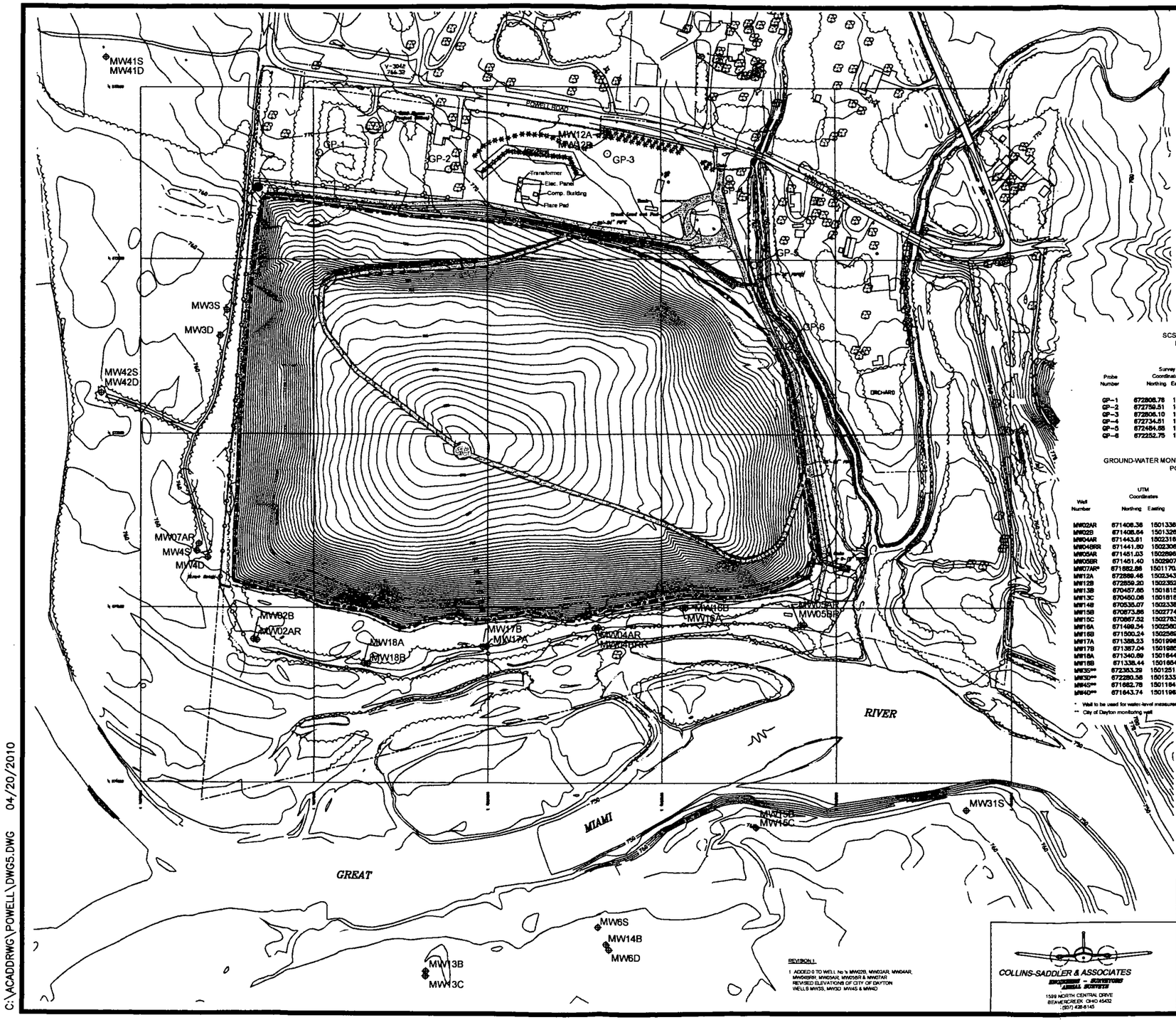
DRAWING TITLE: LANDFILL GAS/LEACHATE EXTRACTION SYSTEM

COLLINS-SADDLER & ASSOCIATES
ENGINEERS - SURVEYORS
AERIAL SURVEYS
1549 NORTH DAYTON STREET
DAYTON, OHIO 45402
(937) 228-5185

WASTE MANAGEMENT OF OHIO
POWELL ROAD LANDFILL
MONTGOMERY COUNTY, OHIO

FILE NO.
DRAWING NO. 1

C: ACADDRWG\POWELL\DRWG6.DWG 04/20/2010



LEGEND

- OLD CHAIN LINK FENCE
- NEW 6' HIGH, CHAINLINK FENCE
- SILT FENCE
- DIVERSION DITCHES
- GRAVEL ROADS
- TREES (NEW)
- ROCK RIP RAP
- MW5BR — GROUND WATER MONITORING WELLS
- GP1 — GAS PROBES
- *WASTE LIMIT*
- PROPERTY LINE

SCS CONSTRUCTION SUMMARY
POWELL ROAD LANDFILL

Probe Number	Survey Coordinates Northing	Survey Coordinates Easting	Surface Elevation (feet MSL)	Bottom of Probe (feet MSL)	Probe Depth (feet)	Screen Length (feet)
GP-1	672808.78	1501518.30	768	747	21	13
GP-2	672759.51	1501899.26	771	747	24	16
GP-3	672806.10	1502345.49	762.5	747	15.5	7.5
GP-4	672734.51	1502896.99	765	747	18	10
GP-5	672484.88	1502766.25	760	747	13	5
GP-6	672252.75	1502868.39	763	747	16	8

GROUND-WATER MONITORING SYSTEM CONSTRUCTION DETAILS
POWELL ROAD LANDFILL

Well Number	UTM Coordinates Northing	UTM Coordinates Easting	Gradient	Measuring Point Elevation (feet MSL)	Well Depth TOC (feet TOC)	Screen Interval (feet TOC)	Ground Elevation (feet MSL)
MW02AR	671408.38	1501336.19	Down	759.14	20.5	10.0–20.0	756.5
MW02B	671408.64	1501326.32	Down	759.39	58.5	53.5–58.5	756.7
MW04AR	671443.61	1502316.81	Down	756.62	20.5	10.0–20.0	754.2
MW04BRR	671441.80	1502306.82	Down	756.48	61.1	55.8–60.8	754.1
MW05AR	671451.03	1502896.31	Down	755.89	20.2	9.7–19.7	753.2
MW05BR	671451.40	1502907.09	Down	755.79	52.4	46.9–51.9	753.4
MW07AR*	671682.88	1501170.49	Down	761.51	22.9	12.4–22.4	759.1
MW12A	672859.46	1502343.25	Up	765.12	22.0	12.0–22.0	762.0
MW12B	672859.20	1502352.50	Up	763.55	49.8	44.4–49.4	761.8
MW13B	670457.85	1501815.11	Down	758.86	70.0	65.0–70.0	756.0
MW13C	670450.08	1501818.81	Down	758.27	118.2	110.2–115.2	756.0
MW14B	670535.07	1502338.78	Down	759.81	90.0	85.0–90.0	757.5
MW15B	670873.86	1502774.93	Down	762.48	50.3	45.3–50.3	759.5
MW15C	670867.52	1502783.78	Down	762.71	121.5	116.5–121.5	760.0
MW16A	671499.24	1502560.23	Down	756.95	19.6	9.6–19.6	754.5
MW16B	671500.24	1502569.13	Down	756.89	38.2	33.2–38.2	754.0
MW17A	671388.23	1501996.35	Down	757.15	20.0	9.5–19.5	754.6
MW17B	671387.04	1501985.84	Down	756.56	59.3	54.1–59.1	754.4
MW18A	671340.89	1501644.47	Down	756.33	20.1	9.8–19.8	754.0
MW18B	671338.44	1501654.37	Down	756.25	62.5	57.3–62.3	756.0
MW35**	672353.29	1501251.91	Side	759.91	55.6	45.6–55.6	759.1
MW30**	672280.58	1501233.07	Side	760.28	132.4	122.4–132.4	759.1
MW40**	671682.78	1501194.77	Side	760.04	49.3	39.3–49.3	759.2
MW40**	671643.74	1501196.25	Side	760.91	127.2	117.2–127.2	759.2

* Well to be used for water-level measurements only
** City of Dayton monitoring well

REVISION 1:
1 ADDED 0 TO WELL No.'s MW02B, MW02AR, MW04AR, MW04BRR, MW05AR, MW05BR & MW07AR
REVISED ELEVATIONS OF CITY OF DAYTON WELLS MW35, MW30 MW40 & MW40

COLLINS-SADDLER & ASSOCIATES
ENGINEERS – SURVEYORS
AERIAL SURVEYS
1589 NORTH CENTRAL DRIVE
BEAVERCREEK, OHIO 45432
(937) 426-8145

REV	DATE	DESCRIPTION	DR BY	APP BY
2.	5-05-06	WELL TABLE MODIFIED BY EAGON & ASSOCIATES, INC.		
1.	9-26-00	SEE NOTE #1 TO LEFT		

DES BY
DRW BY BDK
CHK BY
ERV BY
GRV BY
APP BY

PROJECT NO. 99-1525 DATE MAY 2008
PROJECT
REMEDIAL ACTION CONSTRUCTION
RECORD DRAWINGS - POWELL ROAD LANDFILL
DRAWING TITLE
MONITORING SYSTEM

WASTE MANAGEMENT OF OHIO
POWELL ROAD LANDFILL
MONTGOMERY COUNTY, OHIO

FILE NO.
DRAWING NO. 2

C:\ACADDRWG\POWELL\DWG5.DWG 04/20/2010

A

APPENDIX A.

2009 SEMIANNUAL PROGRESS REPORTS

WASTE MANAGEMENT

CLOSED SITES MANAGEMENT GROUP
P. O. Box 13506
Dayton, OH 45413
(937) 235-2382
(937) 237-8407 Fax

August 10, 2009

FEDERAL EXPRESS

Ms. Pamela Molitor
Remedial Project Manager
U.S. EPA, SR-6J
77 West Jackson Boulevard
Chicago, IL 60604

SUBJECT: 2009 FIRST SEMI-ANNUAL PROGRESS REPORT
REMEDIAL ACTION
POWELL ROAD LANDFILL
U.S. EPA DOCKET NO. V-W-98-C- 466/465

Dear Pamela:

Pursuant to the above referenced Orders WMO is presenting you with the progress report for the Remedial Action O&M activities at the Powell Road Landfill. This report is for the period of January 1, 2009 thru June 30, 2009. This report was prepared per the requirements specified in the above referenced UAO's and per the frequency approved by USEPA on May 10, 2004.

1.0 DESCRIPTION OF TASKS/ACTIONS PERFORMED IN ACCORDANCE WITH UAO V-W-98-C-466 DURING THIS REPORTING PERIOD

The following submittals were made:
02/17/09 – SA Progress Report
02/17/09 – SA GW Report
02/27/09 – Draft EC
05/01/09 – Annual Report

2.0 SUMMARY OF WORK COMPLETED (01/08-06/08)

The following occurred:
1st SA GW event – 05/6/09
quarterly inspection – 03/11/09
quarterly inspection – 06/08/09
mowing – 06/09

LEACHATE SUMMARY	
January	45,000 gals
February	50,000 gals
March	60,000 gals
April	60,000 gals
May	73,000 gals
June	45,000 gals
Total	330,000 gals

GAS WELL TUNING	
January	01/22/09
February	02/05/09
March	03/11/09
April	04/29/09
May	05/20/09
June	06/08/09

The (03/11/09; 06/08/09) quarterly inspections and (3/11/09; 06/08/09) gas probe monitoring forms are attached. The G/L liquid levels were measured on 2/05/09, 03/11/09, 4/29/09 and 06/08/09 see attached. The site was mowed in June. The system downtime and maintenance reports are attached.

3.0 90 DAY SCHEDULE(S) WORK PLANNED (07/09-12/09)

The next semi-annual report will be submitted in January 2010.

Qtrly inspection – 09/09
Mowing – 09/09
G/L liquids – 09/09
Qtrly gas probes – 09/09
1st SA GW Report – 08/09
2nd SA GW event – 11/09
Qtrly inspection - 12/09
Qtrly gas probes – 12/09
G/L liquids – 12/09
SA Progress Report – 01/10

4.0 SCHEDULE VARIANCES FROM APPROVED RA PROJECT SCHEDULE

No significant activity this reporting period.

5.0 SUMMARY OF GROUNDWATER ACTIVITY PER UAO V-W-98-C-465 DURING THIS PERIOD

No significant activity.

6.0 SUMMARY AND DISCUSSION OF ALL APPROVED AND UNAPPROVED CHANGES MADE IN THE RA DURING THIS PERIOD

No significant activity.

7.0 SUMMARY OF PROBLEMS/DELAYS OR POTENTIAL PROBLEMS/DELAYS ENCOUNTERED DURING THIS PERIOD

No significant activity.

8.0 ACTIONS BEING TAKEN TO RECTIFY PROBLEMS/DELAYS

See attached downtime reports.

9.0 CHANGES IN PERSONNEL DURING THIS REPORTING PERIOD

No changes.

10.0 PROJECTED WORK FOR THE NEXT REPORTING PERIOD

See items in section 3 above. WM submitted a new discharge application to the City of Huber Heights on August 10, 2009.

11.0 COPIES OF REPORTS AND SAMPLING RESULTS GENERATED DURING THIS PERIOD

See attached downtime, gas and quarterly inspection reports.

Please contact Robin Jones regarding this submittal at 937-235-2382.

Respectfully,

Robin L. Jones
District Manager
WM Closed Sites
Powell Road Landfill Project Coordinator

attachment

cc. Jim Forney, WM CSMG
Scott Glum, OEPA/SWDO/DERR
PRL Distribution

WASTE MANAGEMENT

CLOSED SITES MANAGEMENT GROUP
P. O. Box 13506
Dayton, OH 45413
(937) 235-2382
(937) 237-8407 Fax

February 11, 2010

FEDERAL EXPRESS

Ms. Pamela Molitor
Remedial Project Manager
U.S. EPA, SR-6J
77 West Jackson Boulevard
Chicago, IL 60604

**SUBJECT: 2009 SECOND SEMI-ANNUAL PROGRESS REPORT
REMEDIAL ACTION
POWELL ROAD LANDFILL
U.S. EPA DOCKET NO. V-W-98-C- 466/465**

Dear Pamela:

Pursuant to the above referenced Orders WMO is presenting you with the progress report for the Remedial Action O&M activities at the Powell Road Landfill. This report is for the period of July 1, 2009 thru December 31, 2009. This report was prepared per the requirements specified in the above referenced UAO's and per the frequency approved by USEPA on May 10, 2004.

1.0 DESCRIPTION OF TASKS/ACTIONS PERFORMED IN ACCORDANCE WITH UAO V-W-98-C-466 DURING THIS REPORTING PERIOD

The following submittals were made:

08/10/09 – SA Progress Report
08/10/09 – Discharge Survey to HH
10/09/09 – GW Sampling Notification
10/06/09 – AOS payment to USEPA
10/29/09 – SA GW Report

2.0 SUMMARY OF WORK COMPLETED (07/09-12/09)

The following occurred:

2nd SA GW event – 11/02/09
quarterly inspection – 09/18/09
quarterly inspection – 11/23/09
mowing – 09/09

LEACHATE SUMMARY	
July	5,000 gals
August	15,000 gals
September	21,500 gals
October	19,500 gals
November	9,000 gals
December	10,000 gals
Total	80,000 gals

GAS WELL TUNING	
July	07/29/09
August	08/14/09
September	09/17/09
October	10/21/09
November	11/13/09
December	12/09/09

The (09/18/09; 11/23/09) quarterly inspections and (9/18/09; 11/23/09) gas probe monitoring forms are attached. The G/L liquid levels were measured on 8/14/09, 9/17/09, 10/21/09, 11/13/09 and 12/09/09 see attached. The site was mowed in September. The system downtime and maintenance reports are attached.

3.0 90 DAY SCHEDULE(S) WORK PLANNED (01/10-06/10)

The next semi-annual report will be submitted in July 2010.

2nd SA GW Report – 03/10
Final EC submittal – 02/10
Qtrly inspection – 03/10
G/L liquids – 03/10
Qtrly gas probes – 03/10
Annual Report – 4/10
1st SA GW event – 05/10
Qtrly inspection - 06/10
Qtrly gas probes – 06/10
G/L liquids – 06/10
SA Progress Report – 07/10

4.0 SCHEDULE VARIANCES FROM APPROVED RA PROJECT SCHEDULE

No significant activity this reporting period.

5.0 SUMMARY OF GROUNDWATER ACTIVITY PER UAO V-W-98-C-465 DURING THIS PERIOD

No significant activity this reporting period.

6.0 SUMMARY AND DISCUSSION OF ALL APPROVED AND UNAPPROVED CHANGES MADE IN THE RA DURING THIS PERIOD

No significant activity.

7.0 SUMMARY OF PROBLEMS/DELAYS OR POTENTIAL PROBLEMS/DELAYS ENCOUNTERED DURING THIS PERIOD

See attached downtime reports.

8.0 ACTIONS BEING TAKEN TO RECTIFY PROBLEMS/DELAYS

See attached downtime reports.

9.0 CHANGES IN PERSONNEL DURING THIS REPORTING PERIOD

No changes.

10.0 PROJECTED WORK FOR THE NEXT REPORTING PERIOD

See items in Section 3 above. WM submitted a new discharge permit application to Tri-Cities POTW via the City of Huber Heights on 8/10/09. WM met with the TCA Technical Committee on 2/3/10. The meeting was very positive. TCA will be drafting a discharge permit and proposing a sewer rate for negotiation. This is tentively scheduled to happen in the next 90 days.

11.0 COPIES OF REPORTS AND SAMPLING RESULTS GENERATED DURING THIS PERIOD

See attached downtime, gas and quarterly inspection reports.

Please contact Robin Jones regarding this submittal at 937-235-2382.

Respectfully,

Robin L. Jones
District Manager
WM Closed Sites
Powell Road Landfill Project Coordinator

attachment

cc. Jim Forney, WM CSMG
Scott Glum, OEPA/SWDO/DERR
PRL Distribution

B

B

APPENDIX B.

POST-CLOSURE QUARTERLY INSPECTION FORMS (AND RELATED SYSTEMS INSPECTION AND MAINTENANCE FORMS)

POST-CLOSURE QUARTERLY INSPECTION FORM
Powell Road Landfill

Date:	3/11/09	**Last Inspection Date:**	11/13/2008
Landfill Type:	Closed Municipal/CERCLA	**Evaluator:**	Max Collins
Total Acreage: 76	76	**Filled Acreage:**	38
Date Closed: 1984	1984	**Date Capped:**	1985 - 2000

	GOOD	ADEQUATE	ATTENTION	NOT APPLICABLE
SECURITY & ACCESS:				
1. Perimeter Fencing	√			
2. Signs Posted			√	
3. Access Road	√			
4. Undesirable Uses Prevented	√			
COVER & VEGETATION:				
1. Final Cover Erosion	√			
2. Top Slope Good Drainage	√			
3. Side Slope Good Drainage	√			
4. Evidence of Gas or Leachate	√			
5. Vegetation Quality & Density	√			
DRAINAGE:				
1. Appropriate Runoff Controls	√			
2. Diversion Ditches	√			
3. Perimeter Ditches	√			
4. Perimeter Stone	√			
5. Outlet Structures	√			
6. Roads	√			
GW MONITORING WELLS:				
1. Construction Integrity	√			
2. Security of Wells	√			
3. Identification of Wells	√			
LEACHATE & GAS SYSTEMS:				
1. Collection Sumps/Risers	√			
2. Electrical Components	√			
3. Leachate Pad Loading	√			
4. Storage Tank	√			
5. Security of System	√			
6. Flare/Blower Operation	√			
7. Extraction Wells/Pumps	√			
8. Mechanical Components	√			
9. Gas Probes	√			
9. Evidence of Odors/Migration	√			
10. Autodialer	√			

COMMENTS: Please see attached map:

1. Sparse vegetation - Area is approximately 40' west of well G/L 17 - Area is approximately 10'x2'
2. Two yellow site specific EPA signs missing from northwest portion of perimeter fence. Tech will replace during next site visit.

SURFACE WATER CONTROL INSPECTION LOG

Date Filed:_____

Ohio EPA Storm Water Construction General Permit No._____.
Powell Road Landfill, Montgomery County, Ohio

Date of Inspection:3/11/09

Name of Inspector & Title: Max Collins Environmental Field Technician

Affiliation: Contractor - American Environmental Group

Qualifications N/A

Weather Conditions: Cloudy

Completely fill in the information required below and sign where noted. Forward to Remedial Project Manager for filing.

1. Are measures to prevent erosion and sediment control adequate and properly implemented: YES
   (If no, describe observations, repairs needed, design changes needed, or other actions below.)
2. Are non structural practices (surface grading, vegetative cover, mulch, channel riprap) adequate: YE YES
3. Are structural practices (silt fencing and ditch checks) adequate: YES

Observations (NOTE: location, problem, erosion, sediment build up, damage, etc.):

A. Stabilization/Nonstructural Practices.

1. Surface Grading: In good condition

Actions to correct problem: N/A

2. Vegetative Cover In good condition

Actions to correct problem: N/A

3. Erosion Control Blanket and Mulch(NOTE: erosion control blankets and mulch are temporary controls and are designed to degrade overtime) In good condition

Actions to correct problem: N/A

Riprap Channel Lining: In good condition

Inspection Log - Cont. Date: 3/11/2009

Actions to correct problem: N/A

B. Structural Practices.

1. Silt fencing (NOTE: silt fencing is designed as a temporary control measure and will be removed once the vegetation is established): In good condition

Actions to correct problems: N/A

2. Ditch checks (NOTE: ditch checks are designed as a temporary control measure and will be removed once the vegetation is established): In good condition

Actions to correct problems: N/A

C. Discharge locations (NOTE: any discharge of sediments off site): No discharge of sediments

Actions to correct problems: N/A

D. Vehicles Tracking Sediment Off-Site NO

Actions to correct problem: N/A

E. Status of Previous Maintenance Activities (NOTE: location and problems): N/A

Actions to correct problems: N/A

F. Other Remarks: N/A

Inspector's Signature: Signature on file Date: 3/11/2009

American Environmental Group Ltd.

Fence, Signs, Gates, and Locks Inspection Sheet

Landfill Identification:	Powell Rd	**Landfill Owner/Client:**	Robin Jones
Technician:	Max Collins	**Landfill Location:**	Huber Heights
Date of Inspection:	March 11, 2009		

Property Perimeter Fence Inspection Data:	**Yes**	**No**	**Comments**
Are all fence posts straight & free of damage:	√		
Are all fence panels in good condition (no breaks in the fence):	√		
Are all fence panels securely fastened to all fence posts:	√		
Does the fence have barb wire runners installed atop the fence:	√		
If so, are all barb wire hangers in good condition and in place:	√		
And are all barb wire strands in good condition and in place:	√		
Are there any signs of trespassing:		√	
Are there any gaps in the fence between the ground & the bottom of the fence:		√	
Are all required signs attached to the fence in 150 ft intervals:		√	Two yellow USEPA signs missing from NW Corner of fence; tech will replace during next site visit.
Are all signs clearly legible and in good condition:	√		
Are all fence panels and barb wire runners clear of vegetation:		√	Small amount of dead vegetation on east perimeter fence

Flare / UST Station Fence Inspection Data:	**Yes**	**No**	**Comments**
Are all fence posts straight & free of damage:	√		
Are all fence panels in good condition (no breaks in the fence):	√		
Are all fence panels securely fastened to all fence posts:	√		
Does the fence have barb wire runners installed atop the fence:	√		
If so, are all barb wire hangers in good condition and in place:	√		
And are all barb wire strands in good condition and in place:	√		
Are there any signs of trespassing:		√	
Are there any gaps in the fence between the ground & the bottom of the fence:		√	
Are all required signs attached to the fence in 150 ft intervals:	√		
Are all signs clearly legible and in good condition:	√		
Are all fence panels and barb wire runners clear of vegetation:	√		

Man way and Main Site Entrance Gates Inspection Data:	**Yes**	**No**	**Comments**
Are all gates in good condition:	√		
Are all gate hinges in good condition:	√		
Do all gates close completely and evenly:	√		
Are all gates locked only with approved site locks:	√		
Are all security chains heavy duty & in good condition:	√		
Are all security chains tightly wrapped twice around the gate & the support pole:	√		
Are all required signs attached to the main entrance site gate(s):	√		
Are all required signs attached to the man way gate(s):	√		

Waste Management, Inc.
Closed Site Management Group

Landfill Systems Equipment Inspection Report

Date: 3/11/2009 Location: Powell Rd Landfill Huber Heights, OH

Inspector: Max Collins

Landfill Gas Collection System:

					Comments
LFG Blower	Operating	Yes		N/A	No comments.
	Vibrations Noticed		No	N/A	No comments.
	Properly Greased	Yes		N/A	No comments.
	Excessive Noise		No	N/A	No comments.
Blower Motor	Properly Greased	Yes		N/A	No comments.
	Excessive Noise		No	N/A	No comments.
LFG Flare	Operating Properly	Yes		N/A	No comments.
	Igniter Functioning Properly	Yes		N/A	No comments.
	Pilot Fuel Operating Properly	Yes		N/A	No comments.
	Propane Supply Adequate	Yes		N/A	No comments.
Control Panel	Temperature Display Present	Yes		N/A	No comments.
	Display Lights Functioning	Yes		N/A	No comments.
	Blower Amps Functioning	Yes		N/A	No comments.
	Auto-Dialer Ready / Functioning	Yes		N/A	No comments.
Electric Valves	Open During Operation	Yes		N/A	No comments.
	Closed During Shut-Down	Yes		N/A	No comments.

Air Supply:

Compressor	Maintaining Pressure	Yes		N/A	No comments.
	Vibrations Noticed		No	N/A	No comments.
	Proper Oil Level	Yes		N/A	No comments.
	Excessive Noise		No	N/A	No comments.

Leachate System:

Pump Stations	Sump Pumps Functioning	Yes		N/A	No comments.
	Fluids at an Acceptable Level	Yes		N/A	No comments.
	Control Panel OK	Yes		N/A	No comments.
	Air Supply OK	Yes		N/A	No comments.
Storage Tank	Fluids at an Acceptable Level	Yes		N/A	No comments.
	Proper Valve operation	Yes		N/A	No comments.

LFG Dual Extraction Wells:

LFG Wells	Wellhead in Good Condition	Yes		N/A	No comments.
	Pump Connections Secure	Yes		N/A	No comments.
	Proper Air Supply	Yes		N/A	No comments.
	Cycle Counter Functioning	Yes		N/A	No comments.
	Observed Pump Cycle	Yes		N/A	No comments.

Comments: No additional comments.

POST-CLOSURE QUARTERLY INSPECTION FORM
Powell Road Landfill

Date:	6/8/09	**Last Inspection Date:**	3/11/2009
Landfill Type:	Closed Municipal/CERCLA	**Evaluator:**	Max Collins
Total Acreage: 76	76	**Filled Acreage:**	38
Date Closed: 1984	1984	**Date Capped:**	1985 - 2000

	GOOD	ADEQUATE	ATTENTION	NOT APPLICABLE
SECURITY & ACCESS:				
1. Perimeter Fencing	√			
2. Signs Posted	√			
3. Access Road	√			
4. Undesirable Uses Prevented	√			
COVER & VEGETATION:				
1. Final Cover Erosion	√			
2. Top Slope Good Drainage	√			
3. Side Slope Good Drainage	√			
4. Evidence of Gas or Leachate	√			
5. Vegetation Quality & Density			√	
DRAINAGE:				
1. Appropriate Runoff Controls	√			
2. Diversion Ditches	√			
3. Perimeter Ditches	√			
4. Perimeter Stone	√			
5. Outlet Structures	√			
6. Roads	√			
GW MONITORING WELLS:				
1. Construction Integrity	√			
2. Security of Wells	√			
3. Identification of Wells	√			
LEACHATE & GAS SYSTEMS:				
1. Collection Sumps/Risers	√			
2. Electrical Components	√			
3. Leachate Pad Loading	√			
4. Storage Tank	√			
5. Security of System	√			
6. Flare/Blower Operation	√			
7. Extraction Wells/Pumps	√			
8. Mechanical Components	√			
9. Gas Probes	√			
9. Evidence of Odors/Migration	√			
10. Autodialer	√			

COMMENTS: Please see attached map.

1. Sparse vegetation - Approximately 40' northwest of well G/L 17 - Area is approximately 15' x 3'

SURFACE WATER CONTROL INSPECTION LOG

Date Filed:_____

Ohio EPA Storm Water Construction General Permit No._____.
Powell Road Landfill, Montgomery County, Ohio

Date of Inspection: 6/08/09

Name of Inspector & Title: Max Collins - Environmental Field Technician

Affiliation: Contractor - American Environmental Group

Qualifications 2 Years

Weather Conditions: Mostly cloudy with some rain showers

Completely fill in the information required below and sign where noted. Forward to Remedial Project Manager for filing.

1. Are measures to prevent erosion and sediment control adequate and properly implemented: YES
   (If no, describe observations, repairs needed, design changes needed, or other actions below.)
2. Are non structural practices (surface grading, vegetative cover, mulch, channel riprap) adequate: YES
3. Are structural practices (silt fencing and ditch checks) adequate: YES

Observations (NOTE: location, problem, erosion, sediment build up, damage, etc.):

A. Stabilization/Nonstructural Practices.

1. Surface Grading: In good condition

Actions to correct problem: N/A

2. Vegetative Cover In good condition

Actions to correct problem: N/A

3. Erosion Control Blanket and Mulch(NOTE: erosion control blankets and mulch are temporary controls and are designed to degrade overtime) In good condition

Actions to correct problem: N/A

Riprap Channel Lining: In good condition

Inspection Log - Cont. Date: 6/8/2009

Actions to correct problem: N/A

B. Structural Practices.

1. Silt fencing (NOTE: silt fencing is designed as a temporary control measure and will be removed once the vegetation is established): In good condition

Actions to correct problems: N/A

2. Ditch checks (NOTE: ditch checks are designed as a temporary control measure and will be removed once the vegetation is established): In good condition

Actions to correct problems: N/A

C. Discharge locations (NOTE: any discharge of sediments off site): No discharge of sediments

Actions to correct problems: N/A

D. Vehicles Tracking Sediment Off-Site NO

Actions to correct problem: N/A

E. Status of Previous Maintenance Activities (NOTE: location and problems):

Actions to correct problems: N/A

F. Other Remarks: N/A

Inspector's Signature: Signature on file

Date: 6/8/2009

American Environmental Group Ltd.

Fence, Signs, Gates, and Locks Inspection Sheet

Landfill Identification: Powell Rd
Landfill Owner/Client: Robin Jones
Technician: Max Collins
Landfill Location: Huber Heights
Date of Inspection: June 8, 2009

Property Perimeter Fence Inspection Data:	Yes	No	Comments
Are all fence posts straight & free of damage:	√		No Comments
Are all fence panels in good condition (no breaks in the fence):	√		No Comments
Are all fence panels securely fastened to all fence posts:	√		No Comments
Does the fence have barb wire runners installed atop the fence:	√		No Comments
If so, are all barb wire hangers in good condition and in place:	√		No Comments
And are all barb wire strands in good condition and in place:	√		No Comments
Are there any signs of trespassing:		√	No Comments
Are there any gaps in the fence between the ground & the bottom of the fence:		√	No Comments
Are all required signs attached to the fence in 150 ft intervals:	√		No Comments
Are all signs clearly legible and in good condition:	√		No Comments
Are all fence panels and barb wire runners clear of vegetation:	√		Vegetation noted on perimeter fence

Flare / UST Station Fence Inspection Data:	Yes	No	Comments
Are all fence posts straight & free of damage:	√		No Comments
Are all fence panels in good condition (no breaks in the fence):	√		No Comments
Are all fence panels securely fastened to all fence posts:	√		No Comments
Does the fence have barb wire runners installed atop the fence:	√		No Comments
If so, are all barb wire hangers in good condition and in place:	√		No Comments
And are all barb wire strands in good condition and in place:	√		No Comments
Are there any signs of trespassing:		√	No Comments
Are there any gaps in the fence between the ground & the bottom of the fence:		√	No Comments
Are all required signs attached to the fence in 150 ft intervals:	√		No Comments
Are all signs clearly legible and in good condition:	√		No Comments
Are all fence panels and barb wire runners clear of vegetation:	√		No Comments

Man way and Main Site Entrance Gates Inspection Data:	Yes	No	Comments
Are all gates in good condition:	√		No Comments
Are all gate hinges in good condition:	√		No Comments
Do all gates close completely and evenly:	√		No Comments
Are all gates locked only with approved site locks:	√		No Comments
Are all security chains heavy duty & in good condition:	√		No Comments
Are all security chains tightly wrapped twice around the gate & the support pole:	√		No Comments
Are all required signs attached to the main entrance site gate(s):	√		No Comments
Are all required signs attached to the man way gate(s):	√		No Comments

Additional Comments: Multiple locations of landfill perimeter fence had vegetation growing. Please see attached map for approximate locations.

Waste Management, Inc.
Closed Site Management Group

Landfill Systems Equipment Inspection Report

Date: 6/8/2009 Location: Powell Rd Landfill Huber Heights, OH

Inspector: Max Collins

Landfill Gas Collection System:

					Comments
LFG Blower	Operating	Yes		N/A	No comments
	Vibrations Noticed		No	N/A	No comments
	Properly Greased	Yes		N/A	No comments
	Excessive Noise		No	N/A	No comments
Blower Motor	Properly Greased	Yes		N/A	No comments
	Excessive Noise		No	N/A	No comments
LFG Flare	Operating Properly	Yes		N/A	No comments
	Igniter Functioning Properly	Yes		N/A	No comments
	Pilot Fuel Operating Properly	Yes		N/A	No comments
	Propane Supply Adequate	Yes		N/A	No comments
Control Panel	Temperature Display Present	Yes		N/A	No comments
	Display Lights Functioning	Yes		N/A	No comments
	Blower Amps Functioning	Yes		N/A	No comments
	Auto-Dialer Ready / Functioning	Yes		N/A	No comments
Electric Valves	Open During Operation	Yes		N/A	No comments
	Closed During Shut-Down	Yes		N/A	No comments

Air Supply:

Compressor	Maintaining Pressure	Yes		N/A	No comments
	Vibrations Noticed		No	N/A	No comments
	Proper Oil Level	Yes		N/A	No comments
	Excessive Noise		No	N/A	No comments

Leachate System:

Pump Stations	Sump Pumps Functioning	Yes		N/A	No comments
	Fluids at an Acceptable Level	Yes		N/A	No comments
	Control Panel OK	Yes		N/A	No comments
	Air Supply OK	Yes		N/A	No comments
Storage Tank	Fluids at an Acceptable Level	Yes		N/A	No comments
	Proper Valve operation	Yes		N/A	No comments

LFG Dual Extraction Wells:

LFG Wells	Wellhead in Good Condition	Yes		N/A	No comments
	Pump Connections Secure	Yes		N/A	No comments
	Proper Air Supply	Yes		N/A	No comments
	Cycle Counter Functioning	Yes		N/A	No comments
	Observed Pump Cycle	Yes		N/A	No comments

Comments: No additional comments.

POST-CLOSURE QUARTERLY INSPECTION FORM
Powell Road Landfill

Date:	9/18/09	**Last Inspection Date:**	6/8/2009
Landfill Type:	Closed Municipal/CERCLA	**Evaluator:**	TOM MILLER
Total Acreage: 76	76	**Filled Acreage:**	38
Date Closed: 1984	1984	**Date Capped:**	1985 - 2000

	GOOD	ADEQUATE	ATTENTION	NOT APPLICABLE
SECURITY & ACCESS:				
1. Perimeter Fencing		√	√	
2. Signs Posted	√			
3. Access Road	√			
4. Undesirable Uses Prevented	√			
COVER & VEGETATION:				
1. Final Cover Erosion	√			
2. Top Slope Good Drainage	√			
3. Side Slope Good Drainage	√			
4. Evidence of Gas or Leachate	√			
5. Vegetation Quality & Density	√			
DRAINAGE:				
1. Appropriate Runoff Controls	√			
2. Diversion Ditches	√			
3. Perimeter Ditches	√			
4. Perimeter Stone	√			
5. Outlet Structures	√			
6. Roads	√			
GW MONITORING WELLS:				
1. Construction Integrity	√			
2. Security of Wells	√			
3. Identification of Wells	√			
LEACHATE & GAS SYSTEMS:				
1. Collection Sumps/Risers	√			
2. Electrical Components	√			
3. Leachate Pad Loading	√			
4. Storage Tank	√			
5. Security of System	√			
6. Flare/Blower Operation	√			
7. Extraction Wells/Pumps	√			
8. Mechanical Components	√			
9. Gas Probes	√			
9. Evidence of Odors/Migration	√			
10. Autodialer	√			

COMMENTS:

Fence repairs needed between south east corner and MW-16. Bent posts and barbwire down.

SURFACE WATER CONTROL INSPECTION LOG

Date Filed: 9/18/2009

Ohio EPA Storm Water Construction General Permit No._____.
Powell Road Landfill, Montgomery County, Ohio

Date of Inspection: 9/18/09

Name of Inspector & Title: Tom Miller-Landfill Supervisor

Affiliation: WM Employee

Qualifications

Weather Conditions: MOSTLY CLOUDY/ 45 DEGREES WIND SE3 MPH / PRESSURE 30.13 / HUMIDITY 84%

Completely fill in the information required below and sign where noted. Forward to Remedial Project Manager for filing.

1. Are measures to prevent erosion and sediment control adequate and properly implemented: YES
   (If no, describe observations, repairs needed, design changes needed, or other actions below.)
2. Are non structural practices (surface grading, vegetative cover, mulch, channel riprap) adequate: YES
3. Are structural practices (silt fencing and ditch checks) adequate: YES

Observations (NOTE: location, problem, erosion, sediment build up, damage, etc.):

A. Stabilization/Nonstructural Practices.

1. Surface Grading: In good condition

Actions to correct problem: N/A

2. Vegetative Cover In good condition

Actions to correct problem: N/A

3. Erosion Control Blanket and Mulch(NOTE: erosion control blankets and mulch are temporary controls and are designed to degrade overtime) In good condition

Actions to correct problem: N/A

Riprap Channel Lining: In good condition

Inspection Log - Cont. Date: 9/18/2009

Actions to correct problem: N/A

B. Structural Practices.

1. Silt fencing (NOTE: silt fencing is designed as a temporary control measure and will be removed once the vegetation is established): In good condition

Actions to correct problems: N/A

2. Ditch checks (NOTE: ditch checks are designed as a temporary control measure and will be removed once the vegetation is established): In good condition

Actions to correct problems: N/A

C. Discharge locations (NOTE: any discharge of sediments off site): No

Actions to correct problems: N/A

D. Vehicles Tracking Sediment Off-Site NO

Actions to correct problem: N/A

E. Status of Previous Maintenance Activities (NOTE: location and problems):

Actions to correct problems: N/A

F. Other Remarks: N/A

Inspector's Signature: Signature on file

Date: 9/18/2009

Fence, Signs, Gates, and Locks Inspection Sheet

Landfill Identification:	Powell Rd	**Landfill Owner/Client:**	Robin Jones
Technician:	TOM MILLER	**Landfill Location:**	Huber Heights
Date of Inspection:	September 18, 2009		

Property Perimeter Fence Inspection Data:	**Yes**	**No**	**Comments**
Are all fence posts straight & free of damage:		√	No Comments
Are all fence panels in good condition (no breaks in the fence):	√		No Comments
Are all fence panels securely fastened to all fence posts:		√	No Comments
Does the fence have barb wire runners installed atop the fence:	√		No Comments
If so, are all barb wire hangers in good condition and in place:	√		No Comments
And are all barb wire strands in good condition and in place:		√	No Comments
Are there any signs of trespassing:		√	No Comments
Are there any gaps in the fence between the ground & the bottom of the fence:		√	No Comments
Are all required signs attached to the fence in 150 ft intervals:	√		No Comments
Are all signs clearly legible and in good condition:	√		No Comments
Are all fence panels and barb wire runners clear of vegetation:		√	80%COVERED

Flare / UST Station Fence Inspection Data:	**Yes**	**No**	**Comments**
Are all fence posts straight & free of damage:	√		No Comments
Are all fence panels in good condition (no breaks in the fence):	√		No Comments
Are all fence panels securely fastened to all fence posts:	√		No Comments
Does the fence have barb wire runners installed atop the fence:	√		No Comments
If so, are all barb wire hangers in good condition and in place:	√		No Comments
And are all barb wire strands in good condition and in place:	√		No Comments
Are there any signs of trespassing:		√	No Comments
Are there any gaps in the fence between the ground & the bottom of the fence:		√	No Comments
Are all required signs attached to the fence in 150 ft intervals:	√		No Comments
Are all signs clearly legible and in good condition:	√		No Comments
Are all fence panels and barb wire runners clear of vegetation:	√		

Man way and Main Site Entrance Gates Inspection Data:	Yes	No	Comments
Are all gates in good condition:	√		No Comments
Are all gate hinges in good condition:	√		No Comments
Do all gates close completely and evenly:	√		No Comments
Are all gates locked only with approved site locks:	√		No Comments
Are all security chains heavy duty & in good condition:	√		No Comments
Are all security chains tightly wrapped twice around the gate & the support pole:	√		No Comments
Are all required signs attached to the main entrance site gate(s):	√		No Comments
Are all required signs attached to the man way gate(s):	√		No Comments

Additional Comments: _____

Waste Management, Inc.
Closed Site Management Group

Landfill Systems Equipment Inspection Report

Date: 9/17/2009 Location: Powell Rd Landfill Huber Heights, OH

Inspector: Max Collins

Landfill Gas Collection System:

					Comments
LFG Blower	Operating	Yes		N/A	No Comments
	Vibrations Noticed	Yes		N/A	No Comments
	Properly Greased	Yes		N/A	No Comments
	Excessive Noise		No	N/A	No Comments
Blower Motor	Properly Greased	Yes		N/A	No Comments
	Excessive Noise	Yes		N/A	No Comments
LFG Flare	Operating Properly	Yes		N/A	No Comments
	Igniter Functioning Properly	Yes		N/A	No Comments
	Pilot Fuel Operating Properly	Yes		N/A	No Comments
	Propane Supply Adequate	Yes		N/A	No Comments
Control Panel	Temperature Display Present	Yes		N/A	No Comments
	Display Lights Functioning	Yes		N/A	No Comments
	Blower Amps Functioning	Yes		N/A	No Comments
	Auto-Dialer Ready / Functioning	Yes		N/A	No Comments
Electric Valves	Open During Operation	Yes		N/A	No Comments
	Closed During Shut-Down	Yes		N/A	No Comments

Air Supply:

Compressor	Maintaining Pressure	Yes		N/A	No Comments
	Vibrations Noticed		No	N/A	No Comments
	Proper Oil Level	Yes		N/A	No Comments
	Excessive Noise		No	N/A	No Comments

Leachate System:

Pump Stations	Sump Pumps Functioning	Yes		N/A	No Comments
	Fluids at an Acceptable Level	Yes		N/A	No Comments
	Control Panel OK	Yes		N/A	No Comments
	Air Supply OK	Yes		N/A	No Comments
Storage Tank	Fluids at an Acceptable Level	Yes		N/A	No Comments
	Proper Valve operation	Yes		N/A	No Comments

LFG Dual Extraction Wells:

LFG Wells	Wellhead in Good Condition	Yes		N/A	No Comments
	Pump Connections Secure	Yes		N/A	No Comments
	Proper Air Supply	Yes		N/A	No Comments
	Cycle Counter Functioning	Yes		N/A	No Comments
	Observed Pump Cycle	Yes		N/A	See Below

Comments: Multiple pumps not cycling due to down air compressor time. AEGL will schedule technicians to visit site to pull and clean non-operational pumps.

POST-CLOSURE QUARTERLY INSPECTION FORM
Powell Road Landfill

Date:	11/23/09	**Last Inspection Date:**	9/18/2009
Landfill Type:	Closed Municipal/CERCLA	**Evaluator:**	TOM MILLER
Total Acreage: 76	76	**Filled Acreage:**	38
Date Closed: 1984	1984	**Date Capped:**	1985 - 2000

	GOOD	ADEQUATE	ATTENTION	NOT APPLICABLE
SECURITY & ACCESS:				
1. Perimeter Fencing	√			
2. Signs Posted	√			
3. Access Road	√			
4. Undesirable Uses Prevented	√			
COVER & VEGETATION:				
1. Final Cover Erosion	√			
2. Top Slope Good Drainage	√			
3. Side Slope Good Drainage	√			
4. Evidence of Gas or Leachate	√			
5. Vegetation Quality & Density	√			
DRAINAGE:				
1. Appropriate Runoff Controls	√			
2. Diversion Ditches	√			
3. Perimeter Ditches	√			
4. Perimeter Stone	√			
5. Outlet Structures	√			
6. Roads	√			
GW MONITORING WELLS:				
1. Construction Integrity	√			
2. Security of Wells	√			
3. Identification of Wells	√			
LEACHATE & GAS SYSTEMS:				
1. Collection Sumps/Risers	√			
2. Electrical Components	√			
3. Leachate Pad Loading	√			
4. Storage Tank	√			
5. Security of System	√			
6. Flare/Blower Operation	√			
7. Extraction Wells/Pumps	√			
8. Mechanical Components	√			
9. Gas Probes	√			
9. Evidence of Odors/Migration	√			
10. Autodialer	√			

COMMENTS:

.Fence repair completed on south side. OCTOBER.

Revised: 5/15/2008 SP

SURFACE WATER CONTROL INSPECTION LOG

Date Filed: 11/23/2009

Ohio EPA Storm Water Construction General Permit No._____.
Powell Road Landfill, Montgomery County, Ohio

Date of Inspection: 6/08/09

Name of Inspector & Title: TOM MILLER-LANDFILL SUPERVISOR

Affiliation: WM EMPLOYEE

Qualifications _____

Weather Conditions: MOSTLY CLOUDY/ 45 DEGREES/ WIND SE 3 MPH

Completely fill in the information required below and sign where noted. Forward to Remedial Project Manager for filing.

1. Are measures to prevent erosion and sediment control adequate and properly implemented: YES
   (If no, describe observations, repairs needed, design changes needed, or other actions below.)
2. Are non structural practices (surface grading, vegetative cover, mulch, channel riprap) adequate: YES
3. Are structural practices (silt fencing and ditch checks) adequate: YES

Observations (NOTE: location, problem, erosion, sediment build up, damage, etc.):

A. Stabilization/Nonstructural Practices.

1. Surface Grading: In good condition

Actions to correct problem: N/A

2. Vegetative Cover In good condition

Actions to correct problem: N/A

3. Erosion Control Blanket and Mulch(NOTE: erosion control blankets and mulch are temporary controls and are designed to degrade overtime) In good condition

Actions to correct problem: N/A

Riprap Channel Lining: In good condition

Inspection Log - Cont. Date: 11/23/2009

Actions to correct problem: N/A

B. Structural Practices.

1. Silt fencing (NOTE: silt fencing is designed as a temporary control measure and will be removed once the vegetation is established): In good condition

Actions to correct problems: N/A

2. Ditch checks (NOTE: ditch checks are designed as a temporary control measure and will be removed once the vegetation is established): In good condition

Actions to correct problems: N/A

C. Discharge locations (NOTE: any discharge of sediments off site): No

Actions to correct problems: N/A

D. Vehicles Tracking Sediment Off-Site NO

Actions to correct problem: N/A

E. Status of Previous Maintenance Activities (NOTE: location and problems):

Actions to correct problems: N/A

F. Other Remarks: N/A

Inspector's Signature: Signature on file

Date: 11/23/2009

Fence, Signs, Gates, and Locks Inspection Sheet

Landfill Identification:	Powell Rd	**Landfill Owner/Client:**	Robin Jones
Technician:	TOM MILLER	**Landfill Location:**	Huber Heights
Date of Inspection:	November 23, 2009		

Property Perimeter Fence Inspection Data:	**Yes**	**No**	**Comments**
Are all fence posts straight & free of damage:	√		No Comments
Are all fence panels in good condition (no breaks in the fence):	√		No Comments
Are all fence panels securely fastened to all fence posts:	√		No Comments
Does the fence have barb wire runners installed atop the fence:	√		No Comments
If so, are all barb wire hangers in good condition and in place:	√		No Comments
And are all barb wire strands in good condition and in place:	√		No Comments
Are there any signs of trespassing:		√	No Comments
Are there any gaps in the fence between the ground & the bottom of the fence:		√	No Comments
Are all required signs attached to the fence in 150 ft intervals:	√		No Comments
Are all signs clearly legible and in good condition:	√		No Comments
Are all fence panels and barb wire runners clear of vegetation:	√		SPRAYED

Flare / UST Station Fence Inspection Data:	**Yes**	**No**	**Comments**
re all fence posts straight & free of amage:	√		No Comments
re all fence panels in good condition (no eaks in the fence):	√		No Comments
e all fence panels securely fastened to fence posts:	√		No Comments
oes the fence have barb wire runners stalled atop the fence:	√		No Comments
so, are all barb wire hangers in good ndition and in place:	√		No Comments
d are all barb wire strands in good ndition and in place:	√		No Comments
e there any signs of trespassing:		√	No Comments
e there any gaps in the fence between ground & the bottom of the fence:		√	No Comments
e all required signs attached to the fence 150 ft intervals:	√		No Comments
e all signs clearly legible and in good ndition:	√		No Comments
e all fence panels and barb wire runners ar of vegetation:	√		No Comments

Man way and Main Site Entrance Gates Inspection Data:	Yes	No	Comments
Are all gates in good condition:	√		No Comments
Are all gate hinges in good condition:	√		No Comments
Do all gates close completely and evenly:	√		No Comments
Are all gates locked only with approved site locks:	√		No Comments
Are all security chains heavy duty & in good condition:	√		No Comments
Are all security chains tightly wrapped twice around the gate & the support pole:	√		No Comments
Are all required signs attached to the main entrance site gate(s):	√		No Comments
Are all required signs attached to the man way gate(s):	√		No Comments

Additional Comments: Vegetation has been removed.

Waste Management, Inc.
Closed Site Management Group

Landfill Systems Equipment Inspection Report

Date: 12/9/2009 Location: Powell Rd Landfill Huber Heights, OH

Inspector: Max Collins

Landfill Gas Collection System:

					Comments
LFG Blower	Operating	Yes		N/A	No Comments
	Vibrations Noticed		No	N/A	No Comments
	Properly Greased	Yes		N/A	No Comments
	Excessive Noise		No	N/A	No Comments
Blower Motor	Properly Greased	Yes		N/A	No Comments
	Excessive Noise		No	N/A	No Comments
LFG Flare	Operating Properly	Yes		N/A	No Comments
	Igniter Functioning Properly	Yes		N/A	No Comments
	Pilot Fuel Operating Properly	Yes		N/A	No Comments
	Propane Supply Adequate	Yes		N/A	No Comments
Control Panel	Temperature Display Present	Yes		N/A	No Comments
	Display Lights Functioning	Yes		N/A	No Comments
	Blower Amps Functioning	Yes		N/A	No Comments
	Auto-Dialer Ready / Functioning	Yes		N/A	No Comments
Electric Valves	Open During Operation	Yes		N/A	No Comments
	Closed During Shut-Down	Yes		N/A	No Comments

Air Supply:

Compressor	Maintaining Pressure	Yes		N/A	No Comments
	Vibrations Noticed		No	N/A	No Comments
	Proper Oil Level	Yes		N/A	No Comments
	Excessive Noise		No	N/A	No Comments

Leachate System:

Pump Stations	Sump Pumps Functioning	Yes		N/A	No Comments
	Fluids at an Acceptable Level	Yes		N/A	No Comments
	Control Panel OK	Yes		N/A	No Comments
	Air Supply OK	Yes		N/A	No Comments
Storage Tank	Fluids at an Acceptable Level	Yes		N/A	No Comments
	Proper Valve operation	Yes		N/A	No Comments

LFG Dual Extraction Wells:

LFG Wells	Wellhead in Good Condition	Yes		N/A	No Comments
	Pump Connections Secure	Yes		N/A	No Comments
	Proper Air Supply	Yes		N/A	No Comments
	Cycle Counter Functioning	Yes		N/A	No Comments
	Observed Pump Cycle	Yes		N/A	See Below

Comments: AEGL technician pulled and cleaned multiple pumps while onsite. Technician also pulled two pumps to bring to office to troubleshoot and rebuilt if possible before returning them to site.

1. The Technician will contact Robin Jones at 937-235-2382 at the end of the day before leaving site. If no direct contact is made a voicemail will be left stating, site(s) monitored, what inspections were performed, and any issues that need to be addressed.

2. The Technician will contact the Project Manager and review the day's data and confirm that they have contacted Robin Jones or left a voicemail on her office phone.

3. The Project Manager will send an email to Robin Jones stating what site(s) monitored, what inspections were performed, and any issues that need to be addressed or discussed by computer email or Blackberry services.

Revised: 5/15/2008 SP

C

APPENDIX C.

AUTO-DIALER CALL OUT SUMMARIES AND AUTO-DIALER PROTOCOL

American Environmental Group Ltd.

American Environmental Group, Ltd.
3600 Brecksville Rd., Suite 100
Richfield, Ohio 44286

Ph: (330) 659-5930 Fax: (330) 659-5931

Waste Management - Closed Site Management Group

Auto-Dialer Call-Out Summary

Powell Rd Landfill, Huber Heights, Ohio
January-09

1/1/2009	**Channel 5 Alarm - UST is 75% full - Technician called Veolia Transportation to dispatch pump truck to remove load from UST**
1/1/2009	**Channel 6 Alarm - UST is 100% full - Technician already called Veolia Transportation to dispatch pump truck to remove load from UST**
1/2/2009	**Channel 5 Alarm - UST is 75% full - Technician called Veolia Transportation to dispatch pump truck to remove load from UST**
1/3/2009	**Channel 5 Alarm - UST is 75% full - Technician called Veolia Transportation to dispatch pump truck to remove load from UST**
1/4/2009	**Channel 5 Alarm - UST is 75% full - Technician already called Veolia Transportation to dispatch pump truck to remove load from UST**
1/4/2009	**Channel 6 Alarm - UST is 100% full - Technician already called Veolia Transportation to dispatch pump truck to remove load from UST**
1/5/2009	**Channel 5 Alarm - UST is 75% full - Technician called Veolia Transportation to dispatch pump truck to remove load from UST**

1/9/2009	Channel 5 Alarm - UST is 75% full - Technician called Veolia Transportation to dispatch pump truck to remove load from UST
1/13/2009	Channel 5 Alarm - UST is 75% full - Technician called Veolia Transportation to dispatch pump truck to remove load from UST
1/21/2009	Channel 5 Alarm - UST is 75% full - Technician called Veolia Transportation to dispatch pump truck to remove load from UST
1/26/2009	Channel 5 Alarm - UST is 75% full - Technician called Veolia Transportation to dispatch pump truck to remove load from UST

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Waste Management - Closed Site Management Group

Auto-Dialer Call-Out Summary

Powell Rd Landfill, Huber Heights, Ohio
February-09

2/2/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispatch pump truck to remove load from UST**
2/4/2009	**Channel 2 Alarm - Flame out - Flare initially igniting for the day**
2/4/2009	**Channel 8 Alarm - Excessive pilot lighting - Flare relighting 3 times in 80 minutes - Technician will monitor the site remotely to verify normal operation**
2/11/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispatch pump truck to remove load from UST**
2/12/2009	**Channel 5 Alarm - Tank is 75% full - Technician already called Veolia Transportation to dispatch pump truck to remove load from UST**
2/13/2009	**Channel 5 Alarm - Tank is 75% full - Technician already called Veolia Transportation to dispatch pump truck to remove load from UST**
2/16/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispatch pump truck to remove load from UST**

2/17/2009	Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispatch pump truck to remove load from UST
2/18/2009	Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispatch pump truck to remove load from UST
2/19/2009	Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispatch pump truck to remove load from UST
2/22/2009	Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispatch pump truck to remove load from UST
2/23/2009	Channel 2 Alarm - Pilot lighting - Normal start up - No additional action required
2/23/2009	Channel 8 Alarm - Excessive pilot lights - Flare will attempt to restart 3 times in 80 minutes - Technician will monitor the system remotely and verify normal operation
2/24/2009	Channel 5 Alarm - Tank is 75% full - Technician will call Veolia Transportation to dispatch pump truck to remove load from UST
2/26/2009	Channel 5 Alarm - Tank is 75% full - Technician will call Veolia Transportation to dispatch pump truck to remove load from UST
2/27/2009	Channel 5 Alarm - Tank is 75% full - Technician will call Veolia Transportation to dispatch pump truck to remove load from UST

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Auto-Dialer Call-Out Summary

Powell Rd Landfill, Huber Heights, Ohio
March-09

3/9/2009	**Channel 5 Alarm - tank is 75% full - Technician will call Veolia Transportation to dispatch truck to remove a load from the UST**
3/11/2009	**Channel 5 Alarm - tank is 75% full - Technician will call Veolia Transportation to dispatch truck to remove a load from the UST**
3/13/2009	**Channel 5 Alarm - tank is 75% full - Technician will call Veolia Transportation to dispatch truck to remove a load from the UST**
3/16/2009	**Channel 5 Alarm - tank is 75% full - Technician called Veolia Transportation to dispatch truck to remove a load from the UST**
3/19/2009	**Channel 5 Alarm - tank is 75% full - Technician called Veolia Transportation to dispatch truck to remove a load from the UST**

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Waste Management - Closed Site Management Group

Auto-Dialer Call-Out Summary

Powell Rd Landfill, Huber Heights, Ohio
April-09

4/1/2009	***Channel 5 Alarm - Tank is 75% full - Technician*** **called Veolia Transportation to dispatch truck to remove a load from the UST**
4/4/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispatch truck to remove a load from the UST**
4/9/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispatch truck to remove a load from the UST**
4/11/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispatch truck to remove a load from the UST**
4/14/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispatch truck to remove a load from the UST**
4/18/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispatch truck to remove a load from the UST**
4/20/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispatch truck to remove a load from the UST**

4/21/2009	Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispatch truck to remove a load from the UST
4/22/2009	Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispatch truck to remove a load from the UST
4/25/2009	Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispatch truck to remove a load from the UST
4/27/2009	Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispatch truck to remove a load from the UST
4/29/2009	Channel 5 Alarm - tank is 75% full - Technician will call Veolia Transportation to dispatch truck to remove a load from the UST

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Auto-Dialer Call-Out Summary

Powell Rd Landfill, Huber Heights, Ohio
May-09

5/1/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST**
5/5/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST**
5/7/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST**
5/10/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST**
5/12/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST**
5/13/2009	**Channel 5 Alarm - Tank is 75% full - Technician already called Veolia Transportation from 5/12/09 alarm call to dispactch pump truck to remove one load from UST**
5/17/2009	**Channel 8 Alarm - Flare Failure - Pilot ignition will lite 3 times in 80 minutes. Technician monitored the system remotely to verify normal operation.**

5/18/2009	Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation from 5/12/09 alarm call to dispactch pump truck to remove one load from UST
5/20/2009	Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST
5/24/2009	Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST
5/26/2009	Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST
5/27/2009	Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST
5/28/2009	Channel 5 Alarm - Tank is 75% full - Technician already called Veolia Transportation to dispactch pump truck to remove one load from UST
5/30/2009	Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST

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Waste Management - Closed Site Management Group

Auto-Dialer Call-Out Summary

Powell Rd Landfill, Huber Heights, Ohio
June-09

6/2/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST**
6/7/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST**
6/10/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST**
6/11/2009	**Channel 1 and 3 Alarm - Pilot failure - A power outage occurred onsite on 6/11/09 at 8:10 PM. Flare was manually restarted on 6/12/09 at 11:40 AM - Technician monitored the systrem remotely to verify normal operation**
6/14/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST**
6/17/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST**
6/20/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST**
6/22/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST**

6/26/2009	Channel 1 and 3 Alarm - Pilot Failure and High Temperature Shutdown - Flare had suffered a power outage that damaged multiple electrical components rendering the flare inoperable. The defective components were replaced the flare was manually restarted and verified to be operating properly - Flare was down from 6/26/09 - 7/03/09
6/26/2009	Channel 7 Alarm - Low Air Pressure Alarm - Air compressor had a bad starter motor and rendered the compressor inoperable. Once starter motor was replaced, compressor was restarted and verified to be operating normally. Compressor was down from 6/26/09 - 7/03/09

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Auto-Dialer Call-Out Summary

Powell Rd Landfill, Huber Heights, Ohio
July-09

No Callouts during the Month of July 2009

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Waste Management - Closed Site Management Group

Auto-Dialer Call-Out Summary

Powell Rd Landfill, Huber Heights, Ohio
August-09

8/11/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST**
8/18/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST**
8/19/2009	**Channel 1 & 3 - Pilot Failure/High Temperature Shutdown - A power outage had occurred onsite. Once power was restoed flare automatically restarted. Once restart was complete, technician monitored the system remotely to verify normal operation.**
8/26/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST**

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Waste Management - Closed Site Management Group

Auto-Dialer Call-Out Summary

Powell Rd Landfill, Huber Heights, Ohio
September-09

9/1/2009	***Channel 5 Alarm - Tank is 75% full - Technician*** **called Veolia Transportation to dispactch pump truck to remove one load from UST**
9/2/2009	**Channel 1 Alarm - A power outage occurred onsite. Power was restored and the flare automatically restart. Technician will monitor the system remotely and verify normal operation**
9/10/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST**
9/22/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST**
9/23/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump** ***truck to remove one load from UST***

9/27/2009	Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST
9/28/2009	Channel 1, 3 Alarm - Pilot failure/Flare Shutdown Alarm - A power outage occurred onsite @ 3:07 AM. Technician called Dayton Light and Power to dispatch techncian to site to troubleshoot power outage and verify that power was restored. Flare was manually restarted from a tripped breaker on 9/29/09 at 10:30 AM

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Waste Management - Closed Site Management Group

Auto-Dialer Call-Out Summary

Powell Rd Landfill, Huber Heights, Ohio
October-09

10/6/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST**
10/16/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST**
10/21/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST**
10/30/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST**

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Waste Management - Closed Site Management Group

Auto-Dialer Call-Out Summary

Powell Rd Landfill, Huber Heights, Ohio
November-09

11/12/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST**
11/23/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispactch pump truck to remove one load from UST**

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Waste Management - Closed Site Management Group

Auto-Dialer Call-Out Summary

Powell Rd Landfill, Huber Heights, Ohio
December-09

12/3/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispatch pump truck to remove one load from UST**
12/4/2009	**Channel 8 Alarm - Excessive pilot lighting - Flare relighting 3 times in 80 minutes - Technician monitored the site remotely to verify normal operation**
12/6/2009	**Channel 8 Alarm - Excessive pilot lighting - Flare relighting 3 times in 80 minutes - Technician monitored the site remotely to verify normal operation**
12/23/2009	**Channel 5 Alarm - Tank is 75% full - Technician called Veolia Transportation to dispatch pump truck to remove one load from UST**
12/29/2009	**Channel 8 Alarm - Excessive pilot lighting - Flare relighting 3 times in 80 minutes - Technician monitored the site remotely to verify normal operation**

Autodialer Protocol for Powell Road Landfill

(Revised: 2-28-10)

An incident report must be submitted to Robin Jones, Waste Management (WM) via phone (937-235-2382), email (rjones2@wm.com), or fax (937-237-8407) within 24 hours of occurrence for all autodialer alarm calls, except routine daily flare shutdowns (shutdowns initiated by the control panel cycle timer) and storage tank alarms. A callout log must be submitted at the end of the month detailing all callouts.

1. The autodialer is programmed to call up to four phone numbers when in an alarm mode.

2. AEGL has first response priority to acknowledge the alarm before the autodialer calls additional parties.

3. American Environmental Group, Ltd. (AEGL) personnel are called in order of response priority as follows:

Max Collins	330-352-0946
Steven Paul	330-352-9626
Daniel Melcher	330-351-0375
Nick Jordon	330-351-5048

4. To acknowledge an alarm call received from the autodialer, the responding party must press "9" once the alarm message has been played and a tone has sounded. If the called party misses the call from the autodialer, the party must call the site phone number (937-236-2514). The autodialer will recite the channel number on which the alarm has occurred. Once the alarm is acknowledged, the autodialer may be called at a later time to get an update to note that the alarm is "NOW NORMAL", which means the LFG extraction system has restarted and is operating correctly.

5. Alarm response party will initiate the appropriate phone calls and/or physically visit the site to respond to the alarm condition and perform the necessary correction procedure within 12 hours of autodialer contact.

CHANNEL 1 – PILOT FAILURE

- AEGL will visit the site to check/refill the propane pilot system including the propane supply tank and restart the flare.

CHANNEL 2 – FLAME OUT (low temperature or loss of flame/UV scanner signal alarm)

- Flare will attempt to relight if flame-out condition occurs. AEGL will call the autodialer to ensure restart has been achieved and/or visit the site to inspect the flame supervisory system components and restart the flare. **Routine daily flare shutdowns (shutdowns initiated by the control panel cycle timer) will activate this alarm channel.** The only action that needs to be taken during the programmed shutdown time frame (8:00 PM shutdown thru 8:00 AM start-up) is to acknowledge the alarm.

CHANNEL 3 – FLARE INLET GAS HIGH TEMPERATURE & MANUAL RUN TIMER SHUTDOWN

- AEGL will visit the site to inspect the LFG collection system for any signs back draft in the flare piping and regain normal operations of the LFG collection system or reset the manual timer, set the control panel to automatic mode, and restart the system.

CHANNEL 4 – Alarm currently not used

CHANNEL 5 – TANK 75% FULL (UST 75% full level alarm)

- AEGL will contact Veolia Transportation (937-237-1097) to schedule an appropriate haul date for fluid disposal. Veolia Transportation will haul at least one full load for any one call-out event. The driver will determine if there is another load ready to haul after pulling the first one and if so, the driver will schedule an immediate return trip to the site to pull another load. Veolia Transportation is responsible to coordinate disposal with United Wastewater (513-733-4666) and will provide and complete a wastewater manifest to United Wastewater and WM.

CHANNEL 6 – TANK FULL (UST high level alarm)

- Correction procedure the same as with Channel 5 alarm; AEGL will contact Veolia Transportation to schedule an appropriate haul date, etc., to reduce the fluid to an appropriate tank level. NOTE: During the high level alarm, the air compressor power is shut-off and returns to service once the high level float lowers. AEGL will also respond to any down flare alarms as a result of a "high level" alarm condition.

CHANNEL 7 – COMPRESSOR LOW PRESSURE (low air pressure alarm)

- AEGL will confirm power supply to the site and inspect the air compressor and associated components for system pressure leaks or problems. Air Handling (937-492-5331, local air compressor service company) will be contacted if repairs or troubleshooting are required for the air compressor or air dryer system.

CHANNEL 8 – FLARE FAILURE (pilot ignition system was initiated three times in 80 minutes)

- Alarm indicates that the pilot ignition system was lit three times in three hours. AEGL will assess the condition of the system and determine if the flare was able to relight after the third ignition sequence over the phone. If the system was successful in achieving normal operations after the third ignition, AEGL will monitor flare operations via phone for any continued trouble (the PLC is NOT programmed to shut down the entire system during this alarm. With the PLC being programmed in this fashion, it gives the flare additional attempts to relight and operate if successful). If it is determined that the flare was unable to relight after the third ignition in three hours, an AEGL technician will visit the site to troubleshoot and correct the system to regain normal operations. If the pilot ignition system is initiated three times in three hours, a problem most likely exists within the LFG system that warrants attention.

In the event of a power outage (power related shutdown) channel number 1 and 3 will both be activated at the same time. Additionally, the autodialer will call out with its own internal "Power Is Off" alert.

D

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APPENDIX D.

LANDFILL GAS AND CONDENSATE COLLECTION SYSTEMS MAINTENANCE SUMMARY REPORTS

American Environmental Group Ltd.

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Waste Management, Powell Rd Landfill
Landfill Gas and Condensate Collection Systems Maintenance Summary Report

January-09

Date	System Repaired	Proactive/ Reactive	Diagnosis of Problem Causing Reactive Action	Corrective Action / Description of Maintenance Performed
01/22/09	LFG pump	Reactive	Pump in east sump not cycling	AEGL Technician discovered pump in eastside sump not cycling. Technician pulled, disassembled, and cleaned pump before reinstalling. Once reinstalled the pump was operating properly.
01/22/09	LFG pump G/L 20	Reactive	Pump in well G/L 20 not cycling	AEGL Technician discovered pump in well G/L 20 not cycling. Technician pulled, disassembled, and cleaned before reinstalling. Once reinstalled, the technician noted the pump was cycling normally and operating properly.
01/22/09	LFG well G/L 15	Reactive	Broken sample port need to be replaced	AEGL Technician found broken sample port on well G/L 15. Tech. removed broken port and replaced it with a new port. Once installed no leaks were detected.

Additional Comments: No additional comments.

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Waste Management, Powell Rd Landfill
Landfill Gas and Condensate Collection Systems Maintenance Summary Report

February-09

Date	System Repaired	Proactive/ Reactive	Diagnosis of Problem Causing Reactive Action	Corrective Action / Description of Maintenance Performed
02/05/09	Air Dryer	Reactive	Air dryer lines frozen and full of water	AEGL technician noted the air dryer lines off of the air compressor were full of water and frozen. Technician pulled liner which were partially outside and placed them inside the heated compressor building. After a few hours lines were thawed and in proper working condition.
02/05/09	West sump	Reactive	Westside sump pump not cycling upon initial inspection	AEGL technician noted west sump pump not cycling. Technician pulled and cleaned pump before reinstalling. Once reinstalled pump was operating properly. Technician also noted air regulator was defective. Technician did not have a spare regulator on site so technician removed the air regulator from well G/L4 and installed that regulator on the air line for the sump pump. Once installed the regulator was operating properly. Technician will obtain a new regulator to replace the missing one on well G/L4 on or before the next routine visit
02/19/09	LCS	Reactive	Pumps not working	Cleaned, repaired, and tested pumps
02/25/09	LFG well	Reactive	Broken cycle counter on two wells required replacement	AEGL technician disassembled defective cycle counters on wells G/L8 and G/L14 and installed new ones on each well. Once installed no leaks were detected and counters were cycling properly.
02/25/09	LFG air dryer	Reactive	Air compressor air dryer lines frozen during winter months; heat tape needed to be installed	AEGL Technician installed electric heat tape on the air dryer line in the compressor building to prevent further freezing of the lines during the cold months. Technician emptied line, wrapped lines with heat tape and verified that it was secure before leaving site.
02/26/09	LFG wells	Reactive	Fluid levels greater than 1.5' required pump to be pulled	AEGL Technician pulled, cleaned, and reset pumps in wells G/L20, G/L26, G/L7, & G/L8. The pump in well G/L8 had a hole in the discharge line so Technician cut torn piece and replaced with solid piece. Once installed no leaks were detected. All pumps that were pulled and cleaned were operating properly once re-installed.
02/26/09	Landfill fence	Reactive	Technician noted that a sign had fallen off the perimeter fence	Technician re-installed the USEPA sign that had fallen to the ground inside the landfill perimeter fence. Technician used plastic zip-ties to re-attach sign.

Additional Comments: No additional comments.

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Waste Management, Powell Rd Landfill
Landfill Gas and Condensate Collection Systems Maintenance Summary Report

March-09

Date	System Repaired	Proactive/ Reactive	Diagnosis of Problem Causing Reactive Action	Corrective Action / Description of Maintenance Performed
03/11/09	Perimeter fence	Reactive	AEGL Technician noted two large US EPA site specific signs missing from perimeter fence in northwest corner	AEGL Technician will acquire and install two replacement signs on the northwest corner of perimeter fence during next routine visit.

Additional Comments: No additional comments.

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Waste Management, Powell Rd Landfill
Landfill Gas and Condensate Collection Systems Maintenance Summary Report

Month and Year **Apr-09**

Date	System Repaired	Proactive/ Reactive	Diagnosis of Problem Causing Reactive Action	Corrective Action / Description of Maintenance Performed
04/29/09	LFG pump	Reactive	Pump in well G/L 20 not operating	Technician noted fluid in well G/L 20 was greater than 1.5 feet. Technician further noted the pump in the well was not cycling. Technician pulled, cleaned and reset the float in the pump before replacing pump back into well. Once reinstalled, technician verified that the pump was operating properly.
04/29/09	LFG pump	Reactive	Pump in well G/L 20 cycling but not moving fluid	Technician noted fluid in well G/L 20 was greater than 1.5 feet. Technician pulled pump and noted that the fluid discharge tubing was split whereby fluid was retuning back into the well casing. Technician removed split section of tubing and replaced pump back into well. Once reinstalled, pump was operating normally. Technician will recheck fluid level during next routine visit. Technician will recheck fluid level during next routine visit.
04/29/09	Landfill perimeter fence	Reactive	Yellow EPA site specific sign missing from perimeter fence	Technician acquired large Yellow EPA sign and attached it to the perimeter fence between the Waste Management office and Rip Rap Rd.

Additional Comments: No additional comments.

Revised: 5/15/2008 SP

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Landfill Gas and Condensate Collection Systems Maintenance Summary Report

Month and Year **May-09**

Date	System Repaired	Proactive/ Reactive	Diagnosis of Problem Causing Reactive Action	Corrective Action / Description of Maintenance Performed
				No non-routine maintenance performed during the month of May

Additional Comments: No additional comments.

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Waste Management, Powell Rd Landfill
Landfill Gas and Condensate Collection Systems Maintenance Summary Report

Month and Year **Jun-09**

Date	System Repaired	Proactive/ Reactive	Diagnosis of Problem Causing Reactive Action	Corrective Action / Description of Maintenance Performed
06/08/09	LFG Well	Reactive	Cracked kanaflex on well L-1 was allowing oxygen into the gas system	AEGL Technician noted that the kanaflex on well L-1 was allowing oxygen in the gas system. Technician removed cracked piece of kanaflex and replaced with a new piece. Once installed no leaks were detected.
6/09/09 - 6/12/09	LFG pumps	Proactive	Annual pump pull and cleaning event	AEGL technicians will be onsite this week to perform the annual pump pull and cleaning event. Technicians will investigate, diagnose and clean the pumps in all wells including wells G/L 7, 11, 13 and 20 to determine why the fluid levels are at or greater than 1.5 feet. Once completed all pumps should be operating normally. AEGL technician will monitor the fluid levels in these wells during next routine site visit.
06/27/09	LFG Flare	Reactive	Down flare required manual restarting	AEGL technician received an autodialer call informing that the flare had gone down for a power outage. Technician called Steve Lingafelter to visit site to restart the flare and examine electrical components for normal operation. Steve informed AEGL that the temperature control sensor was defective and required replacement. Steve ordered a new sensor and replaced on 7/02/09. In addition, Steve replaced a new master relay in the control panel and a new motor starter on the air compressor which had become defective. Once installed all electrical components were tested and verified to be in proper working order.

Additional Comments: No additional comments.

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Waste Management, Powell Rd Landfill
Landfill Gas and Condensate Collection Systems Maintenance Summary Report

Month and Year **Jul-09**

Date	System Repaired	Proactive/ Reactive	Diagnosis of Problem Causing Reactive Action	Corrective Action / Description of Maintenance Performed
07/02/09	LFG Flare	Reactive	Down flare required multiple electrical components to be replaced	AEGL technician received an auto dialer call informing that the flare had gone down from a power outage. Technician called Steve Lingafelter to visit site to restart the flare and examine electrical components for normal operation. Steve informed AEGL that the temperature control sensor was defective and required replacement. Steve ordered a new sensor and replaced on 7/02/09. In addition, Steve replaced a new master relay in the control panel and a new motor starter on the air compressor which had become defective. Once installed all electrical components were tested and verified to be in proper working order.
07/29/09	LFG Leachate air line	Reactive	AEGL technician noted that the pumps in the field were not operating because they had no air pressure	AEGL technician noted the pumps in the wellfield did not have any air pressure. Technician verified the air compressor was fully charged and air was opening the actuator at the flare, however, no air was being sent to the wellfield. Technician examined all electrical components and found that the actuating valve that controls air to the field had closed and would not open. Technician will dispatch Steve Lingafelter to site to further troubleshoot the system and repair the actuating valve accordingly.

Additional Comments: No additional comments.

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Waste Management, Powell Rd Landfill
Landfill Gas and Condensate Collection Systems Maintenance Summary Report

Month and Year **Aug-09**

Date	System Repaired	Proactive/ Reactive	Diagnosis of Problem Causing Reactive Action	Corrective Action / Description of Maintenance Performed
08/07/09	Leachate air pump line	Reactive	Pumps in wellfield not operating due to no air pressure	AEGL technician had Steve Lingafelter visit site on 8/07/09 to assist in troubleshooting air line issue. Steve found the relay that controls the actuating valve was closed and required replacement. Steve removed defective relay and installed a replacement one. Once the relay was installed the actuating valve opened and pressure to the field had been restored. Steve also tested the UST floats and verified they were also operating properly. AEGL technician will visit site this week for routine inspections and to verify normal operations of all LFG components.
08/14/09	LFG Wells	Reactive	Multiple wells had fluid levels greater than 1.5 feet	AEGL technician noted wells' G/L 3, 7, 8, 12, 14, 17, 20, 22 and 24 had fluid levels greater than 1.5 feet. Technician further noted that those pumps were not cycling. Technician spoke with client and will wait until next monthly inspection and verify if the pumps had cycled or if they will require pulling and cleaning. Pumps had remained inoperable for several weeks due to a defective relay in the air compressor that would not allow air to be sent to the wellfield.
08/14/09	LFG Well	Reactive	Cracked kanaflex on well required replacement	AEGL technician noted the kanaflex on well G/L 16 was cracked and required replacement. Technician acquired new piece of kanaflex and replaced the defective piece. Once installed no leaks were detected.
08/14/09	LFG Well	Reactive	Broken sample port on well required replacement	AEGL technician noted the sample port on well G/L 17 was broken and required replacement. Technician acquired new brass sample port and replaced the defective port. Once installed no leaks were detected.
08/14/09	LFG Well	Reactive	Broken sample port on well required replacement	AEGL technician noted the sample port on well G/L 23 was broken and required replacement. Technician acquired new brass sample port and replaced the defective port. Once installed no leaks were detected.

Additional Comments: No additional comments.

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Waste Management, Powell Rd Landfill
Landfill Gas and Condensate Collection Systems Maintenance Summary Report

Month and Year Sep-09

Date	System Repaired	Proactive/ Reactive	Diagnosis of Problem Causing Reactive Action	Corrective Action / Description of Maintenance Performed
09/17/09	LFG pumps	Reactive	Multiple well pumps not cycling fluid	Pumps in wells' G/L 7, 8, 12, 17, 20, 22 and 24 have fluid levels greater than 1.5 feet. Technician also verified the pumps were not cycling fluid. AEGL will schedule technicians to visit site to pull and clean the non-operational pumps and then verify normal operation.
09/29/09	LFG pumps	Reactive	Cycle counters on well G/L 1 and G/L 22 not cycling	AEGL technicians installed new cycle counters at G/L 1 and G/L 22. Once installed technicians verified new counters were cycling properly.
09/29/09	LFG pumps	Reactive	Raised liquid level in well G/L 22	AEGL technicians pulled, cleaned, changed brain in well G/L 22 and found the pump would still not discharge fluid. AEGL will make recommendations to WMI to have new pump installed.
09/29/09	LFG pumps	Reactive	Raised liquid level in well G/L 12	Technicians pulled and cleaned the pump in well G/L 12 and noted the pump was now operational.
09/29/09	LFG pumps	Reactive	Raised liquid level in well G/L 20	Technicians pulled, cleaned, and tested pump in well G/L 20 but found that when installed pump was not operational. AEGL will make recommendations to WMI to have new pump installed.
09/29/09	LFG pumps	Reactive	Raised liquid level in well G/L 17	Technicians pulled, cleaned, changed brain and repaired 3/4" discharge line with barb to barb fitting, on pump in well G/L 17 and found the pump was now operational.
09/30/09	LFG pumps	Reactive	Raised liquid level in well G/L 24	Technicians pulled, cleaned and repaired 3/4" discharge line with barb to barb fitting on pump in well G/L 24. Once completed technicians noted the pump is now operational.
09/30/09	LFG pumps	Reactive	Raised liquid level in well G/L 8	Technicians pulled, cleaned, changed brain and repaired 3/4" discharge line with barb to barb fitting, on pump in well G/L 8 and found the pump was still not operational. AEGL will make recommendations to WMI to have new pump installed.

09/30/09	LFG pumps	Reactive	Raised liquid level in well G/L 7	Technicians pulled, cleaned and performed a fluid sounding in well G/L 7. Technicians lengthened the pump tubing 2 feet and found the pump was still not operational. AEGL will make recommendations to WMI to have new pump installed.
09/30/09	LFG pumps	Reactive	Raised liquid level in well G/L 20	Technicians pulled the pump in G/L 20 untangled cables from around pump noted the pump was operational. Once completed, technicians performed a fluid sounding and noted the fluid level was dropping.

Additional Comments: No additional comments.

Revised: 5/15/2008 SP

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Waste Management, Powell Rd Landfill
Landfill Gas and Condensate Collection Systems Maintenance Summary Report

Month and Year **Oct-09**

Date	System Repaired	Proactive/ Reactive	Diagnosis of Problem Causing Reactive Action	Corrective Action / Description of Maintenance Performed
10/21/09	LFG Pumps	Reactive	Pumps in wells not cycling or slow cycling	AEGL technician noted that the pumps in wells' G/L 20 and G/L 9 were not cycling. Technician pulled the pump in G/L 20 cleaned and reset the float. Once completed pump was cycling/pumping properly. Technician pulled, cleaned and repaired torn pump discharge tubing on the pump in well G/L 9. Once reinstalled the pump still did not cycle. The pumps in wells' G/L 12, 14, 22 and 24 are pumping but slowly. Technician will monitor the fluid levels next month to determine if pumps will require replacement. The pump in G/L 9 is not pumping. AEGL will pull the pumps and replace if found to be defective.
10/21/09	Flare compound	Reactive	High vegetation required cutting	AEGL technician weed-whacked the area inside the flare compound and around the flare.

Additional Comments: No additional comments.

Revised: 5/15/2008 SP

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Waste Management, Powell Rd Landfill
Landfill Gas and Condensate Collection Systems Maintenance Summary Report

Month and Year **Nov-09**

Date	System Repaired	Proactive/ Reactive	Diagnosis of Problem Causing Reactive Action	Corrective Action / Description of Maintenance Performed
11/13/09	LFG pumps	Reactive	Several pumps in wellfield not cycling fluid	AEGL technician noted several pumps in wellfield not cycling. Technician will complete a pump assessment to determine how many new pumps will need to be purchased to replace the defective ones. Once completed AEGL will await approval to purchase new wellfield pumps.

Additional Comments: No additional comments.

Revised: 5/15/2008 SP

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Waste Management, Powell Rd Landfill
Landfill Gas and Condensate Collection Systems Maintenance Summary Report

Month and Year **Dec-09**

Date	System Repaired	Proactive/ Reactive	Diagnosis of Problem Causing Reactive Action	Corrective Action / Description of Maintenance Performed
12/09/09	LFG Pump	Reactive	Pump in well G/L 20 not cycling fluid	AEGL technician pulled and cleaned the pump in well G/L 20. Once reinstalled the pump did not cycle so technician replaced the defective pump with a newly purchased QED AP-4 pump on 12/10/09. Once installed pump was cycling properly.
12/10/09	LFG Pump	Reactive	Pumps in wellfield not cycling	AEGL technician pulled pump in well G/L 22 and brought it along with the old pump from G/L 20 and 2 spare pumps back to the AEGL office to troubleshoot and possibly rebuild. Once testing is complete, if pumps are not functional, AEGL will inform WMI that new pumps are needed in the wellfield.

Additional Comments: No additional comments.

Revised: 5/15/2008 SP

E

APPENDIX E.

BLOWER/FLARE STATION DATA SHEETS

American Environmental Group Ltd.

Blower / Flare Station Data

Technician: Max Collins
Date: 1/22/2009
Client: R. Jones, WMI
Site: Powell Rd
Temperature: 32°F
Barometric Press.: 30.02"

Before Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	38.3	28.4	1	32.3	-22.8	43	N/A	N/A
Blower Out	35.9	26.8	1.8	35.5	3.1	88	244	N/A

After Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	35	27.1	1	36.9	-23.4	47	N/A	N/A
Blower Out	33.8	26.3	1.8	38.09	2.9	100	227	N/A

Blower Data:

	Yes	No	Comments
Blower Operating Properly?	√		N/A
Motor Operating Properly?	√		N/A

	Yes	No		Yes	No
Lube Blowers:	√		Check Valves:	√	
Check Belts/Drive:	√		Check Actuator:	√	
Drain Blower:		√	Check Flame Arrestor:	√	
Check Propane: PSI 55%	√		Check Compressor:	√	
Blower Hours:	3,331.30		Check Auto-Dialer:	√	
Blower Amps:	11.72		Long Distance Service Active:	√	

Flare Data:

Flare Temperature:	1379		Check Ignition System:	√	
Drain Flare Stack:	√		Other:	N/A	

Compressor Data:

System Pressure:	150	psi	Check Compressor Drains:	√	
Dryers Functioning:	√		Check Dryers Drains:	√	
Check Motor:	√		Check Drive Belts:	√	

Sump Pump Data:

Sump Location	Operating Yes	Operating No	Cycle Counter	Comments
West	√			DTF 12.4 DTB 12.7
East	√			*See comment below DTF 6.8 DTB 14.6

Comments: Technician observed east sump pump not working upon initial viewing. Technician pulled, cleaned, and reinstalled pump. Once re-installed the pump was cycling normally.

American Environmental Group Ltd.

Blower / Flare Station Data

Technician:	Max Collins
Date:	2/5/2009
Client:	R. Jones, WMI
Site:	Powell Rd
Temperature:	14°F
Barometric Press.:	30.47"

Before Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	28.3	24.8	2.2	44.69	-23.8	42	N/A	No Comments.
Blower Out	27.6	24.4	2.3	45.7	3.1	88	291	No Comments.

After Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	34.7	28.5	0.9	35.9	-30.2	44	N/A	No Comments.
Blower Out	32.7	26.9	1.7	38.7	2.2	97	263	No Comments.

Blower Data:

	Yes	No	Comments
Blower Operating Properly?	√		No Comments.
Motor Operating Properly?	√		No Comments.

	Yes	No		Yes	No
Lube Blowers:	√		Check Valves:	√	
Check Belts/Drive:	√		Check Actuator:	√	
Drain Blower:	√		Check Flame Arrestor:	√	
Check Propane: PSI 73%	√		Check Compressor:	√	
Blower Hours:	3,497.70		Check Auto-Dialer:	√	
Blower Amps:	11.91		Long Distance Service Active:	√	

Flare Data:

Flare Temperature:	1517		Check Ignition System:	√	
Drain Flare Stack:	√		Other:	N/A	

Compressor Data:

System Pressure:	148	psi	Check Compressor Drains:	√	
Dryers Functioning:	√		Check Dryers Drains:	√	
Check Motor:	√		Check Drive Belts:	√	

Sump Pump Data:

Sump Location	Operating Yes	Operating No	Cycle Counter	Comments
West	√		929,459	DTF 11.9 DTB 12.7 see below
East	√		722,856	DTF 11.3 DTB 14.6

Comments: West sump not cycling upon initial inspection. Technician pulled and cleaned pump before reinstalling. Once reinstalled pump was cycling normally. Technician also installed new regulator because previous one was defective.

Project Manager: Nick Jordon

American Environmental Group Ltd.

Blower / Flare Station Data

Technician: Max Collins
Date: 3/11/2009
Client: R. Jones, WMI
Site: Powell Rd
Temperature: 50° F
Barometric Press.: 30.07"

Before Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	36.5	26	1.6	35.9	-28.8	43	N/A	No comment.
Blower Out	34.7	24.9	2.8	37.6	2.6	91	255	No comment.

After Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	37.5	26.8	1.1	34.6	-31.6	46	N/A	No comment.
Blower Out	34.9	27.1	1.5	36.5	2.1	99	235	No comment.

Blower Data:

	Yes	No	Comments
Blower Operating Properly?	√		No comment.
Motor Operating Properly?	√		No comment.

	Yes	No
Lube Blowers:	√	
Check Belts/Drive:	√	
Drain Blower:		√
Check Propane: PSI 77%	√	
Blower Hours:	3,899.60	
Blower Amps:	10.34	

	Yes	No
Check Valves:	√	
Check Actuator:	√	
Check Flame Arrestor:	√	
Check Compressor:	√	
Check Auto-Dialer:	√	
Long Distance Service Active:	√	

Flare Data:

Flare Temperature:	1321	
Drain Flare Stack:	√	

Check Ignition System:	√	

Other: No comment.

Compressor Data:

System Pressure:	142	psi
Dryer's Functioning:	√	
Check Motor:	√	

Check Compressor Drains:	√	
Check Dryers Drains:	√	
Check Drive Belts:	√	

Sump Pump Data:

Sump Location	Operating Yes	Operating No	Cycle Counter	Comments
West	√		929,464	DTF 11.7' DTB 14.9'
East	√		2,936	DTF 11.9' DTB 14.5'

Comments: No additional comments.

American Environmental Group Ltd.

Blower / Flare Station Data

Technician: Max Collins
Date: 4/29/2009
Client: R. Jones, WMI
Site: Powell Rd
Temperature: 44° F
Barometric Press.: 29.99"

Before Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	38.2	26	1.7	34.09	-30.6	49	N/A	No comment
Blower Out	36.1	25.1	2.5	36.3	2.3	93	206	No comment

After Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	38.6	25.8	1.6	34	-27.3	51	N/A	No comment
Blower Out	37	25.5	2.2	35.3	2.8	107	244	No comment

Blower Data:

	Yes	No	Comments
Blower Operating Properly?	√		No comment
Motor Operating Properly?	√		No comment

	Yes	No		Yes	No
Lube Blowers:	√		Check Valves:	√	
Check Belts/Drive:	√		Check Actuator:	√	
Drain Blower:	√		Check Flame Arrestor:	√	
Check Propane: PSI 71%	√		Check Compressor:	√	
Blower Hours:	4,475.40		Check Auto-Dialer:	√	
Blower Amps:	9.83		Long Distance Service Active:	√	

Flare Data:

Flare Temperature:	1249		Check Ignition System:	√	
Drain Flare Stack:	√		Other:	No comment	

Compressor Data:

System Pressure:	143	psi	Check Compressor Drains:	√	
Dryers Functioning:	√		Check Dryers Drains:	√	
Check Motor:	√		Check Drive Belts:	√	

Sump Pump Data:

Sump Location	Operating Yes	Operating No	Cycle Counter	Comments
West	√		929,497	DTF 13.8 DTB 15.0
East	√		389,558	DTF 10.9 DTB 14.5

Comments: No additional comments.

Revised:5/15/2008 SP
Project Manager: Nick Jordon

American Environmental Group Ltd.

Blower / Flare Station Data

Technician:	Max Collins
Date:	5/20/2009
Client:	R. Jones, WMI
Site:	Powell Rd
Temperature:	64°
Barometric Press.:	30.29"

Before Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	35.9	25.5	1.9	36.69	-27.7	61	N/A	No Comments
Blower Out	33.7	24.4	2.7	39.2	2.4	125	215	No Comments

After Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	36.4	24.7	2.2	36.69	-27.1	62	N/A	No Comments
Blower Out	35	24.3	2.8	37.9	2.8	127	232	No Comments

Blower Data:

	Yes	No	Comments	
Blower Operating Properly?	√		No Comments	No Comments
Motor Operating Properly?	√		No Comments	No Comments

	Yes	No		Yes	No
Lube Blowers:	√		Check Valves:	√	
Check Belts/Drive:	√		Check Actuator:	√	
Drain Blower:		√	Check Flame Arrestor:	√	
Check Propane: PSI 67%	√		Check Compressor:	√	
Blower Hours:	4,723.10		Check Auto-Dialer:	√	
Blower Amps:	9.57		Long Distance Service Active:	√	

Flare Data:

Flare Temperature:	1521		Check Ignition System:	√	
Drain Flare Stack:	√		Other:	N/A	

Compressor Data:

System Pressure:	141	psi	Check Compressor Drains:	√	
Dryers Functioning:	√		Check Dryers Drains:	√	
Check Motor:	√		Check Drive Belts:	√	

Sump Pump Data:

Sump Location	Operating Yes	Operating No	Cycle Counter	Comments
West	√		951333	Depth to fluid 12.0' - Depth to bottom 15.0'
East	√		615850	Depth to fluid 12.0' - Depth to bottom 14.5'

Comments: No additional comments.

Revised:5/15/2008 SP

Project Manager: Nick Jordon

American Environmental Group Ltd.

Blower / Flare Station Data

Technician: Max Collins
Date: 6/8/2009
Client: R. Jones, WMI
Site: Powell Rd
Temperature: 73°
Barometric Press.: 29.93"

Before Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	37.4	25.7	2	34.89	-31.2	59	N/A	No Comments
Blower Out	35.6	24.9	2.6	36.9	2.7	119	223	No Comments

After Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	36.1	25.7	2.1	36.1	-28	62	N/A	No Comments
Blower Out	35.5	25.3	2.4	36.8	2.3	123	220	No Comments

Blower Data:

	Yes	No	Comments
Blower Operating Properly?	√		No Comments
Motor Operating Properly?	√		No Comments

	Yes	No		Yes	No
Lube Blowers:	√		Check Valves:	√	
Check Belts/Drive:	√		Check Actuator:	√	
Drain Blower:		√	Check Flame Arrestor:	√	
Check Propane: PSI 67%	√		Check Compressor:	√	
Blower Hours:	4946.8		Check Auto-Dialer:	√	
Blower Amps:	9.65		Long Distance Service Active:	√	

Flare Data:

Flare Temperature:	1445		Check Ignition System:	√	
Drain Flare Stack:	√		Other:	N/A	

Compressor Data:

System Pressure:	135	psi	Check Compressor Drains:	√	
Dryers Functioning:	√		Check Dryers Drains:	√	
Check Motor:	√		Check Drive Belts:	√	

Sump Pump Data:

Sump Location	Operating Yes	Operating No	Cycle Counter	Comments
West	√		969761	Depth to fluid 13.8' - Depth to bottom 15.0'
East	√		847768	Depth to fluid 11.9' - Depth to bottom 14.5'

Comments: No additional comments.

Revised:5/15/2008 SP

Project Manager: Nick Jordon

American Environmental Group Ltd.

Blower / Flare Station Data

Technician: Max Collins
Date: 7/29/2009
Client: R. Jones, WMI
Site: Powell Rd
Temperature: 73° F
Barometric Press.: 29.77" Hg

Before Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	34.1	27.2	1.1	37.6	-37.2	66	N/A	No additional comments
Blower Out	32.9	27.6	1.4	38.09	3.5	115	292	No additional comments

After Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	33.4	26.7	1.2	38.69	-36.2	68	N/A	No additional comments
Blower Out	35.2	26.3	1	37.5	4.1	124	304	No additional comments

Blower Data:

	Yes	No	Comments
Blower Operating Properly?	√		No additional comments
Motor Operating Properly?	√		No additional comments

	Yes	No		Yes	No
Lube Blowers:	√		Check Valves:	√	
Check Belts/Drive:	√		Check Actuator:	√	
Drain Blower:	√		Check Flame Arrestor:	√	
Check Propane: PSI 77%	√		Check Compressor:	√	
Blower Hours:	5459.0		Check Auto-Dialer:	√	
Blower Amps:	9.9		Long Distance Service Active:	√	

Flare Data:

Flare Temperature:	1410		Check Ignition System:	√	
Drain Flare Stack:	√		Other:	N/A	

Compressor Data:

System Pressure:	157	psi	Check Compressor Drains:	√	
Dryers Functioning:	√		Check Dryers Drains:	√	
Check Motor:	√		Check Drive Belts:	√	

Sump Pump Data:

Pump Location	Operating Yes	Operating No	Cycle Counter	Comments
West		√	982266	DTF 10.7 DTB 14.9 - See below
East		√	999787	DTF Dry DTB 14.6 - See below

Comments: Please note: Air compressor was working and properly charged but it was not allowing air to reach the pumps in the field. AEGL technician was troubleshooting the system and determined the actuating valve that allows air to the pumps was remaining closed. Technician called Steve Lingafelter out to site to further troubleshoot and repair the system. Please see maintenance summary report for details.

Revised:5/15/2008 SP

Project Manager: Nick Jordon

American Environmental Group Ltd.

Blower / Flare Station Data

Technician: Max Collins
Date: 8/14/2009
Client: R. Jones, WMI
Site: Powell Rd
Temperature: 72° F
Barometric Press.: 30.15" Hg

Before Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	34.4	25.9	1	38.69	-37	70	N/A	No comments
Blower Out	33.2	26.8	1.1	38.9	3.7	121	278	No comments

After Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	33.7	25.2	1.7	39.4	-36.6	71	N/A	No comments
Blower Out	33.1	25.6	1.8	39.5	3.8	125	295	No comments

lower Data:

	Yes	No	Comments
lower Operating Properly?	√		No Comments
lotor Operating Properly?	√		No Comments

	Yes	No		Yes	No
Lube Blowers:	√		Check Valves:	√	
Check Belts/Drive:	√		Check Actuator:	√	
Drain Blower:	√		Check Flame Arrestor:	√	
heck Propane: PSI 75%	√		Check Compressor:	√	
Blower Hours:	5649.8		Check Auto-Dialer:	√	
Blower Amps:	9.8		Long Distance Service Active:	√	

are Data:

Flare Temperature:	1221		Check Ignition System:	√	
Drain Flare Stack:	√		Other:	N/A	

ompressor Data:

System Pressure:	154	psi	Check Compressor Drains:	√	
Dryers Functioning:	√		Check Dryers Drains:	√	
Check Motor:	√		Check Drive Belts:	√	

mp Pump Data:

Sump Location	Operating Yes	Operating No	Cycle Counter	Comments
est	√		994409	DTF 12.0 - DTB 14.9
st	√		95665	DTF 10.0 - DTB 14.5

Comments: No additional comments.

Revised:5/15/2008 SP
Project Manager: Nick Jordon

American Environmental Group Ltd.

Blower / Flare Station Data

Technician: Max Collins
Date: 9/17/2009
Client: R. Jones, WMI
Site: Powell Rd
Temperature: 63° F
Barometric Press.: 30.15" Hg

Before Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	34	27.8	0.9	37.3	-36.7	67	N/A	No Comments
Blower Out	33	27.7	1.3	38	3.9	115	325	No Comments

After Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	32.9	27.1	1.3	38.7	-37.3	70	N/A	No Comments
Blower Out	32.6	26.8	1.6	39	3.5	122	270	No Comments

Blower Data:

	Yes	No	Comments
Blower Operating Properly?	√		No Comments
Motor Operating Properly?	√		No Comments

	Yes	No
Lube Blowers:	√	
Check Belts/Drive:	√	
Drain Blower:		√
Check Propane: PSI 72%	√	
Blower Hours:	6055.5	
Blower Amps:	9.62	

	Yes	No
Check Valves:	√	
Check Actuator:	√	
Check Flame Arrestor:	√	
Check Compressor:	√	
Check Auto-Dialer:	√	
Long Distance Service Active:	√	

Flare Data:

Flare Temperature:	1212°	
Drain Flare Stack:	√	

Check Ignition System:	√	
Other:	N/A	

Compressor Data:

System Pressure:	140	psi
Dryers Functioning:	√	
Check Motor:	√	

Check Compressor Drains:	√	
Check Dryers Drains:	√	
Check Drive Belts:	√	

Sump Pump Data:

Sump Location	Operating Yes	Operating No	Cycle Counter	Comments
West	√		18167	Depth to Fluid 9.8 - Depth to Bottom 14.8
East	√		404502	Depth to Fluid 10.0 - Depth to Bottom 14.5

Comments: No additional comments.

Revised:5/15/2008 SP Project Manager: Nick Jordon

American Environmental Group Ltd.

Blower / Flare Station Data

Technician: Max Collins
Date: 10/21/2009
Client: R. Jones, WMI
Site: Powell Rd
Temperature: 54° F
Barometric Press.: 30.20" Hg

Before Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	35.5	27.2	2.3	35	-37	62	0	No Comments
Blower Out	35.4	27.7	2.3	34.59	2.5	97	329	No Comments

After Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	34.7	26.5	2.9	35.9	-28	67	0	No Comments
Blower Out	36.3	27.8	2.1	33.8	2.6	119	277	No Comments

Blower Data:

	Yes	No	Comments
Blower Operating Properly?	√		No Comments
Motor Operating Properly?	√		No Comments

	Yes	No
Lube Blowers:	√	
Check Belts/Drive:	√	
Drain Blower:	√	
Check Propane: PSI 67%	√	
Blower Hours:	6443.7	
Blower Amps:	9.7	

	Yes	No
Check Valves:	√	
Check Actuator:	√	
Check Flame Arrestor:	√	
Check Compressor:	√	
Check Auto-Dialer:	√	
Long Distance Service Active:	√	

Flare Data:

Flare Temperature:	1272	
Drain Flare Stack:	√	

Check Ignition System:	√	
Other:	N/A	

Compressor Data:

System Pressure:	152	psi
Dryers Functioning:	√	
Check Motor:	√	

Check Compressor Drains:	√	
Check Dryers Drains:	√	
Check Drive Belts:	√	

Sump Pump Data:

Sump Location	Operating Yes	Operating No	Cycle Counter	Comments
West	√		41115	DTF 10.9 - DTB 14.8
East	√		794207	DTF 11.7 - DTB 14.4

Comments: No additional comments.

Revised:5/15/2008 SP

Project Manager: Nick Jordon

American Environmental Group Ltd.

Blower / Flare Station Data

Technician: Max Collins
Date: 11/13/2009
Client: R. Jones, WMI
Site: Powell Rd
Temperature: 47° F
Barometric Press.: 30.03" Hg

Before Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	46.4	30.7	1.2	21.69	-28	58	N/A	No Comments
Blower Out	44.4	29.5	1.9	24.2	2.6	101	267	No Comments

After Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	45.4	29.6	1.1	23.89	-27.6	62	N/A	No Comments
Blower Out	44.2	29.5	1.7	24.59	2.7	111	246	No Comments

Blower Data:

	Yes	No	Comments
Blower Operating Properly?	√		No Comments
Motor Operating Properly?	√		No Comments

	Yes	No
Lube Blowers:	√	
Check Belts/Drive:	√	
Drain Blower:	√	
Check Propane: PSI 80%	√	
Blower Hours:	6719.1	
Blower Amps:	8.9	

	Yes	No
Check Valves:	√	
Check Actuator:	√	
Check Flame Arrestor:	√	
Check Compressor:	√	
Check Auto-Dialer:	√	
Long Distance Service Active:	√	

Flare Data:

Flare Temperature:	1277	
Drain Flare Stack:	√	

Check Ignition System:	√	

Other: _____

Compressor Data:

System Pressure:	162	psi
Dryers Functioning:	√	
Check Motor:	√	

Check Compressor Drains:	√	
Check Dryers Drains:	√	
Check Drive Belts:	√	

Sump Pump Data:

Sump Location	Operating Yes	Operating No	Cycle Counter	Comments
West	√		53992	Depth to fluid 11.6 - Depth to bottom 14.8
East	√		71114	Depth to fluid 11.0 - Depth to bottom 14.4

Comments: No additional comments.

Revised:5/15/2008 SP

Project Manager: Nick Jordon

American Environmental Group Ltd.

Blower / Flare Station Data

Technician: Max Collins
Date: 12/9/2009
Client: R. Jones, WMI
Site: Powell Rd
Temperature: 38° F
Barometric Press.: 29.30" Hg

Before Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	52.7	31.5	0.8	14.99	-26.7	53	N/A	No Comments
Blower Out	50	30.5	1.7	17.79	2.4	85	218	No Comments

After Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	48.4	31.8	0.6	19.19	-27.2	52	N/A	No Comments
Blower Out	46.6	30.9	1	21.5	2.4	82	255	No Comments

Blower Data:

	Yes	No	Comments
Blower Operating Properly?	√		No Comments
Motor Operating Properly?	√		No Comments

	Yes	No
Lube Blowers:	√	
Check Belts/Drive:	√	
Drain Blower:	√	
Check Propane: PSI 78%	√	
Blower Hours:	7030.5	
Blower Amps:	9.3	

	Yes	No
Check Valves:	√	
Check Actuator:	√	
Check Flame Arrestor:	√	
Check Compressor:	√	
Check Auto-Dialer:	√	
Long Distance Service Active:	√	

Flare Data:

Flare Temperature:	1143	
Drain Flare Stack:	√	

Check Ignition System:	√	
Other:	N/A	

Compressor Data:

System Pressure:	155	psi
Dryers Functioning:	√	
Check Motor:	√	

Check Compressor Drains:	√	
Check Dryers Drains:	√	
Check Drive Belts:	√	

Sump Pump Data:

Sump Location	Operating Yes	Operating No	Cycle Counter	Comments
West	√		69950	Depth to fluid 11.7 - Depth to bottom 14.8
East	√		400465	Depth to fluid 10.7 - Depth to bottom 14.4

Comments: No additional comments.

Revised 5/15/2008 SP

Project Manager: Nick Jordon

F

APPENDIX F.

WELLFIELD MONITORING DATA (FLUID LEVELS)

American Environmental Group Ltd.

Wellfield Monitoring Data (Fluid Levels)

Technician: Max Collins
Date: 1/22/2009
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 32°F
Barometric Pressure: 30.02"

ID	Date	Depth to Fluid	Depth to Bottom	Fluid in Well	Cycle Counter	Comments
L1	N/A	N/A	48.60	N/A	N/A	N/A
L2	N/A	N/A	47.50	N/A	N/A	N/A
L3	N/A	N/A	29.10	N/A	N/A	N/A
G/L 01	N/A	N/A	41.90	N/A	551,479	Pump Installed in Well
G/L 02	N/A	N/A	43.55	N/A	925,727	Pump Installed in Well
G/L 03	N/A	N/A	46.35	N/A	29,701	Pump Installed in Well
G/L 04	N/A	N/A	36.60	N/A	1,739	Pump Installed in Well
G/L 05	N/A	N/A	40.80	N/A	N/A	N/A
G/L 06	N/A	N/A	39.95	N/A	N/A	N/A
G/L 07	N/A	N/A	39.90	N/A	114190	Pump Installed in Well
G/L 08	N/A	N/A	40.95	N/A	378,048	Pump Installed in Well
G/L 09	N/A	N/A	41.15	N/A	829	Pump Installed in Well
G/L 10	N/A	N/A	43.70	N/A	360,978	Pump Installed in Well
G/L 11	N/A	N/A	44.75	N/A	631477	Pump Installed in Well
G/L 12	N/A	N/A	47.40	N/A	409514	Pump Installed in Well
G/L 13	N/A	N/A	47.60	N/A	282399	Pump Installed in Well
G/L 14	N/A	N/A	36.20	N/A	333735	Pump Installed in Well
G/L 15	N/A	N/A	40.25	N/A	N/A	N/A
G/L 16	N/A	N/A	37.40	N/A	N/A	N/A
G/L 17	N/A	N/A	37.80	N/A	54,157	Pump Installed in Well
G/L 18	N/A	N/A	39.20	N/A	742,638	Pump Installed in Well
G/L 19	N/A	N/A	55.50	N/A	739,730	Pump Installed in Well
G/L 20	N/A	N/A	41.90	N/A	220,554	Pump Installed in Well
G/L 21	N/A	N/A	54.40	N/A	917485	Pump Installed in Well
G/L 22	N/A	N/A	53.95	N/A	393,379	Pump Installed in Well
G/L 23	N/A	N/A	52.60	N/A	55,512	Pump Installed in Well
G/L 24	N/A	N/A	50.90	N/A	919,989	Pump Installed in Well
G/L 25	N/A	N/A	52.75	N/A	712075	Pump Installed in Well
G/L 26	N/A	N/A	60.85	N/A	437324	Pump Installed in Well

Comments: Depth to Fluid, Depth to Bottom, and Fluid in Well Readings are in Feet.

ounding Schedule:

January	None	**July**	None
February	Wells with Pumps	**August**	Wells with Pumps
March	Wells without Pumps	**September**	Wells without Pumps
April	Wells with Pumps	**October**	Wells with Pumps
May	None	**November**	None
June	All Wells	**December**	All Wells

recipitation Data:

Date	Inches	River Level	Date	Inches	River Level
Jan.	1.38"	At banks	**July**		
Feb.			**Aug**		
March			**Sept**		
April			**Oct**		
May			**Nov**		
June			**Dec**		

River Level Gauge
Below Banks
At Banks
Above Banks
At Perimeter Fence
Above Perimeter Fence

American Environmental Group Ltd.

Wellfield Monitoring Data (Fluid Levels)

Technician: Max Collins
Date: 2/5/2009
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 14°F
Barometric Pressure: 30.47"

ID	Date	Depth to Fluid	Depth to Bottom	Fluid in Well	Cycle Counter	Comments
L1	N/A	0.00	48.60	N/A	N/A	N/A
L2	N/A	0.00	47.50	N/A	N/A	N/A
L3	N/A	0.00	29.10	N/A	N/A	N/A
G/L 01	2/5/2009	41.00	41.90	0.90	551,809	Pump Installed in Well
G/L 02	2/5/2009	42.10	43.55	1.45	925,782	Pump Installed in Well
G/L 03	2/5/2009	45.10	46.35	1.25	29,780	Pump Installed in Well
G/L 04	2/5/2009	35.40	36.60	1.20	1,739	Pump Installed in Well
G/L 05	N/A	0.00	40.80	N/A	N/A	N/A
G/L 06	N/A	0.00	39.95	N/A	N/A	N/A
G/L 07	2/5/2009	38.30	39.90	1.60	114877	Pump Installed in Well
G/L 08	2/5/2009	39.00	40.95	1.95	378,048	Pump Installed in Well
G/L 09	2/5/2009	40.10	41.15	1.05	31,973	Pump Installed in Well
G/L 10	2/5/2009	42.30	43.70	1.40	360,978	Pump Installed in Well
G/L 11	2/5/2009	43.40	44.75	1.35	631713	Pump Installed in Well
G/L 12	2/5/2009	46.60	47.40	0.80	409514	Pump Installed in Well
G/L 13	2/5/2009	46.50	47.60	1.10	283558	Pump Installed in Well
G/L 14	2/5/2009	35.10	36.20	1.10	333735	Pump Installed in Well
G/L 15	N/A	0.00	40.25	N/A	N/A	N/A
G/L 16	N/A	0.00	37.40	N/A	N/A	N/A
G/L 17	2/5/2009	36.40	37.80	1.40	58,874	Pump Installed in Well
G/L 18	2/5/2009	38.10	39.20	1.10	742,639	Pump Installed in Well
G/L 19	2/5/2009	54.30	55.50	1.20	779,865	Pump Installed in Well
G/L 20	2/5/2009	37.30	41.90	4.60	221,489	Pump Installed in Well
G/L 21	2/5/2009	53.20	54.40	1.20	947636	Pump Installed in Well
G/L 22	2/5/2009	51.10	53.95	2.85	394,329	Pump Installed in Well
G/L 23	2/5/2009	51.60	52.60	1.00	602,419	Pump Installed in Well
G/L 24	2/5/2009	49.60	50.90	1.30	921,107	Pump Installed in Well
G/L 25	2/5/2009	51.6	52.75	1.15	728432	Pump Installed in Well
G/L 26	2/5/2009	56.4	60.85	4.45	444812	Pump Installed in Well

Comments: Depth to Fluid, Depth to Bottom, and Fluid in Well Readings are in Feet.

Sounding Schedule:

January	None	**July**	None
February	Wells with Pumps	**August**	Wells with Pumps
March	Wells without Pumps	**September**	Wells without Pumps
April	Wells with Pumps	**October**	Wells with Pumps
May	None	**November**	None
June	All Wells	**December**	All Wells

Precipitation Data:

Date	Inches	River Level	Date	Inches	River Level
Jan.	1.38"	At banks	**July**		
Feb.	0.77"	At banks	**Aug**		
March			**Sept**		
April			**Oct**		
May			**Nov**		
June			**Dec**		

River Level Gauge
Below Banks
At Banks
Above Banks
At Perimeter Fence
Above Perimeter Fence

American Environmental Group Ltd.

Wellfield Monitoring Data (Fluid Levels)

Technician: Max Collins
Date: 3/11/2009
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 50° F
Barometric Pressure: 30.07"

ID	Date	Depth to Fluid	Depth to Bottom	Fluid in Well	Cycle Counter	Comments
L1	3/11/2009	47.90	48.60	0.70	N/A	No comment.
L2	3/11/2009	46.90	47.50	0.60	N/A	No comment.
L3	3/11/2009	28.60	29.10	0.50	N/A	No comment.
G/L 01	3/11/2009	N/A	41.90	N/A	552197	Pump Installed in Well
G/L 02	3/11/2009	N/A	43.55	N/A	925806	Pump Installed in Well
G/L 03	3/11/2009	N/A	46.35	N/A	31170	Pump Installed in Well
G/L 04	3/11/2009	N/A	36.60	N/A	1764	Pump Installed in Well
G/L 05	3/11/2009	39.70	40.80	1.10	N/A	No comment.
G/L 06	3/11/2009	39.20	39.95	0.75	N/A	No comment.
G/L 07	3/11/2009	N/A	39.90	N/A	117096	Pump Installed in Well
G/L 08	3/11/2009	N/A	40.95	N/A	3258	Pump Installed in Well
G/L 09	3/11/2009	N/A	41.15	N/A	48638	Pump Installed in Well
G/L 10	3/11/2009	N/A	43.70	N/A	360979	Pump Installed in Well
G/L 11	3/11/2009	N/A	44.75	N/A	635355	Pump Installed in Well
G/L 12	3/11/2009	N/A	47.40	N/A	427814	Pump Installed in Well
G/L 13	3/11/2009	N/A	47.60	N/A	372825	Pump Installed in Well
G/L 14	3/11/2009	N/A	36.20	N/A	4743	Pump Installed in Well
G/L 15	3/11/2009	39.50	40.25	0.75	N/A	No comment.
G/L 16	3/11/2009	36.70	37.40	0.70	N/A	No comment.
G/L 17	3/11/2009	N/A	37.80	N/A	66999	Pump Installed in Well
G/L 18	3/11/2009	N/A	39.20	N/A	742640	Pump Installed in Well
G/L 19	3/11/2009	N/A	55.50	N/A	814642	Pump Installed in Well
G/L 20	3/11/2009	N/A	41.90	N/A	222055	Pump Installed in Well
G/L 21	3/11/2009	N/A	54.40	N/A	71838	Pump Installed in Well
G/L 22	3/11/2009	N/A	53.95	N/A	399495	Pump Installed in Well
G/L 23	3/11/2009	N/A	52.60	N/A	718886	Pump Installed in Well
G/L 24	3/11/2009	N/A	50.90	N/A	927367	Pump Installed in Well
G/L 25	3/11/2009	N/A	52.75	N/A	780086	Pump Installed in Well
G/L 26	3/11/2009	N/A	60.85	N/A	445459	Pump Installed in Well

Comments: Depth to Fluid, Depth to Bottom, and Fluid in Well Readings are in Feet.

Sounding Schedule:

January	None	**July**	None
February	Wells with Pumps	**August**	Wells with Pumps
March	Wells without Pumps	**September**	Wells without Pumps
April	Wells with Pumps	**October**	Wells with Pumps
May	None	**November**	None
June	All Wells	**December**	All Wells

Precipitation Data:

Date	Inches	River Level	Date	Inches	River Level
Jan.	1.38	At banks	**July**		
Feb.	0.77	At banks	**Aug**		
March	0.43	At banks	**Sept**		
April			**Oct**		
May			**Nov**		
June			**Dec**		

River Level Gauge
Below Banks
At Banks
Above Banks
At Perimeter Fence
Above Perimeter Fence

American Environmental Group Ltd.

Wellfield Monitoring Data (Fluid Levels)

Technician: Max Collins
Date: 4/29/2009
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 44° F
Barometric Pressure: 29.99"

ID	Date	Depth to Fluid	Depth to Bottom	Fluid in Well	Cycle Counter	Comments
L1	N/A	N/A	48.60	N/A	N/A	N/A
L2	N/A	N/A	47.50	N/A	N/A	N/A
L3	N/A	N/A	29.10	N/A	N/A	N/A
G/L 01	4/29/2009	41.00	41.90	0.90	552,294	Pump Installed in Well
G/L 02	4/29/2009	42.60	43.55	0.95	925,807	Pump Installed in Well
G/L 03	4/29/2009	45.00	46.35	1.35	32,353	Pump Installed in Well
G/L 04	4/29/2009	35.50	36.60	1.10	1,764	Pump Installed in Well
G/L 05	N/A	N/A	40.80	N/A	N/A	N/A
G/L 06	N/A	N/A	39.95	N/A	N/A	N/A
G/L 07	4/29/2009	38.50	39.90	1.40	133487	Pump Installed in Well
G/L 08	4/29/2009	38.70	40.95	2.25	32,539	Pump Installed in Well
G/L 09	4/29/2009	40.00	41.15	1.15	63,123	Pump Installed in Well
G/L 10	4/29/2009	42.40	43.70	1.30	360,978	Pump Installed in Well
G/L 11	4/29/2009	42.80	44.75	1.95	635356	Pump Installed in Well
G/L 12	4/29/2009	46.10	47.40	1.30	428190	Pump Installed in Well
G/L 13	4/29/2009	45.00	47.60	2.60	709824	Pump Installed in Well
G/L 14	4/29/2009	35.10	36.20	1.10	19599	Pump Installed in Well
G/L 15	N/A	N/A	40.25	N/A	N/A	N/A
G/L 16	N/A	N/A	37.40	N/A	N/A	N/A
G/L 17	4/29/2009	36.70	37.80	1.10	79,997	Pump Installed in Well
G/L 18	4/29/2009	37.90	39.20	1.30	742,640	Pump Installed in Well
G/L 19	4/29/2009	54.20	55.50	1.30	860,825	Pump Installed in Well
G/L 20	4/29/2009	36.30	41.90	5.60	228,247	Pump Installed in Well
G/L 21	4/29/2009	53.20	54.40	1.20	300082	Pump Installed in Well
G/L 22	4/29/2009	52.70	53.95	1.25	406,919	Pump Installed in Well
G/L 23	4/29/2009	51.60	52.60	1.00	876,652	Pump Installed in Well
G/L 24	4/29/2009	49.10	50.90	1.80	938,671	Pump Installed in Well
G/L 25	4/29/2009	51.6	52.75	1.15	853677	Pump Installed in Well
G/L 26	4/29/2009	59.7	60.85	1.15	445459	Pump Installed in Well

Comments: Depth to Fluid, Depth to Bottom, and Fluid in Well Readings are in Feet.

Sounding Schedule:

January	None	**July**	None
February	Wells with Pumps	**August**	Wells with Pumps
March	Wells without Pumps	**September**	Wells without Pumps
April	Wells with Pumps	**October**	Wells with Pumps
May	None	**November**	None
June	All Wells	**December**	All Wells

Precipitation Data:

Date	Inches	River Level	Date	Inches	River Level
Jan.	1.38	At banks	**July**		
Feb.	0.77	At banks	**Aug**		
March	0.43	At banks	**Sept**		
April	3.03	At banks	**Oct**		
May			**Nov**		
June			**Dec**		

River Level Gauge
Below Banks
At Banks
Above Banks
At Perimeter Fence
Above Perimeter Fence

American Environmental Group Ltd.

Wellfield Monitoring Data (Fluid Levels)

Technician: Max Collins
Date: 5/20/2009
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 64°
Barometric Pressure: 30.29"

ID	Date	Depth to Fluid	Depth to Bottom	Fluid in Well	Cycle Counter	Comments
L1	N/A	N/A	48.60	N/A	N/A	No Comments
L2	N/A	N/A	47.50	N/A	N/A	No Comments
L3	N/A	N/A	29.10	N/A	N/A	No Comments
G/L 01	5/20/2009	N/A	41.90	N/A	552297	Pump Installed in Well
G/L 02	5/20/2009	N/A	43.55	N/A	925807	Pump Installed in Well
G/L 03	5/20/2009	N/A	46.35	N/A	32794	Pump Installed in Well
G/L 04	5/20/2009	N/A	36.60	N/A	1764	Pump Installed in Well
G/L 05	N/A	N/A	40.80	N/A	N/A	No Comments
G/L 06	N/A	N/A	39.95	N/A	N/A	No Comments
G/L 07	5/20/2009	N/A	39.90	N/A	140818	Pump Installed in Well
G/L 08	5/20/2009	N/A	40.95	N/A	34896	Pump Installed in Well
G/L 09	5/20/2009	N/A	41.15	N/A	69508	Pump Installed in Well
G/L 10	5/20/2009	N/A	43.70	N/A	360980	Pump Installed in Well
G/L 11	5/20/2009	N/A	44.75	N/A	635356	Pump Installed in Well
G/L 12	5/20/2009	N/A	47.40	N/A	436347	Pump Installed in Well
G/L 13	5/20/2009	N/A	47.60	N/A	947864	Pump Installed in Well
G/L 14	5/20/2009	N/A	36.20	N/A	25542	Pump Installed in Well
G/L 15	N/A	N/A	40.25	N/A	N/A	No Comments
G/L 16	N/A	N/A	37.40	N/A	N/A	No Comments
G/L 17	5/20/2009	N/A	37.80	N/A	85381	Pump Installed in Well
G/L 18	5/20/2009	N/A	39.20	N/A	742640	Pump Installed in Well
G/L 19	5/20/2009	N/A	55.50	N/A	881682	Pump Installed in Well
G/L 20	5/20/2009	N/A	41.90	N/A	230404	Pump Installed in Well
G/L 21	5/20/2009	N/A	54.40	N/A	502404	Pump Installed in Well
G/L 22	5/20/2009	N/A	53.95	N/A	408409	Pump Installed in Well
G/L 23	5/20/2009	N/A	52.60	N/A	928825	Pump Installed in Well
G/L 24	5/20/2009	N/A	50.90	N/A	943300	Pump Installed in Well
G/L 25	5/20/2009	N/A	52.75	N/A	878971	Pump Installed in Well
G/L 26	5/20/2009	N/A	60.85	N/A	445459	Pump Installed in Well

Comments: Depth to Fluid, Depth to Bottom, and Fluid in Well Readings are in Feet.

Sounding Schedule:

January	None	**July**	None
February	Wells with Pumps	**August**	Wells with Pumps
March	Wells without Pumps	**September**	Wells without Pumps
April	Wells with Pumps	**October**	Wells with Pumps
May	None	**November**	None
June	All Wells	**December**	All Wells

Precipitation Data:

Date	Inches	River Level	Date	Inches	River Level
Jan.	1.38	At banks	**July**		
Feb.	0.77	At banks	**Aug**		
March	0.43	At banks	**Sept**		
April	3.03	At banks	**Oct**		
May	2.89	Below banks	**Nov**		
June			**Dec**		

River Level Gauge
Below Banks
At Banks
Above Banks
At Perimeter Fence
Above Perimeter Fence

American Environmental Group Ltd.

Wellfield Monitoring Data (Fluid Levels)

Technician: Max Collins
Date: 6/8/2009
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 73°
Barometric Pressure: 29.93"

ID	Date	Depth to Fluid	Depth to Bottom	Fluid in Well	Cycle Counter	Comments
L1	6/8/2009	48.00	48.60	0.60	N/A	No Comments
L2	6/8/2009	46.90	47.50	0.60	N/A	No Comments
L3	6/8/2009	28.60	29.10	0.50	N/A	No Comments
G/L 01	6/8/2009	41.00	41.90	0.90	552393	Pump Installed in Well
G/L 02	6/8/2009	42.50	43.55	1.05	925807	Pump Installed in Well
G/L 03	6/8/2009	45.10	46.35	1.25	33208	Pump Installed in Well
G/L 04	6/8/2009	35.30	36.60	1.30	1764	Pump Installed in Well
G/L 05	6/8/2009	39.90	40.80	0.90	N/A	No Comments
G/L 06	6/8/2009	39.20	39.95	0.75	N/A	No Comments
G/L 07	6/8/2009	38.40	39.90	1.50	142867	Pump Installed in Well
G/L 08	6/8/2009	39.60	40.95	1.35	37851	Pump Installed in Well
G/L 09	6/8/2009	40.10	41.15	1.05	75738	Pump Installed in Well
G/L 10	6/8/2009	42.60	43.70	1.10	361040	Pump Installed in Well
G/L 11	6/8/2009	43.10	44.75	1.65	635593	Pump Installed in Well
G/L 12	6/8/2009	46.20	47.40	1.20	440903	Pump Installed in Well
G/L 13	6/8/2009	43.10	47.60	4.50	176705	Pump Installed in Well
G/L 14	6/8/2009	35.10	36.20	1.10	33228	Pump Installed in Well
G/L 15	6/8/2009	39.70	40.25	0.55	N/A	No Comments
G/L 16	6/8/2009	36.80	37.40	0.60	N/A	No Comments
G/L 17	6/8/2009	36.80	37.80	1.00	89468	Pump Installed in Well
G/L 18	6/8/2009	38.10	39.20	1.10	742640	Pump Installed in Well
G/L 19	6/8/2009	54.20	55.50	1.30	909537	Pump Installed in Well
G/L 20	6/8/2009	35.80	41.90	6.10	232744	Pump Installed in Well
G/L 21	6/8/2009	53.20	54.40	1.20	657289	Pump Installed in Well
G/L 22	6/8/2009	52.80	53.95	1.15	408409	Pump Installed in Well
G/L 23	6/8/2009	51.50	52.60	1.10	974563	Pump Installed in Well
G/L 24	6/8/2009	49.50	50.90	1.40	947584	Pump Installed in Well
G/L 25	6/8/2009	51.6	52.75	1.15	901762	Pump Installed in Well
G/L 26	6/8/2009	59.8	60.85	1.05	445461	Pump Installed in Well

Comments: Depth to Fluid, Depth to Bottom, and Fluid in Well Readings are in Feet.
Well G/L 11 was slowly cycling however not pumping much fluid. AEGL will be onsite to pull and clean pump on 6/09/09.
Cycle counter on G/L 11 will be checked next site visit to verify proper operation. Cycle counter has been steadily slowing down over the last couple of months. If defective, will be replaced during next visit and pump will be inspected.
Well G/L 13 was slowly cycling however not pumping much fluid. AEGL will be onsite to pull and clean pump on 6/09/09.
Cycle counter on G/L 13 will be checked next site visit to verify proper operation. If counter is defective it will be replaced.
Well G/L 20 was not cycling at time of inspection. AEGL will be onsite to pull, inspect and clean pump on 6/09/09.

Sounding Schedule:

January	None	**July**	None
February	Wells with Pumps	**August**	Wells with Pumps
March	Wells without Pumps	**September**	Wells without Pumps
April	Wells with Pumps	**October**	Wells with Pumps
May	None	**November**	None
June	All Wells	**December**	All Wells

Precipitation Data:

Date	Inches	River Level	Date	Inches	River Level
Jan.	1.38	At banks	**July**		
Feb.	0.77	At banks	**Aug**		
March	0.43	At banks	**Sept**		
April	3.03	At banks	**Oct**		
May	2.89	Below banks	**Nov**		
June	2.78	Below banks	**Dec**		

River Level Gauge
Below Banks
At Banks
Above Banks
At Perimeter Fence
Above Perimeter Fence

American Environmental Group Ltd.

Wellfield Monitoring Data (Fluid Levels)

Technician: Max Collins
Date: 7/29/2009
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 73° F
Barometric Pressure: 29.77" Hg

ID	Date	Depth to Fluid	Depth to Bottom	Fluid in Well	Cycle Counter	Comments
L1	N/A	N/A	48.60	N/A	N/A	N/A
L2	N/A	N/A	47.50	N/A	N/A	N/A
L3	N/A	N/A	29.10	N/A	N/A	N/A
L 01	7/29/2009	N/A	41.90	N/A	552394	Pump Installed in Well
G/L 02	7/29/2009	N/A	43.55	N/A	925019	Pump Installed in Well
G/L 03	7/29/2009	N/A	46.35	N/A	33565	Pump Installed in Well
L 04	7/29/2009	N/A	36.60	N/A	1768	Pump Installed in Well
L 05	N/A	N/A	40.80	N/A	N/A	N/A
G/L 06	N/A	N/A	39.95	N/A	N/A	N/A
G/L 07	7/29/2009	N/A	39.90	N/A	157403	Pump Installed in Well
L 08	7/29/2009	N/A	40.95	N/A	163169	Pump Installed in Well
L 09	7/29/2009	N/A	41.15	N/A	136193	Pump Installed in Well
G/L 10	7/29/2009	N/A	43.70	N/A	361046	Pump Installed in Well
G/L 11	7/29/2009	N/A	44.75	N/A	635775	Pump Installed in Well
L 12	7/29/2009	N/A	47.40	N/A	440963	Pump Installed in Well
L 13	7/29/2009	N/A	47.60	N/A	213289	Pump Installed in Well
G/L 14	7/29/2009	N/A	36.20	N/A	39499	Pump Installed in Well
L 15	N/A	N/A	40.25	N/A	N/A	N/A
L 16	N/A	N/A	37.40	N/A	N/A	N/A
L 17	7/29/2009	N/A	37.80	N/A	90179	Pump Installed in Well
G/L 18	7/29/2009	N/A	39.20	N/A	742641	Pump Installed in Well
L 19	7/29/2009	N/A	55.50	N/A	925019	Pump Installed in Well
L 20	7/29/2009	N/A	41.90	N/A	234967	Pump Installed in Well
G/L 21	7/29/2009	N/A	54.40	N/A	693842	Pump Installed in Well
G/L 22	7/29/2009	N/A	53.95	N/A	408409	Pump Installed in Well
23	7/29/2009	N/A	52.60	N/A	8493	Pump Installed in Well
24	7/29/2009	N/A	50.90	N/A	951084	Pump Installed in Well
G/L 25	7/29/2009	N/A	52.75	N/A	914045	Pump Installed in Well
G/L 26	7/29/2009	N/A	60.85	N/A	445462	Pump Installed in Well

ents: Please note: Air compressor was working and properly charged but it was not allowing air reach the pumps in the field. AEGL technician was troubleshooting the system and determined the actuating alve that allows air to the pumps was remaining closed. Technician called Steve Lingafelter out to site to further oot shoot and repair the system. Please see maintenance summary report for details.

ing Schedule:

ary	None	**July**	None
ebruary	Wells with Pumps	**August**	Wells with Pumps
ch	Wells without Pumps	**September**	Wells without Pumps
il	Wells with Pumps	**October**	Wells with Pumps
ay	None	**November**	None
June	All Wells	**December**	All Wells

tation Data:

	Inches	River Level	Date	Inches	River Level
Jan.	1.38	At banks	**July**	4.52	Below Banks
Feb.	0.77	At banks	**Aug**		
ch	0.43	At banks	**Sept**		
il	3.03	At banks	**Oct**		
May	2.89	Below banks	**Nov**		
e	2.78	Below banks	**Dec**		

River Level Gauge
Below Banks
At Banks
Above Banks
At Perimeter Fence
Above Perimeter Fence

American Environmental Group Ltd.

Wellfield Monitoring Data (Fluid Levels)

Technician: Max Collins
Date: 8/14/2009
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 72° F
Barometric Pressure: 30.15" Hg

ID	Date	Depth to Fluid	Depth to Bottom	Fluid in Well	Cycle Counter	Comments
L1	N/A	N/A	48.60	N/A	N/A	No Comments
L2	N/A	N/A	47.50	N/A	N/A	No Comments
L3	N/A	N/A	29.10	N/A	N/A	No Comments
G/L 01	8/14/2009	41.00	41.90	0.90	552473	Pump Installed in Well
G/L 02	8/14/2009	42.20	43.55	1.35	925808	Pump Installed in Well
G/L 03	8/14/2009	44.80	46.35	**1.55**	34024	Pump Installed in Well
G/L 04	8/14/2009	35.30	36.60	1.30	1770	Pump Installed in Well
G/L 05	N/A	N/A	40.80	N/A	N/A	No Comments
G/L 06	N/A	N/A	39.95	N/A	N/A	No Comments
G/L 07	8/14/2009	37.80	39.90	**2.10**	162078	Pump Installed in Well
G/L 08	8/14/2009	36.80	40.95	**4.15**	276590	Pump Installed in Well
G/L 09	8/14/2009	40.00	41.15	1.15	166067	Pump Installed in Well
G/L 10	8/14/2009	42.60	43.70	1.10	361134	Pump Installed in Well
G/L 11	8/14/2009	43.40	44.75	1.35	635866	Pump Installed in Well
G/L 12	8/14/2009	45.80	47.40	**1.60**	440693	Pump Installed in Well
G/L 13	8/14/2009	46.40	47.60	1.20	213596	Pump Installed in Well
G/L 14	8/14/2009	33.70	36.20	**2.50**	42441	Pump Installed in Well
G/L 15	N/A	N/A	40.25	N/A	N/A	No Comments
G/L 16	N/A	N/A	37.40	N/A	N/A	No Comments
G/L 17	8/14/2009	35.90	37.80	**1.90**	90179	Pump Installed in Well
G/L 18	8/14/2009	37.90	39.20	1.30	742641	Pump Installed in Well
G/L 19	8/14/2009	54.30	55.50	1.20	934524	Pump Installed in Well
G/L 20	8/14/2009	39.30	41.90	**2.60**	238722	Pump Installed in Well
G/L 21	8/14/2009	53.20	54.40	1.20	706301	Pump Installed in Well
G/L 22	8/14/2009	52.20	53.95	**1.75**	408409	Pump Installed in Well
G/L 23	8/14/2009	51.20	52.60	1.40	46592	Pump Installed in Well
G/L 24	8/14/2009	46.10	50.90	**4.80**	27995	Pump Installed in Well
G/L 25	8/14/2009	51.5	52.75	1.25	926527	Pump Installed in Well
G/L 26	8/14/2009	59.9	60.85	0.95	445462	Pump Installed in Well

Comments: Please note: Pumps in wells' G/L 3, 7, 8, 12, 14, 17, 20, 22 and 24 were inspected and were not found to be cycling. Air compressor had a defective relay causing the pumps to become non-operational. The relay was repaired and now pumps air has been restored to the field. AEGL will continue to monitor the pumps during the next monthly inspections and if still not cycling,determine the next course of action.

ounding Schedule:

January	None	**July**	None
February	Wells with Pumps	**August**	Wells with Pumps
March	Wells without Pumps	**September**	Wells without Pumps
April	Wells with Pumps	**October**	Wells with Pumps
May	None	**November**	None
June	All Wells	**December**	All Wells

recipitation Data:

Date	Inches	River Level	Date	Inches	River Level
Jan.	1.38	At Banks	**July**	4.52	Below Banks
Feb.	0.77	At Banks	**Aug**	3.11	Below Banks
March	0.43	At Banks	**Sept**		
April	3.03	At Banks	**Oct**		
May	2.89	Below Banks	**Nov**		
June	2.78	Below Banks	**Dec**		

River Level Gauge
Below Banks
At Banks
Above Banks
At Perimeter Fence
Above Perimeter Fence

American Environmental Group Ltd.

Wellfield Monitoring Data (Fluid Levels)

Technician: Max Collins
Date: 9/17/2009
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 63° F
Barometric Pressure: 30.15" Hg

ID	Date	Depth to Fluid	Depth to Bottom	Fluid in Well	Cycle Counter	Comments
L1	9/17/2009	47.90	48.60	0.70	N/A	No Comments
L2	9/17/2009	46.80	47.50	0.70	N/A	No Comments
L3	9/17/2009	28.60	29.10	0.50	N/A	No Comments
G/L 01	N/A	N/A	41.90	N/A	552473	Pump Installed in Well
/L 02	N/A	N/A	43.55	N/A	926103	Pump Installed in Well
/L 03	N/A	N/A	46.35	N/A	34724	Pump Installed in Well
G/L 04	N/A	N/A	36.60	N/A	1770	Pump Installed in Well
/L 05	9/17/2009	39.70	40.80	1.10	N/A	No Comments
/L 06	9/17/2009	38.80	39.95	1.15	N/A	No Comments
G/L 07	N/A	N/A	39.90	N/A	180585	Pump Installed in Well
G/L 08	N/A	N/A	40.95	N/A	284900	Pump Installed in Well
/L 09	N/A	N/A	41.15	N/A	895627	Pump Installed in Well
/L 10	N/A	N/A	43.70	N/A	361180	Pump Installed in Well
G/L 11	N/A	N/A	44.75	N/A	636019	Pump Installed in Well
/L 12	N/A	N/A	47.40	N/A	440963	Pump Installed in Well
/L 13	N/A	N/A	47.60	N/A	213848	Pump Installed in Well
G/L 14	N/A	N/A	36.20	N/A	53796	Pump Installed in Well
/L 15	9/17/2009	39.50	40.25	0.75	N/A	No Comments
/L 16	9/17/2009	36.60	37.40	0.80	N/A	No Comments
G/L 17	N/A	N/A	37.80	N/A	90179	Pump Installed in Well
G/L 18	N/A	N/A	39.20	N/A	742641	Pump Installed in Well
/L 19	N/A	N/A	55.50	N/A	978721	Pump Installed in Well
/L 20	N/A	N/A	41.90	N/A	252759	Pump Installed in Well
G/L 21	N/A	N/A	54.40	N/A	747560	Pump Installed in Well
/L 22	N/A	N/A	53.95	N/A	443159	Pump Installed in Well
/L 23	N/A	N/A	52.60	N/A	140846	Pump Installed in Well
G/L 24	N/A	N/A	50.90	N/A	117560	Pump Installed in Well
/L 25	N/A	N/A	52.75	N/A	961317	Pump Installed in Well
/L 26	N/A	N/A	60.85	N/A	445462	Pump Installed in Well

Comments: Depth to Fluid, Depth to Bottom, and Fluid in Well Readings are in Feet.

ou ding Schedule:

Ja uary	None	**July**	None
February	Wells with Pumps	**August**	Wells with Pumps
M rch	Wells without Pumps	**September**	Wells without Pumps
pril	Wells with Pumps	**October**	Wells with Pumps
May	None	**November**	None
une	All Wells	**December**	All Wells

recipitation Data:

Date	Inches	River Level	Date	Inches	River Level
n.	1.38	At Banks	**July**	4.52	Below Banks
b.	0.77	At Banks	**Aug**	3.11	Below Banks
March	0.43	At Banks	**Sept**	3.28	Below Banks
pril	3.03	At Banks	**Oct**		
ay	2.89	Below Banks	**Nov**		
June	2.78	Below Banks	**Dec**		

River Level Gauge
Below Banks
At Banks
Above Banks
At Perimeter Fence
Above Perimeter Fence

American Environmental Group Ltd.

Wellfield Monitoring Data (Fluid Levels)

Technician: Max Collins
Date: 10/21/2009
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 54° F
Barometric Pressure: 30.20" Hg

ID	Date	Depth to Fluid	Depth to Bottom	Fluid in Well	Cycle Counter	Comments
L1	N/A	N/A	48.60	N/A	N/A	No Comments
L2	N/A	N/A	47.50	N/A	N/A	No Comments
L3	N/A	N/A	29.10	N/A	N/A	No Comments
G/L 01	10/21/2009	40.80	41.90	1.10	213	Pump Installed in Well
G/L 02	10/21/2009	42.10	43.55	1.45	926539	Pump Installed in Well
G/L 03	10/21/2009	45.00	46.35	1.35	35488	Pump Installed in Well
G/L 04	10/21/2009	35.80	36.60	0.80	1771	Pump Installed in Well
G/L 05	N/A	N/A	40.80	N/A	N/A	No Comments
G/L 06	N/A	N/A	39.95	N/A	N/A	No Comments
G/L 07	10/21/2009	38.50	39.90	1.40	196261	Pump Installed in Well
G/L 08	10/21/2009	40.10	40.95	0.85	284921	Pump Installed in Well
G/L 09	10/21/2009	37.90	41.15	3.25	895627	Pump Installed in Well
G/L 10	10/21/2009	42.60	43.70	1.10	361184	Pump Installed in Well
G/L 11	10/21/2009	43.30	44.75	1.45	636227	Pump Installed in Well
G/L 12	10/21/2009	40.20	47.40	7.20	441104	Pump Installed in Well
G/L 13	10/21/2009	46.50	47.60	1.10	214178	Pump Installed in Well
G/L 14	10/21/2009	33.70	36.20	2.50	64424	Pump Installed in Well
G/L 15	N/A	N/A	40.25	N/A	N/A	No Comments
G/L 16	N/A	N/A	37.40	N/A	N/A	No Comments
G/L 17	10/21/2009	36.40	37.80	1.40	90179	Pump Installed in Well
G/L 18	10/21/2009	37.90	39.20	1.30	742642	Pump Installed in Well
G/L 19	10/21/2009	54.30	55.50	1.20	26131	Pump Installed in Well
G/L 20	10/21/2009	37.20	41.90	4.70	265175	Pump Installed in Well
G/L 21	10/21/2009	53.20	54.40	1.20	802542	Pump Installed in Well
G/L 22	10/21/2009	51.60	53.95	2.35	218	Pump Installed in Well
G/L 23	10/21/2009	51.00	52.60	1.60	233759	Pump Installed in Well
G/L 24	10/21/2009	48.50	50.90	2.40	497852	Pump Installed in Well
G/L 25	10/21/2009	51.5	52.75	1.25	993539	Pump Installed in Well
G/L 26	10/21/2009	59.4	60.85	1.45	445464	Pump Installed in Well

Comments: Please see maintenance summary logs for detailed explanations.

Sounding Schedule:

January	None	**July**	None
February	Wells with Pumps	**August**	Wells with Pumps
March	Wells without Pumps	**September**	Wells without Pumps
April	Wells with Pumps	**October**	Wells with Pumps
May	None	**November**	None
June	All Wells	**December**	All Wells

Precipitation Data:

Date	Inches	River Level	Date	Inches	River Level
Jan.	1.38	At Banks	**July**	4.52	Below Banks
Feb.	0.77	At Banks	**Aug**	3.11	Below Banks
March	0.43	At Banks	**Sept**	3.28	Below Banks
April	3.03	At Banks	**Oct**	5.10	Below Banks
May	2.89	Below Banks	**Nov**		
June	2.78	Below Banks	**Dec**		

River Level Gauge
Below Banks
At Banks
Above Banks
At Perimeter Fence
Above Perimeter Fence

American Environmental Group Ltd.

Wellfield Monitoring Data (Fluid Levels)

Technician: Max Collins
Date: 11/13/2009
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 47° F
Barometric Pressure: 30.03" Hg

ID	Date	Depth to Fluid	Depth to Bottom	Fluid in Well	Cycle Counter	Comments
L1	N/A	N/A	48.60	N/A	N/A	N/A
L2	N/A	N/A	47.50	N/A	N/A	N/A
L3	N/A	N/A	29.10	N/A	N/A	N/A
G/L 01	11/13/2009	N/A	41.90	N/A	1491	Pump Installed in Well
L 02	11/13/2009	N/A	43.55	N/A	926776	Pump Installed in Well
L 03	11/13/2009	N/A	46.35	N/A	36033	Pump Installed in Well
G/L 04	11/13/2009	N/A	36.60	N/A	1771	Pump Installed in Well
L 05	N/A	N/A	40.80	N/A	N/A	N/A
L 06	N/A	N/A	39.95	N/A	N/A	N/A
G/L 07	11/13/2009	N/A	39.90	N/A	201214	Pump Installed in Well
G/L 08	11/13/2009	N/A	40.95	N/A	284921	Pump Installed in Well
L 09	11/13/2009	N/A	41.15	N/A	895669	Pump Installed in Well
G/L 10	11/13/2009	N/A	43.70	N/A	361186	Pump Installed in Well
G/L 11	11/13/2009	N/A	44.75	N/A	636358	Pump Installed in Well
L 12	11/13/2009	N/A	47.40	N/A	441248	Pump Installed in Well
L 13	11/13/2009	N/A	47.60	N/A	214893	Pump Installed in Well
G/L 14	11/13/2009	N/A	36.20	N/A	70919	Pump Installed in Well
L 15	N/A	N/A	40.25	N/A	N/A	N/A
L 16	N/A	N/A	37.40	N/A	N/A	N/A
G/L 17	11/13/2009	N/A	37.80	N/A	90179	Pump Installed in Well
G/L 18	11/13/2009	N/A	39.20	N/A	742642	Pump Installed in Well
L 19	11/13/2009	N/A	55.50	N/A	52607	Pump Installed in Well
L 20	11/13/2009	N/A	41.90	N/A	269404	Pump Installed in Well
G/L 21	11/13/2009	N/A	54.40	N/A	839777	Pump Installed in Well
L 22	11/13/2009	N/A	53.95	N/A	219	Pump Installed in Well
L 23	11/13/2009	N/A	52.60	N/A	276439	Pump Installed in Well
G/L 24	11/13/2009	N/A	50.90	N/A	501116	Pump Installed in Well
L 25	11/13/2009	N/A	52.75	N/A	9257	Pump Installed in Well
L 26	11/13/2009	N/A	60.85	N/A	445464	Pump Installed in Well

Comments: Depth to Fluid, Depth to Bottom, and Fluid in Well Readings are in Feet.

ding Schedule:

January	None	**July**	None
February	Wells with Pumps	**August**	Wells with Pumps
rch	Wells without Pumps	**September**	Wells without Pumps
ril	Wells with Pumps	**October**	Wells with Pumps
May	None	**November**	None
ne	All Wells	**December**	All Wells

recipitation Data:

Date	Inches	River Level	Date	Inches	River Level
n.	1.38	At Banks	**July**	4.52	Below Banks
b.	0.77	At Banks	**Aug**	3.11	Below Banks
March	0.43	At Banks	**Sept**	3.28	Below Banks
ril	3.03	At Banks	**Oct**	5.10	Below Banks
y	2.89	Below Banks	**Nov**	0.61	Below Banks
June	2.78	Below Banks	**Dec**		

River Level Gauge
Below Banks
At Banks
Above Banks
At Perimeter Fence
Above Perimeter Fence

American Environmental Group Ltd.

Wellfield Monitoring Data (Fluid Levels)

Technician: Max Collins
Date: 12/9/2009
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 38° F
Barometric Pressure: 29.30" Hg

ID	Date	Depth to Fluid	Depth to Bottom	Fluid in Well	Cycle Counter	Comments
L1	12/9/2009	47.90	48.60	0.70	N/A	No Comments
L2	12/9/2009	46.80	47.50	0.70	N/A	No Comments
L3	12/9/2009	27.60	29.10	1.50	N/A	No Comments
G/L 01	12/9/2009	40.60	41.90	1.30	2818	Pump Installed in Well
G/L 02	12/9/2009	42.10	43.55	1.45	926887	Pump Installed in Well
G/L 03	12/9/2009	44.90	46.35	1.45	36652	Pump Installed in Well
G/L 04	12/9/2009	35.40	36.60	1.20	1771	Pump Installed in Well
G/L 05	12/9/2009	39.70	40.80	1.10	N/A	No Comments
G/L 06	12/9/2009	37.30	39.95	2.65	N/A	No Comments
G/L 07	12/9/2009	38.20	39.90	1.70	207691	Pump Installed in Well
G/L 08	12/9/2009	38.80	40.95	2.15	285015	Pump Installed in Well
G/L 09	12/9/2009	37.70	41.15	3.45	895672	Pump Installed in Well
G/L 10	12/9/2009	42.60	43.70	1.10	361190	Pump Installed in Well
G/L 11	12/9/2009	43.20	44.75	1.55	636506	Pump Installed in Well
G/L 12	12/9/2009	46.00	47.40	1.40	441528	Pump Installed in Well
G/L 13	12/9/2009	45.90	47.60	1.70	215028	Pump Installed in Well
G/L 14	12/9/2009	33.10	36.20	3.10	78177	Pump Installed in Well
G/L 15	12/9/2009	39.50	40.25	0.75	N/A	No Comments
G/L 16	12/9/2009	36.60	37.40	0.80	N/A	No Comments
G/L 17	12/9/2009	36.40	37.80	1.40	90179	Pump Installed in Well
G/L 18	12/9/2009	37.90	39.20	1.30	742642	Pump Installed in Well
G/L 19	12/9/2009	54.10	55.50	1.40	82220	Pump Installed in Well
G/L 20	12/9/2009	35.10	41.90	6.80	273563	Pump Installed in Well
G/L 21	12/9/2009	53.10	54.40	1.30	889629	Pump Installed in Well
G/L 22	12/9/2009	51.30	53.95	2.65	219	Pump Installed in Well
G/L 23	12/9/2009	51.00	52.60	1.60	326538	Pump Installed in Well
G/L 24	12/9/2009	49.10	50.90	1.80	505146	Pump Installed in Well
G/L 25	12/9/2009	51.4	52.75	1.35	28565	Pump Installed in Well
G/L 26	12/9/2009	59.4	60.85	1.45	445465	Pump Installed in Well

Comments: Please see maintenance summary report for additional details.

ounding Schedule:

January	None	**July**	None
February	Wells with Pumps	**August**	Wells with Pumps
March	Wells without Pumps	**September**	Wells without Pumps
April	Wells with Pumps	**October**	Wells with Pumps
May	None	**November**	None
June	All Wells	**December**	All Wells

recipitation Data:

Date	Inches	River Level	Date	Inches	River Level
Jan.	1.38	At Banks	**July**	4.52	Below Banks
Feb.	0.77	At Banks	**Aug**	3.11	Below Banks
March	0.43	At Banks	**Sept**	3.28	Below Banks
April	3.03	At Banks	**Oct**	5.10	Below Banks
May	2.89	Below Banks	**Nov**	0.61	Below Banks
June	2.78	Below Banks	**Dec**		At Banks

River Level Gauge
Below Banks
At Banks
Above Banks
At Perimeter Fence
Above Perimeter Fence

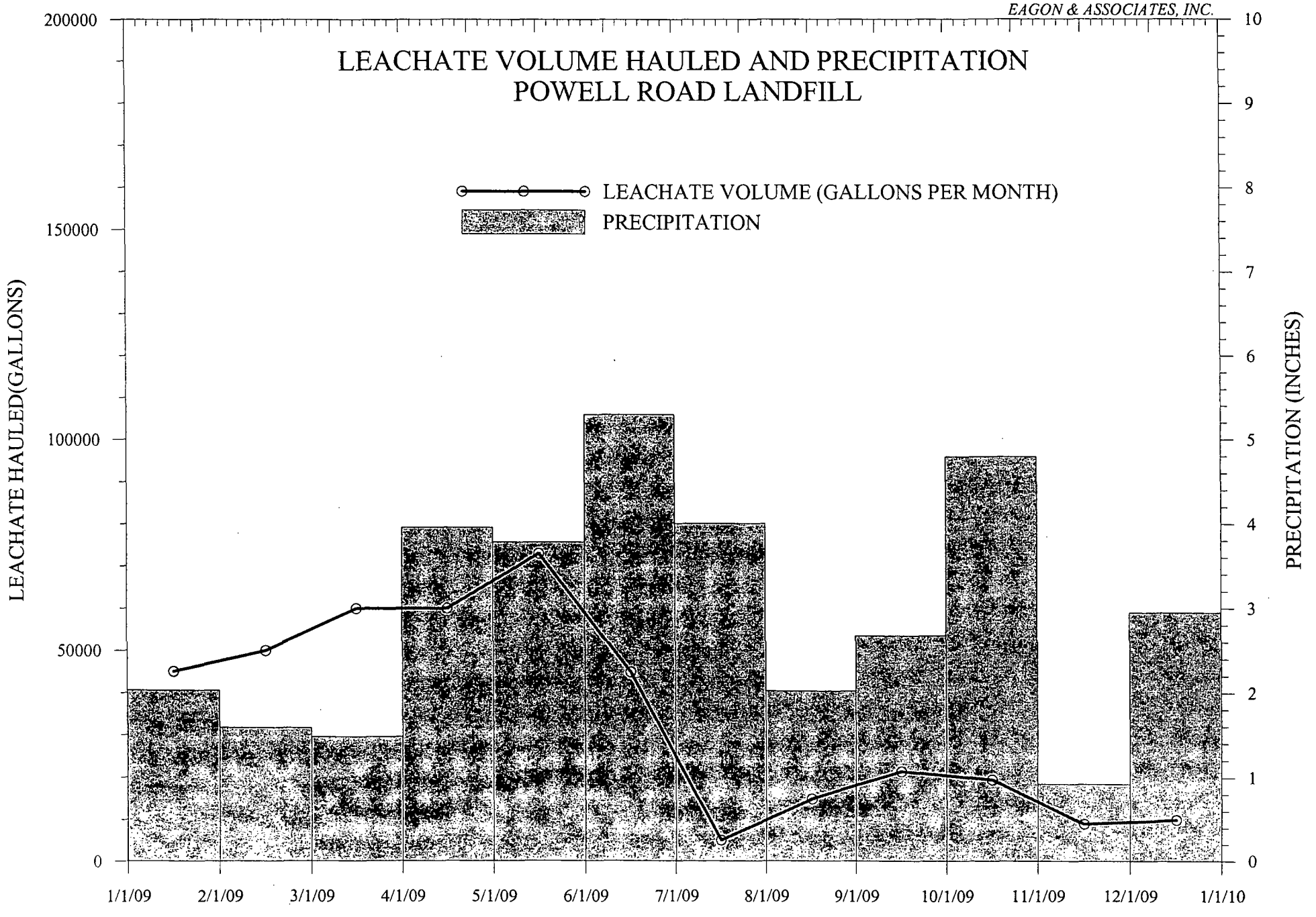
G

APPENDIX G.

LEACHATE HAULING DATA

2009 MONTHLY LEACHATE VOLUMES
POWELL ROAD LANDFILL

Month	Gallons	in. Rain
Jan-09	45,000	2.03
Feb-09	50,000	1.59
Mar-09	60,000	1.48
Apr-09	60,000	3.96
May-09	73,000	3.79
Jun-09	45,000	5.30
Jul-09	5,000	4.01
Aug-09	15,000	2.03
Sep-09	21,500	2.68
Oct-09	19,500	4.80
Nov-09	9,000	0.93
Dec-09	10,000	2.95
Total	**413,000**	**35.55**
Monthly Avg	**34,417**	**2.96**
Daily Avg	**1131.51**	**0.10**



POWELL/2009 LEACHATE & PRECIP.GRF
2/25/10

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APPENDIX H.

LEACHATE ANALYTICAL DATA SUMMARY

TABLE H-1
PARAMETERS DETECTED IN LEACHATE DURING O & M MONITORING
POWELL ROAD LANDFILL

Parameter	2/17/2000	3/2/2000	3/13/2000	4/10/2000	05/01/00	08/15/00	11/13/00	02/19/01	05/21/01	5/6/02	5/8/03	5/10/04	5/2/05	5/8/06	5/8/07	5/19/08	5/04/09
Inorganics and Metals (mg/L)																	
Alkalinity						4940	3790	4160	2520	2420	2970	339	2940	3950	2080	2230	1250
BOD - Five Day	176	262	252	<374	207	156	143	140	70.8	56.9	89.6	190	307	105	50.4	31.2	49.6
Chloride	1870	2090	2130	865	<0.5 R	1690	678	1020	937	813	1680	2340	2190	2860	1020	724	400
COD	2200	2520	2560	908	1720	1520	1540	1660	852	650	1250	1360	1250	1490	569	554	288
Cyanide, Total	<0.005	<0.005	0.130	<0.005	<0.02	<0.020	<0.020	<0.020	<0.020								
Fats, Oils, and Grease	<5	12	153	<5	<5.0	<5.0	6.0	<5.0	<5.0	6.2	10.4	<5.0	<5.0	<5.0	<5.0	<5.0	10.1
Fluoride					<0.05	<0.050	<0.050	<0.050	<0.050								
Nitrogen, Ammonia	700	820	890	260	704	901	1120	582	368	235	684	792	570	699	316	273	152
Nitrogen, Nitrate + Nitrite		0.03	<0.02	0.03	<0.05	<2.8	<1.0	<0.50	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Phosphorus		5.79	4.36	1.62	2.8	2.9	3.7	2.6	1.6	1.5	3.0	3.4	1.8	4.2	0.42	0.54	0.583
pH, (Lab) measured in S.U.	7.53	7.4	7.35	6.92	6.55	7.68	7.72	7.45	7.32	7.40	7.63	7.70	7.54	7.52	7.30	7.39	7.32
Solids, Total Dissolved	6060	4300	6250	2890	5150	5900	5950	5780	3150	3110	4780	5540	4480	6520	2800	3070	1910
Solids, Suspended	9	8	11	39	72.0	42.5	8.5	11.0	44.0	18.0	40.0	20.0	15	8	<4.0	30.4	14.4
Sulfate	60	84	75	106	92.9	101	128	122	145	116	117	172	181	118	106	140	<100
Sulfide	<2	14.7	15.9	<2	2.0	4.3	<2.0	<2.0	2.4	2.1	3.2	<2.0	4.4	4.8	<2.0	<2.0	<2.0
Total Organic Carbon (TOC)		673	725	290	483	527	567	511	246	194	461	411	365	455	185	146	97.5
Aluminum	0.33	.252	0.33	0.12	0.41	0.38	0.30	0.29	<0.10	<0.10	0.22	0.23	0.22	0.19	<0.10	<0.10	<0.10
Antimony	<0.01	0.0023	<0.0050	<0.005	<0.006	<0.0063	<0.0063	<0.006	<0.006	<0.003	<0.003	<0.003	<0.003	<0.015	<0.015	<0.003	<0.003
Arsenic	0.009	<0.025	0.0019	<0.005	0.046	0.028	0.029	0.036	0.014	0.015	0.028	0.034	0.020	0.033	0.011	0.014	0.0071
Barium	0.299	0.218	0.267	0.253	0.35	0.39	0.37	0.35	0.27	0.44	0.34	0.37	0.36	0.37	0.33	0.31	0.346
Beryllium	<0.0020	<0.0020	<0.020	<0.0020	<0.004	<0.0010	<0.0010	<0.0010	<0.0010								
Cadmium	<0.0020	<0.0020	<0.0050	<0.0050	0.0026	<0.0010	<0.0010	<0.0010	<0.0010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Calcium	56	52	59.1	118	88.7	71.4	68.6	65.8	102	140	68.9	68.0	95.9	64.2	131	140	184
Chromium	0.0529	0.0481	0.0688	0.0231	0.062	0.068	0.077	0.080	0.035	0.021	0.057	0.062	0.06	0.07	0.018	0.018	0.0132
Cobalt	0.0274	0.0221	0.0286	0.0201	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Copper	0.0075	<0.015	0.0222	<0.010	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Iron	5.39	7.3	7.31	17.5	11.9	3.2	1.8	6.9	6.2	7.3	4.8	6.4	1.6	5.2	9.8	6.6	5.04
Lead	0.0212	0.0161	0.0202	0.0104	0.023	0.014	0.018	0.022	0.0067	0.01	0.0085	0.020	0.025	0.01	<0.005	<0.005	<0.005
Magnesium	126	111	145	64.3	115	116	128	118	78.3	98.3	114	140	105	132	96.8	90.6	65.8
Manganese	0.122	0.092	0.095	0.286	0.18	0.12	0.11	0.092	0.23	0.25	0.10	0.093	0.11	0.079	0.18	0.20	0.326
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Nickel	0.140	0.114	0.156	0.126	0.16	0.15	0.16	0.17	0.085	0.062	0.130	0.130	0.14	0.16	0.062	0.052	<0.040
Potassium	647	564	836	259	401	955	628	821	322	301	523	571	560	681	258	262	159
Selenium	<0.050	<0.0250	<0.0050	<0.010	<0.005	<0.0066	<0.0066	<0.0050	<0.0050	<0.005	0.036	0.014	<0.005	<0.025	<0.025	0.0053	<0.005
Silver	<0.005	<0.001	<0.005	<0.0025	<0.003	<0.0030	<0.0030	<0.0030	<0.0030	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Sodium	1400	1170	1640	512	1720	2240	1780	1760	693	642	1100	1240	1070	1410	583	552	334
Thallium	<0.0020	<0.0020	<0.0050	<0.0050	<0.002	<0.0020	<0.0020	<0.0020	<0.0020								
Tin	<2.0	<2.0	<2.0	<2.0	0.094	0.085	0.093	0.11	<0.010	0.021	0.062	0.054	0.097	0.088	0.017	0.010	0.0134
Vanadium	<0.050	<0.050	<0.050	<0.050	<0.05	<0.050	<0.050	<0.050	<0.050								
Zinc	0.181	0.120	0.164	0.0964	0.16	0.088	0.096	0.10	0.052	0.055	0.057	0.070	0.11	0.068	<0.020	<0.020	<0.020

TABLE H-1
PARAMETERS DETECTED IN LEACHATE DURING O & M MONITORING
POWELL ROAD LANDFILL

Parameter	2/17/2000	3/2/2000	3/13/2000	4/10/2000	05/01/00	08/15/00	11/13/00	02/19/01	05/21/01	5/6/02	5/8/03	5/10/04	5/2/05	5/8/06	5/8/07	5/19/08	5/04/09
Detected Volatile Organic Compounds (ug/L)																	
Acetone	1280	3280	861	630	2700	470	<100	1100	470	1400	350	<100	680	380	810	<100	<100
Benzene	<10	10.2	<10	<20	<8	<3	<2	<2	<2	<2	<4	<3	<3	<18	<7	<7	<20
2-Butanone (MEK)	1080	1530	1110	849	3100	730	590	1300	540	1600	470	<29	700	390	1000	<26	<100
Carbon Disulfide	<10	<10	<10	<20	<8	<5	7	<5	<5	<5	<5	<5	<5	<24	<5	<5	<20
Chlorobenzene	<10	16.4	<10	<20	<7	<3	<2	3	<2	4	<4	<2	<2	<16	<6	<6	<20
Chloroethane	<50	<50	<50	<100	<8	<5	<5	<5	<5	6	5	<5	<5	<16	<6	<6	<20
cis-1,2-dichloroethene		24.2	13.7	<20	17	7	<5	<5	<5	7	<5	<5	<5	<18	<7	<7	<20
1,4-Dichlorobenzene	<100	<100	<100	<100	14	6	<2	9	4	18	10	5	8	<18	<7	<7	<20
Ethylbenzene	59.3	127	76.9	38.4	20	7	<2	<2	8	21	11	<3	3	<17	<7	<7	<20
4-Methyl-2-pentanone (MIK)	143	283	130	<250	190	86	120	120	<50	82	51	<50	<50	<120	64	<50	<100
Methylene chloride	<50	<50	<50	<100	75	<5	<5	32	<5	9	<8	4	<4	<22	18	<9	<20
Toluene	103	188	124	77.4	52	14	13	16	14	14	17	<4	18	<17	16	<10	<20
Xylenes	198	463	278	60.0	100	50	39	44	39	120	61	<10	43	<46	44	<19	<60
Vinyl Chloride	<10	<10	<10	<20	<8	<3	<2	<2	<2	3	<4	<6	<6	<12	<5	<5	<20
Detected Semi-Volatile Organic Compounds (ug/L)																	
1,4-Dioxane					76	22	320	210	250	810E, 840D	400	510	200	650	270E, 300D	290E	130
Meta & para-methylphenol	<100	<100	128	<100	<37	<10	<10	<10	<10	10	<32	<32	<40	<20	<10	<10	<9.4
bis (2-ethylhexyl) phthalate	<100	<100	<100	<100	110	29	25	28	13	<10	<65	<68	<27	<26	<10	<10	<10
Detected Herbicides (ug/L)																	
Silvex (2,4,5-TP)	<5.1	<5.0		1.52	0.24J	2.2	1.3	2.9	2.5	<1.0	<1.0	<1.1	<1.0	4.6	<1.0	<1.0	<0.48
2,4-D	<5.1	<50.3		<5.15	2.3	<1	<1	<1	<1.0	<1.0	1.4	1.8	<1.0	<1.0	<1.0	<1.0	<1.0
Detected Pesticides (ug/L)																	
Heptachlor	<0.20	<0.20	<2.0	<0.20	<0.05	<0.05	<0.05	<0.050J	<0.094	<0.05	<0.05	<0.05	0.11	<0.05	0.052	0.082	0.095
Detected PCBs (ug/L)																	
PCB 1242	<0.2	<0.2	<2.0	<0.2	1.2	0.61	0.51	<1.0 J	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	<1.0
RSK Results (ug/L)																	
Ethane												<190	<24	<47	<18	<18	<150
Ethene												<98	<12	<25	<15	<15	<150
Methane												1800	320	460	220	500	570

Note: Samples collected from leachate tank after start-up of leachate extraction system.

J = estimated value

APPENDIX I.

WELLFIELD MONITORING DATA

American Environmental Group Ltd.

Wellfield Monitoring Data

Technician: Max Collins
Date: 1/22/2009
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 32°F
Barometric Press.: 30.02"

ID	Date/Time	CH4	CO2	O2	Balance	Static Press.	Temp.	Comments
POWLBLIN	1/22/09 8:30	38.3	28.4	1	32.3	-22.8	43	
POWLBLOT	1/22/09 8:33	35.9	26.8	1.8	35.5	3.1	88	
POWL0001	1/22/09 12:32	17.9	28	0	54.1	-5.7	56	
POWL0001	1/22/09 12:36	17.6	27.5	0	54.9	-5.2	55	Dec. Flow/Vac.
POWL0002	1/22/09 12:20	50.5	31.9	0	17.6	-9.9	58	
POWL0002	1/22/09 12:28	59.1	34.3	0	6.6	-7.5	56	No Adj. Made
POWL0003	1/22/09 11:27	38.2	32.7	0	29.09	-5.8	57	
POWL0003	1/22/09 11:29	38.2	32.3	0	29.5	-5.6	57	Dec. Flow/Vac.
POWL0004	1/22/09 11:22	0	0.4	20.8	78.8	-1.2	45	
POWL0004	1/22/09 11:23	0	0.3	20.8	78.89	-1.2	46	Dec. Flow/Vac.
POWL0005	1/22/09 11:14	43.8	36.1	2.3	17.8	-1.1	42	
POWL0005	1/22/09 11:16	43.3	35.8	2.2	18.7	-1.1	44	Dec. Flow/Vac.
POWL0006	1/22/09 11:09	51.4	35.8	0	12.79	-3.1	50	
POWL0006	1/22/09 11:11	51.9	35.9	0	12.19	-3.2	51	No Adj. Made
POWL0007	1/22/09 11:02	41.1	33.2	0	25.7	-3.4	43	
POWL0007	1/22/09 11:05	40.3	32.8	0	26.9	-3.4	42	No Adj. Made
POWL0008	1/22/09 10:57	20.5	26	0.4	53.1	-0.7	44	
POWL0008	1/22/09 10:59	20.7	26.3	0.2	52.8	-0.8	43	Dec. Flow/Vac.
POWL0009	1/22/09 11:47	47.9	32.1	0.7	19.29	-3.1	51	
POWL0009	1/22/09 11:49	48.3	32.3	0.3	19.1	-2.8	51	Dec. Flow/Vac.
POWL0010	1/22/09 11:57	14.7	12.8	20.5	52	-0.5	46	
POWL0010	1/22/09 12:00	22	19	7.5	51.5	-0.8	42	Inc. Flow/Vac.
POWL0011	1/22/09 13:11	26.5	27.9	0	45.6	-3.3	58	
POWL0011	1/22/09 13:13	25.5	28.1	0	46.4	-3	58	Dec. Flow/Vac.
POWL0012	1/22/09 13:01	0.1	0.5	20.5	78.9	0	46	
POWL0012	1/22/09 13:06	13	19	3.8	64.19	-1.7	49	Inc. Flow/Vac.
POWL0013	1/22/09 13:29	40.7	30	0.5	28.8	-3.2	52	
POWL0013	1/22/09 13:32	40.5	29.5	0.4	29.6	-3.2	50	Dec. Flow/Vac.
POWL0014	1/22/09 13:35	1.5	1.9	19.2	77.39	-1	48	
POWL0014	1/22/09 13:38	1.3	1.7	19.4	77.6	-0.3	51	Dec. Flow/Vac.
POWL0015	1/22/09 13:44	56.1	28.9	0	15	-2.5	58	
POWL0015	1/22/09 13:46	55.6	29.2	0	15.2	-2.6	58	No Adj. Made
POWL0016	1/22/09 13:56	2.3	20.2	0	77.5	-0.1	56	
POWL0016	1/22/09 13:58	2.1	20.2	0	77.69	-0.2	57	No Adj. Made
POWL0017	1/22/09 13:51	30	25.5	1.7	42.8	-1.4	50	
POWL0017	1/22/09 13:52	30.3	25.9	1.3	42.49	-1.3	50	No Adj. Made
POWL0018	1/22/09 12:40	27.7	27.7	0	44.6	-18	60	
POWL0018	1/22/09 12:43	27.6	27.4	0	45	-17.1	60	Dec. Flow/Vac.
POWL0019	1/22/09 13:22	70.5	21.6	1.8	6.09	-23.5	50	
POWL0019	1/22/09 13:25	67.2	21.1	2.3	9.4	-22	50	Inc. Flow/Vac.
POWL0020	1/22/09 12:49	52.9	17.9	5.7	23.5	-0.3	48	
POWL0020	1/22/09 12:51	56.3	19	4.7	20	-1	48	No Adj. Made
POWL0021	1/22/09 12:55	27.4	20.3	4.1	48.2	-9.7	46	
POWL0021	1/22/09 12:57	29.1	21.9	2.7	46.3	-9.6	45	Dec. Flow/Vac.
POWL0022	1/22/09 13:17	34.1	21.6	0.2	44.1	-13.7	54	
POWL0022	1/22/09 13:19	33.3	21.7	0	44.99	-13.2	54	Dec. Flow/Vac.
POWL0023	1/22/09 12:04	64.1	30.2	0.5	5.2	-21.1	53	
POWL0023	1/22/09 12:07	65.2	30.4	0.4	4	-21.5	53	No Adj. Made
POWL0024	1/22/09 11:39	0	0.4	20.8	78.8	-5.5	44	
POWL0024	1/22/09 11:44	0	0.3	20.9	78.79	-6.3	44	Inc. Flow/Vac.
POWL0025	1/22/09 11:32	50.9	24.6	4.8	19.69	-20.1	44	
POWL0025	1/22/09 11:35	51.4	25.2	4.6	18.79	-20.3	45	Dec. Flow/Vac.
POWL0026	1/22/09 12:11	66	32.5	0.4	1.1	-19.4	51	
POWL0026	1/22/09 14:52	61	31.4	1.5	6.1	-17.6	54	Inc. Flow/Vac.
POWLBLIN	1/22/09 14:06	35	27.1	1	36.9	-23.4	47	
POWLBLOT	1/22/09 14:10	33.8	26.3	1.8	38.09	2.9	100	

Comments: Eastside sump not working upon initial inspection. Technician pulled, disassembled and cleaned pump before replacing it. As a result much of the header was filled with fluid thereby giving readings that are not consistent with historical data.

American Environmental Group Ltd.

Wellfield Monitoring Data

Technician: Max Collins
Date: 2/5/2009
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 14°F
Barometric Press.: 30.47"

ID	Date/Time	CH4	CO2	O2	Balance	Static Press.	Temp.	Comments
POWLBLIN	2/5/09 9:02	28.3	24.8	2.2	44.69	-23.8	42	
POWLBLOT	2/5/09 9:06	27.6	24.4	2.3	45.7	3.1	88	
POWL0001	2/5/09 11:33	18	23.5	3.1	55.4	-2.9	50	
POWL0001	2/5/09 11:37	18.5	24.1	2.4	55	-2.3	41	Dec. Flow/Vac.
POWL0002	2/5/09 11:42	49	28.6	3.2	19.19	-1.5	40	
POWL0002	2/5/09 11:46	38.9	23.8	6.4	30.9	-1.1	35	
POWL0003	2/5/09 12:57	47.3	32.3	0	20.4	-3.1	58	
POWL0003	2/5/09 12:59	48.1	32.7	0	19.2	-2.5	57	Dec. Flow/Vac.
POWL0004	2/5/09 13:05	0	0.5	20	79.5	0	37	
POWL0004	2/5/09 13:10	0.4	7.6	13.2	78.8	-1.3	42	Inc. Flow/Vac.
POWL0005	2/5/09 13:13	52.4	41.9	0	5.69	0	34	
POWL0005	2/5/09 13:16	52.4	42.6	0	5	-1	43	Inc. Flow/Vac.
POWL0006	2/5/09 13:19	63.9	33.6	0	2.5	-0.6	32	
POWL0006	2/5/09 13:22	56.1	37.8	0	6.1	-3.6	46	Inc. Flow/Vac.
POWL0007	2/5/09 13:25	37.5	32.6	0	29.9	-3.5	33	
POWL0007	2/5/09 13:27	38	32.4	0	29.59	-3.4	34	Dec. Flow/Vac.
POWL0008	2/5/09 13:30	13.6	22.7	2.4	61.3	-0.6	35	
POWL0008	2/5/09 13:32	14.1	23.4	1.6	60.9	-0.5	35	Dec. Flow/Vac.
POWL0009	2/5/09 12:26	43.5	32.4	0	24.09	-3.4	47	
POWL0009	2/5/09 12:29	43.1	32.3	0	24.6	-2.9	46	Dec. Flow/Vac.
POWL0010	2/5/09 12:19	24.6	27.8	0.5	47.1	-0.2	37	
POWL0010	2/5/09 12:23	21.1	27.8	0	51.1	-0.5	43	Inc. Flow/Vac.
POWL0011	2/5/09 11:05	20.8	24.2	2.7	52.29	-2.9	56	
POWL0011	2/5/09 11:09	18.3	23.6	1.9	56.19	-2.6	46	
POWL0012	2/5/09 10:58	31.4	25.6	2.6	40.4	-1.9	45	
POWL0012	2/5/09 11:01	29.7	24.9	3.1	42.3	-1.5	42	Dec. Flow/Vac.
POWL0013	2/5/09 9:46	36.4	27.9	1.8	33.89	-2.8	25	
POWL0013	2/5/09 9:50	36.6	27.8	1.2	34.4	-2.9	23	Dec. Flow/Vac.
POWL0014	2/5/09 9:57	4.7	3.6	17.9	73.8	-5	22	
POWL0014	2/5/09 10:01	7	4.9	17.1	71	-2.9	17	Dec. Flow/Vac.
POWL0015	2/5/09 10:06	20.9	19.4	4.1	55.6	-7.3	57	
POWL0015	2/5/09 10:10	25.1	23.4	0	51.5	-5.3	50	Dec. Flow/Vac.
POWL0016	2/5/09 10:13	0	18.1	1.9	80	-0.1	34	
POWL0016	2/5/09 10:15	0	18.5	1.4	80.1	-0.2	35	No Adj. Made
POWL0017	2/5/09 10:23	9.1	17.7	5.5	67.69	-1.5	30	
POWL0017	2/5/09 10:26	9.7	18.6	4.7	67	-1.3	30	Dec. Flow/Vac.
POWL0018	2/5/09 11:27	19.9	20.7	5.6	53.8	-18	59	
POWL0018	2/5/09 11:30	22.4	22.6	3.8	51.2	-7.7	56	Dec. Flow/Vac.
POWL0019	2/5/09 11:19	0	0.4	19.8	79.8	-27.8	43	
POWL0019	2/5/09 11:23	43.5	15.7	6.7	34.09	-9.3	36	Dec. Flow/Vac.
POWL0020	2/5/09 10:31	25.6	11	12.4	51	-25.9	31	
POWL0020	2/5/09 10:37	28.5	12.7	10.8	48	-19.7	30	Dec. Flow/Vac.
POWL0021	2/5/09 10:42	14.9	16.2	7.4	61.49	-8.6	31	
POWL0021	2/5/09 10:52	8.3	10	12.2	69.5	-1.4	30	Dec. Flow/Vac.
POWL0022	2/5/09 11:13	20.3	18	4	57.69	-2.3	37	
POWL0022	2/5/09 11:15	8.6	8.6	12.3	70.5	-2.7	38	Dec. Flow/Vac.
POWL0023	2/5/09 12:11	64.5	29.1	0.5	5.89	-31.9	52	
POWL0023	2/5/09 12:15	65.5	29.1	0	5.39	-32	52	No Adj. Made
POWL0024	2/5/09 12:34	54.1	24.9	3.2	17.8	-1.4	33	
POWL0024	2/5/09 12:36	54.3	25.4	2.6	17.7	-1.4	33	No Adj. Made
POWL0025	2/5/09 12:43	65.9	27.7	1.8	4.59	-32.6	38	
POWL0025	2/5/09 12:44	68	28.5	0.6	2.9	-32.5	37	No Adj. Made
POWL0026	2/5/09 12:50	54.3	27.8	3	14.9	-10.8	44	
POWL0026	2/5/09 12:54	56.4	28.1	2.6	12.89	-10.7	44	Dec. Flow/Vac.
POWLBLIN	2/5/09 13:36	34.7	28.5	0.9	35.9	-30.2	44	
POWLBLOT	2/5/09 13:47	32.7	26.9	1.7	38.7	2.2	97	

Comments: No additional comments.

American Environmental Group Ltd.

Wellfield Monitoring Data

Technician: Max Collins
Date: 3/11/2009
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 50° F
Barometric Press.: 30.07"

ID	Date/Time	CH4	CO2	O2	Balance	Static Press.	Temp.	Comments
POWLBLIN	3/11/09 9:14	36.5	26	1.6	35.9	-28.8	43	No comment.
POWLBLOT	3/11/09 9:18	34.7	24.9	2.8	37.6	2.6	91	No comment.
POWL0001	3/11/09 10:43	22.2	11.4	11.3	55.1	-1.4	37	Dec. Flow/Vac.
POWL0002	3/11/09 10:47	65.6	34.2	0	0.2	-2.2	39	Inc. Flow/Vac.
POWL0003	3/11/09 11:17	58.6	33.6	0	7.8	-4.2	54	Inc. Flow/Vac.
POWL0004	3/11/09 11:21	0.4	5	15.1	79.5	-2	41	Dec. Flow/Vac.
POWL0005	3/11/09 11:25	54.6	37.2	0	8.2	-5.6	51	Inc. Flow/Vac.
POWL0006	3/11/09 11:29	42.8	32	0	25.2	-7.3	54	Dec. Flow/Vac.
POWL0007	3/11/09 11:32	30.7	29.9	0.2	39.2	-6	43	Dec. Flow/Vac.
POWL0008	3/11/09 11:35	1.1	3.6	17.5	77.8	-1.3	42	Dec. Flow/Vac.
POWL0009	3/11/09 11:07	34.3	29.4	0.4	35.89	-2.5	48	Dec. Flow/Vac.
POWL0010	3/11/09 11:04	15.5	22	3.1	59.4	-0.9	37	Dec. Flow/Vac.
POWL0011	3/11/09 10:25	25.4	26.4	0	48.19	-3.1	40	Dec. Flow/Vac.
POWL0012	3/11/09 10:21	18.6	19.8	3.1	58.5	-1.7	40	Dec. Flow/Vac.
POWL0013	3/11/09 9:52	37.8	27.3	0.9	34	-6.1	38	Dec. Flow/Vac.
POWL0014	3/11/09 9:56	1.3	2.8	18.8	77.09	-2.9	40	Dec. Flow/Vac.
POWL0015	3/11/09 9:59	43.6	25.5	0	30.9	-2.1	48	Dec. Flow/Vac.
POWL0016	3/11/09 10:02	3.2	6.3	13.7	76.8	-0.2	40	No Adj. Made
POWL0017	3/11/09 10:06	5.1	7	13.4	74.5	-0.8	40	Dec. Flow/Vac.
POWL0018	3/11/09 10:40	62.3	31.1	0	6.6	-6.2	53	Inc. Flow/Vac.
POWL0019	3/11/09 10:33	42.5	9.6	9.1	38.8	-3.9	40	Dec. Flow/Vac.
POWL0020	3/11/09 10:13	63.5	21.2	2.7	12.6	-13.8	42	Inc. Flow/Vac.
POWL0021	3/11/09 10:17	6.5	5.6	14.7	73.2	-3.3	40	Dec. Flow/Vac.
POWL0022	3/11/09 10:28	35.4	21.8	0	42.8	-8.2	51	Dec. Flow/Vac.
POWL0023	3/11/09 10:54	62.4	27.6	0.2	9.79	-29.9	54	Fully Open
POWL0024	3/11/09 11:10	33.8	17.1	9	40.09	-8.2	38	Dec. Flow/Vac.
POWL0025	3/11/09 11:14	69	27.2	1.3	2.49	-30.4	42	Inc. Flow/Vac.
POWL0026	3/11/09 10:51	59.7	26.6	3.4	10.29	-9.4	41	Dec. Flow/Vac.
POWLBLIN	3/11/09 11:43	37.5	26.8	1.1	34.6	-31.6	46	No comment.
POWLBLOT	3/11/09 11:47	34.9	27.1	1.5	36.5	2.1	99	No comment.

Comments: No additional comments.

American Environmental Group Ltd.

Wellfield Monitoring Data

Technician: Max Collins
Date: 4/29/2009
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 44° F
Barometric Press.: 29.99"

ID	Date/Time	CH4	CO2	O2	Balance	Static Press.	Temp.	Comments
POWLBLIN	4/29/2009 10:19	38.2	26	1.7	34.09	-30.6	49	No Comment
POWLBLOT	4/29/2009 10:22	36.1	25.1	2.5	36.3	2.3	93	No Comment
G/L 13	4/29/2009 10:49	39.1	28.1	0.2	32.6	-5.3	55	Dec Flow Vacuum
G/L 14	4/29/2009 10:52	2	3.2	18.3	76.5	-2.2	53	Dec Flow Vacuum
G/L 15	4/29/2009 10:57	67.8	31.8	0.1	0.29	-0.6	55	Inc Flow Vacuum
G/L 16	4/29/2009 11:02	38	24.1	0	37.9	-0.1	63	Inc Flow Vacuum
G/L 17	4/29/2009 11:07	40.9	25.3	3.9	29.9	-0.2	55	No Change made in Valve Position
G/L 20	4/29/2009 11:11	72.1	27.3	0.5	0.1	-25.1	53	Inc Flow Vacuum
G/L 21	4/29/2009 11:15	23.1	12.2	9	55.7	-6.1	57	Dec Flow Vacuum
G/L 12	4/29/2009 11:19	0	1.4	20.1	78.5	-0.2	58	No Change made in Valve Position
G/L 11	4/29/2009 11:22	27.2	26.3	0	46.5	-2.1	57	Fully Closed
G/L 22	4/29/2009 11:25	51.1	22.2	0.1	26.6	-4.4	57	Dec Flow Vacuum
G/L 19	4/29/2009 11:29	38.2	7.6	10.3	43.9	-1	57	Inc Flow Vacuum
G/L 18	4/29/2009 11:32	58.1	30.2	0	11.7	-6.3	58	Inc Flow Vacuum
G/L 01	4/29/2009 11:38	6.2	4.3	17	72.5	-0.2	51	No Change made in Valve Position
G/L 02	4/29/2009 11:42	61.2	32	1	5.79	-0.3	57	Inc Flow Vacuum
G/L 26	4/29/2009 11:45	48.5	22	2.9	26.6	-0.8	54	Dec Flow Vacuum
G/L 23	4/29/2009 11:49	60	26.2	0.3	13.49	-25.7	61	Inc Flow Vacuum
G/L 10	4/29/2009 11:52	0	1.1	20.3	78.6	-0.2	54	No Change made in Valve Position
G/L 09	4/29/2009 11:56	43.5	29.5	0.9	26.1	-0.8	57	Dec Flow Vacuum
G/L 24	4/29/2009 11:59	38.5	18.8	7.9	34.8	-5.5	56	Fully Closed
G/L 25	4/29/2009 12:04	61.3	26.3	2.4	10	-24.9	56	Dec Flow Vacuum
G/L 03	4/29/2009 12:07	56.5	33.1	0	10.4	-2.9	62	Inc Flow Vacuum
G/L 04	4/29/2009 12:11	0	1.9	20	78.1	-0.2	58	Inc Flow Vacuum
G/L 05	4/29/2009 12:14	50	34.6	0	15.4	-2.7	59	Dec Flow Vacuum
G/L 06	4/29/2009 12:17	43.2	32	0	24.8	-2.7	57	Dec Flow Vacuum
G/L 07	4/29/2009 12:20	32.8	29.6	0.2	37.39	-3.6	58	Fully Closed
G/L 08	4/29/2009 12:23	5.6	8.8	12.1	73.5	-0.6	58	Fully Closed
POWLBLIN	4/29/2009 12:32	38.6	25.8	1.6	34	-27.3	51	No Comment
POWLBLOT	4/29/2009 12:35	37	25.5	2.2	35.3	2.8	107	No Comment

Comments: No additional comments.

American Environmental Group Ltd.

Wellfield Monitoring Data

Technician: Max Collins
Date: 5/20/2009
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 64°
Barometric Press.: 30.29"

ID	Date/Time	CH4	CO2	O2	Balance	Init. Static Press.	Adj. Static Press.	Init. Temp.	Adj. Temp.	Comments
POWLBLIN	5/20/2009 11:46	35.9	25.5	1.9	36.69	-27.7	-27.7	61	61	No Comments
POWLBLOT	5/20/2009 11:49	33.7	24.4	2.7	39.2	2.5	2.4	125	125	No Comments
G/L 01	5/20/2009 13:10	1.4	1.5	20.1	77	-0.4	-0.4	85	86	Barely Open
G/L 02	5/20/2009 13:13	62	32	0.7	5.3	-0.7	-1.1	79	76	Inc Flow Vacuum
G/L 03	5/20/2009 13:47	56.2	31.5	0.5	11.79	-3.4	-3.7	70	70	Inc Flow Vacuum
G/L 04	5/20/2009 13:51	10.7	14.5	6.8	68	-1.4	-1.3	85	85	Dec Flow Vacuum
G/L 05	5/20/2009 13:54	52.9	35.7	0.4	10.99	-1	-1.2	83	81	Inc Flow Vacuum
G/L 06	5/20/2009 13:57	65.1	34.4	0.4	0.09	-0.9	-1.2	88	88	Inc Flow Vacuum
G/L 07	5/20/2009 14:00	40	29.7	0.5	29.8	-3.1	-3.1	87	87	Fully Closed
G/L 08	5/20/2009 14:03	4.7	5.6	15.4	74.3	-0.5	-0.5	87	87	Fully Closed
G/L 09	5/20/2009 13:34	30.4	18.5	6.8	44.3	-0.1	-0.1	85	85	Barely Open
G/L 10	5/20/2009 13:30	0.4	0.9	20.6	78.1	0	-0.2	85	86	Barely Open
G/L 11	5/20/2009 12:53	29.6	26.1	0.4	43.9	-2.4	-2.3	87	87	Fully Closed
G/L 12	5/20/2009 12:49	0	0.6	20.7	78.69	-0.2	-0.2	87	87	Barely Open
G/L 13	5/20/2009 12:24	37.9	27.7	0.8	33.59	-5.3	-5.3	87	87	Fully Closed
G/L 14	5/20/2009 12:28	2.6	3.2	17.4	76.8	-0.8	-0.7	86	87	Dec Flow Vacuum
G/L 15	5/20/2009 12:31	44.7	26.8	0.2	28.3	-2.1	-1.9	67	68	Dec Flow Vacuum
G/L 16	5/20/2009 12:34	2.7	16.1	3.3	77.9	-0.4	-0.4	85	85	Barely Open
G/L 17	5/20/2009 12:37	38.1	27.6	1.1	33.2	-1	-0.9	83	84	Dec Flow Vacuum
G/L 18	5/20/2009 13:05	49.3	29.2	0.5	21	-7.1	-6.6	65	65	Dec Flow Vacuum
G/L 19	5/20/2009 13:00	40.2	7	10.4	42.4	-1.2	-1.8	86	86	Inc Flow Vacuum
G/L 20	5/20/2009 12:41	65.3	25.3	1.9	7.49	-24.4	-25.3	86	85	Inc Flow Vacuum
G/L 21	5/20/2009 12:46	11.2	9.9	11.1	67.8	-10	-11.1	86	86	Fully Closed
G/L 22	5/20/2009 12:57	50.1	20.6	0.8	28.5	-3.8	-3.6	80	79	Dec Flow Vacuum
G/L 23	5/20/2009 13:26	63.8	24.7	1.5	10	-26.9	-26.9	73	73	Inc Flow Vacuum
G/L 24	5/20/2009 13:37	37.2	18.1	8.9	35.79	-5.5	-5.4	86	86	Fully Closed
G/L 25	5/20/2009 13:42	61.6	25	2.8	10.6	-25.2	-25.1	81	81	Inc Flow Vacuum
G/L 26	5/20/2009 13:18	0	0.8	20.9	78.29	6.7	-1	83	85	Barely Open
POWLBLIN	5/20/2009 14:25	36.4	24.7	2.2	36.69	-27.1	-27.1	62	62	No Comments
POWLBLOT	5/20/2009 14:29	35	24.3	2.8	37.9	2.9	2.8	127	127	No Comments

Comments: No additional comments.

American Environmental Group Ltd.

Wellfield Monitoring Data

Technician: Max Collins
Date: 6/8/2009
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 73°
Barometric Press.: 29.93"

ID	Date/Time	CH4	CO2	O2	Balance	Static Press.	Temp.	Comments
POWLBLIN	6/8/2009 11:14	37.4	25.7	2	34.89	-31.2	59	No Comments
POWLBLOT	6/8/2009 11:16	35.6	24.9	2.6	36.9	2.7	119	No Comments
G/L 01	6/8/2009 12:32	6.3	4.7	17.1	71.9	-0.6	76	No Comments
G/L 02	6/8/2009 12:35	65	33.6	0	1.4	-4.3	66	No Comments
G/L 03	6/8/2009 13:02	50.1	32.5	0	17.4	-4.8	68	No Comments
G/L 04	6/8/2009 13:06	0	0.7	20.6	78.7	-0.5	77	No Comments
G/L 05	6/8/2009 13:25	0.3	1.5	19.8	78.39	-1.1	75	No Comments
G/L 06	6/8/2009 13:28	53.5	34.2	0	12.29	-2.2	72	No Comments
G/L 07	6/8/2009 13:31	40.4	32.3	0	27.3	-3.4	83	No Comments
G/L 08	6/8/2009 13:34	2.8	3.6	17.6	76	-0.5	83	No Comments
G/L 09	6/8/2009 12:50	41.4	22.7	4.8	31.09	-0.4	75	No Comments
G/L 10	6/8/2009 12:46	37.9	25	3.1	34	-0.2	76	No Comments
G/L 11	6/8/2009 12:18	32.5	27.8	0	39.7	-2.2	77	No Comments
G/L 12	6/8/2009 12:15	0	0.7	20.6	78.7	-0.2	77	No Comments
G/L 13	6/8/2009 11:49	37.4	27.4	0.7	34.49	-4.6	78	No Comments
G/L 14	6/8/2009 11:54	2.7	3.1	17.4	76.8	-0.2	77	No Comments
G/L 15	6/8/2009 11:57	47.1	28.3	0	24.6	-1.1	67	No Comments
G/L 16	6/8/2009 12:00	2.5	16.6	2.4	78.5	-0.2	91	No Comments
G/L 17	6/8/2009 12:03	51.1	29.3	2.1	17.5	-0.5	73	No Comments
G/L 18	6/8/2009 12:29	50.3	30.4	0	19.3	-5.8	63	No Comments
G/L 19	6/8/2009 12:25	50	11.6	7.3	31.1	-4.7	77	No Comments
G/L 20	6/8/2009 12:07	69.9	27.1	0.9	2.09	-26.2	76	No Comments
G/L 21	6/8/2009 12:11	19.6	12.6	9	58.8	-11.5	76	No Comments
G/L 22	6/8/2009 12:22	52.6	21.1	0.5	25.8	-3.4	71	No Comments
G/L 23	6/8/2009 12:43	64.1	26.7	0.5	8.7	-26.4	69	No Comments
G/L 24	6/8/2009 12:55	42.2	20.3	7.2	30.3	-5.9	76	No Comments
G/L 25	6/8/2009 12:58	55.2	25.2	3.4	16.19	-24.5	72	No Comments
G/L 26	6/8/2009 12:40	66.9	28.4	0.7	3.99	-11.4	73	No Comments
POWLBLIN	6/8/2009 13:41	36.1	25.7	2.1	36.1	-28	62	No Comments
POWLBLOT	6/8/2009 13:44	35.5	25.3	2.4	36.8	2.3	123	No Comments

Comments: No additional comments.

American Environmental Group Ltd.

Wellfield Monitoring Data

Technician: Max Collins
Date: 7/29/2009
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 73° F
Barometric Press.: 29.77" Hg

ID	Date/Time	CH4	CO2	O2	Balance	Static Press.	Temp.	Comments
POWLBLIN	7/29/2009 12:06	34.1	27.2	1.1	37.6	-37.2	66	No comments
POWLBLOT	7/29/2009 12:08	32.9	27.6	1.4	38.09	3.5	115	No comments
G/L 01	7/29/2009 15:02	70.2	26.1	0.9	2.8	-0.2	86	Inc Flow Vacuum...
G/L 02	7/29/2009 15:05	62.6	37.3	0	0.1	-0.3	83	Inc Flow Vac/Positive Press.
G/L 03	7/29/2009 15:29	64.2	35.7	0	0.1	-1.3	79	Inc Flow Vacuum
G/L 04	7/29/2009 15:32	48	23.1	2.3	26.6	-0.1	90	Fully Closed/No Change...
G/L 05	7/29/2009 15:36	59.6	40.3	0	0.1	-2.4	86	Inc Flow Vacuum
G/L 06	7/29/2009 15:38	58.8	36.4	0	4.79	-3.3	83	Inc Flow Vacuum
G/L 07	7/29/2009 15:41	34.4	30.4	0.6	34.59	-5.2	92	Fully Closed/No Change...
G/L 08	7/29/2009 15:44	0.6	1.3	17.8	80.3	-1.2	91	Fully Closed/No Change...
G/L 09	7/29/2009 15:19	16.4	25.1	0	58.5	-14.5	68	Dec Flow Vacuum
G/L 10	7/29/2009 15:16	0	0.2	19.2	80.6	-1.2	88	Dec Flow Vac/Fully Closed...
G/L 11	7/29/2009 14:49	23.4	24.9	0.2	51.49	-3.2	88	Dec Flow Vacuum...
G/L 12	7/29/2009 14:47	8.7	5.4	15.2	70.7	-0.5	88	Dec Flow/Vacuum...
G/L 13	7/29/2009 14:01	40.5	28	0.8	30.7	-5.3	87	Fully Closed/No Change...
G/L 14	7/29/2009 14:05	0.7	0.7	18.7	79.9	-1.7	87	Fully Closed/No Change...
G/L 15	7/29/2009 14:08	62.9	37	0	0.09	-0.2	82	Inc Flow Vac/Positive Press.
G/L 16	7/29/2009 15:53	14.6	15.9	0	69.5	-0.2	84	Inc Flow Vac/Positive Press.
G/L 17	7/29/2009 14:36	61.1	34.4	0.8	3.7	-0.6	88	Inc Flow Vac/Positive Press.
G/L 18	7/29/2009 14:59	62.2	32.7	0	5.09	-7.7	67	Inc Flow Vacuum...
G/L 19	7/29/2009 14:56	83.1	16	0.6	0.3	-8.3	88	Inc Flow Vacuum...
G/L 20	7/29/2009 14:41	71.4	28.4	0.1	0.09	-36	88	Inc Flow Vac/Barely Open.
G/L 21	7/29/2009 14:43	46.5	21.2	3.7	28.59	-11.9	90	Fully Closed/No Change...
G/L 22	7/29/2009 14:52	66.8	16	2.9	14.29	-1.3	88	Dec Flow Vacuum...
G/L 23	7/29/2009 15:11	66.9	30	0.2	2.89	-35.3	79	Fully Open/No Change...
G/L 24	7/29/2009 15:23	22.7	11.2	12.2	53.9	-9.4	91	Fully Closed/No Change...
G/L 25	7/29/2009 15:26	65.2	25.2	2.3	7.3	-25	87	Inc Flow Vacuum...
G/L 26	7/29/2009 15:08	66.5	33.4	0	0.09	-14.6	86	Inc Flow Vacuum
OWLBLIN	7/29/2009 16:07	33.4	26.7	1.2	38.69	-36.2	68	No comments
OWLBLOT	7/29/2009 16:09	35.2	26.3	1	37.5	4.1	124	No comments

Comments: No additional comments.

American Environmental Group Ltd.

Wellfield Monitoring Data

Technician: Max Collins
Date: 8/14/2009
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 72° F
Barometric Press.: 30.15" Hg

ID	Date/Time	CH4	CO2	O2	Balance	Static Press.	Temp.	Comments
POWLBLIN	8/14/2009 11:44	34.4	25.9	1	38.69	-37	70	No Comments
OWLBLOT	8/14/2009 11:46	33.2	26.8	1.1	38.9	3.7	121	No Comments
G/L 01	8/14/2009 13:15	31.9	17.8	7.2	43.1	-0.6	94	Barely Open/Dec Flow/Vac...
G/L 02	8/14/2009 13:19	65.7	34.2	0	0.1	-3.5	75	Inc Flow Vacuum
G/L 03	8/14/2009 13:49	57.2	33.3	0.6	8.89	-2.1	81	Inc Flow Vacuum...
G/L 04	8/14/2009 13:54	0.1	0.3	20.5	79.1	-0.2	94	Barely Open/Inc Flow/Vac...
G/L 05	8/14/2009 13:56	54	37.4	0	8.59	-2.9	83	No Change made in Valve
G/L 06	8/14/2009 14:00	49.1	34.3	0	16.6	-3.7	79	Dec Flow Vacuum...
G/L 07	8/14/2009 14:03	31.2	28.6	0.9	39.3	-4.7	94	Fully Closed/No Change Made
G/L 08	8/14/2009 14:06	4.6	16.7	3.7	75	-1	94	Fully Closed/No Change Made
G/L 09	8/14/2009 13:37	18.9	25.2	0	55.9	-10.6	67	Dec Flow Vacuum
G/L 10	8/14/2009 13:34	0.1	0.1	20.4	79.4	-0.6	96	Fully Closed/No Change Made
G/L 11	8/14/2009 12:55	25.8	25.6	0.2	48.4	-3	96	Fully Closed/No Change Made
G/L 12	8/14/2009 12:52	0.7	0.5	20.2	78.6	-0.2	95	Barely Open/No Change Made
G/L 13	8/14/2009 12:14	33.8	25.8	2.2	38.19	-4.1	93	Fully Closed/No Change Made
G/L 14	8/14/2009 12:17	2.3	2.2	17.6	77.9	-1.5	93	Fully Closed/No Change Made
G/L 15	8/14/2009 12:20	57.1	31.8	0	11.1	-1.6	74	Inc Flow Vacuum...
G/L 16	8/14/2009 12:23	6.3	18.1	1.2	74.4	-0.3	86	Dec Flow Vacuum...
G/L 17	8/14/2009 12:26	51.3	30.3	1.4	17	-0.9	84	Dec Flow Vacuum...
G/L 18	8/14/2009 13:07	52.7	31.6	0	15.69	-7.7	68	Dec Flow Vacuum...
G/L 19	8/14/2009 13:03	45.9	8.4	8.4	37.29	-4.4	94	Dec Flow Vacuum...
G/L 20	8/14/2009 12:43	64.4	23.8	1.8	9.99	-35.7	89	No Change made in Valve
G/L 21	8/14/2009 12:49	33.1	16.9	6.1	43.9	-15.5	95	Fully Closed/No Change Made
G/L 22	8/14/2009 12:59	0	0.3	20.5	79.19	-0.9	84	Barely Open/Inc Flow/Vac...
G/L 23	8/14/2009 13:26	61	27.2	1.1	10.69	-33.3	90	Inc Flow Vacuum...
G/L 24	8/14/2009 13:42	0.1	0.3	20.3	79.3	-3.9	82	Barely Open/Inc Flow/Vac...
G/L 25	8/14/2009 13:46	60.2	24.2	3.5	12.09	-19.5	92	Dec Flow Vacuum...
G/L 26	8/14/2009 13:23	55.9	28.4	3.1	12.59	-6.3	91	Dec Flow Vacuum/Surging...
WLBLIN	8/14/2009 14:26	33.7	25.2	1.7	39.4	-36.6	71	No Comments
WLBLOT	8/14/2009 14:28	33.1	25.6	1.8	39.5	3.8	125	No Comments

mments: No additional comments.

American Environmental Group Ltd.

Wellfield Monitoring Data

Technician: Max Collins
Date: 9/17/2009
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 63° F
Barometric Press.: 30.15" Hg

ID	Date/Time	CH4	CO2	O2	Balance	Static Press.	Temp.	Comments
POWLBLIN	9/17/2009 11:55	34	27.8	0.9	37.3	-36.7	67	No Comments
POWLBLOT	9/17/2009 11:58	33	27.7	1.3	38	3.9	115	No Comments
G/L 13	9/17/2009 12:22	37.5	28.5	1.4	32.59	-4.1	82	Fully Closed/No Change
G/L 14	9/17/2009 12:25	3.1	2.8	17.6	76.5	-1	81	Fully Closed/No Change
G/L 15	9/17/2009 12:28	41	29.8	0	29.2	-2.1	71	Dec Flow Vacuum
G/L 16	9/17/2009 12:31	3.2	18.2	0.9	77.7	-0.2	83	Barely Open/No Change
G/L 17	9/17/2009 12:35	44.7	32.5	1	21.8	-0.8	80	Dec Flow Vacuum
G/L 20	9/17/2009 12:41	71.3	26.7	0.6	1.39	-35.6	80	Inc Flow Vacuum
G/L 21	9/17/2009 12:45	25.8	18.6	5.3	50.3	-16.2	82	Fully Closed/No Change
G/L 12	9/17/2009 12:48	2	1.3	19.9	76.79	-0.2	82	Barely Open/No Change
G/L 11	9/17/2009 12:50	25.8	26.3	0	47.9	-2.8	81	Fully Closed/No Change
G/L 22	9/17/2009 12:54	54.7	19.8	0.2	25.3	-10	78	Dec Flow Vacuum
G/L 19	9/17/2009 13:01	53	9.2	6.7	31.09	-7.1	83	Dec Flow Vacuum
G/L 18	9/17/2009 13:04	50.2	32.3	0	17.5	-6.4	67	Dec Flow Vacuum
G/L 01	9/17/2009 13:07	1.3	0.9	20.3	77.5	-0.5	81	Dec Flow Vacuum
G/L 02	9/17/2009 13:10	63.4	35.7	0	0.89	-5.7	69	Inc Flow Vacuum
G/L 26	9/17/2009 13:14	63	31.3	1.6	4.1	-7.2	83	Inc Flow Vacuum
G/L 23	9/17/2009 13:18	58.8	28.6	1.1	11.5	-35.9	75	No Change made in Valve
G/L 10	9/17/2009 13:21	0	0	20.9	79.1	-0.6	84	Fully Closed/No Change
G/L 09	9/17/2009 13:24	22.8	26.8	0	50.4	-10.4	71	Dec Flow Vacuum
G/L 24	9/17/2009 13:29	53.2	29.6	2.1	15.09	-19.7	76	Dec Flow Vacuum
G/L 25	9/17/2009 13:33	54.3	24.6	4.1	17	-24.9	81	Dec Flow Vacuum
G/L 03	9/17/2009 13:36	51.4	34.6	0.6	13.4	-2.2	76	Dec Flow Vacuum
G/L 04	9/17/2009 13:39	11.1	12.2	9.8	66.9	-1.1	82	Dec Flow Vacuum
G/L 05	9/17/2009 13:43	45.4	36.3	0	18.29	-2.9	77	Dec Flow Vacuum
G/L 06	9/17/2009 13:45	46.9	35.4	0	17.69	-3.1	78	Dec Flow Vacuum
G/L 07	9/17/2009 13:48	31.4	30.5	1.1	37	-4.5	84	Fully Closed/No Change
G/L 08	9/17/2009 13:50	0.7	1.7	18.6	79	-1	86	Fully Closed/No Change
OWLBLIN	9/17/2009 14:00	32.9	27.1	1.3	38.7	-37.3	70	No Comments
OWLBLOT	9/17/2009 14:03	32.6	26.8	1.6	39	3.5	122	No Comments

Comments: No additional comments.

American Environmental Group Ltd.

Wellfield Monitoring Data

Technician: Max Collins
Date: 10/21/2009
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 54° F
Barometric Press.: 30.20" Hg

ID	Date/Time	CH4	CO2	O2	Balance	Static Press.	Temp.	Comments
OWLBLIN	10/21/2009 9:16	35.5	27.2	2.3	35	-37	62	No Comments
OWLBLOT	10/21/2009 9:19	35.4	27.7	2.3	34.59	2.5	97	No Comments
G/L 01	10/21/2009 11:01	2.3	2	19.1	76.6	-0.2	68	No Adj. Made
G/L 02	10/21/2009 11:05	62.5	35.9	0.1	1.49	-4	66	Inc. Flow/Vac.
G/L 03	10/21/2009 11:35	53.1	32.2	1.6	13.1	-0.7	69	No Adj. Made
G/L 04	10/21/2009 11:38	0	0.6	20.2	79.19	-0.2	70	Inc. Flow/Vac.
G/L 05	10/21/2009 11:42	52.5	38.2	1.2	8.09	-0.8	70	No Adj. Made
G/L 06	10/21/2009 11:45	55.1	33.9	0.7	10.3	-1.5	72	Inc. Flow/Vac.
G/L 07	10/21/2009 11:48	36.8	30.6	1.5	31.09	-3.3	71	Fully Closed/No Adj. Made
G/L 08	10/21/2009 11:51	3	8.1	13.3	75.6	-0.8	71	Dec. Flow/Vac.
G/L 09	10/21/2009 11:23	23.3	25.3	1.8	49.6	-4.7	72	Dec. Flow/Vac.
G/L 10	10/21/2009 11:18	0	0.4	20.4	79.19	-0.4	67	Fully Closed/No Adj. Made
G/L 11	10/21/2009 10:41	31	27.2	1.1	40.7	-2.1	68	Fully Closed/No Adj. Made
G/L 12	10/21/2009 10:38	41.5	27.9	5.1	25.5	-0.3	68	Dec. Flow/Vac.
G/L 13	10/21/2009 9:51	41.4	29.4	2.5	26.7	-3.9	61	Fully Closed/No Adj. Made
G/L 14	10/21/2009 9:54	3.8	4.3	16.1	75.79	-0.8	59	Fully Closed/No Adj. Made
G/L 15	10/21/2009 9:59	56.8	33.2	0.8	9.2	-0.8	61	Inc. Flow/Vac.
G/L 16	10/21/2009 10:02	9.4	21	0	69.6	-0.2	80	Dec. Flow/Vac.
G/L 17	10/21/2009 10:25	48.9	32	2.7	16.39	-0.4	66	Dec. Flow/Vac.
G/L 18	10/21/2009 10:56	54.2	33	0	12.79	-5.1	63	No Adj. Made
G/L 19	10/21/2009 10:53	47.9	9.8	8.1	34.19	-4.3	66	Dec. Flow/Vac.
G/L 20	10/21/2009 10:30	52.4	22.1	4	21.49	-23.1	66	Dec. Flow/Vac.
G/L 21	10/21/2009 10:34	28.1	17.8	6.8	47.3	-13.1	67	Fully Closed/No Adj. Made
G/L 22	10/21/2009 10:44	50.6	15.2	4.7	29.5	-0.3	71	Dec. Flow/Vac.
G/L 23	10/21/2009 11:14	43.7	24.8	2.9	28.6	-22.6	69	Dec. Flow/Vac.
G/L 24	10/21/2009 11:27	36.5	21	8.1	34.4	-6	71	Dec. Flow/Vac.
G/L 25	10/21/2009 11:32	57.9	26.9	3	12.19	-15.1	70	Dec. Flow/Vac.
G/L 26	10/21/2009 11:09	57.8	30.4	2.6	9.2	-6.6	69	No Adj. Made/Barely Open
OWLBLIN	10/21/2009 12:12	34.7	26.5	2.9	35.9	-28	67	No Comments
WLBLOT	10/21/2009 12:14	36.3	27.8	2.1	33.8	2.6	119	No Comments

omments: No additional comments.

American Environmental Group Ltd.

Wellfield Monitoring Data

Technician: Max Collins
Date: 11/13/2009
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 47° F
Barometric Press.: 30.03" Hg

ID	Date/Time	CH4	CO2	O2	Balance	Static Press.	Temp.	Comments
PO VLBLIN	11/13/2009 8:52	46.4	30.7	1.2	21.69	-28	58	No Comments
PO VLBLOT	11/13/2009 8:55	44.4	29.5	1.9	24.2	2.6	101	No Comments
G/L 01	11/13/2009 10:38	6.6	4.8	17.1	71.5	-0.1	64	Barely Open/Inc. Flow/Vac.
L 02	11/13/2009 10:42	64.4	35.5	0	0.09	-4.4	64	Inc. Flow/Vac.
L 03	11/13/2009 11:08	60.2	34.4	0.2	5.19	-0.7	66	Inc. Flow/Vac.
G/L 04	11/13/2009 11:11	0	0.5	20.2	79.3	0.6	64	Fully Closed/No Adj. Made
L 05	11/13/2009 11:15	58	41.9	0	0.09	-1	67	Inc. Flow/Vac.
L 06	11/13/2009 11:19	59.7	36.1	0	4.2	-2.7	64	Inc. Flow/Vac.
G/L 07	11/13/2009 11:22	45.2	32.4	0.6	21.79	-3.2	65	Fully Closed/No Adj. Made
G/L 08	11/13/2009 11:24	18.9	23.2	1.1	56.8	-0.6	66	Dec. Flow/Vac.
L 09	11/13/2009 10:58	45.9	29.8	1.1	23.2	-0.2	62	Barely Open/Dec. Flow/Vac.
L 10	11/13/2009 10:54	6.6	5.6	15.8	72	-0.1	63	Barely Open/Inc. Flow/Vac.
G/L 11	11/13/2009 10:18	41.3	30.8	0	27.9	-2	62	Fully Closed/No Adj. Made
L 12	11/13/2009 10:15	49.7	30.5	3.8	15.99	-0.1	65	Barely Open/Inc. Flow/Vac.
L 13	11/13/2009 9:53	48.2	32	0.6	19.19	-3.4	62	Fully Closed/No Adj. Made
G/L 14	11/13/2009 9:56	7.2	5.6	15.2	72	-0.7	58	Fully Closed/No Adj. Made
L 15	11/13/2009 9:59	59	33.4	0	7.59	-1.1	62	Inc. Flow/Vac.
16	11/13/2009 10:02	15.8	22.6	0	61.6	-0.1	68	Inc. Flow/Vac.
G/L 17	11/13/2009 10:05	55.9	35	1.5	7.59	-0.2	62	Barely Open/No Adj. Made
G/L 18	11/13/2009 10:32	59.4	33.6	0	7	-5.1	62	Inc. Flow/Vac.
19	11/13/2009 10:26	37.3	8	10.4	44.3	-0.6	65	Barely Open/Inc. Flow/Vac.
G/L 20	11/13/2009 10:08	68.1	25.1	1.2	5.6	-19.8	62	Inc. Flow/Vac.
G/L 21	11/13/2009 10:11	42.8	22	4.2	31	-14.1	61	Fully Closed/No Adj. Made
22	11/13/2009 10:21	60	18.4	0.9	20.7	-0.1	59	Barely Open/No Adj. Made
23	11/13/2009 10:48	63.4	30	1	5.59	-21.5	66	Inc. Flow/Vac.
G/L 24	11/13/2009 11:02	53.8	24.8	4.7	16.7	-3.1	68	Dec. Flow/Vac.
25	11/13/2009 11:05	63.7	28.3	1.8	6.2	-13.2	67	No Adj. Made
26	11/13/2009 10:45	62.1	31.3	1.2	5.4	-7.5	66	Inc. Flow/Vac.
OWLBLIN	11/13/2009 11:40	45.4	29.6	1.1	23.89	-27.6	62	No Comments
OW BLOT	11/13/2009 11:43	44.2	29.5	1.7	24.59	2.7	111	No Comments

omments: No additional comments.

American Environmental Group Ltd.

Wellfield Monitoring Data

Technician: Max Collins
Date: 12/9/2009
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 38° F
Barometric Press.: 29.30" Hg

ID	Date/Time	CH4	CO2	O2	Balance	Static Press.	Temp.	Comments
OWLBLIN	12/9/2009 10:44	52.7	31.5	0.8	14.99	-26.7	53	No Comments
OWLBLOT	12/9/2009 10:47	50	30.5	1.7	17.79	2.4	85	No Comments
G/L 01	12/9/2009 13:20	54.5	30.2	0	15.29	-1.5	45	No Change made in Valve
G/L 02	12/9/2009 13:25	63	36.9	0	0.09	-3.6	57	Inc Flow/Vacuum
G/L 03	12/9/2009 14:08	62.2	36	0	1.79	-2.3	54	Inc Flow/Vacuum
G/L 04	12/9/2009 14:13	0	0.8	19.6	79.6	-0.3	36	Dec Flow/Vacuum
G/L 05	12/9/2009 14:21	58	40	0	2	-4.1	53	Inc Flow/Vacuum
G/L 06	12/9/2009 14:26	61.5	38.4	0	0.09	-5.1	52	Inc Flow/Vacuum
G/L 07	12/9/2009 14:32	51.2	35.6	0	13.2	-4.7	37	Fully Closed/No Change Made
G/L 08	12/9/2009 14:42	28	25.6	1	45.4	-1.4	37	Fully Closed/No Change Made
G/L 09	12/9/2009 13:46	43.6	27	3.4	26	-0.6	37	Dec Flow/Vacuum
G/L 10	12/9/2009 13:41	6.8	5.2	16.8	71.19	-0.3	36	Dec Flow/Vacuum
G/L 11	12/9/2009 12:49	50.1	32.7	0	17.2	-2.3	39	Fully Closed/No Change Made
G/L 12	12/9/2009 12:41	38.9	27	4.9	29.2	-0.9	41	Dec Flow/Vacuum
G/L 13	12/9/2009 11:54	48.6	32.2	1.2	18	-3.6	40	Fully Closed/No Change Made
G/L 14	12/9/2009 12:02	11.8	6.9	14.3	66.99	-1.2	40	Fully Closed/No Change Made
G/L 15	12/9/2009 12:06	53.6	31.6	0	14.8	-2.5	55	No Change Made
G/L 16	12/9/2009 12:13	19.3	24.4	0	56.29	-0.2	58	Dec Flow/Vacuum
G/L 17	12/9/2009 12:17	53.2	34	1.9	10.9	-0.4	40	Dec Flow/Vacuum
G/L 18	12/9/2009 13:13	62.2	35.2	0	2.59	-5.8	56	Inc Flow/Vacuum
G/L 19	12/9/2009 13:06	41.7	9.2	9.1	40	-2.3	40	Inc Flow/Vacuum
G/L 20	12/9/2009 12:28	68.6	26	1.3	4.1	-24.8	40	Inc Flow/Vacuum
G/L 21	12/9/2009 12:34	49	24.3	3	23.7	-13.2	39	Fully Closed/No Change Made
G/L 22	12/9/2009 12:58	69	20.2	1.4	9.39	-0.7	39	Inc Flow/Vacuum
G/L 23	12/9/2009 13:36	65.3	31.6	0.3	2.79	-24.8	54	Inc Flow/Vacuum
G/L 24	12/9/2009 13:53	65.9	29.2	1.4	3.49	-4.8	37	Inc Flow/Vacuum
G/L 25	12/9/2009 13:58	65.8	30	0.9	3.29	-18.6	39	Inc Flow/Vacuum
G/L 26	12/9/2009 13:31	59.8	30.7	1.9	7.6	-9	42	Inc Flow/Vacuum
WLBLIN	12/9/2009 15:09	48.4	31.8	0.6	19.19	-27.2	52	No Comments
WLBLOT	12/9/2009 15:13	46.6	30.9	1	21.5	2.4	82	No Comments

mments: No additional comments.

J

APPENDIX J.

DOWNTIME REPORTS

American Environmental Group Ltd.
[redacted] Brecksville Rd., Suite [redacted]
Richfield, Ohio 44286

Ph: (330) 659-5930 Fax: (330) 659-5931

Waste Management, Powell Road Landfill
Downtime Report January 1, 2009 Thru January 31, 2009
Flare Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime (Hr.)	Cause of Downtime	Action Taken
01/01/09	12:00AM	01/01/09	8:00AM	8.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/01/09	8:00PM	01/02/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/02/09	8:00PM	01/03/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/03/09	8:00PM	01/04/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/04/09	8:00PM	01/05/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/05/09	8:00PM	01/06/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/06/09	8:00PM	01/07/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/07/09	8:00PM	01/08/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/08/09	8:00PM	01/09/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/09/09	8:00PM	01/10/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/10/09	8:00PM	01/11/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/11/09	8:00PM	01/12/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/12/09	8:00PM	01/13/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/13/09	8:00PM	01/14/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/14/09	8:00PM	01/15/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/15/09	8:00PM	01/16/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/16/09	8:00PM	01/17/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

01/17/09	8:00PM	01/18/09	8:00AM	12.00	Auto Shutdown	to control down time of flare and improve gas quality from the wellfield.
01/18/09	8:00PM	01/19/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/19/09	8:00PM	01/20/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/20/09	8:00PM	01/21/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/21/09	8:00PM	01/22/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
1/22/09	8:42 AM	1/22/09	9:02 AM	0.33	Manual shutdown	Manually restarted
01/22/09	8:00PM	01/23/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/23/09	8:00PM	01/24/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/24/09	8:00PM	01/25/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/25/09	8:00PM	01/26/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/26/09	8:00PM	01/27/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/27/09	8:00PM	01/28/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/28/09	8:00PM	01/29/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/29/09	8:00PM	01/30/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/30/09	8:00PM	01/31/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/31/09	8:00PM	02/01/09	12:00 AM	4.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

Total Downtime (Hrs)	372.33
Total Hours In Month	744
Runtime Percentage	49.96%

Notes: The downtime and runtime calculated on this sheet is the result of known downtime only.

Air Compressor Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime	Cause of Downtime	Action Taken
						No downtime reflected for the compressor in January 2009

Total Downtime (Hrs)	0.00
Total Hours In Month	744
Runtime Percentage	100.00%

American Environmental Group Ltd.

American Environmental Group, Ltd.
3600 Brecksville Rd., Suite 100
Richfield, Ohio 44286

Ph: (330) 659-5930 Fax: (330) 659-5931

Waste Management, Powell Road Landfill
Downtime Report February 1, 2009 Thru February 28, 2009

Flare Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime (Hr.)	Cause of Downtime	Action Taken
02/01/08	12:00AM	02/01/08	8:00AM	8.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/01/09	8:00PM	02/02/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/02/09	8:00PM	02/03/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/03/09	8:00PM	02/04/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/04/09	8:00PM	02/05/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/05/09	9:08 AM	02/05/09	9:25 AM	0.28	Manual shutdown	Manually restarted
02/05/09	8:00PM	02/06/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/06/09	8:00PM	02/07/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/07/09	8:00PM	02/08/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/08/09	8:00PM	02/09/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/09/09	8:00PM	02/10/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/10/09	8:00PM	02/11/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/11/09	8:00PM	02/12/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/12/09	8:00PM	02/13/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/13/09	8:00PM	02/14/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/14/09	8:00PM	02/15/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

02/15/09	8:00PM	02/16/09	8:00AM	12.00	Auto Shutdown	to control down time of flare and improve gas quality from the wellfield.
02/16/09	8:00PM	02/17/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/17/09	8:00PM	02/18/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/18/09	8:00PM	02/19/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/19/09	8:00PM	02/20/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/20/09	8:00PM	02/21/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/21/09	8:00PM	02/22/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/22/09	8:00PM	02/23/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/23/09	8:00PM	02/24/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/24/09	8:00PM	02/25/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/25/09	8:00PM	02/26/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/26/09	8:00PM	02/27/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/27/09	8:00PM	02/28/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/28/09	8:00PM	03/01/09	12:00 PM	4.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

Total Downtime (Hrs) 336.28
Total Hours In Month 672
Runtime Percentage 49.96%

Notes: The downtime and runtime calculated on this sheet is the result of known downtime only.

Air Compressor Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime	Cause of Downtime	Action Taken
						No downtime was reflected for the compressor in February

Total Downtime (Hrs) 0.00
Total Hours In Month 672
Runtime Percentage 100.00%

American Environmental Group Ltd.

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Waste Management, Powell Road Landfill
Downtime Report March 1, 2009 Thru March 31, 2009

Flare Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime (Hr.)	Cause of Downtime	Action Taken
03/01/09	12:00AM	03/01/09	8:00AM	8.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/01/09	8:00PM	03/02/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/02/09	8:00PM	03/03/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/03/09	8:00PM	03/04/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/04/09	8:00PM	03/05/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/05/09	8:00PM	03/06/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/06/09	8:00PM	03/07/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/07/09	8:00PM	03/08/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/08/09	8:00PM	03/09/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/09/09	8:00PM	03/10/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/10/09	8:00PM	03/11/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/11/09	9:21 AM	03/11/09	9:35 AM	0.23	Manual shutdown	Manually restarted
03/11/09	8:00PM	03/12/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/12/09	8:00PM	03/13/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/13/09	8:00PM	03/14/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/14/09	8:00PM	03/15/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/15/09	8:00PM	03/16/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/16/09	8:00PM	03/17/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

03/17/09	8:00PM	03/18/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/18/09	8:00PM	03/19/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/19/09	8:00PM	03/20/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/20/09	8:00PM	03/21/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/21/09	8:00PM	03/22/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/22/09	8:00PM	03/23/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/23/09	8:00PM	03/24/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/24/09	8:00PM	03/25/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/25/09	8:00PM	03/26/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/26/09	8:00PM	03/27/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/27/09	8:00PM	03/28/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/28/09	8:00PM	03/29/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/29/09	8:00PM	03/30/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/30/09	8:00PM	03/31/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/31/09	8:00PM	04/01/09	12:00 AM	4.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

Total Downtime (Hrs)	372.23
Total Hours In Month	744
Runtime Percentage	49.97%

Notes: The downtime and runtime calculated on this sheet is the result of known downtime only.

Air Compressor Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime	Cause of Downtime	Action Taken
N/A	N/A	N/A	N/A	N/A	N/A	N/A

Total Downtime (Hrs)	0.00
Total Hours In Month	744
Runtime Percentage	100.00%

American Environmental Group Ltd.

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Waste Management, Powell Road Landfill
Downtime Report April 1st, 2009 Thru April 30th, 2009

Flare Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime (Hr.)	Cause of Downtime	Action Taken
04/29/09	10:24 AM	04/29/09	10:40 AM	0.27	Manual shutdown	Manually restarted

Total Downtime (Hrs)	0.27
Total Hours in Month	720
Runtime Percentage	99.96%

Notes: The downtime and runtime calculated on this sheet is the result of known downtime only.

Air Compressor Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime	Cause of Downtime	Action Taken
						No downtime during this month

Total Downtime (Hrs)	0.00
Total Hours in Month	720
Runtime Percentage	100.00%

Revised: 5/15/2008 SP

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Waste Management, Powell Road Landfill
Downtime Report May 1, 2009 Thru May 31, 2009

Flare Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime (Hr.)	Cause of Downtime	Action Taken
05/20/09	11:52 AM	05/20/09	12:10 PM	0.30	Manual Shutdown	Manually Restarted

Total Downtime (Hrs)	0.30
Total Hours in Month	744
Runtime Percentage	99.96%

Notes: The downtime and runtime calculated on this sheet is the result of known downtime only.

Air Compressor Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime	Cause of Downtime	Action Taken
						No downtime during the month of May

Total Downtime (Hrs)	0.00
Total Hours in Month	744
Runtime Percentage	100.00%

Revised: 5/15/2008 SP

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Waste Management, Powell Road Landfill
Downtime Report June 1, 2009 Thru June 30, 2009

Flare Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime (Hr.)	Cause of Downtime	Action Taken
06/01/09	12:00AM	06/01/09	8:00AM	8.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/01/09	8:00PM	06/02/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/02/09	8:00PM	06/03/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/03/09	8:00PM	06/04/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/04/09	8:00PM	06/05/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/05/09	8:00PM	06/06/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/06/09	8:00PM	06/07/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/07/09	8:00PM	06/08/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/08/09	11:19 AM	06/08/09	11:36 AM	0.28	Manual Shutdown	Manually Restarted
06/08/09	8:00PM	06/09/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/09/09	8:00PM	06/10/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/10/09	8:00PM	06/11/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/11/09	8:00PM	06/12/09	11:40 AM	15.66	Auto Shutdown / Power Failure	Flare was automatically shut down at 8:00 as normal by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield. At 8:10 PM the site experienced a power outage. AEGL monitored the system remotely to verify if a normal start-up sequence would occur on 6/12/09. When it did not, AEGL was dispatched to site to manually restart the flare. Flare was restarted at 11:40 AM on 6/12/09. Once restarted technician verified normal operation.
06/12/09	8:00PM	06/13/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/13/09	8:00PM	06/14/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/14/09	8:00PM	06/15/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

[illegible]	8:00PM	06/16/09	8:00AM	12.00	Auto Shutdown	to control down time of flare and improve gas quality from the wellfield.
06/16/09	8:00PM	06/17/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/17/09	8:00PM	06/18/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/18/09	8:00PM	06/19/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/19/09	8:00PM	06/20/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/20/09	8:00PM	06/21/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/21/09	8:00PM	06/22/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/22/09	8:00PM	06/23/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/23/09	8:00PM	06/24/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/24/09	8:00PM	06/25/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/25/09	8:00PM	07/01/09	12:00 AM	124.00	Auto Shutdown/Power Failure/Damage to control devices	Flare was automatically shut down at 8:00 on 6/25 as normal by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield. At approximately 12:00 AM on 6/26/09 the flare and compressor experienced a power outage related to severe weather. The storm had damaged several electrical components that required replacement (See maintenace report). The flare was repaired and operational on 7/03/09. All July downtime will be captured on the July report.

Total Downtime (Hrs) 423.94
Total Hours In Month 720
Runtime Percentage 41.12%

Notes: The downtime and runtime calculated on this sheet is the result of known downtime only.

Air Compressor Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime	Cause of Downtime	Action Taken
06/26/09	12:00 AM	07/01/09	12:00 AM	120.00	Power Outage/Defective electrical components damaged in a storm	Air compressor was down from 6/27/09 - 7/03/09. Air compressor had a bad starter motor that required replacement (See maintnenance report).

Total Downtime (Hrs) 120.00
Total Hours In Month 720
Runtime Percentage 83.33%

Revised: 5/15/2008 SP

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Waste Management, Powell Road Landfill
Downtime Report July 1, 2009 Thru July 31, 2009

Flare Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime (Hr.)	Cause of Downtime	Action Taken
07/01/09	12:00AM	07/02/09	2:00 PM	38.00	Auto Shutdown/Power Failure/Damage to control devices	At approximately 12:00 AM on 6/26/09 the flare and compressor experienced a power outage related to severe weather. The storm had damaged several electrical components that required replacement (See maintenace report). The flare was repaired and operational on 7/02/09 at approximately 2:00 PM.
07/02/09	8:00PM	07/03/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
07/03/09	8:00PM	07/04/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
07/04/09	8:00PM	07/05/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
07/05/09	8:00PM	07/06/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
07/06/09	8:00PM	07/07/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
07/07/09	8:00PM	07/08/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
07/08/09	8:00PM	07/09/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
07/09/09	8:00PM	07/10/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
07/10/09	8:00PM	07/11/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

						wellfield.
07/12/09	8:00PM	07/13/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
07/13/09	8:00PM	07/14/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
07/14/09	8:00PM	07/15/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
07/15/09	8:00PM	07/16/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
07/16/09	8:00PM	07/17/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
07/17/09	8:00PM	07/18/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
07/18/09	8:00PM	07/19/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
07/19/09	8:00PM	07/20/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
07/20/09	8:00PM	07/21/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
07/21/09	8:00PM	07/22/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
07/22/09	8:00PM	07/23/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
07/23/09	8:00PM	07/24/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
07/24/09	8:00PM	07/25/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
07/25/09	8:00PM	07/26/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
07/27/09	8:00PM	07/28/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
07/28/09	8:00PM	07/29/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
07/29/09	12:10 PM	07/29/09	12:25 PM	0.25	Manual Shutdown	Manually Restarted
07/29/09	8:00PM	07/30/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
07/30/09	8:00PM	07/31/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
07/31/09	8:00PM	08/01/09	12:00 AM	4.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

Total Downtime (Hrs)	390.25
Total Hours In Month	744
Runtime Percentage	47.55%

Notes: The downtime and runtime calculated on this sheet is the result of known downtime only.

Air Compressor Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime	Cause of Downtime	Action Taken
						No air compressor downtime during the month of July 2009

Total Downtime (Hrs)	0.00
Total Hours In Month	744
Runtime Percentage	100.00%

Revised: 5/15/2008 SP

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Waste Management, Powell Road Landfill
Downtime Report August 1, 2009 Thru August 31, 2009

Flare Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime (Hr.)	Cause of Downtime	Action Taken
08/01/09	12:00AM	08/01/09	8:00AM	8.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/01/09	8:00PM	08/02/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/02/09	8:00PM	08/03/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/03/09	8:00PM	08/04/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/04/09	8:00PM	08/05/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/05/09	8:00PM	08/06/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/06/09	8:00PM	08/07/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/07/09	8:00PM	08/08/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/08/09	8:00PM	08/09/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/09/09	8:00PM	08/10/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

					Auto Shutdown	timer to control down time of flare and improve gas quality from the wellfield.
08/11/09	8:00PM	08/12/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/12/09	8:00PM	08/13/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/13/09	8:00PM	08/14/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/14/09	11:50 AM	08/14/09	12:05 PM	0.25	Manual Shutdown	Manually Restarted
08/14/09	8:00PM	08/15/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/15/09	8:00PM	08/16/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/16/09	8:00PM	08/17/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/17/09	8:00PM	08/18/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/18/09	8:00PM	08/19/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/19/09	6:10 PM	08/19/09	6:40 PM	0.50	Power Outage	Automatically Restarted
08/19/09	8:00PM	08/20/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/20/09	8:00PM	08/21/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/21/09	8:00PM	08/22/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/22/09	8:00PM	08/23/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/23/09	8:00PM	08/24/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

					Auto Shutdown	wellfield.
08/25/09	8:00PM	08/26/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/26/09	8:00PM	08/27/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/27/09	8:00PM	08/28/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/28/09	8:00PM	08/29/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/29/09	8:00PM	08/30/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/30/09	8:00PM	08/31/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/31/09	8:00PM	09/01/09	12:00 AM	4.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

Total Downtime (Hrs)	372.75
Total Hours in Month	744
Runtime Percentage	49.90%

Notes: The downtime and runtime calculated on this sheet is the result of known downtime only.

Air Compressor Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime	Cause of Downtime	Action Taken
08/01/09	12:00 AM	08/07/09	6:00 PM	162.00	Defective relay in air compressor caused the actuating valve that sends air to the field to close	Steve lingafelter visited site and determined a bad relay was causing the air compressor downtime. Steve replaced the relay and the compressor was operating normallyand the actuating valve that sends air to the field opened. Please see maintenance report for more details.

Total Downtime (Hrs)	162.00
Total Hours in Month	744
Runtime Percentage	78.23%

Revised: 5/15/2008 SP

American Environmental Group Ltd.
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Ph: (330) 659-5930 Fax: (330) 659-5931

Waste Management, Powell Road Landfill
Downtime Report Sept. 1, 2009 Thru Sept. 30, 2009

Flare Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime (Hr.)	Cause of Downtime	Action Taken
09/01/09	12:00AM	09/01/09	8:00AM	8.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/01/09	8:00PM	09/02/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/02/09	1:20 PM	09/02/09	2:02 PM	0.70	Auto Shutdown	A power outage occurred onsite at 1:20 PM. Power was restored at 2:02 PM and the flare automatically restarted.
09/02/09	8:00PM	09/03/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/03/09	8:00PM	09/04/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/04/09	12:00 PM	09/04/09	12:15 PM	0.25	Manual Shutdown	Manually Restarted
09/04/09	8:00PM	09/05/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/05/09	8:00PM	09/06/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/06/09	8:00PM	09/07/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/07/09	8:00PM	09/08/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/08/09	8:00PM	09/09/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

						wellfield.
09/10/09	8:00PM	09/11/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/11/09	8:00PM	09/12/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/12/09	8:00PM	09/13/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/13/09	8:00PM	09/14/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/14/09	8:00PM	09/15/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/15/09	8:00PM	09/16/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/16/09	8:00PM	09/17/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/17/09	8:00PM	09/18/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/18/09	8:00PM	09/19/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/19/09	8:00PM	09/20/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/20/09	8:00PM	09/21/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/21/09	8:00PM	09/22/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/22/09	8:00PM	09/23/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/23/09	8:00PM	09/24/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

						timer to control down time of flare and improve gas quality from the wellfield.
09/25/09	8:00PM	09/26/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/26/09	8:00PM	09/27/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/27/09	8:00PM	09/29/09	10:30AM	34.50	Power Outage	A power outage occurred onsite 9/28/09 at 3:07 AM. Dayton Light and Power was dispatch to troubleshoot possible electrical issues and flare was manually restarted on 9/29/09 at 10:30 AM.
09/29/09	8:00PM	09/30/09	8:00 AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/30/09	8:00PM	10/01/09	12:00 AM	4.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

Total Downtime (Hrs)	371.45
Total Hours In Month	720
Runtime Percentage	48.41%

Notes: The downtime and runtime calculated on this sheet is the result of known downtime only.

Air Compressor Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime	Cause of Downtime	Action Taken
						No air compressor downtime during the month of September 2009

Total Downtime (Hrs)	0.00
Total Hours In Month	720
Runtime Percentage	100.00%

Revised: 5/15/2008 SP

Environmental Group Ltd.
3600 Brecksville Rd., Suite 100
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Waste Management, Powell Road Landfill
Downtime Report October 1, 2009 Thru October 31, 2009

Flare Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime (Hr.)	Cause of Downtime	Action Taken
10/01/09	12:00AM	10/01/09	8:00AM	8.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/01/09	12:00AM	10/02/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/02/09	8:00PM	10/03/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/03/09	8:00PM	10/04/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/04/09	8:00PM	10/05/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/05/09	8:00PM	10/06/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/06/09	8:00PM	10/07/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/07/09	8:00PM	10/08/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/08/09	8:00PM	10/09/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/09/09	8:00PM	10/10/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

[illegible]	[illegible]	[illegible]	[illegible]	12.00	Auto Shutdown	timer to control down time of flare and improve gas [redacted] the wel[redacted]
10/11/09	8:00PM	10/12/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/12/09	8:00PM	10/13/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/13/09	8:00PM	10/14/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/14/09	8:00PM	10/15/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/15/09	8:00PM	10/16/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/16/09	8:00PM	10/17/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/17/09	8:00PM	10/18/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/18/09	8:00PM	10/19/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/19/09	8:00PM	10/20/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/20/09	8:00PM	10/21/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/21/09	9:22 AM	10/21/09	9:37 AM	0.25	Manual Shutdown	Manually Restarted
10/21/09	8:00PM	10/22/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/22/09	8:00PM	10/23/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/23/09	8:00PM	10/24/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/24/09	8:00PM	10/25/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

						wellfield.
10/26/09	8:00PM	10/27/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/27/09	8:00PM	10/28/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/28/09	8:00PM	10/29/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/29/09	8:00PM	10/30/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/30/09	8:00PM	10/31/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/31/09	8:00PM	11/01/09	12:00 AM	4.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

Total Downtime (Hrs)	372.25
Total Hours in Month	744
Runtime Percentage	49.97%

Notes: The downtime and runtime calculated on this sheet is the result of known downtime only.

Air Compressor Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime	Cause of Downtime	Action Taken
						No compressor downtime for the month of October 2009

Total Downtime (Hrs)	0.00
Total Hours in Month	744
Runtime Percentage	100.00%

Revised: 5/15/2008 SP

American Environmental Group Ltd.
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Waste Management, Powell Road Landfill
Downtime Report November 1, 2009 Thru November 30, 2009

Flare Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime (Hr.)	Cause of Downtime	Action Taken
11/01/09	12:00AM	11/01/09	8:00AM	8.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
11/01/09	8:00PM	11/02/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
11/02/09	8:00PM	11/03/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
11/03/09	8:00PM	11/04/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
11/04/09	8:00PM	11/05/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
11/05/09	8:00PM	11/06/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
11/06/09	8:00PM	11/07/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
11/07/09	8:00PM	11/08/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
11/08/09	8:00PM	11/09/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
11/09/09	8:00PM	11/10/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
11/10/09	8:00PM	11/11/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

					Auto Shutdown	timer to control down time of flare and improve gas quality from the wellfield.
11/12/09	8:00PM	11/13/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
11/13/09	9:00AM	11/13/09	9:33AM	0.55	Manual Shutdown	Manually Restarted
11/13/09	8:00PM	11/14/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
11/14/09	8:00PM	11/15/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
11/15/09	8:00PM	11/16/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
11/16/09	8:00PM	11/17/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
11/17/09	8:00PM	11/18/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
11/18/09	8:00PM	11/19/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
11/19/09	8:00PM	11/20/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
11/20/09	8:00PM	11/21/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
11/21/09	8:00PM	11/22/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
11/22/09	8:00PM	11/23/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
11/23/09	8:00PM	11/24/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
11/24/09	8:00PM	11/25/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
11/25/09	8:00PM	11/26/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

						[redacted] wellfield. [redacted]
[redacted] 11/27/09	[redacted] 8:00PM	[redacted] 11/28/09	[redacted] 8:00AM	[redacted] 12.00	[redacted] Auto Shutdown	[redacted] Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
11/28/09	8:00PM	11/29/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
11/29/09	8:00PM	11/30/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
11/30/09	8:00PM	12/01/09	12:00AM	4.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

Total Downtime (Hrs)	360.55
Total Hours In Month	720
Runtime Percentage	49.92%

Notes: The downtime and runtime calculated on this sheet is the result of known downtime only.

Air Compressor Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime	Cause of Downtime	Action Taken
						No compressor downtime during the month of November 2009

Total Downtime (Hrs)	0.00
Total Hours In Month	720
Runtime Percentage	100.00%

Revised: 5/15/2008 SP

Environmental Group Ltd.
3600 Brecksville Rd., Suite 100
Richfield, Ohio 44286

Ph: (330) 659-5930 Fax: (330) 659-5931

Waste Management, Powell Road Landfill
Downtime Report December 1, 2009 Thru December 31, 2009

Flare Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime (Hr.)	Cause of Downtime	Action Taken
12/01/09	12:00AM	12/01/09	8:00AM	8.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/01/09	8:00PM	12/02/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/02/09	8:00PM	12/03/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/03/09	8:00PM	12/04/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/04/09	8:00PM	12/05/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/05/09	8:00PM	12/06/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/06/09	8:00PM	12/07/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/07/09	8:00PM	12/08/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/08/09	8:00PM	12/09/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/09/09	10:50 AM	12/09/09	11:37 AM	0.78	Manual Shutdown	Manually Restarted
12/09/09	8:00PM	12/10/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

						wellfield
12/11/09	8:00PM	12/12/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/12/09	8:00PM	12/13/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/13/09	8:00PM	12/14/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/14/09	8:00PM	12/15/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/15/09	8:00PM	12/16/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/16/09	8:00PM	12/17/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/17/09	8:00PM	12/18/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/18/09	8:00PM	12/19/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/19/09	8:00PM	12/20/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/20/09	8:00PM	12/21/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/21/09	8:00PM	12/22/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/22/09	8:00PM	12/23/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/23/09	8:00PM	12/24/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/24/09	8:00PM	12/25/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

					Auto Shutdown	wellfield.
12/26/09	8:00PM	12/27/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/27/09	8:00PM	12/28/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/28/09	8:00PM	12/29/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/29/09	8:00PM	12/30/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/30/09	8:00PM	12/31/09	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/31/09	8:00PM	01/01/10	12:00 AM	4.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

Total Downtime (Hrs)	372.78
Total Hours in Month	744
Runtime Percentage	49.90%

Notes: The downtime and runtime calculated on this sheet is the result of known downtime only.

Air Compressor Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime	Cause of Downtime	Action Taken
						No compressor downtime during the month of December 2009

Total Downtime (Hrs)	0.00
Total Hours in Month	744
Runtime Percentage	100.00%

Revised: 5/15/2008 SP

K

K

APPENDIX K.

SIERRA MONITOR INSPECTION REPORTS

Powell Sierra Monitors

Date: 3/11/2009

Technician: Max Collins

	ADDRESS, NAME & PHONE NUMBER	MONITOR FUNCTIONING PROPERLY?	MONITOR CALIBRATED?	MONITOR NEEDS ATTENTION?
1	Waste Management 4010 Powell Rd. 937-235-2382	Yes	No	No
2	Onsite Compressor Building	Yes	No	No

COMMENTS: No additional comments.

Powell Sierra Monitors

Date: 6/8/2009

Technician: Max Collins

	ADDRESS, NAME & PHONE NUMBER	MONITOR FUNCTIONING PROPERLY?	MONITOR CALIBRATED?	MONITOR NEEDS ATTENTION?
1	Waste Management 4010 Powell Rd. 937-235-2382	Yes	No	No
2	Onsite Compressor Building	Yes	No	No

COMMENTS: *No additional comments.*

Powell Sierra Monitors

Date: 9/18/2009

Technician: TOM MILLER

	ADDRESS, NAME & PHONE NUMBER	MONITOR FUNCTIONING PROPERLY?	MONITOR CALIBRATED?	MONITOR NEEDS ATTENTION?
1	Waste Management 4010 Powell Rd. 937-235-2382	Yes	No	No
2	Onsite Compressor Building	Yes	No	No

COMMENTS: No additional comments.

Powell Sierra Monitors

Date: 11/23/2009

Technician: TOM MILLER

	ADDRESS, NAME & PHONE NUMBER	MONITOR FUNCTIONING PROPERLY?	MONITOR CALIBRATED?	MONITOR NEEDS ATTENTION?
1	Waste Management 4010 Powell Rd. 937-235-2382	Yes	No	No
2	Onsite Compressor Building	Yes	No	No

COMMENTS: No additional comments.

L

APPENDIX L.

GAS PROBE MONITORING REPORTS

PERMANENT GAS PROBE MONITORING REPORT
LANDFILL GAS EXTRACTION SYSTEM
POWELL ROAD LANDFILL

Combustible Gas Instrument Type:	Landtec GEM 2000	Serial No.:	GM08719
Date Last Calibrated:	3/11/2009	Method:	GA/Mode
Pressure Instrument Type:	Landtec GEM 2000	Serial No.:	GM08719
Water Level Instrument Type:	Heron Dipper - T	Serial No.:	N/A
Weather Conditions:	Cloudy	Barometric Pressure:	30.07"

Monitor Point	Time	Pressure In. W.C. (+/-)	Percent Methane	Water Level	Comments
GP-1	13:59	-0.01	0.0	15.1	No comment.
GP-2	13:51	-0.06	0.0	17.8	No comment.
GP-3	13:36	-0.02	0.0	10.2	No comment.
GP-4	13:13	0.00	0.0	12.3	No comment.
GP-5	13:19	-0.05	0.0	10	No comment.
GP-6	13:26	0.01	0.0	10.9	No comment.

Date Performed: 3/11/2009

By: Max Collins

PERMANENT GAS PROBE MONITORING REPORT
LANDFILL GAS EXTRACTION SYSTEM
POWELL ROAD LANDFILL

Combustible Gas Instrument Type:	CES Landtec GEM 2000	Serial No.:	GM08719
Date Last Calibrated:	6/8/2009	Method:	GA/Mode
Pressure Instrument Type:	CES Landtec GEM 2000	Serial No.:	GM08719
Water Level Instrument Type:	Heron Dipper - T	Serial No.:	N/A
Weather Conditions:	Mostly cloudy with light showers	Barometric Pressure:	29.93"

Monitor Point	Time	Pressure In. W.C. (+/-)	Percent Methane	Water Level	Comments
GP-1	17:10	0.00	0.0	15.6	No Comments
GP-2	17:01	0.00	0.0	18.2	No Comments
GP-3	16:48	0.00	0.0	10.4	No Comments
GP-4	16:27	0.01	0.0	12.5	No Comments
GP-5	16:32	0.00	0.0	10.3	No Comments
GP-6	16:38	0.00	0.0	11.3	No Comments

Date Performed: 6/8/2009

By: Max Collins

PERMANENT GAS PROBE MONITORING REPORT
LANDFILL GAS EXTRACTION SYSTEM
POWELL ROAD LANDFILL

Combustible Gas Instrument Type:	CES Landtec GEM 2000	Serial No.:	GM7951/05
Date Last Calibrated:	9/18/2009	Method:	GA/Mode
Pressure Instrument Type:	CES Landtec GEM 2000	Serial No.:	GM7951/05
Water Level Instrument Type:	SOLINST MODEL 101	Serial No.:	N/A
Weather Conditions:	DRY/SUNNY/ 77 DEG/ NNE 8 MPH	Barometric Pressure:	30.06

Monitor Point	Time	Pressure In. W.C. (+/-)	Percent Methane	Water Level	Comments
GP-1	4:25	0.00	0.0	17.8	No Comments
GP-2	4:36	0.00	0.0	DRY	No Comments
GP-3	3:20	0.00	0.0	12.5	No Comments
GP-4	3:13	0.00	0.0	14.7	No Comments
GP-5	4:13	0.00	0.0	DRY	No Comments
GP-6	4:05	0.00	0.0	13.4	No Comments

Date Performed: 9/18/2009

By: TOM MILLER

PERMANENT GAS PROBE MONITORING REPORT
LANDFILL GAS EXTRACTION SYSTEM
POWELL ROAD LANDFILL

Combustible Gas Instrument Type:	CES Landtec GEM 2000	Serial No.:	GM07951/05
Date Last Calibrated:	11/23/2009	Method:	GA/Mode
Pressure Instrument Type:	CES Landtec GEM 2000	Serial No.:	GM07951/05
Water Level Instrument Type:	SOLINIST MODEL 101	Serial No.:	N/A
Weather Conditions:	Mostly cloudy/ 45 DEGREES	Barometric Pressure:	30.13

Monitor Point	Time	Pressure In. W.C. (+/-)	Percent Methane	Water Level	Comments
GP-1	10:01	0.00	0.0	17.2	No Comments
GP-2	10:11	0.00	0.0	DRY	No Comments
GP-3	9:30	0.00	0.0	11.8	No Comments
GP-4	9:25	0.01	0.0	14.3	No Comments
GP-5	9:20	0.00	0.0	11.7	No Comments
GP-6	9:11	0.00	0.0	12.6	No Comments

Date Performed: 11/23/2009

By: TOM MILLER

M

M

APPENDIX M.

MONITORING WELL INTEGRITY REPORTS

MONITORING WELL INTEGRITY REPORT

(✓) YES
(X) NO
(NA) NOT APPLICABLE

Date: 5/4/2009

Facility Name: Powell Road Landfill

Inspected by: A. GRAHAM / D. FOLLETT

	Monitoring Well									
	MW02AR	MW02B	MW04AR	MW04BRR	MW05AR	MW05BR	MW07AR	MW12A	MW12B	MW13B
A. Location / Identification										
1. Is well flagged/painted?	X	X	X	X	X	X	X	X	X	X
2. Is well labeled inside / outside?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is well situated away from a low point or point or ponded water?	X	X	X	X	X	X	X	✓	✓	✓
4. Is wellhead area free of waste, stored chemicals, etc.?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Is well readily accessible?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6. If in vulnerable traffic area, is well surrounded by protective posts?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
7. Is the well location appropriately shown on facility permit and/or design drawing?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
8. Is well elevation information correct?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
B. Surface Seal										
1. Is there a concrete surface seal in good conditions (i.e., no cracks)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Is the seal snug against the casing and ground surface?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is the seal sloped away from the wellhead?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
C. External Casing										
1. Does well have external casing in good condition (i.e. no cracks)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Is well locked?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is lock in good condition (i.e. no severe rust)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4. Does cap and lock effectively prevent tampering?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Is casing/annulus in good condition and free of water/live animals/debris?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6. Do above-ground wells have weep holes at the base of protective casing?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
D. Internal Casing										
1. Is internal casing at least 1 foot above ground?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Is casing tight horizontally/vertically/rotationally?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is the cap snugly fitting/in good condition/made of suitable materials?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4. Is sampling equipment in good condition (tubing, etc.)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Is casing free of live animals/debris/kinks or bends?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Comments: ITEMS MARKED W/ AN "X" (NO) ARE EXPLAINED ON THE ATTACHED SHEET.

MONITORING WELL INTEGRITY REPORT

(✓) YES
(X) NO
(NA) NOT APPLICABLE

Facility Name: Powell Road Landfill

Date: 5/4/2009

Inspected by: A. GRAHAM / D. FOLLETT

	Monitoring Well									
	MW13C	MW14B	MW15B	MW15C	MW16A	MW16B	MW17A	MW17B	MW18A	MW18B
A. Location / Identification										
1. Is well flagged/painted?	X	X	X	X	X	X	X	X	X	X
2. Is well labeled inside / outside?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is well situated away from a low point or point or ponded water?	✓	✓	✓	✓	X	X	X	X	X	X
4. Is wellhead area free of waste, stored chemicals, etc.?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Is well readily accessible?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6. If in vulnerable traffic area, is well surrounded by protective posts?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
7. Is the well location appropriately shown on facility permit and/or design drawing?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
8. Is well elevation information correct?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
B. Surface Seal										
1. Is there a concrete surface seal in good conditions (i.e., no cracks)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Is the seal snug against the casing and ground surface?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is the seal sloped away from the wellhead?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
C. External Casing										
1. Does well have external casing in good condition (i.e. no cracks)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Is well locked?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is lock in good condition (i.e. no severe rust)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4. Does cap and lock effectively prevent tampering?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Is casing/annulus in good condition and free of water/live animals/debris?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6. Do above-ground wells have weep holes at the base of protective casing?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
D. Internal Casing										
1. Is internal casing at least 1 foot above ground?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Is casing tight horizontally/vertically/rotationally?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is the cap snugly fitting/in good condition/made of suitable materials?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4. Is sampling equipment in good condition (tubing, etc.)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Is casing free of live animals/debris/kinks or bends?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Comments: ITEMS MARKED W/ AN "X" (NO) ARE EXPLAINED ON THE ATTACHED SHEET.

The following text provides explanations for the items marked "no" on the Monitoring Well Integrity Report for May 4, 2009.

Item A. Location / Identification

1. Is well flagged / painted?

Most of the monitoring wells at the Powell Road Landfill (PRL) are constructed with silver or gold anodized aluminum guard pipes. These guard pipes are highly visible and do not require paint. Monitoring wells MW13B, MW13C, MW14B, MW15B, and MW15C are located off of the PRL property, south of the Great Miami River. These wells are equipped with ⅜ -inch thick steel guard pipes over the anodized aluminum guard pipes. These secondary guard pipes were put on to protect the wells from vandalism (primarily from gun shots). These secondary guard pipes are not painted or flagged so as not to call attention to the wells.

3. Is well situated away from a low point or point of ponded water?

Monitoring wells MW02AR, MW02B, MW04AR, MW04BRR, MW05AR, MW05BR, MW07AR, MW16A, MW16B, MW17A, MW17B, MW18A, and MW18B are located along the southern edge of the landfill area at the PRL; north of the Great Miami River. This area is floodplain and is prone to flooding. Standing water is common in places after flooding or heavy rain. All of these monitoring wells are equipped with surface seals and flood protective well caps on the two inch well casings to prevent surface water from entering the wells.

5. Is well really accessible?

Monitoring wells MW15B and MW15C are located in the wood lot at Eldorado Plat, south of the Great Miami River. At this time piles of wood chips and cut logs make vehicle access to these wells impossible. Pieces of wood and holes in and below the wood chip piles make for treacherous footing in the best of circumstances.

Item C. External Casing

5. Is casing / annulus in good condition and free of water / live animals/ debris.

Monitoring wells MW13B, MW13C, MW14B, MW15B, and MW15C are equipped with secondary guard pipes as explained previously in Item A.1. Insects (wasps, spiders, ants, beetles) are commonly found within these secondary guard pipes.

MONITORING WELL INTEGRITY REPORT

(✓) YES
(X) NO
(NA) NOT APPLICABLE

Facility Name: Powell Road Landfill

Date: 11/2/09

Inspected by: A. GRAHAM / M. MITCHELL

	Monitoring Well									
	MW13C	MW14B	MW15B	MW15C	MW16A	MW16B	MW17A	MW17B	MW18A	MW18B
A. Location / Identification										
1. Is well flagged/painted?	X	X	X	X	X	X	X	X	X	X
2. Is well labeled inside / outside?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is well situated away from a low point or point or ponded water?	✓	✓	✓	✓	X	X	X	X	X	X
4. Is wellhead area free of waste, stored chemicals, etc.?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Is well readily accessible?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6. If in vulnerable traffic area, is well surrounded by protective posts?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
7. Is the well location appropriately shown on facility permit and/or design drawing?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
8. Is well elevation information correct?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
B. Surface Seal										
1. Is there a concrete surface seal in good conditions (i.e., no cracks)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Is the seal snug against the casing and ground surface?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is the seal sloped away from the wellhead?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
C. External Casing										
1. Does well have external casing in good condition (i.e. no cracks)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Is well locked?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is lock in good condition (i.e. no severe rust)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4. Does cap and lock effectively prevent tampering?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Is casing/annulus in good condition and free of water/live animals/debris?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6. Do above-ground wells have weep holes at the base of protective casing?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
D. Internal Casing										
1. Is internal casing at least 1 foot above ground?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Is casing tight horizontally/vertically/rotationally?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is the cap snugly fitting/in good condition/made of suitable materials?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4. Is sampling equipment in good condition (tubing, etc.)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Is casing free of live animals/debris/kinks or bends?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Comments: ITEMS MARKED WITH AN "X" (NO) ARE EXPLAINED ON THE ATTACHED SHEET(S).

MONITORING WELL INTEGRITY REPORT

(✓) YES
(X) NO
(NA) NOT APPLICABLE

Facility Name: Powell Road Landfill

Date: 11/2/09

Inspected by: A. GRAHAM / M. MITCHELL

	Monitoring Well									
	MW02AR	MW02B	MW04AR	MW04BRR	MW05AR	MW05BR	MW07AR	MW12A	MW12B	MW13B
A. Location / Identification										
1. Is well flagged/painted?	X	X	X	X	X	X	X	X	X	X
2. Is well labeled inside (outside)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is well situated away from a low point or point or ponded water?	X	X	X	X	X	X	X	✓	✓	✓
4. Is wellhead area free of waste, stored chemicals, etc.?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Is well readily accessible?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6. If in vulnerable traffic area, is well surrounded by protective posts?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
7. Is the well location appropriately shown on facility permit and/or design drawing?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
8. Is well elevation information correct?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
B. Surface Seal										
1. Is there a concrete surface seal in good conditions (i.e., no cracks)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Is the seal snug against the casing and ground surface?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is the seal sloped away from the wellhead?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
C. External Casing										
1. Does well have external casing in good condition (i.e. no cracks)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Is well locked?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is lock in good condition (i.e. no severe rust)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4. Does cap and lock effectively prevent tampering?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Is casing/annulus in good condition and free of water/live animals/debris?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6. Do above-ground wells have weep holes at the base of protective casing?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
D. Internal Casing										
1. Is internal casing at least 1 foot above ground?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Is casing tight horizontally/vertically/rotationally?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is the cap snugly fitting/in good condition/made of suitable materials?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4. Is sampling equipment in good condition (tubing, etc.)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Is casing free of live animals/debris/kinks or bends?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Comments: ITEMS MARKED WITH AN "X" (NO) ARE EXPLAINED ON THE ATTACHED SHEET(S).

The following text provides explanations for the items marked "no" on the Monitoring Well Integrity Report for November 2, 2009.

Item A. Location / Identification

1. Is well flagged / painted?

Most of the monitoring wells at the Powell Road Landfill (PRL) are constructed with silver or gold anodized aluminum guard pipes. These guard pipes are highly visible and do not require paint. Monitoring wells MW13B, MW13C, MW14B, MW15B, and MW15C are located off of the PRL property, south of the Great Miami River. These wells are equipped with ⅜ -inch thick steel guard pipes over the anodized aluminum guard pipes. These secondary guard pipes were put on to protect the wells from vandalism (primarily from gun shots). These secondary guard pipes are not painted or flagged so as not to call attention to the wells.

3. Is well situated away from a low point or point of ponded water?

Monitoring wells MW02AR, MW02B, MW04AR, MW04BRR, MW05AR, MW05BR, MW07AR, MW16A, MW16B, MW17A, MW17B, MW18A, and MW18B are located along the southern edge of the landfill area at the PRL; north of the Great Miami River. This area is floodplain and is prone to flooding. Standing water is common in places after flooding or heavy rain. All of these monitoring wells are equipped with surface seals and flood protective well caps on the two inch well casings to prevent surface water from entering the wells.

5. Is well really accessible?

Monitoring wells MW15B and MW15C are located in the wood lot at Eldorado Plat, south of the Great Miami River. At this time piles of wood chips and cut logs make vehicle access to these wells impossible. Pieces of wood and holes in and below the wood chip piles make for treacherous footing in the best of circumstances.

Item C. External Casing

5. Is casing / annulus in good condition and free of water / live animals/ debris.

Monitoring wells MW13B, MW13C, MW14B, MW15B, and MW15C are equipped with secondary guard pipes as explained previously in Item A.1. Insects (wasps, spiders, ants, beetles) are commonly found within these secondary guard pipes.

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APPENDIX N.

GROUND-WATER QUALITY DATA SUMMARIES

TABLE N-1.
SUMMARY OF VOCS AND SVOCS IN WELLS WITH DETECTIONS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO
(concentrations in ug/L)

	Wells with Detections	Sampling Date	Vinyl Chloride	Acetone	Chloroethane	Chlorobenzene	1,1 DCA	1,2 DCE (total)	TCE	1,1,1 TCA	Tetrachloroethene	Benzene	Xylenes	1,4-Dioxane
	MCLs		2			100		70,100	5	200	5	5	10,000	
	10^{-4} Risk [1]		4						25,000					300
	ARARS [2]		2						5			5		
ONSITE	MW02A	12/88	-	-	-	-	-	-	-	-	-	-	-	
Shallow Zone		4/89	-	-	-	-	-	3 J	-	-	3 J	-	-	
		1-2/91	-	-	-	-	7	6	-	-	-	-	-	
		3/93	-	-	-	-	-	-	-	-	-	-	-	
		2/95	-	-	-	-	-	-	-	-	-	-	-	
		5/95	[4J]	-	4J	-	-	6J	-	-	-	-	-	
		8/95	[7J (7J)]	-	-	-	-	5J (5J)	-	-	-	-	-	
		12/95	0.8J	-	-	-	-	2.2	-	-	-	-	-	
		5/96	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	
		11/96	0.58J	-	-	-	-	5.4	-	-	-	-	-	
		5/97	[3.6(3.9)]	-(-)	-(-)	-(-)	-(-)	2.6(2.6)	-(-)	-(-)	-(-)	-(-)	-(-)	
		11/97	-	-	-	-	-	3.5	-	-	-	-	-	
		9/98	0.86J	-	-	0.66J	-	2.1	-	-	-	-	-	
		5/99	-		-	0.46	-	0.22	-	-	-	-	-	
	MW02AR	5/00	-	-	-	-	-	-	-	-	-	-	-	
		8/00	-	-	-	-	-	-	-	-	-	-	-	
		11/00	-	-	-	-	-	-	-	-	-	-	-	-
		2/01	-	-	-	-	-	-	-	-	-	-	-	
		5/01	-	-	-	-	-	-	-	-	-	-	-	-
		8/01	-	-	-	-	-	-	-	-	-	-	-	
		11/01	-	-	-	-	-	-	-	-	-	-	-	-
		2/02	-	-	-	-	-	-	-	-	-	-	-	
		5/02	-	-	-	-	-	-	-	-	-	-	-	-
		8/02	-	-	-	-	-	-	-	-	-	-	-	-
		11/02	-	-	-	-	-	-	-	-	-	-	-	-
		5/03	-	-	-	-	-	-	-	-	-	-	-	-
		11/03	-	-	-	-	-	-	-	-	-	-	-	-
		5/04	-	-	-	-	-	-	-	-	-	-	-	-
		11/04	-	-	-	-	-	-	-	-	-	-	-	-
		5/05	-	-	-	-	-	-	-	-	-	-	-	-
		11/05	-	-	-	-	-	-	-	-	-	-	-	-
		5/06	-	-	-	-	-	-	-	-	-	-	-	-
		11/06	-	-	-	-	-	-	-	-	-	-	-	-
		05/07	-	-	-	-	-	-	-	-	-	-	-	-
		11/07	-	-	-	-	-	-	-	-	-	-	-	-
		5/08	-	-	-	-	-	-	-	-	-	-	-	-
		11/08	-	-	-	-	-	-	-	-	-	-	-	-
		5/09	-	-	-	-	-	-	-	-	-	-	-	-
		11/09	-	-	-	-	-	-	-	-	-	-	-	-
	MW03A	12/88	-	-	2 J	-	-	-	-	-	-	-	-	
		4/89	[28]	-	8 J	1 J	3 J	48	-	-	-	3 J	-	
		1-2/91	-	12(12)	4 J (4 J)	1 (1 J)	-	-	-	-	1 J	-	1 J	
		3/93	-	-	-	-	-	-	-	-	-	-	-	
		2/95	-	-	-	-	-	-	-	-	-	-	-	
		5/95	-	-	-	-	-	-	-	-	-	-	-	
		8/95	-	-	-	-	-	-	-	-	-	-	-	
		12/95	-	-	0.8J	1.4	-	-	-	-	-	-	-	
		5/96	-	-	0.9J	1J	-	-	-	-	-	-	-	
		11/96	1.2	-	-	1.1	-	2.9	-	-	-	-	-	

J = estimated value
( ) duplicate analysis
1,2-DCE (total) was detected as cis-1,2-DCE during 3/93, 5/97, and 11/97 events
J values for Methylene Chloride, carbon disulfide, and acetone not listed
[1] *Risk-level cleanup levels from Powell Road Landfill ROD, Table 21*
[2] *Chemical specific Applicable or Relevant and Appropriate Requirements, Powell Road Landfill ROD, Table 22.*
[3] *Samples associated with pumping test of MW16A. First result is prior to pumping, second is post pumping and third is post pumping duplicate.*
[4] *MW16A resampling because of inconsistent results in 5/96. 5/96 results for Vinyl Chloride and 1,2-DCE are suspect.*
[5] *Result reposrted as <10ug/l due to dilution, estimated result is 4.6 ug/l*
- = no detections
Monitoring wells and residential wells not listed had no detections of VOCs
MCL for cis-1,2-DCE is 70; for trans-1,2-DCE is 100
[ ] = indicates values above MCL

TABLE N-1.
SUMMARY OF VOCS AND SVOCS IN WELLS WITH DETECTIONS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO
(concentrations in ug/L)

	Wells with Detections	Sampling Date	Vinyl Chloride	Acetone	Chloroethane	Chlorobenzene	1,1 DCA	1,2 DCE (total)	TCE	1,1,1 TCA	Tetrachloroethene	Benzene	Xylenes	1,4-Dioxane
	MCLs		2			100		70;100	5	200	5	5	10,000	
	10^{-4} Risk [1]		4						25,000					300
	ARARS [2]		2						5			5		
ONSITE	MW04A	12/88	[6J]	-	98	3 J	7	1 J	-	-	-	4 J	-	
Shallow Zone		4/89	-	-	-	3 J	3 J	-	-	-	-	3 J	-	
		1-2/91	-	-	27	6	8	1 J	-	-	-	1 J	-	
		3/93	1.4 (1.3)	-	35 (31)	4.7 (4.3)	4.9 (3.8)	1.7 (1.4)	-	-	-	-	-	
		2/95	-	-	11	6 J	2 J	-	-	-	-	-	-	
		5/95	-	-	6J	4J	2J	-	-	-	-	-	-	
		8/95	-	-	14	4J	-	-	-	-	-	-	-	
		12/95	-	-	16	5.6	1	0.6J	-	-	-	-	-	
		5/96	-	-	9	6	0.8J	-	-	-	-	0 6J	-	
		11/96	-	-	0.73J	5 2	-	-	-	-	-	-	-	
		5/97	-	-	4.8	5 8	-	-	-	-	-	-	-	
		11/97	-	-	1.1J	5.5J	-	-	-	-	-	-	-	
		9/98	-		3.5	7.2	-	-	-	-	-	-	-	
		5/99	-(-)		16(15)	5.3(5.2)	-(-)	0.25(0.23)	-(-)	-(-)	-(-)	0.34(0.33)	-(-)	
	MW04AR	5/00	-	-	-	4.5	-	-	-	-	-			
		8/00	-	-	9.5	4.4	-	-	-	-	-	-	-	
		11/00	-(-)	-(-)	16(18)	4.8 (4.8)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-
		2/01	-	-	-	2.6	-	-	-	-	-	-	-	
		5/01	-(-)	-(-)	8.5(8.6)	3.6(3.8)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	61(43)
		8/01	-(-)	-(-)	50(49)	3.9(4.3)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	64(74)
		11/01	-	-	13	4.2	-	-	-	-	-	-	-	110
		2/02	-	-	6.8	3.4	-	-	-	-	-	-	-	41
		5/02	-(-)	-(-)	-(-)	3.5(3.7)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	54(49)
		8/02	-	-	-	5.6	-	-	-	-	-	-	-	60
		11/02	-	-	-	5.5	-	-	-	-	-	-	-	110
		5/03	1.0	-	-	2.8	-	-	-	-	-	-	-	40
		11/03	-	-	-	3 7	-	-	-	-	-	-	-	97
		5/04	-	-	-	3.6	-	-	-	-	-	-	-	80
		11/04	-(-)	-(-)	-(-)	5.0(5.1)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	110(110)
		5/05	-.	-	-	-[3]	-	-	-	-	-	-	-	53
		11/05	-(-)	-(-)	-(-)	2.9(2.9)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	53(50)
		5/06	-(-)	-(-)	-(-)	3.4(3.2)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	72(76)
		11/06	-(-)	-(-)	-(-)	2.7(2.5)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	50(48)
		05/07	-	-	-	2.8	-	-	-	-	-	-	-	51
		11/07	-(-)	-(-)	-(-)	4.6(4.9)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	68(65)
		5/08	-	-	-	2.3	-	-	-	-	-	-	-	49
		11/08	-(-)	-(-)	-(-)	4.1(4.3)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	74(72)
		5/09	-	-	-	2.3(2.3)	-	-	-	-	-	-	-	20(23J)
		11/09	-(-)	-(-)	-(-)	2.2 (2.2)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)
	MW05A	12/88	-	-	-	-	-	-	-	-	-	-	-	
		4/89	[16]	-	-	-	-	-	-	-	-	-	-	
		1-2/91	-	-	-	-	-	-	-	-	-	-	-	
		3/93	-	-	-	-	-	-	-	-	-	-	-	
		2/95	-	-	-	-	-	-	-	-	-	-	-	
		5/95	-	-	-	-	-	-	-	-	-	-	-	
		8/95	-	-	-	-	-	-	-	-	-	-	-	
		12/95	-	-	0 6J	-	-	-	-	-	-	-	-	
		5/96	-	-	1J	-	-	-	-	-	-	-	-	
		11/96	-	-	-	-	-	-	-	-	-	-	-	
		5/97	-	-	-	-	-	-	-	-	-	-	-	
		11/97	-	-	-	-	7.2J	-	-	-	-	-	-	
		9/98	-		-	-	-	-	-	-	-	-	-	
		5/99	-		0.87	-	-	-	-	-	-	-	-	

J = estimated value
( ) duplicate analysis
1,2-DCE (total) was detected as cis-1,2-DCE during 3/93, 5/97, and 11/97 events
J values for Methylene Chloride, carbon disulfide, and acetone not listed
[1] Risk-level cleanup levels from Powell Road Landfill ROD, Table 21
[2] Chemical specific Applicable or Relevant and Appropriate Requirements, Powell Road Landfill ROD, Table 22.
[3] Samples associated with pumping test of MW16A. First result is prior to pumping, second is post pumping and third is post pumping duplicate.
[4] MW16A resampling because of inconsistent results in 5/96. 5/96 results for Vinyl Chloride and 1,2-DCE are suspect.

-= no detections
Monitoring wells and residential wells not listed had no detections of VOCs
MCL for cis-1,2-DCE is 70; for trans-1,2-DCE is 100
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POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO
(concentrations in ug/L)

	Wells with Detections	Sampling Date	Vinyl Chloride	Acetone	Chloroethane	Chlorobenzene	1,1-DCA	1,2-DCE (total)	TCE	1,1,1-TCA	Tetrachloroethene	Benzene	Xylenes	1,4-Dioxane
	MCLs		2			100		70;100	5	200	5	5	10,000	
	10^{-4} Risk [1]		4						25,000					300
	ARARS [2]		2						5			5		
ONSITE Shallow Zone	MW05AR	5/00	-	-	-	-	-	-	-	-	-	-	-	
		8/00	-	-	-	-	-	-	-	-	-	-	-	
		11/00	-	-	-	-	-	-	-	-	-	-	-	-
		2/01	-	-	-	-	-	-	-	-	-	-	-	
		5/01	-	-	-	-	-	-	-	-	-	-	-	-
		8/01	-	-	-	-	-	-	-	-	-	-	-	
		11/01	-	-	-	-	-	-	-	-	-	-	-	-
		2/02	-	-	-	-	-	-	-	-	-	-	-	-
		5/02	-	-	-	-	-	-	-	-	-	-	-	-
		8/02	-	-	-	-	-	-	-	-	-	-	-	-
		11/02	-	-	-	-	-	-	-	-	-	-	-	-
		5/03	-	-	-	-	-	-	-	-	-	-	-	-
		11/03	-	-	-	-	-	-	-	-	-	-	-	-
		5/04	-	-	-	-	-	-	-	-	-	-	-	-
		11/04	-	-	-	-	-	-	-	-	-	-	-	-
		5/05	-	-	-	-	-	-	-	-	-	-	-	-
		11/05	-	-	-	-	-	-	-	-	-	-	-	-
		5/06	-	-	-	-	-	-	-	-	-	-	-	-
		11/06	-	-	-	-	-	-	-	-	-	-	-	-
		5/07	-	-	-	-	-	-	-	-	-	-	-	-
		11/07	-	-	-	-	-	-	-	-	-	-	-	-
		5/08	-	-	-	-	-	-	-	-	-	-	-	-
		11/08	-	-	-	-	-	-	-	-	-	-	-	-
		5/09	-	-	-	-	-	-	-	-	-	-	-	-
		11/09	-	-	-	-	-	-	-	-	-	-	-	-
	MW07A	12/88	[12 (16)]	-	23 (31)	-	28 (29)	[110 (120)]	-	48 (49)	-	2 J (2 J)	-	
		4/89	-	-	-	-	-	4 J (-)	-	10 (7)	-	-	-	
		1-2/91	-	-	-	-	-	-	-	-	-	-	-	
		3/93	-	-	-	-	-	-	-	-	-	-	-	
		2/95	-	-	-	-	-	-	-	-	-	-	-	
		5/95	-	-	-	-	-	-	-	-	-	-	-	
		8/95	-	-	-	-	-	-	-	-	-	-	-	
		12/95	-	-	-	-	-	-	-	0.6J	-	-	-	
	MW16A	1-2/91	-	-	6 J	-	-	1 J	-	-	-	-	-	
		3/93	-	-	8.7	-	1.1	-	-	-	-	-	-	
		2/95	-	-	-	-	-	-	-	-	-	-	-	
		5/95	-	-	-	-	-	-	-	-	-	-	-	
		6/20/95[3]	- - (-)	- - (-)	- - (-)	- - (-)	- - (-)	5J 4J (5J)	- - (-)	- - (-)	- - (-)	- - (-)	- - (-)	
		8/95	-	-	-	-	-	-	-	-	-	-	-	
		12/95	-	-	4.2 (4.1)	0.9J (0.9J)	0.5J (0 5J)	-	-	(0.5J)	-	-	-	
		5/96	[20J]	-	4J	1J	1J	33J	-	-	-	-	-	
		8/96[4]	-	-	6J	1J	0.6J	-	-	-	-	-	-	
		11/96	- (-)	- (-)	2.3J(2.0)	1 1(0.93J)	-	0.69J(0.64J)	- (-)	- (-)	- (-)	- (-)	- (-)	
		5/97	0.73J	-	4.4	0.97J	-	0 72J	-	-	-	-	-	
		11/97	-	-	1.7	1.0	-	-	-	-	-	-	-	
		9/98	-		1 9J	0.93J	-	-	-	-	-	-	-	
		5/99	-		1.1	1.1	-	-	-	-	-	-	-	
		5/00	-	-	-	-	-	-	-	-	-	-	-	
		8/00	-	-	-	-	-	-	-	-	-	-	-	
		11/00	-	-	-	-	-	-	-	-	-	-	-	-

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POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO
(concentrations in ug/L)

	Wells with Detections	Sampling Date	Vinyl Chloride	Acetone	Chloroethane	Chlorobenzene	1,1 DCA	1,2 DCE (total)	TCE	1,1,1 TCA	Tetrachloroethene	Benzene	Xylenes	1,4-Dioxane
	MCLs		2			100		70,100	5	200	5	5	10,000	
	10^{-4} Risk [1]		4						25,000					300
	ARARS [2]		2						5			5		
ONSITE	MW-16A	2/01	-	-	-	-	1.4	-	-	-	-	-	-	
Shallow Zone	(cont'd)	5/01	-	-	-	-	-	-	-	-	-	-	-	-
		8/01	-	-	-	-	-	-	-	-	-	-	-	
		11/01	-	-	-	-	-	-	-	-	-	-	-	10
		2/02	1.0(1.2)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	7J
		5/02	-	-	-	-	-	-	-	-	-	-	-	12
		8/02	-	-	-	-	-	-	-	-	-	-	-	8J
		11/02	-	-	-	-	-	-	-	-	-	-	-	-
		5/03	[2.1](1.8)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)
		11/03	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	17(17)
		5/04	-	-	-	-	-	-	-	-	-	-	-	21
		11/04	-	-	-	-	-	-	-	-	-	-	-	10
		5/05	-	-	-	-	-	-	-	-	-	-	-	10
		11/05	-	-	-	-	-	-	-	-	-	-	-	13
		5/06	-	-	-	-	-	-	-	-	-	-	-	11
		11/06	-	-	-	-	-	-	-	-	-	-	-	-
		05/07	1.5	-	-	-	-	-	-	-	-	-	-	22
		11/07	-	-	-	-	-	-	-	-	-	-	-	-
		5/08	-	-	-	-	-	-	-	-	-	-	-	16
		11/08	-	-	-	-	-	-	-	-	-	-	-	10
		5/09	-	-	-	-	-	-	-	-	-	-	-	-
		11/09	-	-	-	-	-	-	-	-	-	-	-	-
	MW17A	5/00	[5.3]([5.3])	- (-)	- (-)	- (-)	- (-)	7.0 (7.0)	- (-)	- (-)	- (-)	- (-)	- (-)	
		6/00	- (-)											
		8/00	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	
		11/00	1.6	-	-	-	-	-	-	-	-	-	-	-
		2/01	[2.1](1.9)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	
		5/01	[2.3]	-	-	-	-	-	1.2	-	-	-	-	-
		8/01	[5.4]	-	-	-	-	9.2	-	-	-	-	-	
		11/01	[5.4] ([5.3])	-	-	-	-	9.9 (9.7)	-	-	-	-	-	41 (43)
		2/02	[4.5]	-	-	-	-	7.3	-	-	-	-	-	16
		5/02	1.6	-	-	-	-	-	-	-	-	-	-	21
		8/02	-	-	-	-	-	-	-	-	-	-	-	19
		11/02	-	-	-	-	-	-	-	-	-	-	-	28
		5/03	-	-	-	-	-	-	-	-	-	-	-	-
		11/03	-	-	-	-	-	-	-	-	-	-	-	49
		5/04	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	38(43)
		11/04	-	-	-	-	-	-	-	-	-	-	-	35
		5/05	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	21(22)
		11/05	-	-	-	-	-	-	-	-	-	-	-	13
		5/06	-	-	-	-	-	-	-	-	-	-	-	21
		11/06	-	-	-	-	-	-	-	-	-	-	-	28
		05/07	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	23(22)
		11/07	-	-	-	-	-	-	-	-	-	-	-	16
		5/08	-	-	-	-	-	-	-	-	-	-	-	15
		11/08	-	-	-	-	-	-	-	-	-	-	-	29
		5/09	-	-	-	-	-	-	-	-	-	-	-	15
		11/09	-	-	-	-	-	-	-	-	-	-	-	43
	MW18A	5/00	-	-	-	-	-	-	-	-	-	-	-	
		6/00	-	-	-	-	-	-	-	-	-	-	-	
		8/00	-	-	-	-	-	-	-	-	-	-	-	
		11/00	-	-	-	-	-	-	-	-	-	-	-	-
		2/01	-	-	-	-	-	-	-	-	-	-	-	
		5/01	-	-	-	-	-	-	-	-	-	-	-	-
		8/01	-	-	-	-	-	-	-	-	-	-	-	
		11/01	-	-	-	-	-	-	-	-	-	-	-	-
		2/02	-	-	-	-	-	-	-	-	-	-	-	
		5/02	-	-	-	-	-	-	-	-	-	-	-	-
		8/02	-	-	-	-	-	-	-	-	-	-	-	4J
		11/02	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)
		5/03	-	-	-	-	-	-	-	-	-	-	-	-
		11/03	-	-	-	-	-	-	-	-	-	-	-	-

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1,2-DCE (total) was detected as cis-1,2-DCE during 3/93, 5/97, and 11/97 events

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POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO
(concentrations in ug/L)

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	MCLs		2			100		70;100	5	200	5	5	10,000	
	10^{-4} Risk [1]		4						25,000					300
	ARARS [2]		2						5			5		
ONSITE Shallow Zone	MW18A (cont'd)	5/04	-	-	-	-	-	-	-	-	-	-	-	-
		11/04	-	-	-	-	-	-	-	-	-	-	-	-
		5/05	-	-	-	-	-	-	-	-	-	-	-	-
		11/05	-	-	-	-	-	-	-	-	-	-	-	-
		5/06	1	-	-	-	-	-	-	-	-	-	-	-
		6/06	1.3											
		11/06	-	-	-	-	-	-	-	-	-	-	-	-
		05/07	-	-	-	-	-	-	-	-	-	-	-	-
		11/07	-	-	-	-	-	-	-	-	-	-	-	-
		5/08	1.2	-	-	-	-	-	-	-	-	-	-	-
		11/08	1.6	-	-	-	-	-	-	-	-	-	-	10
		5/09	1.3	-	-	-	-	-	-	-	-	-	-	-
		11/09	-	-	-	-	-	-	-	-	-	-	-	22
	MW19A	2/02	1.5	-	-	-	-	-	-	-	-	-	-	22
		5/02	-	-	-	-	-	-	-	-	-	-	-	18
		8/02	-	-	-	-	-	-	-	-	-	-	-	24
		11/02	-	-	-	-	-	-	-	-	-	-	-	24
		5/03	-	-	-	-	-	-	-	-	-	-	-	-
		11/03	-	-	-	-	-	-	-	-	-	-	-	28
		5/04	-	-	-	-	-	-	-	-	-	-	-	11
		11/04	-	-	-	-	-	-	-	-	-	-	-	32
		5/05	-	-	-	-	-	-	-	-	-	-	-	26
		11/05	-	-	-	-	-	-	-	-	-	-	-	-
		5/06	-	-	-	-	-	-	-	-	-	-	-	23
		11/06	-	-	-	-	-	-	-	-	-	-	-	22
		05/07	-	-	-	-	-	-	-	-	-	-	-	21
		11/07	-	-	-	-	-	-	-	-	-	-	-	18
		5/08	-	-	-	-	-	-	-	-	-	-	-	13
		11/08	-	-	-	-	-	-	-	-	-	-	-	19
		5/09	-	-	-	-	-	-	-	-	-	-	-	15
		11/09	-	-	-	-	-	-	-	-	-	-	-	15
	MW20A	2/02	[3.2]	-	-	-	-	-	-	-	-	-	-	10
		5/02	[4.2]	-	-	-	-	9.4	-	-	-	-	-	11
		8/02	[3.2] [(3.7)]	-	-	-	-	7.6 (8.6)	-	-	-	-	-	13 (15)
		11/02	[3.1]	-	-	-	-	9.0	-	-	-	-	-	18
		5/03	1.1	-	-	-	-	-	-	-	-	-	-	-
		11/03	-	-	-	-	-	-	-	-	-	-	-	12
		5/04	-	-	-	-	-	-	-	-	-	-	-	11
		11/04	1.1	-	-	-	-	-	-	-	-	-	-	23
		5/05	-	-	-	-	-	-	-	-	-	-	-	15
		11/05	-	-	-	-	-	-	-	-	-	-	-	16
		5/06	-	-	-	-	-	-	-	-	-	-	-	8J
		11/06	-	-	-	-	-	-	-	-	-	-	-	18
		05/07	-	-	-	-	-	-	-	-	-	-	-	13
		11/07	-	-	-	-	-	-	-	-	-	-	-	9J
		5/08	-	-	-	-	-	-	-	-	-	-	-	6J
		11/08	-	-	-	-	-	-	-	-	-	-	-	11
		5/09	-	-	-	-	-	-	-	-	-	-	-	-
		11/09	-	-	-	-	-	-	-	-	-	-	-	16
ONSITE Primary Aquifer	MW03B	12/88	-	-	-	-	-	-	-	-	-	-	-	
		4/89	-	-	-	-	-	-	-	-	-	-	-	
		1-2/91	-	-	-	-	-	-	-	-	1 J (-)	-	-	
		3/93	-	-	-	-	-	-	-	-	-	-	-	
	MW04B	12/88	-	-	-	5 J	150	-	-	-	-	-	-	
		4/89	-	-	-	-	120	-	-	-	-	-	-	
		1-2/91	-	-	-	-	42	-	-	-	-	-	-	

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(concentrations in ug/L)

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	MCLs		2			100		70,100	5	200	5	5	10,000	
	10^{-4} Risk [1]		4						25,000					300
	ARARS [2]		2						5			5		
ONSITE	MW04BR	1-2/91	-	-	13 (8 J)	-	41 (130)	-	-	-	-	-	-	
Primary Aquifer		3/93	-	-	3.4	-	48.6	-	-	-	-	-	-	
		2/95	-	-	-	-	43	-	-	-	-	-	-	
		5/95	-	-	-	-	34	-	-	-	-	-	-	
		7-8/95	-	-	-	-	44	-	-	-	-	-	-	
		12/95	-	-	-	-	29	-	-	-	-	-	-	
		5/96	-	-	-	-	44	-	-	-	-	-	-	
		11/96	-	-	-	-	38J	0.62J	-	-	-	-	-	
		5/97	-	-	0.58J	-	38	-	-	-	-	-	-	
		11/97	-	-	-	-	39 (39)	-	-	-	-	-	-	
		9/98	-		-	-	24	-	-	-	-	-	-	
		5/99	-(-)		-(-)	-(-)	25(25)	0.22(0.20)	-(-)	-(-)	-(-)	-(-)	-(-)	
	MW04BRR	5/00	-	-	-	-	15	-	-	-	-	-	-	
		8/00	-	-	-	-	11	-	-	-	-	-	-	
		11/00	-	-	-	-	11	-	-	-	-	-	-	-
		2/01	-	-	-	-	13	-	-	-	-	-	-	
		5/01	-	-	-	-	12	-	-	-	-	-	-	-
		8/01	-	-	-	-	10	-	-	-	-	-	-	
		11/01	-	-	-	-	11	-	-	-	-	-	-	-
		2/02	-	-	-	-	12	-	-	-	-	-	-	
		5/02	-	-	-	-	8.5	-	-	-	-	-	-	-
		8/02	-	-	-	-	10	-	-	-	-	-	-	
		11/02	-	-	-	-	7.5	-	-	-	-	-	-	-
		5/03	-	-	-	-	9.4	-	-	-	-	-	-	-
		11/03	-	-	-	-	7.4	-	-	-	-	-	-	-
		5/04	-	-	-	-	6.5	-	-	-	-	-	-	-
		11/04	-	-	-	-	6.1	-	-	-	-	-	-	-
		5/05	-	-	-	-	5.8	-	-	-	-	-	-	-
		11/05	-	-	-	-	5.3	-	-	-	-	-	-	-
		5/06	-	-	-	-	5.1	-	-	-	-	-	-	-
		11/06	-	-	-	-	4.4	-	-	-	-	-	-	-
		05/07	-	-	-	-	4	-	-	-	-	-	-	-
		11/07	-	-	-	-	4	-	-	-	-	-	-	-
		5/08	-(-)	-(-)	-(-)	-(-)	3.5(3.5)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)
		11/08	-	-	-	-	3.7	-	-	-	-	-	-	-
		5/09	-	-	-	-	3.2	-	-	-	-	-	-	-
		11/09	-	-	-	-	3.9	-	-	-	-	-	-	-
	MW16B	1-2/91	-	-	-	-	-	-	-	-	-	-	-	
		3/93	-	-	-	-	-	-	-	-	-	-	-	
		2/95	-	-	-	-	-	-	-	-	-	-	-	
		5/95	[3J]	-	-	-	-	-	-	-	-	-	-	
		7-8/95	-	-	-	-	-	-	-	-	-	-	-	
		12/95	-	-	-	-	-	-	-	-	-	-	-	
		5/96	-	-	-	-	-	-	-	-	-	-	-	
		11/96	-	-	-	-	-	1.8J	-	-	-	-	-	
		5/97	-	-	-	-	-	-	-	-	-	-	-	
		11/97	(-) -	(-) -	(-) -	(-) -	(-) -	(-) -	(-) -	(-) -	(-) -	(-) -	(-) -	
		9/98	-		-	-	-	-	-	-	-	-	-	
		5/99	-		-	-	-	0.4	-	-	-	-	-	
		5/00	-	-	-	-	-	-	-	-	-	-	-	
		8/00	-	-	-	-	-	-	-	-	-	-	-	
		11/00	-	-	-	-	-	-	-	-	-	-	-	-

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[3] *Samples associated with pumping test of MW16A. First result is prior to pumping, second is post pumping and third is post pumping duplicate.*

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TABLE N-1.
SUMMARY OF VOCS AND SVOCS IN WELLS WITH DETECTIONS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO
(concentrations in ug/L)

	Wells with Detections	Sampling Date	Vinyl Chloride	Acetone	Chloroethane	Chlorobenzene	1,1-DCA	1,2-DCE (total)	TCE	1,1,1-TCA	Tetrachloroethene	Benzene	Xylenes	1,4-Dioxane
	MCLs		2			100		70;100	5	200	5	5	10,000	
	10^{-4} Risk [1]		4						25,000					300
	ARARS [2]		2						5			5		
ONSITE		2/01	-	-	-	-	-	-	-	-	-	-	-	
Primary Aquifer	MW-16B	5/01	-	-	-	-	-	-	-	-	-	-	-	-
	(cont'd)	8/01	-	-	-	-	-	-	-	-	-	-	-	
		11/01	-	-	-	-	-	-	-	-	-	-	-	-
		2/02	-	-	-	-	-	-	-	-	-	-	-	
		5/02	-	-	-	-	-	-	-	-	-	-	-	-
		8/02	-	-	-	-	-	-	-	-	-	-	-	
		11/02	-	-	-	-	-	-	-	-	-	-	-	-
		5/03	-	-	-	-	-	-	-	-	-	-	-	-
		11/03	-	-	-	-	-	-	-	-	-	-	-	-
		5/04	-	-	-	-	-	-	-	-	-	-	-	-
		11/04	-	-	-	-	-	-	-	-	-	-	-	-
		5/05	-	-	-	-	-	-	-	-	-	-	-	-
		11/05	-	-	-	-	-	-	-	-	-	-	-	-
		5/06	-	-	-	-	-	-	-	-	-	-	-	-
		11/06	-	-	-	-	-	-	-	-	-	-	-	-
		05/07	-	-	-	-	-	-	-	-	-	-	-	-
		11/07	-	-	-	-	-	-	-	-	-	-	-	-
		5/08	-	-	-	-	-	-	-	-	-	-	-	-
		11/08	-	-	-	-	-	-	-	-	-	-	-	-
		5/09	-	-	-	-	-	-	-	-	-	-	-	-
		11/09	-	-	-	-	-	-	-	-	-	-	-	-
OFFSITE	MW13B	4/89	-	-	-	-	-	-	-	-	-	-	-	
Primary Aquifer		1-2/91	-	-	-	-	-	5	[8]	-	-	-	-	
		3/93	-	-	-	-	-	-	-	-	-	-	-	
		2/95	-	-	-	-	-	-	-	-	-	-	-	
		5/95	-	-	-	-	-	-	-	-	-	-	-	
		7-8/95	-	-	-	-	-	-	-	-	-	-	-	
		12/95	-	-	-	-	-	-	-	0.6J	-	-	-	
		5/96	-	-	-	-	-	-	-	-	-	-	-	
		11/96	-	-	-	-	-	-	-	-	-	-	-	
		5/97	-	-	-	-	-	-	-	-	-	-	0.71J	
		11/97	-	-	-	-	-	-	-	-	-	-	-	
		9/98	-		-	-	-	-	-	-	-	-	-	
		5/99	-		-	-	-	-	-	-	-	-	-	
		5/00	-	-	-	-	-	-	-	-	-	-	-	
		8/00	-	-	-	-	-	-	-	-	-	-	-	
		11/00	-	-	-	-	-	-	-	-	-	-	-	-
		2/01	-	-	-	-	-	-	-	-	-	-	-	
		5/01	-	-	-	-	-	-	-	-	-	-	-	
		8/01	-	-	-	-	-	-	-	-	-	-	-	
		11/01	-	-	-	-	-	-	-	-	-	-	-	-
		2/02	-	-	-	-	-	-	-	-	-	-	-	
		5/02	-	-	-	-	-	-	-	-	-	-	-	
		8/02	-	-	-	-	-	-	-	-	-	-	-	
		11/02	-	-	-	-	-	-	-	-	-	-	-	-

J = estimated value
( ) duplicate analysis
1,2-DCE (total) was detected as cis-1,2-DCE during 3/93, 5/97, and 11/97 events
J values for Methylene Chloride, carbon disulfide, and acetone not listed
[1] Risk-level cleanup levels from Powell Road Landfill ROD, Table 21
[2] Chemical specific Applicable or Relevant and Appropriate Requirements, Powell Road Landfill ROD, Table 22.
[3] Samples associated with pumping test of MW16A. First result is prior to pumping, second is post pumping and third is post pumping duplicate.
[4] MW16A resampling because of inconsistent results in 5/96. 5/96 results for Vinyl Chloride and 1,2-DCE are suspect.

- = no detections
Monitoring wells and residential wells not listed had no detections of VOCs
MCL for cis-1,2-DCE is 70; for trans-1,2-DCE is 100
[ ] = indicates values above MCL

TABLE N-1.
SUMMARY OF VOCS AND SVOCS IN WELLS WITH DETECTIONS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO
(concentrations in ug/L)

	Wells with Detections	Sampling Date	Vinyl Chloride	Acetone	Chloroethane	Chlorobenzene	1,1-DCA	1,2-DCE (total)	TCE	1,1,1-TCA	Tetrachloroethene	Benzene	Xylenes	1,4-Dioxane
	MCLs		2			100		70;100	5	200	5	5	10,000	
	10^{-6} Risk [1]		4						25,000					300
	ARARS [2]		2						5			5		
OFFSITE	MW13B	5/03	-	-	-	-	-	-	-	-	-	-	-	-
Primary Aquifer	(cont'd)	11/03	-	-	-	-	-	-	-	-	-	-	-	-
		5/04	-	-	-	-	-	-	-	-	-	-	-	
		11/04	-	-	-	-	-	-	-	-	-	-	-	-
		5/05	-	-	-	-	-	-	-	-	-	-	-	
		11/05	-	-	-	-	-	-	-	-	-	-	-	-
		5/06	-	-	-	-	-	-	-	-	-	-	-	
		11/06	-	-	-	-	-	-	-	-	-	-	-	-
		05/07	-	-	-	-	-	-	-	-	-	-	-	
		11/07	-	-	-	-	-	-	-	-	-	-	-	-
		5/08	-	-	-	-	-	-	-	-	-	-	-	
		11/08	-	-	-	-	-	-	-	-	-	-	-	-
		5/09	-	-	-	-	-	-	-	-	-	-	-	
		11/09	-	-	-	-	-	-	-	-	-	-	-	-
	MW15B	1-2/91	-	-	-	-	-	4 J (-)	[7] (-)	-	-	-	-	
		3/93	1.4 (1.4)	-	-	-	-	5.0 (5.3)	[5.6 (5.8)]	-	-	-	-	
		2/95	-	-	-	-	-	-	3J	-	-	-	-	
		5/95	-	-	--	-	-	2J	3J	-	-	-	-	
		7-8/95	-	-	-	-	-	-	4J	-	-	-	-	
		12/95	-	-	-	-	-	1.8	4.5	-	-	-	-	
		5/96	0 6J	-	-	-	-	3	4	-	-	-	-	
		11/96	-	-	-	-	-	4	4.2	-	-	-	-	
		5/97	-	-	-	-	-	2.7	4.3	-	-	-	-	
		11/97	-	-	-	-	-	2.6J	3.7J	-	-	-	-	
		9/98	-		-	-	-	2 8	3.5	-	-	-	-	
		5/99	-		-	-	-	2.6	3.3	-	-	-	-	
		5/00	-	-	-	-	-	-	2.1	-	-	-	-	
		8/00	-	-	-	-	-	-	2.3	-	-	-	-	
		11/00	-	-	-	-	-	-	2.1J	-	-	-	-	-
		2/01	-	-	-	-	-	-	2.0	-	-	-	-	
		5/01	-	-	-	-	-	-	1 8	-	-	-	-	-
		8/01	-	-	-	-	-	-	2.0	-	-	-	-	
		11/01	-	-	-	-	-	-	2.5	-	-	-	-	-
		2/02	-	-	-	-	-	-	1.8	-	-	-	-	
		5/02	-	-	-	-	-	-	2.1	-	-	-	-	-
		8/02	-	-	-	-	-	-	2.3	-	-	-	-	
		11/02	-	-	-	-	-	-	1.7	-	-	-	-	-
		5/03	-	-	-	-	-	-	1.3	-	-	-	-	-
		11/03	-	-	-	-	-	-	1.8	-	-	-	-	-
		5/04	-	-	-	-	-	-	1.3	-	-	-	-	-
		11/04	-	-	-	-	-	-	1.5	-	-	-	-	-
		5/05	-	-	-	-	-	-	1.7	-	-	-	-	-
		11/05	-	-	-	-	-	-	1.2	-	-	-	-	-
		5/06	-	-	-	-	-	-	1.7	-	-	-	-	-
		11/06	-	-	-	-	-	-	1.6	-	-	-	-	-
		05/07	-	-	-	-	-	-	1.7	-	-	-	-	-
		11/07	-	-	-	-	-	-	1.4	-	-	-	-	-
		5/08	-	-	-	-	-	-	1.5	-	-	-	-	-
		11/08	-	-	-	-	-	-	1.4	-	-	-	-	-
		5/09	-	-	-	-	-	-	1.2	-	-	-	-	-
		11/09	-	-	-	-	-	-	1.1	-	-	-	-	-

J = estimated value
( ) duplicate analysis
1,2-DCE (total) was detected as cis-1,2-DCE during 3/93, 5/97, and 11/97 events
J values for Methylene Chloride, carbon disulfide, and acetone not listed
[1] Risk-level cleanup levels from Powell Road Landfill ROD, Table 21
[2] Chemical specific Applicable or Relevant and Appropriate Requirements, Powell Road Landfill ROD, Table 22.
[3] Samples associated with pumping test of MW16A. First result is prior to pumping, second is post pumping and third is post pumping duplicate.
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TABLE N-1.
SUMMARY OF VOCS AND SVOCS IN WELLS WITH DETECTIONS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO
(concentrations in ug/L)

	Wells with Detections	Sampling Date	Vinyl Chloride	Acetone	Chloroethane	Chlorobenzene	1,1 DCA	1,2 DCE (total)	TCE	1,1,1-TCA	Tetrachloroethene	Benzene	Xylenes	1,4-Dioxane
	MCLs		2			100		70;100	5	200	5	5	10,000	
	10^{-6} Risk [1]		4						25,000					300
	ARARS [2]		2						5			5		
RESIDENTIAL	P862	12/88	-	-	-	-	-	-	-	-	-	-	-	
		3/93	-	-	-	-	-	0.8 (0.8)	3.0 (2.6)	-	-	-	-	
		4/93	-	-	-	-	-	1.0 (1.0)	2.9 (2.9)	-	-	-	-	
		2/95	-	-	-	-	-	-	-	-	-	-	-	
		5/95	-	-	-	-	-	-	-	-	-	-	-	
		7-8/95	-	-	-	-	-	-	-	-	-	-	-	
		12/95	-	-	-	-	-	-	2	-	-	-	-	
		5/96	-	-	-	-	-	- (0.5J)	2 (1)	-	-	-	-	
		11/96	-	-	-	-	1.3 (-)	1.2 (1.1)	2.5 (2.6)	-	-	-	-	
		5/97	-	-	-	-	-	-	2.6	-	-	-	-	
		11/97	-	-	-	-	-	1.4	3.2	-	-	-	-	

J = estimated value
( ) duplicate analysis
1,2-DCE (total) was detected as cis-1,2-DCE during 3/93, 5/97, and 11/97 events
J values for Methylene Chloride, carbon disulfide, and acetone not listed
[1] Risk-level cleanup levels from Powell Road Landfill ROD, Table 21
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Monitoring wells and residential wells not listed had no detections of VOCs
MCL for Cis-1,2-DCE is 70; for trans-1,2-DCE is 100
[ ] = indicates values above MCL

TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW01A 2/95	MW01A 5/95	MW01A 7-8/95	MW01B 2/95	MW01B 5/95	MW01B 7-8/95	MW01B 11/96	MW02A 2/95	MW02A 5/95	MW02A 7-8/95	MW02A 7-8/95 Dup.	MW02A 5/99
Aluminum, total	ug/L		50-200									--					--
Antimony, total	ug/L	6			10/5							--					--
Arsenic, total	ug/L	50/10[4]		4	50					7.8	10.2	14.4			2.7 J	5.0	--
Barium, total	ug/L	2000					94.1	108	359.0	365	364	--	223.0	276	265	256	--
Beryllium, total	ug/L	4		2	1*							--					--
Cadmium, total	ug/L	5										--					--
Calcium, total	ug/L					90700	90100	94900	91400	89900	88200	--	203000	253000	247000	242000	158000
Chromium, total	ug/L	100															--
Cobalt, total	ug/L											--					--
Copper, total	ug/L	**	1000									--					--
Iron, total	ug/L		300			203.0			1780	1760 J	1730	--	3970	5570	3820	3590	4530
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	--
Lead, total	ug/L	**										--					--
Magnesium, total	ug/L					36900	37700	36900	39200	38000	36300	--	30400	39900	38500	37900	22100
Manganese, total	ug/L		50			7.6		18.9	25.5	25.4 J	24.7	--	1340	1500	1490	1410	519
Mercury, total	ug/L	2			2												--
Nickel, total	ug/L											--					--
Potassium, total	ug/L					2240		2530	1530		1370	--	1830				
Selenium, total	ug/L	50										--					--
Silver, total	ug/L		100									--					--
Sodium, total	ug/L					19400	21100	21500	6890	7220	7140	--	11600	25000	19000	18200	8010
Strontium	ug/L					--	--	--	--	--	--	--	--	--	--	--	--
Thallium, total	ug/L	2															--
Vanadium, total	ug/L											--					--
Zinc, total	ug/L		5000									--					--

Note: Blank spaces represent non-detect values.

-- = Dash represents no analysis.

[ ] = indicates values above MCL.

J = Estimated value.

UJ = Estimated nondetection.

[1] Risk-based cleanup levels from Powell Road Landfill ROD, Table 21.

[2] Chemical specific Applicable or Relevant and Appropriate Requirements, Powell Road Landfill ROD, Table 22.

[3] Samples associated with pumping test of MW16A. First result is prior to pumping, second is post pumping and third is post pumping duplicate.

[4] MCL for arsenic changed to 10 ug/L effective 2/22/02.

** MCL listed on Table 22 of the ROD for Beryllium is listed as 1 ug/L. The current MCL is 4 ug/L.*

*** Action level at tap for copper is 1,300 ug/L; at tap for lead is 15 ug/L.*

TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter[3]	Units	MCL	Secondary Standard[1]	10^{-4} Risk[1]	ARARS[2]	MW02AR 5/00[3]	8/00[3]	11/00	2/01[3]	5/01[3]	8/01	11/01	2/02[3]	5/02[3]	8/02	11/02	5/03	11/03	5/04	11/04	5/05
Aluminum, total	ug/L		50-200				--		--		--		--		--						
Antimony, total	ug/L	6			10/5		--		--		--		--		--				--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	5.7	14	5.4	2.1	1.2	2.2	1.5			1.7	1.5		1.4		1.0	
Barium, total	ug/L	2000				350	--	230	--	170	--	160	--	140	--	120	130	140	130	110	120
Beryllium, total	ug/L	4		2	1*		--		--		--		--		--				--	--	--
Cadmium, total	ug/L	5					--		--		--		--		--				--	--	--
Calcium, total	ug/L					231000	218000	199000	108000	186000	188000	180000	182000	180000	175000	161000	209000J	224000	217000	188000	201000
Chromium, total	ug/L	100					--		--		--		--		--						
Cobalt, total	ug/L						--		--		--		--		--				--	--	--
Copper, total	ug/L	**	1000				--		--		--		--		--						
Iron, total	ug/L		300			4100	7900	1500	4100	350	1600	900	310	140	1900	420	82J	120J	200	670	50
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--		30	190		40		60	10
Lead, total	ug/L	**					--		--		--		--		--						
Magnesium, total	ug/L					33800	30300	28800	34000	33100	32200	32400	34600	35800	30200	29400	38600	36800	36100	35400	40100
Manganese, total	ug/L		50			520	--	550	--	330	--	410	--	75	--	360	680	530	510	320	44
Mercury, total	ug/L	2			2		--		--		--		--		--						
Nickel, total	ug/L						--		--		--		--		--						
Potassium, total	ug/L					3400	3300	2500	2400	2000	2000	1700	1600	1600	1800	1800	2700	2000	1700	1900	1800
Selenium, total	ug/L	50					--		--		--		--		--						
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					11900	14200 J	17200	20500	17500	16900	16500	15300	12600	13100	13700	16600	12500	10100	10100	10700
Strontium	ug/L					1200	--	1100J	--	930	--	990J	--	1100	--	950	980	1100J	1200	1100	1100
Thallium, total	ug/L	2					--		--		--		--		--						
Vanadium, total	ug/L						--		--		--		--		--				--	--	--
Zinc, total	ug/L		5000				--		--		--		--		--						

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Note: Blank spaces represent non-detect values.

-- = Dash represents no analysis.

[ ] = indicates values above MCL.

J = Estimated value.

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[1] *Risk-based cleanup levels from Powell Road Landfill ROD, Table 21.*

[2] *Chemical specific Applicable or Relevant and Appropriate Requirements, Powell Road Landfill ROD, Table 22.*

[3] *Samples associated with pumping test of MW16A. First result is prior to pumping, second is post pumping and third is post pumping duplicate.*

[4] *MCL for arsenic changed to 10 ug/L effective 2/22/02.*

* *MCL listed on Table 22 of the ROD for Beryllium is listed as 1 ug/L. The current MCL is 4 ug/L.*

** *Action level at tap for copper is 1,300 ug/L; at tap for lead is 15 ug/L.*

TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW02AR (cont'd) 11/05	5/06	11/06	5/07	11/07	5/08	11/08	5/09	11/09
Aluminum, total	ug/L		50-200											
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50			2.0						
Barium, total	ug/L	2000				110	100	100	97	84	88	82	104	123
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					194000	203000	164000	164000	140000	151000	153000	170000	171000
Chromium, total	ug/L	100												
Cobalt, total	ug/L					--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000											
Iron, total	ug/L		300			220	150	2000	140	140	220		124	371
Iron, Ferrous	ug/L					100		80	--	100	10		10	150
Lead, total	ug/L	**												
Magnesium, total	ug/L					40300	44400	35400	33600J+	30200	31100	31600	37200	39500
Manganese, total	ug/L		50			47	260	310	100	82	31	85	170	275
Mercury, total	ug/L	2			2									
Nickel, total	ug/L													
Potassium, total	ug/L					2000	2100	1800	1800	1900	1800	2100	2260	2320
Selenium, total	ug/L	50												
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					14000	10400	14400	8000	13000	9600	9800	14500	17000
Strontium	ug/L					1100	860	760	960	790	830	950	933	934
Thallium, total	ug/L	2												
Vanadium, total	ug/L					--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000											

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** *Action level at tap for copper is 1,300 ug/L; at tap for lead is 15 ug/L.*

TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW02B 5/00	8/00	11/00	2/01	5/01	8/01	11/01	2/02	5/02	8/02	11/02	5/03	11/03	5/04	11/04	5/05
Aluminum, total	ug/L		50-200			700	--	1700	--	160	--	1300	--	160	--		310	120	1600	900	
Antimony, total	ug/L	6			10/5		--		--		--		--		--				--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	2.7	2.8	2.8	1.9	1.9	1.8	2.6	1.6			2.1	1.6	2.1	1.3	1.7	1.3
Barium, total	ug/L	2000				190	--	200	--	160	--	190	--	170	--	170	170	180	200	190	160
Beryllium, total	ug/L	4		2	1*		--		--		--		--		--				--	--	--
Cadmium, total	ug/L	5					--		--		--		--		--				--	--	--
Calcium, total	ug/L					104000	102000	111000	102000	101000	105000	114000	104000	95500	91200	102000	109000J	102000	106000	103000	90700
Chromium, total	ug/L	100					--		--		--		--		--						
Cobalt, total	ug/L						--		--		--		--		--				--	--	--
Copper, total	ug/L	**	1000				--		--		--		--		--						
Iron, total	ug/L		300			4300	4900	5300	3900	3800	4000	5300	3800	3600	3200	3600	4100J	3600J	4900	4300	3100
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	2160	2780	2010	1810	2940	1970	2830	2040
Lead, total	ug/L	**					--		--		--		--		--						
Magnesium, total	ug/L					32000	32600	34900	32200	32100	33500	36300	33000	29900	29300	32800	34600	32100	33200	32200	27400
Manganese, total	ug/L		50			130	--	150	--	120	--	150	--	120	--	130	130	120	140	140	110
Mercury, total	ug/L	2			2		--		--		--		--		--						
Nickel, total	ug/L						--		--		--		--		--						
Potassium, total	ug/L					2800	3000	2900	2400	2300	2600	2700	2300	2200	2500	2400	2300	2400	3000	2700	2400
Selenium, total	ug/L	50					--		--		--		--		--						
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					20900	18800 J	19000	19600	17900	19700	20200	19800	20300	24100	20800	18200	21700	21100	21800	19400
Strontium	ug/L					220	--	210J	--	180	--	190J	--	210	--	200	200	180J	140	210	180
Thallium, total	ug/L	2					--		--		--		--		--						
Vanadium, total	ug/L						--		--		--		--		--				--	--	--
Zinc, total	ug/L		5000				--		--		--		--		--						

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TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW02B (cont'd)								
						11/05	5/06	11/06	5/07	11/07	5/08	11/08	5/09	11/09
Aluminum, total	ug/L		50-200			110	1900	1100	1800	180	800	550	256	1020
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	1.2	1.4	1.2						1.0
Barium, total	ug/L	2000				180	190	190	180	170	170	170	178	175
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					106000	102000	102000	90200	95200	95300	94500	99600	98200
Chromium, total	ug/L	100												
Cobalt, total	ug/L					--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000											
Iron, total	ug/L		300			3700	5500	4200	4400	3400	3900	3600	3520	3990
Iron, Ferrous	ug/L					2230	2870	2470	--	1150	2400	1590	2990	1260
Lead, total	ug/L	**												
Magnesium, total	ug/L					31400	33900	31600	28000J+	28500	29600	29800	31300	31300
Manganese, total	ug/L		50			130	150	130	130	120	130	120	129	126
Mercury, total	ug/L	2			2									
Nickel, total	ug/L													
Potassium, total	ug/L					2400	3000	2800	2900	2400	2500	2500	2360	2460
Selenium, total	ug/L	50												
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					21000	19800	20900	16900	19000	17000	17500	19700	20000
Strontium	ug/L					200	170	180	180	200	200	210	195	210
Thallium, total	ug/L	2												
Vanadium, total	ug/L					--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000											

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TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW03A 2/95	MW03A 5/95	MW03A 7-8/95[3]	MW04A 2/95	MW04A 5/95	MW04A 7-8/95[3]	MW04A 12/95	MW04A 5/96	MW04A 11/96	MW04A 5/97	MW04A 11/97	MW04A 9/98	MW04A 5/99	MW04A 5/99 Dup.
Aluminum, total	ug/L		50-200									--	--	--	--	--	--	--	--
Antimony, total	ug/L	6			10/5							--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50			2.2	[71]	[57.4]	[84.9]	[91.4]	[84.3]	[70.9]	[82.9]	[64.3]	[89.9]	[78.2]	[79.2]
Barium, total	ug/L	2000				356.0	305	297	588.0	536	614	--	--	--	--	--	--	--	--
Beryllium, total	ug/L	4		2	1*							--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5										--	--	--	--	--	--	--	--
Calcium, total	ug/L					169000	181000	170000	143000	159000	181000	--	--	--	--	--	--	170000	168000
Chromium, total	ug/L	100										--	--	--	--	--	--	--	--
Cobalt, total	ug/L											--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000									--	--	--	--	--	--	--	--
Iron, total	ug/L		300			19300	8440	9130	13100	11800	11300	--	--	--	--	--	--	15900	15700
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead, total	ug/L	**										--	--	--	--	--	--	--	--
Magnesium, total	ug/L					43300	38500	36000	47000	46200	50100	--	--	--	--	--	--	43700	43500
Manganese, total	ug/L		50			214.0	190	187	252.0	394	312	--	--	--	--	--	--	137	135
Mercury, total	ug/L	2			2							--	--	--	--	--	--	--	--
Nickel, total	ug/L											--	--	--	--	--	--	--	--
Potassium, total	ug/L					10200	7990	9440	18400	17200	18200	--	--	--	--	--	--	11400	11300
Selenium, total	ug/L	50										--	--	--	--	--	--	--	--
Silver, total	ug/L		100									--	--	--	--	--	--	--	--
Sodium, total	ug/L					47100	36100	40800	43800	45800	44300	--	--	--	--	--	--	43400	43700
Strontium	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium, total	ug/L	2										--	--		--	--	--	--	--
Vanadium, total	ug/L											--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000									--	--	--	--	--	--	--	--

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TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW04AR[3] 5/00	8/00	11/00	11/00 Dup.	2/01	5/01	5/01 Dup.	8/01	8/01 Dup.	11/01	2/02	5/02	5/02 Dup.	8/02	11/02	5/03
Aluminum, total	ug/L		50-200				--			--			--	--		--			--		
Antimony, total	ug/L	6			10/5		--			--			--	--		--			--		
Arsenic, total	ug/L	50/10[4]		4	50	[74]	[76]	[98]	[95]	[61]	[50]	44	49	[51]	47	48	[42]	[44]	[47]	[49]	[36]
Barium, total	ug/L	2000				650	--	680	680	--	530	520	--	--	530	--	410	420	--	640	360
Beryllium, total	ug/L	4		2	1*		--			--			--	--		--			--		
Cadmium, total	ug/L	5					--			--			--	--		--			--		
Calcium, total	ug/L					142000	148000	152000	152000	131000	129000	126000	154000	155000	143000	137000	150000	154000	137000	135000	148000J
Chromium, total	ug/L	100					--			--			--	--		--			--		
Cobalt, total	ug/L						--			--			--	--		--			--		
Copper, total	ug/L	**	1000				--			--			--	--		--			--		
Iron, total	ug/L		300			13600	15300	15800	15800	10800	10400	10100	11000	11200	10800	10600	9200	9600	10300	11600	12400J
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	10440	--	6160	1480	1770
Lead, total	ug/L	**					--			--			--	--		--			--		
Magnesium, total	ug/L					48000	49200	52100	52200	40100	41100	40100	47500	48200	45500	42900	44000	45200	47100	48800	49100
Manganese, total	ug/L		50			150	--	160	160	--	170	160	--	--	190	--	210	220	--	190	110
Mercury, total	ug/L	2			2		--			--			--	--		--			--		
Nickel, total	ug/L						--			--			--	--		--			--		
Potassium, total	ug/L					22400	24300	23700	23800	14800	20000	19600	27300	27800	22600	20800	20200	20600	30800	29700	15100
Selenium, total	ug/L	50					--			--			--	--		--			--		
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					87700	100000 J	113000	114000	60600	72600	71400	100000	102000	76500	69400	65500	67600	95100	87900	55400
Strontium	ug/L					1100	--	1300J	1200J	--	1100	1100	--	--	1300J	--	1300	1200	--	1100	850
Thallium, total	ug/L	2					--			--			--	--		--			--		
Vanadium, total	ug/L						--			--			--	--		--			--		
Zinc, total	ug/L		5000				--			--			--	--		--			--		

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METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW04AR (cont'd) 11/03	5/04	11/04	11/04 Dup.	3/05	5/05	11/05	11/05 Dup.	5/06	5/06 Dup.	11/06	11/06 Dup.	5/07	11/07	11/07 Dup.	5/08
Aluminum, total	ug/L		50-200																		
Antimony, total	ug/L	6			10/5		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	[59]	[60]	[99]	[90]	[50]	[130]	[48]	[51]	[66]	[59]	[46]	[49]	[38]	[48]	[50]	[17]
Barium, total	ug/L	2000				570	350	640	650	--	470	580	590	420	410	530	530	310	630	640	360
Beryllium, total	ug/L	4		2	1*		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					156000	182000	130000	129000	--	187000	167000	171000	154000	154000	156000	155000	149000	124000	125000	165000
Chromium, total	ug/L	100								--											
Cobalt, total	ug/L						--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000							--											
Iron, total	ug/L		300			11300J	11700	11400	12300	--	17000	9300	9500	14300	13600	9000	9300	8300	9700	9800	6000
Iron, Ferrous	ug/L					2340	2210	3050	--	--	1220	2890	--	2490	--	2850	--	4940	2050	--	2110
Lead, total	ug/L	**								--											
Magnesium, total	ug/L					50600	53400	45400	45000	--	53900	51300	52700	47900	48000	50000	49600	42000	43800	44200	45600
Manganese, total	ug/L		50			280	370	150	150	--	320	290	300	250	250	280	280	350	100	100	270
Mercury, total	ug/L	2			2					--											
Nickel, total	ug/L									--											
Potassium, total	ug/L					22800	17000	25600	25400	--	17300	18200	18800	15200	15100	14400	14200	12500	19600	19900	11300
Selenium, total	ug/L	50								--											
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					76500	54600	87300	86100	--	51800	57500	59000	55200	55400	50000	50200	45200	65500	66300	41500
Strontium	ug/L					1100J	1300	1200	1200	--	1200	1300	1300	750	750	1000	980	1000	890	880	1100
Thallium, total	ug/L	2								--											
Vanadium, total	ug/L						--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000							--											

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METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW04AR (cont'd) 11/08	11/08 Dup.	5/09	5/09 Dup.	11/09	11/09 Dup.
Aluminum, total	ug/L		50-200								
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	[42]	[44]	[19.4]	[19.4]	[24.3]	[24.5]
Barium, total	ug/L	2000				730	700	493	486	343	352
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--
Calcium, total	ug/L					143000	136000	160000	15800	167000	171000
Chromium, total	ug/L	100									
Cobalt, total	ug/L					--	--	--	--	--	--
Copper, total	ug/L	**	1000								
Iron, total	ug/L		300			11000	10500	6430	6310	6480	6650
Iron, Ferrous	ug/L					1290	--	2030	--	1270	--
Lead, total	ug/L	**									
Magnesium, total	ug/L					50400	48300	46500	45900	48900	50300
Manganese, total	ug/L		50			150	150	203	201	306	314
Mercury, total	ug/L	2			2						
Nickel, total	ug/L										
Potassium, total	ug/L					21100	20100	12200	12000	10400	10700
Selenium, total	ug/L	50							0.6		
Silver, total	ug/L		100			--	--	--	--	--	--
Sodium, total	ug/L					75900	72600	31700	31300	20500	20900
Strontium	ug/L					970	1000	946	951	1030	1040
Thallium, total	ug/L	2									
Vanadium, total	ug/L					--	--	--	--	--	--
Zinc, total	ug/L		5000								

TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW04BR 2/95	5/95	7-8/95	12/95	5/96[3]	11/96	5/97	11/97	11/97[3] Dup	9/98	5/99	5/99 Dup
Aluminum, total	ug/L		50-200						--	--	--	--	--	--	--	--	--
Antimony, total	ug/L	6			10/5				--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	13.0	17.6	15.8	14.7	15.4	12.6	9.8	10.1	13.6	11.0	11.8	10.4
Barium, total	ug/L	2000				270.0	276	310	--	--	--	--	--	--	--	--	--
Beryllium, total	ug/L	4		2	1*				--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5							--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					94500	95300	109000	--	--	--	--	--	--	--	90200	92100
Chromium, total	ug/L	100							--	--	--	--	--	--	--	--	--
Cobalt, total	ug/L								--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000						--	--	--	--	--	--	--	--	--
Iron, total	ug/L		300			1640	1690	1870	--	--	--	--	--	--	--	1530	1540
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	--
Lead, total	ug/L	**							--	--	--	--	--	--	--	--	--
Magnesium, total	ug/L					35700	35700	40100	--	--	--	--	--	--	--	35700	36900
Manganese, total	ug/L		50			40.6	41.7	47.9	--	--	--	--	--	--	--	36.1	37.6
Mercury, total	ug/L	2			2				--	--	--	--	--	--	--	--	--
Nickel, total	ug/L								--	--	--	--	--	--	--	--	--
Potassium, total	ug/L					3930	3810	4450	--	--	--	--	--	--	--		
Selenium, total	ug/L	50							--	--	--	--	--	--	--	--	--
Silver, total	ug/L		100						--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					20700	21700	24100	--	--	--	--	--	--	--	24500	25400
Strontium	ug/L					--	--	--	--	--	--	--	--	--	--	--	--
Thallium, total	ug/L	2							--	--		--	--	--	--	--	--
Vanadium, total	ug/L								--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000						--	--	--	--	--	--	--	--	--

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* *MCL listed on Table 22 of the ROD for Beryllium is listed as 1 ☞g/O. The current MCL is 4 ☞g/O.*

** *Action level at tap for copper is 1,300 ☞g/O; at tap for lead is 15 ☞g/O.*

TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW04BRR 5/00	8/00	11/00	2/01	5/01	8/01	11/01	2/02	5/02	8/02	11/02	5/03	11/03	5/04	11/04	5/05
Aluminum, total	ug/L		50-200				--		--		--		--		--						120
Antimony, total	ug/L	6			10/5		--		--		--		--		--				--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	10.0	9.6	13.0	14.0	11.0	11.0	9.8	11.0	[11.0]	9.5	10.0	[11.0]	[11.0]	[11.0]	[14.0]	[13.0]
Barium, total	ug/L	2000				260	--	250	--	250	--	260	--	260	--	250	240	260	270	260	240
Beryllium, total	ug/L	4		2	1*		--		--		--		--		--				--	--	--
Cadmium, total	ug/L	5					--		--		--		--		--				--	--	--
Calcium, total	ug/L					85200	80700	90600	89200	88900	91500	89500	88600	87700	86600	87700	83000J	88900	93400	87100	83900
Chromium, total	ug/L	100					--		--		--		--		--						
Cobalt, total	ug/L						--		--		--		--		--				--	--	--
Copper, total	ug/L	**	1000				--		--		--		--		--	64					
Iron, total	ug/L		300			1500	1300	1400	1500	1400	1500	1500	1400	1400	1400	1400	1300J	1400J	1500	1400	1300
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	1170	1430	1380	1240	1370	1470	1510	1330
Lead, total	ug/L	**					--		--		--		--		--						
Magnesium, total	ug/L					33700	31000	35400	35100	34500	35900	35500	35400	35000	35400	35000	32200	34900	36200	33200	31600
Manganese, total	ug/L		50			34	--	35	--	34	--	35	--	34	--	34	32	35	36	33	31
Mercury, total	ug/L	2			2		--		--		--		--		--						
Nickel, total	ug/L						--		--		--		--		--						
Potassium, total	ug/L					3100	3100	3000	3000	3100	3200	2700	3000	3100	3000	3000	3000	3300	3400	3200	3000
Selenium, total	ug/L	50					--		--		--		--		--						
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					26000	23400 J	24500	24600	22300	23800	24200	24900	25800	26700	26800	30500	31100	30900	28400	26200
Strontium	ug/L					430	--	520J	--	430	--	440J	--	470	--	470	460	470J	870	510	470
Thallium, total	ug/L	2					--		--		--		--		--						
Vanadium, total	ug/L						--		--		--		--		--				--	--	--
Zinc, total	ug/L		5000				--		--		--		--		--	36					

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CONTINUED ON NEXT PAGE

TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW04BRR (cont'd)									
						11/05	5/06	11/06	5/07	11/07	5/08	5/08 DUP	11/08	5/09	11/09
Aluminum, total	ug/L		50-200												
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	[11]	10.0	[11]	10.0	9.8	[11]	[11]	10.0	10.0	[11.1]
Barium, total	ug/L	2000				260	240	260	240	230	230	230	240	239	268
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					92500	86400	91200	82000	83500	83900	83700	87200	89200	102000
Chromium, total	ug/L	100													
Cobalt, total	ug/L					--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000												
Iron, total	ug/L		300			1500	1400	1600	1200	1300	1500	1500	1400	1400	1660
Iron, Ferrous	ug/L					1440	1360	1460	1250	1270	1230		1310	1430	840
Lead, total	ug/L	**													
Magnesium, total	ug/L					35300	33300	36600	31500J+	31400	31500	31200	33400	34100	39800
Manganese, total	ug/L		50			34	33	36	32	32	33	33	32	33.1	36.8
Mercury, total	ug/L	2			2										
Nickel, total	ug/L														
Potassium, total	ug/L					3300	3000	2800	3000	2800	2800	2800	3100	2970	3210
Selenium, total	ug/L	50													
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					29600	26400	27000	25400	26700	27000	27200	29500	27600	26300
Strontium	ug/L					510	390	480	510	460	470	470	480	493	584
Thallium, total	ug/L	2													
Vanadium, total	ug/L					--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000												

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TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW05A 2/95	2/95 Dup.	5/95	7-8/95	5/96	11/96	5/97	11/97	9/98	5/99
Aluminum, total	ug/L		50-200							--	--	--	--	--	--
Antimony, total	ug/L	6			10/5					--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50			11.1	5.8	6.6		11.0		23.3	20.2
Barium, total	ug/L	2000				229.0	233.0	214	231	--	--	--	--	--	--
Beryllium, total	ug/L	4		2	1*					--	--	--	--	--	--
Cadmium, total	ug/L	5								--	--	--	--	--	--
Calcium, total	ug/L					102000	103000	100000	111000	--	--	--	--	--	120000
Chromium, total	ug/L	100							3.7	--	--	--	--	--	--
Cobalt, total	ug/L									--	--	--	--	--	--
Copper, total	ug/L	**	1000							--	--	--	--	--	--
Iron, total	ug/L		300			2560.0	2480.0	9260	3690	--	--	--	--	--	4110
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--
Lead, total	ug/L	**								--	--	--	--	--	--
Magnesium, total	ug/L					36200	36800	34600	40100	--	--	--	--	--	38000
Manganese, total	ug/L		50			220.0	226.0	124	182	--	--	--	--	--	563
Mercury, total	ug/L	2			2					--	--	--	--	--	--
Nickel, total	ug/L									--	--	--	--	--	--
Potassium, total	ug/L					3460	3460	3060	3750	--	--	--	--	--	4100
Selenium, total	ug/L	50								--	--	--	--	--	--
Silver, total	ug/L		100						2.4	--	--	--	--	--	--
Sodium, total	ug/L					37700	38100	58100	52200	--	--	--	--	--	41100
Strontium	ug/L					--	--	--	--	--	--	--	--	--	--
Thallium, total	ug/L	2								--		--	--	--	--
Vanadium, total	ug/L									--	--	--	--	--	--
Zinc, total	ug/L		5000							--	--	--	--	--	--

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TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW05AR 5/00	8/00	11/00	2/01	5/01	8/01	11/01	2/02	5/02	8/02	11/02	5/03	11/03	5/04	11/04	5/05
Aluminum, total	ug/L		50-200				--		--		--		--		--						
Antimony, total	ug/L	6			10/5		--		--		--		--		--				--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	2.6	3.0	4.3	2.4	1.3	2.0	1.8	2.9	2.8	7.2	3.3	1.6	3.6	9.2	5.1	1.8
Barium, total	ug/L	2000				250	--	260	--	210	--	200	--	190	--	210	220	180	200	200	180
Beryllium, total	ug/L	4		2	1*		--		--		--		--		--				--	--	--
Cadmium, total	ug/L	5					--		--		--		--		--				--	--	--
Calcium, total	ug/L					100000	94800	109000	99700	107000	107000	110000	103000	104000	101000	110000	130000J	101000	104000	110000	118000
Chromium, total	ug/L	100					--		--		--		--		--						
Cobalt, total	ug/L						--		--		--		--		--				--	--	--
Copper, total	ug/L	**	1000				--		--		--		--		--						
Iron, total	ug/L		300			2300	2200	3400	2500	380	2000	2600	1600	1500	5000	3100	2300J	2700J	9100	3400	710
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	920	1560	1460	1010	2000	2290	2320	480
Lead, total	ug/L	**					--		--		--		--		--						
Magnesium, total	ug/L					34400	33800	38600	33200	31300	38000	38300	32200	36000	38200	38500	37900	38800	39500	40400	39000
Manganese, total	ug/L		50			270	--	280	--	320	--	300	--	320	--	240	600	200	220	230	300
Mercury, total	ug/L	2			2		--		--		--		--		--						
Nickel, total	ug/L						--		--		--		--		--						
Potassium, total	ug/L					5400	5000	5300	5500	5400	4700	3600	4200	4200	4100	4500	5000	5000	6300	5200	6200
Selenium, total	ug/L	50					--		--		--		--		--						
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					45800	68600 J	62700	49500	49600	73400	55000	42600	47100	46700	43300	47400	59300	46800	52600	43800
Strontium	ug/L					770	--	790J	--	660	--	720J	--	880	--	720	780	670J	560	860	780
Thallium, total	ug/L	2					--		--		--		--		--						
Vanadium, total	ug/L						--		--		--		--		--				--	--	--
Zinc, total	ug/L		5000				--		--		--		--		--						

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TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW05AR (cont'd)								
						11/05	5/06	11/06	5/07	11/07	5/08	11/08	5/09	11/09
Aluminum, total	ug/L		50-200											
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	1.8		1.6	1.9	3.1	1.2	2.1		1.0
Barium, total	ug/L	2000				170	170	160	260	200	190	160	174	187
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					116000	105000	108000	139000	106000	118000	90100	113000	112000
Chromium, total	ug/L	100												
Cobalt, total	ug/L					--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000											
Iron, total	ug/L		300			660	730	1000	1300	3000	350	1600	349	664
Iron, Ferrous	ug/L					220	490	510	--	990	50	590		340
Lead, total	ug/L	**												
Magnesium, total	ug/L					35600	34200	35800	48200	37600	37600	36100	35200	36400
Manganese, total	ug/L		50			270	480	360	530	260	440	180	459	409
Mercury, total	ug/L	2			2									
Nickel, total	ug/L													
Potassium, total	ug/L					5500	5000	4200	6800	6000	4700	4500	5000	5290
Selenium, total	ug/L	50												
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					38900	52200	45300	53500	45700	41800	44300	48500	51500
Strontium	ug/L					880	570	680	1100	720	840	650	777	750
Thallium, total	ug/L	2												
Vanadium, total	ug/L					--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000											

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METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW05BR 5/00	8/00	11/00	2/01	5/01	8/01	11/01	2/02	5/02	8/02	11/02	5/03	11/03	5/04	11/04	5/05
Aluminum, total	ug/L		50-200				--		--		--		--		--						
Antimony, total	ug/L	6			10/5		--		--		--		--		--				--	--	--
Arsenic, total	ug/L	50/10[4]		4	50											1.1		1.1			
Barium, total	ug/L	2000				220	--	150	--	170	--	160	--	180	--	170	170	180	180	170	210
Beryllium, total	ug/L	4		2	1*		--		--		--		--		--				--	--	--
Cadmium, total	ug/L	5					--		--		--		--		--				--	--	--
Calcium, total	ug/L					98000	61000	78500	72900	82800	76700	81200	82200	85800	81900	84800	85300J	90100	90200	82800	102000
Chromium, total	ug/L	100					--		--		--		--		--						
Cobalt, total	ug/L						--		--		--		--		--				--	--	--
Copper, total	ug/L	**	1000				--		--		--		--		--						
Iron, total	ug/L		300														UJ				
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	230					50	20	10
Lead, total	ug/L	**					--		--		--		--		--						
Magnesium, total	ug/L					39400	23800	31900	29000	32300	30700	33800	34300	36000	35300	35700	34700	36400	35400	33300	39000
Manganese, total	ug/L		50				--		--		--		--		--						
Mercury, total	ug/L	2			2		--		--		--		--		--						
Nickel, total	ug/L						--		--		--		--		--						
Potassium, total	ug/L					3100	2500	2200	2400	2800	2800	2100	2800	2800	2500	2400	2700	2600	2800	2400	2900
Selenium, total	ug/L	50					--		--		--		--		--						
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					63800	73700 J	48400	44400	60900	76400	48300	44300	45200	44400	41800	54200	47300	51300	48800	49400
Strontium	ug/L					1100	--	810J	--	780	--	770J	--	950	--	910	830	890J	850	1000	1100
Thallium, total	ug/L	2					--		--		--		--		--						
Vanadium, total	ug/L						--		--		--		--		--				--	--	--
Zinc, total	ug/L		5000				--		--		--		--		--						

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CONTINUED ON NEXT PAGE

TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW05BR (cont'd)								
						11/05	5/06	11/06	5/07	11/07	5/08	11/08	5/09	11/09
Aluminum, total	ug/L		50-200											
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50									
Barium, total	ug/L	2000				160	180	160	160	160	170	170	180	143
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					82700	85000	80500	79400	83200	85500	86300	86300	74000
Chromium, total	ug/L	100												
Cobalt, total	ug/L					--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000											
Iron, total	ug/L		300				79							
Iron, Ferrous	ug/L					30	20	20	--	30	20			10
Lead, total	ug/L	**												
Magnesium, total	ug/L					33200	34100	34300	32300J+	33200	32600	34600	33400	29700
Manganese, total	ug/L		50											
Mercury, total	ug/L	2			2									
Nickel, total	ug/L													
Potassium, total	ug/L					2300	2600	2000	2200	2200	2300	2300	2680	2140
Selenium, total	ug/L	50												
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					51800	50600	46200	33800	43500	42600	44700	81000	55400
Strontium	ug/L					980	740	760	980	870	1100	970	1010	877
Thallium, total	ug/L	2												
Vanadium, total	ug/L					--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000											

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[1] Risk-based cleanup levels from Powell Road Landfill ROD, Table 21.

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*** Action level at tap for copper is 1,300 ug/L; at tap for lead is 15 ug/L.*

TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW07A 2/95	MW07A 5/95	MW07A 5/95 Dup.	MW07A 7-8/95	MW08B 2/95	MW08B 5/95	MW08B 7-8/95	MW08B 12/95	MW08B 5/96	MW08B 11/96	MW08B 5/97	MW08B 11/97
Aluminum, total	ug/L		50-200								9		--	--	--	--	--
Antimony, total	ug/L	6			10/5							-	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50								--	--	--	--	--
Barium, total	ug/L	2000				86.9			103	139.0	135	115	--	--	--	--	--
Beryllium, total	ug/L	4		2	1*								--	--	--	--	--
Cadmium, total	ug/L	5											--	--	--	--	--
Calcium, total	ug/L					156000	129000	140000	187000	94500	90400	83100	--	--	--	--	--
Chromium, total	ug/L	100								13.2		14.8	6.0	18.2	45.7	8.9	16.7
Cobalt, total	ug/L												--	--	--	--	--
Copper, total	ug/L	**	1000										--	--	--	--	--
Iron, total	ug/L		300				181	152	535	491.0	498	493	--	--	--	--	--
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	--
Lead, total	ug/L	**											--	--	--	--	--
Magnesium, total	ug/L					35100	28800	31100	40100	34600	32100	29300	--	--	--	--	--
Manganese, total	ug/L		50						15.4	7.9		5.2	--	--	--	--	--
Mercury, total	ug/L	2			2								--	--	--	--	--
Nickel, total	ug/L											54	--	--	--	--	--
Potassium, total	ug/L					1810			2190	3050	2390	2180	--	--	--	--	--
Selenium, total	ug/L	50											--	--	--	--	--
Silver, total	ug/L		100										--	--	--	--	--
Sodium, total	ug/L					20600	23000	24600	26100	42900	62500	62700	--	--	--	--	--
Strontium	ug/L					--	--	--	--	--	--	--	--	--	--	--	--
Thallium, total	ug/L	2											--	--	--	--	--
Vanadium, total	ug/L												--	--	--	--	--
Zinc, total	ug/L		5000										--	--	--	--	--

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TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW12A															
						2/95	5/95	7-8/95	12/95	5/96	11/96	5/97	11/97	9/98	5/99	5/00	8/00	11/00	2/01	5/01	8/01
Aluminum, total	ug/L		50-200						--	--	--	--	--	--	--		--		--		--
Antimony, total	ug/L	6			10/5				--	--	--	--	--	--	--		--		--		--
Arsenic, total	ug/L	50/10[4]		4	50				--	--	--	--	--	--							1.4
Barium, total	ug/L	2000				129.0	128	115	--	--	--	--	--	--	--	110.0	--	140.0	--	120	--
Beryllium, total	ug/L	4		2	1*				--	--	--	--	--	--	--		--		--		--
Cadmium, total	ug/L	5							--	--	--	--	--	--	--		--		--		--
Calcium, total	ug/L					86300	87200	86800	--	--	--	--	--	--	79500	84800	82300	91400	77900	86600	96700
Chromium, total	ug/L	100				[119]	80.3	[120]	33	34.4	23.9	[127]	49	83	22	61.0	--	32.0	--	14	--
Cobalt, total	ug/L								--	--	--	--	--	--	--		--		--		--
Copper, total	ug/L	**	1000						--	--	--	--	--	--	--		--		--		--
Iron, total	ug/L		300			817.0	407	785	--	--	--	--	--	--		250	1700	160	170	89	2200
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead, total	ug/L	**							--	--	--	--	--	--	--				--		--
Magnesium, total	ug/L					37900	37800	36000	--	--	--	--	--	--	33200	33400	33100	36700	31500	33100	38700
Manganese, total	ug/L		50			8.0			--	--	--	--	--	--			--		--		--
Mercury, total	ug/L	2			2				--	--	--	--	--	--	--		--		--		--
Nickel, total	ug/L								--	--	--	--	--	--	--		--		--		--
Potassium, total	ug/L					3130	2560	2860	--	--	--	--	--	--		2500	3100	3000	2600	2700	3200
Selenium, total	ug/L	50							--	--	--	--	--	--	--	5.0	--		--		--
Silver, total	ug/L		100						--	--	--	--	--	--	--	--	--		--	--	--
Sodium, total	ug/L					25500	32500	27300	--	--	--	--	--	--	26700	47100	40800 J	37700	34400	65300	38900
Strontium	ug/L					--	--	--	--	--	--	--	--	--	--	470	--	610J	--	500	--
Thallium, total	ug/L	2							--	--	--	--	--	--	[10.1]		--		--		--
Vanadium, total	ug/L								--	--	--	--	--	--	--		--		--		--
Zinc, total	ug/L		5000						--	--	--	--	--	--	--		--		--		--

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TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW12A (cont'd)															
						11/01[3]	2/02[3]	5/02[3]	8/02	11/02[3]	5/03	11/03[3]	5/04[3]	11/04	5/05[3]	11/05	5/06	11/06	5/07	11/07	5/08
Aluminum, total	ug/L		50-200				--		--												
Antimony, total	ug/L	6			10/5		--		--				--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50		1.1		2.2			1.4									
Barium, total	ug/L	2000				140	--	95	--	20	120	130	100	120	100	120	110	120	79	110	85
Beryllium, total	ug/L	4		2	1*		--		--				--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5					--		--				--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					96700	96300	81200	81000	6000R	84500J	91000	83300	80800	83500	87600	81100	94500	71800	79700	76800
Chromium, total	ug/L	100				21	--	25	--		23	12	12		72	29	19	93	12	36	60
Cobalt, total	ug/L						--		--				--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000				--		--												
Iron, total	ug/L		300			240	210	130	5200		89J	220J	57	120	380	190	150	430	140	260	350
Iron, Ferrous	ug/L					--	--					10	10	80	30	70	10	20		20	30
Lead, total	ug/L	**					--		--												
Magnesium, total	ug/L					38200	39800	33700	35100	26600	35500	37700	35900	33600	37000	37500	34900	39000	30800J+	33400	33100
Manganese, total	ug/L		50				--		--												
Mercury, total	ug/L	2			2		--		--												
Nickel, total	ug/L						--		--												
Potassium, total	ug/L					2400	2300	1900	2400	3100	2300	2900	2400	2600	3100	2900	2300	2200	2100	2400	2000
Selenium, total	ug/L	50					--		--												
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					40000	39900	31700	28700	30800	36400	30700	31500	28600	47000	37100	31100	51900	25000	34200	29800
Strontium	ug/L					550J	--	480	--	540	540	620J	400	600	510	560	430	510	490	500	500
Thallium, total	ug/L	2					--		--												
Vanadium, total	ug/L						--		--				--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000				--		--												

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TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW12A (cont'd) 11/08	5/09	11/09
Aluminum, total	ug/L		50-200					
Antimony, total	ug/L	6			10/5	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50			
Barium, total	ug/L	2000				120	94.4	111
Beryllium, total	ug/L	4		2	1*	--	--	--
Cadmium, total	ug/L	5				--	--	--
Calcium, total	ug/L					82000	73900	76900
Chromium, total	ug/L	100				290	92.5	13.6
Cobalt, total	ug/L					--	--	--
Copper, total	ug/L	**	1000					
Iron, total	ug/L		300			1700	491	84
Iron, Ferrous	ug/L					10		10
Lead, total	ug/L	**						
Magnesium, total	ug/L					35000	32500	33100
Manganese, total	ug/L		50					
Mercury, total	ug/L	2			2			
Nickel, total	ug/L							
Potassium, total	ug/L					2300	2420	2300
Selenium, total	ug/L	50						
Silver, total	ug/L		100			--	--	--
Sodium, total	ug/L					28600	109000	31500
Strontium	ug/L					520	434	521
Thallium, total	ug/L	2						
Vanadium, total	ug/L					--	--	--
Zinc, total	ug/L		5000					

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TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW12B 5/00	8/00	11/00	2/01	5/01	8/01	11/01	2/02	5/02	8/02	11/02	5/03	11/03	5/04	11/04	5/05
Aluminum, total	ug/L		50-200				--		--		--		--		--						
Antimony, total	ug/L	6			10/5		--		--		--		--		--				--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	8.6	8.5	10	[12]	9.1	9.7	8.7	8.4	9.8	8.1	10	7.7	9.8	9.4	[13]	[13]
Barium, total	ug/L	2000				380	--	370	--	340	--	370	--	350	--	350	310	350	330	340	350
Beryllium, total	ug/L	4		2	1*		--		--		--		--		--				--	--	--
Cadmium, total	ug/L	5					--		--		--		--		--				--	--	--
Calcium, total	ug/L					80900	77100	85500	75700	79000	86000	83700	81400	78100	78900	83600	78200J	82300	80300	81800	81100
Chromium, total	ug/L	100					--		--		--		--		--						
Cobalt, total	ug/L						--		--		--		--		--				--	--	--
Copper, total	ug/L	**	1000				--		--		--		--		--						
Iron, total	ug/L		300			1800	2000	2000	1800	1700	2200	2100	2000	1900	1900	2000	1400J	2000J	2100	2100	2300
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	1910	1830	1340	1370	1760	1660	1710	1810
Lead, total	ug/L	**					--		--		--		--		--						
Magnesium, total	ug/L					35900	33700	37700	33400	34000	37500	37200	36200	34700	36400	36900	34800	37100	36300	36100	35700
Manganese, total	ug/L		50			49.0	--	38.0	--	37	--	36	--	31	--	33	42	32	34	34	31
Mercury, total	ug/L	2			2		--		--		--		--		--						
Nickel, total	ug/L						--		--		--		--		--						
Potassium, total	ug/L					2000	2000	2000	2000	2200	2400	1800	2100	1900	2000	2400	2000	2000	2000	1900	1900
Selenium, total	ug/L	50					--		--		--		--		--						
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					24600	23200 J	24500	23500	25300	27800	27300	27000	24900	26300	27300	27200	26400	26900	28700	27600
Strontium	ug/L					1900	--	2100J	--	1700	--	1600J	--	2400	--	1900	1600	1900J	1400	1700	1800
Thallium, total	ug/L	2					--		--		--		--		--						
Vanadium, total	ug/L						--		--		--		--		--				--	--	--
Zinc, total	ug/L		5000				--		--		--		--		--						

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METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW12B (cont'd) 11/05	5/06	11/06	5/07	11/07	5/08	11/08	5/09	11/09
Aluminum, total	ug/L		50-200											
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	8.8	8	8.4	8.6	8.6	8.5	9.2	8.4	8.5
Barium, total	ug/L	2000				330	340	340	350	330	330	320	320	318
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					85900	81100	81100	77500	80900	78200	77200	79500	78900
Chromium, total	ug/L	100												
Cobalt, total	ug/L					--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000											
Iron, total	ug/L		300			2000	2000	2000	1900	2000	1900	2000	1760	1640
Iron, Ferrous	ug/L					1410	1850	1880	1870	1020	1900	1330	1460	660
Lead, total	ug/L	**												
Magnesium, total	ug/L					37800	36200	37900	35100J+	36000	34700	34500	35800	35700
Manganese, total	ug/L		50			35	34	33	32	33	32	32	39	44.1
Mercury, total	ug/L	2			2									
Nickel, total	ug/L													
Potassium, total	ug/L					1900	1800	1700	1900	1800	1700	1800	2000	1960
Selenium, total	ug/L	50												
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					30200	27600	29300	28500	31600	30600	31000	35600	35400
Strontium	ug/L					1800	1400	1800	2200	1700	2200	1800	1660	1830
Thallium, total	ug/L	2												
Vanadium, total	ug/L					--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000											

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METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW13B 2/95	5/95	7-8/95[3]	5/99	5/00	8/00	11/00	2/01	5/01	8/01	11/01	2/02	5/02	8/02	11/02	5/03
Aluminum, total	ug/L		50-200						--	--	--		--	--	--		--	--	--		--
Antimony, total	ug/L	6			10/5				--	--	--		--	--	--		--	--	--		--
Arsenic, total	ug/L	50/10[4]		4	50		5.7	4.5	--	3.8	3.4	7.8	4.6	3.7	3.9	2.6	3.9	4.4	4.9	4.6	3.6
Barium, total	ug/L	2000				253.0	226	240	--	--	--	220	--	--	--	220	--	--	--	190	--
Beryllium, total	ug/L	4		2	1*				--	--	--		--	--	--		--	--	--		--
Cadmium, total	ug/L	5							--	--	--		--	--	--		--	--	--		--
Calcium, total	ug/L					106000	94500	105000	95000	99300	93000	101000	92700	94300	102000	105000	99800	94800	96900	95200	93000J
Chromium, total	ug/L	100							--	--	--		--	--	--		--	--	--		--
Cobalt, total	ug/L								--	--	--		--	--	--		--	--	--		--
Copper, total	ug/L	**	1000						--	--	--		--	--	--		--	--	--		--
Iron, total	ug/L		300			3190.0	2520	2720	2520	2600	2500	2600	2500	2500	2700	2800	2800	2600	2600	2600	2500J
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	2710	2540	2230	2110
Lead, total	ug/L	**							--	--	--		--	--	--		--		--		--
Magnesium, total	ug/L					38400	33300	36300	35000	34600	32400	35500	32600	32400	35700	36800	35000	33300	34800	34400	33100
Manganese, total	ug/L		50			68.4	57.8	63.8	58.4	--	--	65	--	--	--	72	--	--	--	70	--
Mercury, total	ug/L	2			2				--	--	--		--	--	--		--	--	--		--
Nickel, total	ug/L								--	--	--		--	--	--		--	--	--		--
Potassium, total	ug/L					2280	2270			2600	2700		2800	2700	3000	2800	2600	2700	3000	2700	2600
Selenium, total	ug/L	50							--	--	--		--	--	--		--	--	--		--
Silver, total	ug/L		100					2.2	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					20100	18600	19700	16400	17800	17200 J	17900	17400	16900	18600	18800	18100	17900	18900	18000	19000
Strontium	ug/L					--	--	--	--	--	--	430J	--	--	--	190J	--	--	--	140	--
Thallium, total	ug/L	2							--	--	--		--	--	--		--	--	--		--
Vanadium, total	ug/L								--	--	--		--	--	--		--	--	--		--
Zinc, total	ug/L		5000						--	--	--		--	--	--		--	--	--		--

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** *Action level at tap for copper is 1,300 ug/L; at tap for lead is 15 ug/L.*

TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW13B (cont'd)												
						11/03	5/04	11/04	5/05	11/05	5/06	11/06	5/07	11/07	5/08	11/08	5/09	11/09
Aluminum, total	ug/L		50-200				--		--		--		--		--		--	568
Antimony, total	ug/L	6			10/5		--	--	--	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	4.8	4.5	5.7	5.0	4.0	3.5	3.8	3.8	4.0	3.9	3.9	4.2	4.5
Barium, total	ug/L	2000				200	--	200	--	210	--	210	--	220	--	210	--	234
Beryllium, total	ug/L	4		2	1*		--	--	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5					--	--	--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					95600	90500	92700	96600	97900	96500	93400	93100	95000	94700	93400	96600	115000
Chromium, total	ug/L	100					--		--		--		--		--		--	
Cobalt, total	ug/L						--	--	--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000				--		--		--		--		--		--	
Iron, total	ug/L		300			2800J	3200	2800	2600	2700	2600	2600	2600	2700	2600	2500	2560	3470
Iron, Ferrous	ug/L					2380	1960	2310	2560	1870	2390	2220	--	2790	2020	1890	2030	690
Lead, total	ug/L	**					--		--		--		--		--		--	8.9
Magnesium, total	ug/L					33500	32700	31700	32000	32700	33400	33200	33200J+	33200	32900	34100	34900	41600
Manganese, total	ug/L		50			70	--	71	--	70	--	72	--	67	--	64	--	142
Mercury, total	ug/L	2			2		--		--		--		--		--		--	
Nickel, total	ug/L						--		--		--		--		--		--	
Potassium, total	ug/L					2700	2500	2400	2400	2500	2600	2400	2500	2600	2600	2700	2550	3140
Selenium, total	ug/L	50					--		--		--		--		--		--	
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	
Sodium, total	ug/L					21200	19700	20000	20000	20800	21100	19800	21700	23900	22500	21400	22100	22900
Strontium	ug/L					160J	--	200	--	190	--	170	--	180	--	190	--	216
Thallium, total	ug/L	2					--		--		--		--		--		--	
Vanadium, total	ug/L						--	--	--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000				--		--		--		--		--		--	

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TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW13C 5/00	8/00	11/00	2/01	5/01	8/01	11/01	2/02	5/02	8/02	11/02	5/03	11/03	5/04	11/04	5/05
Aluminum, total	ug/L		50-200			330	--	--	--		--	--	--		--	--		--		--	
Antimony, total	ug/L	6			10/5		--	--	--		--	--	--		--	--		--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	6.0	7.2	15.0	7.9	6.3	5.4	6.0	6.4	6.7	6.9	6.7	6.0	7.2	4.7	8.2	7.2
Barium, total	ug/L	2000				380	--	--	--	340	--	--	--	330	--	--	330	--	320	--	330
Beryllium, total	ug/L	4		2	1*		--	--	--		--	--	--		--	--		--	--	--	--
Cadmium, total	ug/L	5					--	--	--		--	--	--		--	--		--	--	--	--
Calcium, total	ug/L					101000	89300	96800	83500	91200	101000	98600	93300	89100	93200	84700	91800J	92700	90100	86200	94800
Chromium, total	ug/L	100					--	--	--		--	--	--		--	--		--		--	
Cobalt, total	ug/L						--	--	--		--	--	--		--	--		--	--	--	--
Copper, total	ug/L	**	1000				--	--	--		--	--	--		--	--		--		--	
Iron, total	ug/L		300			2700	2400	2500	2200	2400	2700	2600	2500	2400	2500	2200	2400J	2500J	2100	2400	2400
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	2780	2420	2260	2150	2210	1920	2250	2300
Lead, total	ug/L	**					--	--	--		--	--	--		--	--		--		--	
Magnesium, total	ug/L					38100	33300	36200	31800	33900	38100	37500	35900	34200	36200	32900	35800	35300	34000	33000	35000
Manganese, total	ug/L		50			64.0	--	--	--	59	--	--	--	59	--	--	62	--	62	--	59
Mercury, total	ug/L	2			2		--	--	--		--	--	--		--	--		--		--	
Nickel, total	ug/L						--	--	--		--	--	--		--	--		--		--	
Potassium, total	ug/L					2200	1900	1900	1800	2000	2200	2000	1900	1900	1900	1900	1900	2000	2000	1900	1800
Selenium, total	ug/L	50					--	--	--		--	--	--		--	--		--		--	
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					16900	15100 J	15200	14500	15000	16400	16600	15900	15400	16600	15600	15100	15800	15600	15700	17000
Strontium	ug/L					420	--	--	--	380	--	--	--	450	--	--	410	--	300	--	380
Thallium, total	ug/L	2					--	--	--		--	--	--		--	--		--		--	
Vanadium, total	ug/L						--	--	--		--	--	--		--	--		--	--	--	--
Zinc, total	ug/L		5000				--	--	--		--	--	--		--	--		--		--	

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POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW13C (cont'd) 11/05	5/06	11/06	5/07	11/07	5/08	11/08	5/09	11/09
Aluminum, total	ug/L		50-200			--		--		--		--		--
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	5.6	5.1	5.4	5.1	6.0	4.9	5.0	5.2	5.6
Barium, total	ug/L	2000				--	320	--	330	--	330	--	334	--
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					91700	89600	88100	86400	86800	92200	91400	94000	92100
Chromium, total	ug/L	100				--		--		--		--		--
Cobalt, total	ug/L					--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000			--		--		--		--		--
Iron, total	ug/L		300			2400	2200	2300	2200	2300	2300	2400	2490	2430
Iron, Ferrous	ug/L					1950	2160	1940	--	2350	2180	1860	2060	790
Lead, total	ug/L	**				--		--		--		--		--
Magnesium, total	ug/L					34300	33700	34200	33300J+	31900	34200	35000	35400	34900
Manganese, total	ug/L		50			--	59	--	58	--	65	--	65	--
Mercury, total	ug/L	2			2	--		--	--	--		--		--
Nickel, total	ug/L					--		--	--	--		--		--
Potassium, total	ug/L					1800	1800	1700	1800	1800	1800	1900	1900	1900
Selenium, total	ug/L	50				--		--		--		--		--
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					17600	17800	18300	17800	17600	17200	16800	17300	18000
Strontium	ug/L					--	280	--	340	--	340	--	359	--
Thallium, total	ug/L	2				--		--		--		--		--
Vanadium, total	ug/L					--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000			--		--		--		--		--

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HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW14B 2/95	5/95	7-8/95	12/95	5/96	11/96	5/97	11/97	9/98	5/99	5/00	8/00	11/00	2/01	5/01	8/01
Aluminum, total	ug/L		50-200						--	--	--	--	--	--	--	--	--		--	--	--
Antimony, total	ug/L	6			10/5				--	--	--	--	--	--	--	--	--		--	--	--
Arsenic, total	ug/L	50/10[4]		4	50			5.0		5.8	--	--	--	--	6.13	3.9	4.2	4.4	3.9	3.4	4
Barium, total	ug/L	2000				201.0	193	207	--	--	--	--	--	--	--	--	--	200	--	--	--
Beryllium, total	ug/L	4		2	1*				--	--	--	--	--	--	--	--	--		--	--	--
Cadmium, total	ug/L	5							--	--	--	--	--	--	--	--	--		--	--	--
Calcium, total	ug/L					99400	94300	102000	--	--	--	--	--	--	91300	97200	91500	101000	88700	92100	94700
Chromium, total	ug/L	100									--	--	--	--		--	--		--	--	--
Cobalt, total	ug/L								--	--	--	--	--	--	--	--	--		--	--	--
Copper, total	ug/L	**	1000						--	--	--	--	--	--	--	--	--		--	--	--
Iron, total	ug/L		300			2650.0	2540	2780	--	--	--	--	--	--	2510	2700	2600	2800	2500	2600	2700
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead, total	ug/L	**							--	--	--	--	--	--	--	--	--		--	--	--
Magnesium, total	ug/L					38100	35800	37700	--	--	--	--	--	--	35000	36800	34000	38000	33900	33800	35600
Manganese, total	ug/L		50			71.1	67.9	73.1	--	--	--	--	--	--	67.9	--	--	75	--	--	--
Mercury, total	ug/L	2			2		0.12									--	--		--	--	--
Nickel, total	ug/L								--	--	--	--	--	--	--	--	--		--	--	--
Potassium, total	ug/L					1870		1660	--	--	--	--	--	--		1900	1900		1900	2100	2200
Selenium, total	ug/L	50							--	--	--	--	--	--	--	--	--		--	--	--
Silver, total	ug/L		100						--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					13700	13400	14500	--	--	--	--	--	--	13700	14900	15800 J		15700	17000	17100
Strontium	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	200J	--	--	--
Thallium, total	ug/L	2									--	--	--	--	[12.1]	--	--		--	--	--
Vanadium, total	ug/L								--	--	--	--	--	--	--	--	--		--	--	--
Zinc, total	ug/L		5000						--	--	--	--	--	--	--	--	--		--	--	--

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POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

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						11/01	2/02	5/02	8/02	11/02	5/03	11/03	5/04	11/04	5/05	11/05	5/06	11/06	5/07	11/07	5/08
Aluminum, total	ug/L		50-200				--	--	--		--		--		--		--		--		--
Antimony, total	ug/L	6			10/5		--	--	--		--		--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	2.5	3.0	4.1	2.7	3.7	3.6	4.4	3.3	4.9	4.2	3.7	3.2	3.5	3.3	3.4	3.5
Barium, total	ug/L	2000				200	--	--	--	190	--	220	--	200	--	210	--	190	--	190	--
Beryllium, total	ug/L	4		2	1*		--	--	--		--		--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5					--	--	--		--		--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					94900	90400	89900	92100	91300	88500J	95800	92300	91900	96700	98500	93200	85800	82900	83100	85000
Chromium, total	ug/L	100					--	--	--		--		--		--		--		--		--
Cobalt, total	ug/L						--	--	--		--		--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000				--	--	--		--		--		--		--		--		--
Iron, total	ug/L		300			2600	2500	2600	2600	2400	2500J	2700J	2600	2600	2600	2800	2600	2500	2400	2400	2400
Iron, Ferrous	ug/L					--	--	2280	2430	1640	1970	2270	1670	2500	2470	2420	2420	1800	--	2410	2060
Lead, total	ug/L	**					--	--	--		--		--		--		--		--		--
Magnesium, total	ug/L					36000	34700	34800	35500	35800	34200	35400	35600	35100	36100	36600	34500	33400	32200J+	30500	31300
Manganese, total	ug/L		50			71	--	--	--	69	--	70	--	71	--	74	--	69	--	65	--
Mercury, total	ug/L	2			2		--	--	--		--		--		--		--		--		--
Nickel, total	ug/L						--	--	--		--		--		--		--		--		--
Potassium, total	ug/L					2000	1900	2000	2000	2000	2000	2300	2200	2000	2100	2100	2100	1900	2000	2000	2000
Selenium, total	ug/L	50					--	--	--		--		--		--		--		--		--
Silver, total	ug/L		100			--	--	--	--	--	--		--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					17100	16300	17500	18300	17500	20200	20600	19600	20300	21000	21800	22300	22400	21200	25600	22900
Strontium	ug/L					210J	--	--	--	190	--	210J	--	220	--	210	--	200	--	180	--
Thallium, total	ug/L	2					--	--	--		--		--		--		--		--		--
Vanadium, total	ug/L						--	--	--		--		--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000				--	--	--		--		--		--		--		--		--

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** MCL listed on Table 22 of the ROD for Beryllium is listed as 1 ug/L. The current MCL is 4 ug/L.*

*** Action level at tap for copper is 1,300 ug/L; at tap for lead is 15 ug/L.*

TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL[2]	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW14B (cont'd) 11/08	5/09	11/09
Aluminum, total	ug/L		50-200				--	
Antimony, total	ug/L	6			10/5	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	3.0	3.4	3.6
Barium, total	ug/L	2000				180	--	193
Beryllium, total	ug/L	4		2	1*	--	--	--
Cadmium, total	ug/L	5				--	--	--
Calcium, total	ug/L					82100	87600	86100
Chromium, total	ug/L	100					--	
Cobalt, total	ug/L					--	--	--
Copper, total	ug/L	**	1000				--	
Iron, total	ug/L		300			2400	2480	2540
Iron, Ferrous	ug/L					1670	2.02	890
Lead, total	ug/L	**					--	
Magnesium, total	ug/L					31000	32800	32100
Manganese, total	ug/L		50			64	--	71.2
Mercury, total	ug/L	2			2		--	
Nickel, total	ug/L						--	
Potassium, total	ug/L					2000	2150	2270
Selenium, total	ug/L	50					--	
Silver, total	ug/L		100			--	--	--
Sodium, total	ug/L					23900	24700	23900
Strontium	ug/L					180	--	193
Thallium, total	ug/L	2					--	
Vanadium, total	ug/L					--	--	--
Zinc, total	ug/L		5000				--	

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TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW15B 2/95	5/95	7-8/95	5/99	5/00	8/00	11/00	2/01	5/01	8/01	11/01	2/02	5/02	8/02	11/02	5/03
Aluminum, total	ug/L		50-200						--	140	--		--		--		--		--		
Antimony, total	ug/L	6			10/5				--		--		--		--		--		--		
Arsenic, total	ug/L	50/10[4]		4	50				--		1							1.2		1.4	
Barium, total	ug/L	2000				259.0	237	269	--	310	--	270	--	270	--	260	--	280	--	250	260
Beryllium, total	ug/L	4		2	1*				--		--		--		--		--		--		
Cadmium, total	ug/L	5							--		--		--		--		--		--		
Calcium, total	ug/L					98900	88400	104000	89400	98500	85600	92200	87300	89700	95400	93400	94300	95100	95000	94100	93500J
Chromium, total	ug/L	100							--		--		--		--		--		--		
Cobalt, total	ug/L								--		--		--		--		--		--		
Copper, total	ug/L	**	1000						--		--		--		--		--		--		
Iron, total	ug/L		300								51				96						UJ
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	140	10		
Lead, total	ug/L	**							--		--		--		--		--		--		
Magnesium, total	ug/L					40900	34600	40100	37200	38200	32800	35800	34600	34000	36800	36600	37200	37200	37200	36400	35800
Manganese, total	ug/L		50			365.0	303	375	616	660	--	450	--	400	--	380	--	420	--	430	390
Mercury, total	ug/L	2			2				--		--		--		--		--		--		
Nickel, total	ug/L								--		--		--		--		--		--		
Potassium, total	ug/L					3170	3240	4390		4200	3400	3200	3200	3500	3600	3000	3100	3300	3300	3400	3700
Selenium, total	ug/L	50							--		--		--		--		--		--		
Silver, total	ug/L		100						--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					35000	28000	39100	29300	38300	41400 J	42000	35100	40600	43300	38500	38000	35500	37400	36100	36400
Strontium	ug/L					--	--	--	--	800	--	750J	--	700	--	740J	--	880	--	770	740
Thallium, total	ug/L	2							--		--		--		--		--		--		
Vanadium, total	ug/L								--		--		--		--		--		--		
Zinc, total	ug/L		5000						--		--		--		--		--		--		

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TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW15B (cont'd)												
						11/03[3]	5/04	11/04	5/05	11/05	5/06	11/06	5/07	11/07	5/08	11/08	5/09	11/09
Aluminum, total	ug/L		50-200															
Antimony, total	ug/L	6			10/5		--	--	--	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	2.0	1.5	1.9	2.5	2.1	2.0	2.2	2.8	3.2	3.4	4.1	3.9	3.9
Barium, total	ug/L	2000				310	300	270	310	280	270	260	280	230	250	250	257	200
Beryllium, total	ug/L	4		2	1*		--	--	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5					--	--	--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					106000	111000	91700	113000	99600	95400	93200	97200	83300	89900	91000	98000	77600
Chromium, total	ug/L	100																
Cobalt, total	ug/L						--	--	--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000															
Iron, total	ug/L		300						72	58	97	96	130	250	330	380	476	461
Iron, Ferrous	ug/L					10	39	120	60	80	90	90	--	220	360	370	420	350
Lead, total	ug/L	**																
Magnesium, total	ug/L					39500	44400	34700	41600	37200	35600	36600	37100J+	31600	33600	34900	38100	30300
Manganese, total	ug/L		50			440	540	490	580	520	510	500	500	400	460	420	455	338
Mercury, total	ug/L	2			2													
Nickel, total	ug/L																	
Potassium, total	ug/L					4200	3700	4000	4300	3800	3600	3100	3600	2900	3700	3800	3270	2310
Selenium, total	ug/L	50																
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					39800	36700	34200	39400	39600	35900	36200	33300	31900	30700	32100	40100	60500
Strontium	ug/L					790J	750	920	920	870	630	750	840	740	770	780	862	675
Thallium, total	ug/L	2																
Vanadium, total	ug/L						--	--	--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000															

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TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW15C 5/00	8/00	11/00	2/01	5/01	8/01	11/01	2/02	5/02	8/02	11/02	5/03	11/03	5/04	11/04	5/05
Aluminum, total	ug/L		50-200			630	--	--	--	260	--	--	--	200	--	--		--		--	120
Antimony, total	ug/L	6			10/5		--	--	--		--	--	--		--	--		--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	13	13	5	15	13	12	12	11	[13]	[11]	[11]	[12]	[13]	[10]	[15]	[15]
Barium, total	ug/L	2000				610	--	--	--	540	--	--	--	510	--	--	500	--	500	--	500
Beryllium, total	ug/L	4		2	1*		--	--	--		--	--	--		--	--		--	--	--	--
Cadmium, total	ug/L	5					--	--	--		--	--	--		--	--		--	--	--	--
Calcium, total	ug/L					92900	80600	87600	79400	84600	87500	88000	81600	79100	83900	81700	80800J	84200	81800	79100	86700
Chromium, total	ug/L	100					--	--	--		--	--	--		--	--		--		--	
Cobalt, total	ug/L						--	--	--		--	--	--		--	--		--	--	--	--
Copper, total	ug/L	**	1000				--	--	--		--	--	--		--	--		--		--	
Iron, total	ug/L		300			3500	2400	2600	2600	2800	2800	2700	2800	2400	2500	1800	2200J	2300J	2100	2200	2200
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	1740	2060	1400	1830	2070	1970	1730	2010
Lead, total	ug/L	**					--	--	--		--	--	--		--	--		--		--	
Magnesium, total	ug/L					4300	36800	40100	37000	38200	40200	40900	38600	37400	39400	39400	38400	38200	38000	37400	40200
Manganese, total	ug/L		50			33	--	--	--	32	--	--	--	27	--	--	23	--	27	--	28
Mercury, total	ug/L	2			2		--	--	--		--	--	--		--	--		--		--	
Nickel, total	ug/L						--	--	--		--	--	--		--	--		--		--	
Potassium, total	ug/L					2300	1900	2000	1900	2200	2300	2000	2000	2000	2000	2200	2000	2300	2100	2200	1900
Selenium, total	ug/L	50					--	--	--		--	--	--		--	--		--		--	
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					13400	12000 J	12300	11700	11600	12700	12700	12200	11800	12800	12000	13000	13400	13500	13300	14900
Strontium	ug/L					5400	--	--	--	640	--	--	--	630	--	--	5300	--	5500	--	7000
Thallium, total	ug/L	2					--	--	--		--	--	--		--	--		--		--	
Vanadium, total	ug/L						--	--	--		--	--	--		--	--		--	--	--	--
Zinc, total	ug/L		5000			310	--	--	--		--	--	--		--	--		--		--	

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TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW15C (cont'd) 11/05	5/06	11/06	5/07	11/07	5/08	11/08	5/09	11/09
Aluminum, total	ug/L		50-200			--	190	--		--		--	189	--
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	[12]	[11]	[11]	[11]	[12]	[13]	[11]	[12.9]	[12.9]
Barium, total	ug/L	2000				--	510	--	510	--	520	--	520	--
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					86000	85800	78800	79400	76100	88200	82500	86100	82400
Chromium, total	ug/L	100				--		--		--		--		--
Cobalt, total	ug/L					--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000			--		--		--		--		--
Iron, total	ug/L		300			2200	2300	2100	2100	2000	2400	2200	2760	2280
Iron, Ferrous	ug/L					1840	1950	1900	--	1090	1560	1940	2030	680
Lead, total	ug/L	**				--		--		--		--		--
Magnesium, total	ug/L					40000	39200	37800	38400J+	34600	39000	39000	39800	38600
Manganese, total	ug/L		50			--	30	--	26	--	29	--	30.2	--
Mercury, total	ug/L	2			2	--		--		--		--		--
Nickel, total	ug/L					--		--	--	--		--		--
Potassium, total	ug/L					2000	2000	1900	1800	2000	2000	2600	2220	2340
Selenium, total	ug/L	50				--		--		--		--		--
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					14600	15000	14500	15200	14500	16000	16300	17400	16500
Strontium	ug/L					--	5100	--	6800	--	6100	--	5670	--
Thallium, total	ug/L	2				--		--		--		--		--
Vanadium, total	ug/L					--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000			--		--		--		--	22.6	--

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TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW16A 2/95	5/95	6/20/95[3]		6/20/95 Dup.	7-8/95	5/96	11/96	11/96 Dup.	5/97	11/97	9/98	5/99	5/00	8/00	11/00
Aluminum, total	ug/L		50-200									--	--	--	--	--	--	--		--	
Antimony, total	ug/L	6			10/5							--	--	--	--	--	--	--		--	
Arsenic, total	ug/L	50/10[4]		4	50	14.4	12.6	16.9	18.9	19.2	15.9	14.3	12.7	16.0	7.3	13.5	10	6.3	6.6	5.3	7.4
Barium, total	ug/L	2000				641.0	475	476	459	479	464	--	--	--	--	--	--	--	560	--	440
Beryllium, total	ug/L	4		2	1*							--	--	--	--	--	--	--		--	
Cadmium, total	ug/L	5										--	--	--	--	--	--	--		--	
Calcium, total	ug/L					123000	110000	105000	101000	105000	104000	--	--	--	--	--	--	102000	116000	94700	107000
Chromium, total	ug/L	100																		--	
Cobalt, total	ug/L											--	--	--	--	--	--	--		--	
Copper, total	ug/L	**	1000									--	--	--	--	--	--	--		--	
Iron, total	ug/L		300			12500	10100	10900	10700	11100	9960	--	--	--	--	--	--	9020	13800	10000	10300
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead, total	ug/L	**										--	--	--	--	--	--	--		--	
Magnesium, total	ug/L					44900	37400	38200	37400	38900	37200	--	--	--	--	--	--	40800	43000	33500	38200
Manganese, total	ug/L		50			225.0	192	169	159	165	177	--	--	--	--	--	--	154	210	--	170
Mercury, total	ug/L	2			2															--	
Nickel, total	ug/L											--	--	--	--	--	--	--		--	
Potassium, total	ug/L					8450	7780	8580	8220	8490	9530	--	--	--	--	--	--	7120	10000	8800	8600
Selenium, total	ug/L	50									1.6	--	--	--	--	--	--	--		--	
Silver, total	ug/L		100									--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					29200	29000	32100	30200	31700	31500	--	--	--	--	--	--	37300	51100	51100 J	34100
Strontium	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	1000	--	870J
Thallium, total	ug/L	2					[3.8]													--	
Vanadium, total	ug/L											--	--	--	--	--	--	--		--	
Zinc, total	ug/L		5000					39.2				--	--	--	--	--	--	--		--	

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METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW16A (cont'd)															
						2/01	5/01	8/01	11/01	2/02	2/02 Dup.	5/02	8/02	11/02	5/03	5/03 Dup.	11/03	11/03 Dup.	5/04	11/04	5/05
Aluminum, total	ug/L		50-200			--		--		--	--		--								
Antimony, total	ug/L	6			10/5	--		--		--	--		--						--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	6.8	6.8	7	6.5	5.6	5.2	7.3	6.7	6.9	5.3	5.4	6.4	6.3	5.0	6.8	5.0
Barium, total	ug/L	2000				--	440	--	420	--	--	450	--	390	390	400	480	470	490	430	420
Beryllium, total	ug/L	4		2	1*	--		--		--	--		--						--	--	--
Cadmium, total	ug/L	5				--		--		--	--		--						--	--	--
Calcium, total	ug/L					104000	106000	10500	104000	118000	113000	110000	102000	102000	118000J	119000J	124000	121000	134000	111000	120000
Chromium, total	ug/L	100				--		--		--	--		--								
Cobalt, total	ug/L					--		--		--	--		--						--	--	--
Copper, total	ug/L	**	1000			--		--		--	--		--								
Iron, total	ug/L		300			10500	10000	9500	9500	10600	10200	9700	8700	8700	9100J	9200J	9400J	9200J	9700	8500	7700
Iron, Ferrous	ug/L					--	--	--	--	--	--	10840	6040	1440	1280		2690		2660	5280	5280
Lead, total	ug/L	**				--		--		--	--		--								
Magnesium, total	ug/L					37900	37700	37600	38200	42700	41100	40200	38800	36700	40500	40500	46500	45100	48900	40900	41900
Manganese, total	ug/L		50			--	170	--	170	--	--	180	--	160	180	180	190	180	190	160	160
Mercury, total	ug/L	2			2	--		--		--	--		--								
Nickel, total	ug/L					--		--		--	--		--								
Potassium, total	ug/L					7200	7800	7700	6400	8200	8000	8000	7900	6200	6800	6900	9600	9200	8800	6800	8700
Selenium, total	ug/L	50				--		--		--	--		--								
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					32900	33700	36500	36900	42200	41400	41300	39400	33000	34800	35100	47700	45800	43800	35100	38200
Strontium	ug/L					--	820	--	810J	--	--	1000	--	900	940	920	960J	960J	840	1000	1000
Thallium, total	ug/L	2				--		--		--	--		--								
Vanadium, total	ug/L					--		--		--	--		--						--	--	--
Zinc, total	ug/L		5000			--		--		--	--		--								

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TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL[4]	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW16A (cont'd) 11/05	5/06	11/06	5/07	11/07	5/08	11/08	5/09	11/09
Aluminum, total	ug/L		50-200										--	
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	5.0	4.2	4.4	3.6	3.6	2.4	3.5	2.8	3.7
Barium, total	ug/L	2000				420	390	410	530	440	420	420	381	350
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					116000	110000	114000	123000	116000	120000	108000	116000	120000
Chromium, total	ug/L	100												
Cobalt, total	ug/L					--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000											
Iron, total	ug/L		300			8400	7800	8300	8800	8500	8200	8200	8130	8220
Iron, Ferrous	ug/L					1560	6000	2370	2850	1900	2780	2270	2040	1060
Lead, total	ug/L	**												
Magnesium, total	ug/L					41800	38800	41700	46600	41600	40700	39000	39000	39700
Manganese, total	ug/L		50			160	160	160	180	180	170	160	173	186
Mercury, total	ug/L	2			2									
Nickel, total	ug/L													
Potassium, total	ug/L					6800	6600	5800	9300	6200	6700	6400	6070	4940
Selenium, total	ug/L	50												
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					36900	35800	34100	46400	34400	38800	34800	32500	29600
Strontium	ug/L					1100	760	880	1100	870	940	870	787	933
Thallium, total	ug/L	2												
Vanadium, total	ug/L					--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000											

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TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW16B 2/95	5/95[3]	7-8/95	7-8/95 Dup.	5/96	11/96	5/97	11/97	11/97 Dup.	9/98	5/99	5/00	8/00	11/00	2/01	5/01
Aluminum, total	ug/L		50-200							--	--	--	--	--	--	--	6500	--	310	--	
Antimony, total	ug/L	6			10/5					--	--	--	--	--	--	--		--		--	
Arsenic, total	ug/L	50/10[4]		4	50	13.9	13.2	9.8	9.6	7.8	9.6	10.0	10.8	8.4	11	10.5	9.7	6.7	8.5	7.8	7.9
Barium, total	ug/L	2000				242.0	227	218	215	--	--	--	--	--	--	--	320	--	230	--	210
Beryllium, total	ug/L	4		2	1*					--	--	--	--	--	--	--		--		--	
Cadmium, total	ug/L	5								--	--	--	--	--	--	--		--		--	
Calcium, total	ug/L					89400	83700	82300	81000	--	--	--	--	--	--	81600	84600	77700	84700	77000	77200
Chromium, total	ug/L	100								--	--	--	--	--	--	--		--		--	
Cobalt, total	ug/L									--	--	--	--	--	--	--		--		--	
Copper, total	ug/L	**	1000							--	--	--	--	--	--	--		--		--	
Iron, total	ug/L		300			3140	2780	2020	1850	--	--	--	--	--	--	1660	6300	2600	1800	1400	1500
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead, total	ug/L	**								--	--	--	--	--	--	--	5.7	--		--	
Magnesium, total	ug/L					35800	33500	33100	32800	--	--	--	--	--	--	35300	35900	31800	34800	32000	30900
Manganese, total	ug/L		50			380.0	376	441	453	--	--	--	--	--	--	468	510	--	480	--	430
Mercury, total	ug/L	2			2			0.12	0.13							--		--		--	
Nickel, total	ug/L									--	--	--	--	--	--	--		--		--	
Potassium, total	ug/L					2470	2820			--	--	--	--	--	--		4800	3100	2700	2400	2600
Selenium, total	ug/L	50								--	--	--	--	--	--	--		--		--	
Silver, total	ug/L		100							--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					21400	21700	21000	20600	--	--	--	--	--	--	24400	29100	26400 J	27600	26600	28400
Strontium	ug/L					--	--	--	--	--	--	--	--	--	--	--	770	--	800J	--	650
Thallium, total	ug/L	2								--		--	--	--	--	--		--		--	
Vanadium, total	ug/L									--	--	--	--	--	--	--		--		--	
Zinc, total	ug/L		5000							--	--	--	--	--	--	--	34	--		--	

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TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-6} Risk[1]	ARARS[2]	MW16B (cont'd) 8/01	11/01	2/02	5/02	8/02	11/02	5/03	11/03	5/04	11/04	5/05	11/05	5/06	11/06	5/07	11/07
Aluminum, total	ug/L		50-200			--		--	270	--			130								
Antimony, total	ug/L	6			10/5	--		--		--				--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	7.3	6.5	8.0	7.2	4.9	7.1	5.9	9.8	6.7	10.0	8.0	5.0	5.3	4.8	6.0	5.7
Barium, total	ug/L	2000				--	230	--	240	--	210	230	250	250	230	240	220	230	200	240	200
Beryllium, total	ug/L	4		2	1*	--		--		--				--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--		--		--				--	--	--	--	--	--	--	--
Calcium, total	ug/L					85500	81900	84600	82500	79300	82400	87500J	92800	90000	85900	91100	90300	85100	81500	89000	83300
Chromium, total	ug/L	100				--		--		--											
Cobalt, total	ug/L					--		--		--				--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000			--		--		--											
Iron, total	ug/L		300			4300	1400	3500	1400	1200	1300	1200J	1900J	1600	1700	1100	1200	1200	1000	1200	1400
Iron, Ferrous	ug/L					--	--	--	1100	1240	1110	1060	980	1460	1720	1580	870	1100	1110	1290	1210
Lead, total	ug/L	**				--		--		--											
Magnesium, total	ug/L					34800	33500	35500	34700	34000	34400	36900	39200	37300	33800	37000	36900	35300	35300	38000J+	33700
Manganese, total	ug/L		50			--	490	--	500	--	430	490	560	530	460	480	470	520	460	490	450
Mercury, total	ug/L	2			2	--		--		--											
Nickel, total	ug/L					--		--		--											
Potassium, total	ug/L					3600	2500	3200	2800	2700	2600	2700	2700	3200	2900	3000	2600	2500	1900	2400	2500
Selenium, total	ug/L	50				--		--		--											
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					33400	32600	32400	32100	30600	28600	31000	33400	29600	29000	34800	30800	29000	29900	30000	28300
Strontium	ug/L					--	740J	--	860	--	700	720	900J	680	840	930	950	700	750	1000	750
Thallium, total	ug/L	2				--		--		--											
Vanadium, total	ug/L					--		--		--				--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000			--		--		--											

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TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW16B (cont'd) 5/08	11/08	5/09[3]	11/09
Aluminum, total	ug/L		50-200						
Antimony, total	ug/L	6			10/5	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	5.1	5.6	6.0	7.6
Barium, total	ug/L	2000				210	200	204	207
Beryllium, total	ug/L	4		2	1*	--	--	--	--
Cadmium, total	ug/L	5				--	--		--
Calcium, total	ug/L					80900	79600	86300	92800
Chromium, total	ug/L	100							
Cobalt, total	ug/L					--	--	--	--
Copper, total	ug/L	**	1000						
Iron, total	ug/L		300			1100	1200	1420	2240
Iron, Ferrous	ug/L					910	1270	1350	1090
Lead, total	ug/L	**							
Magnesium, total	ug/L					33300	32900	35400	38400
Manganese, total	ug/L		50			460	420	421	381
Mercury, total	ug/L	2			2				
Nickel, total	ug/L								
Potassium, total	ug/L					2200	2200	2230	2790
Selenium, total	ug/L	50							
Silver, total	ug/L		100			--	--	--	--
Sodium, total	ug/L					27700	27800	35300	47000
Strontium	ug/L					920	800	838	772
Thallium, total	ug/L	2							
Vanadium, total	ug/L					--	--	--	--
Zinc, total	ug/L		5000						

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TABLE N-2.
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POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW17A 5/00	5/00 Dup.	8/00	8/00 Dup.	11/00	2/01	2/01 Dup.	5/01	8/01	11/01	11/01 Dup.	2/02	5/02	8/02	11/02	5/03
Aluminum, total	ug/L		50-200			120	250	--	--		--	--		--			--		--		
Antimony, total	ug/L	6			10/5			--	--		--	--		--			--		--		
Arsenic, total	ug/L	50/10[4]		4	50		1.2													1.5	
Barium, total	ug/L	2000				430	430	--	--	380	--	--	360	--	360	370	--	330	--	320	390
Beryllium, total	ug/L	4		2	1*			--	--		--	--		--			--		--		
Cadmium, total	ug/L	5						--	--		--	--		--			--		--		
Calcium, total	ug/L					180000	182000	133000	131000	140000	158000	154000	168000	145000	154000	159000	149000	156000	184000	152000	238000J
Chromium, total	ug/L	100						--	--		--	--		--			--		--		
Cobalt, total	ug/L							--	--		--	--		--			--		--		
Copper, total	ug/L	**	1000					--	--		--	--		--			--		--		
Iron, total	ug/L		300			15000	15100	10200	10000	9600	12000	11700	11500	9700	9700	10000	9300	9300	3400	9200	13900J
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	3100	3380	1410	1030
Lead, total	ug/L	**						--	--		--	--		--			--		--		
Magnesium, total	ug/L					41300	41700	34500	33900	40600	40800	39800	37900	36600	40400	41700	38500	37000	28800	39100	52000
Manganese, total	ug/L		50			420	420	--	--	380	--	--	520	--	390	400	--	380	--	400	570
Mercury, total	ug/L	2			2			--	--		--	--		--			--		--		
Nickel, total	ug/L							--	--		--	--		--			--		--		
Potassium, total	ug/L					14100	14400	16700	16500	17000	13100	12800	12500	14800	12600	12400	12200	10900	5800	12200	9500
Selenium, total	ug/L	50						--	--		--	--		--			--		--		
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					49600	50000	71500 J	70800 J	67500	42700	41800	34600	62800	52800	54300	52000	47700	24600	56500	24600
Strontium	ug/L					780	780	--	--	700J	--	--	710	--	670J	660J	--	790	--	630	960
Thallium, total	ug/L	2						--	--		--	--		--			--		--		
Vanadium, total	ug/L							--	--		--	--		--			--		--		
Zinc, total	ug/L		5000					--	--		--	--		--			--		--		

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METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk	ARARS[2]	MW17A (cont'd)															
						11/03[3]	5/04	5/04 Dup.	11/04	5/05	5/05 Dup.	11/05	5/06	11/06	5/07	5/07 Dup.	11/07	5/08	11/08	5/09	11/09
Aluminum, total	ug/L		50-200										150						120		
Antimony, total	ug/L	6			10/5		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	1.9	1.3	1.3					1.2	1.0		1.0	1.0	1.1	1.1	1.0	1.5
Barium, total	ug/L	2000				270	270	280	260	240	240	210	250	260	230	220	250	240	230	228	267
Beryllium, total	ug/L	4		2	1*		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					145000	167000	169000	142000	154000	152000	131000	154000	146000	127000	124000	143000	148000	128000	146000	146000
Chromium, total	ug/L	100																			
Cobalt, total	ug/L						--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000																		
Iron, total	ug/L		300			6900J	8600	8500	7200	6800	6800	6600	10300	6300	6300	6200	7100	7200	6000	6770	6990
Iron, Ferrous	ug/L					2230	1350	--	6200	1340	--	2120	3160	2700	--	--	1660	1980	1930	1800	780
Lead, total	ug/L	**																			
Magnesium, total	ug/L					39100	45500	45900	41000	43500	42900	35800	43300	43000	38200J+	37600J+	38800	39800	36900	38400	45400
Manganese, total	ug/L		50			360	450	460	410	380	380	370	420	360	310	300	400	360	340	388	351
Mercury, total	ug/L	2			2																
Nickel, total	ug/L																				
Potassium, total	ug/L					11700	11700	11500	11900	10100	10000	9900	9500	10500	8300	8100	9700	8300	8800	6900	9290
Selenium, total	ug/L	50																			
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					59500	54300	54600	63300	43600	43700	38600	45000	48200	41400	40500	46900	41100	50400	33800	52700
Strontium	ug/L					690J	1200	1500	660	680	710	650	580	570	560	590	600	620	600	615	680
Thallium, total	ug/L	2																			
Vanadium, total	ug/L						--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000																		

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*** Action level at tap for copper is 1,300 ug/L; at tap for lead is 15 ug/L.*

TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW17B 5/00	8/00	11/00	2/01	5/01	8/01	11/01	2/02	5/02	8/02	11/02	5/03	11/03	5/04	11/04	5/05
Aluminum, total	ug/L		50-200			220	--		--		--		--		--						
Antimony, total	ug/L	6			10/5		--		--		--		--		--				--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	1.8		2.3	1.9	1.8		2.0	2.0		1.8	2.5	1.9	3.0	2.0	2.6	2.5
Barium, total	ug/L	2000				330	--	280	--	280	--	300	--	310	--	310	320	330	320	320	330
Beryllium, total	ug/L	4		2	1*		--		--		--		--		--				--	--	--
Cadmium, total	ug/L	5					--		--		--		--		--				--	--	--
Calcium, total	ug/L					105000	87400	97300	89900	[3] 93400	95900	94600	94600	92400	94800	98200	99800J	103000	99000	95100	99000
Chromium, total	ug/L	100					--		--		--		--		--						
Cobalt, total	ug/L						--		--		--		--		--				--	--	--
Copper, total	ug/L	**	1000				--	58	--		--		--		--						
Iron, total	ug/L		300			1500	1200	1400	1300	1300	1300	1300	1400	1300	1300	1400	1400J	1500J	1400	1300	1300
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	1132	1350	1410	1070	1440	1230	1340	1360
Lead, total	ug/L	**					--		--		--		--		--						
Magnesium, total	ug/L					36800	30400	34300	31800	33000	33800	33600	33600	32300	34400	35200	35000	36900	34600	33400	34100
Manganese, total	ug/L		50			75	--	72	--	70	--	72	--	72	--	74	74	81	75	73	73
Mercury, total	ug/L	2			2		--		--		--		--		--						
Nickel, total	ug/L						--		--		--		--		--						
Potassium, total	ug/L					6400	5700	5700	5500	5700	6100	5700	5600	5800	5700	5600	5900	6200	6000	6000	6200
Selenium, total	ug/L	50					--		--	8	--		--		--						
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					29500	25500 J	27000	27000	27500	29500	28900	27600	27900	27100	26400	30700	31600	33100	36500	37800
Strontium	ug/L					260	--	270J	--	260	--	280J	--	330	--	300	300	300J	580	320	290
Thallium, total	ug/L	2					--		--		--		--		--						
Vanadium, total	ug/L						--		--		--		--		--				--	--	--
Zinc, total	ug/L		5000			260	--	33	--		--		--		--						

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TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW17B (cont'd)								
						11/05	5/06	11/06	5/07	11/07	5/08	11/08	5/09	11/09
Aluminum, total	ug/L		50-200											
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	1.9	2.2	2.2	2.2	2.0	1.9	2.2	2.2	2.2
Barium, total	ug/L	2000				340	330	350	340	320	300	280	268	267
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					104000	104000	109000	101000	100000	94800	92000	86100	87600
Chromium, total	ug/L	100												
Cobalt, total	ug/L					--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000											
Iron, total	ug/L		300			1400	1600	1500	1400	1400	1300	1500	1320	1300
Iron, Ferrous	ug/L					1480	1460	1450	--	960	1380	1110	1250	780
Lead, total	ug/L	**												
Magnesium, total	ug/L					36300	38700	38700	37200J+	35700	33600	33400	30900	31800
Manganese, total	ug/L		50			75	81	80	78	77	72	71	66.7	68.8
Mercury, total	ug/L	2			2									
Nickel, total	ug/L													
Potassium, total	ug/L					6100	6400	6000	5700	5500	5400	5200	4920	4890
Selenium, total	ug/L	50												
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					36800	36300	33400	32300	32100	31300	29600	28200	29800
Strontium	ug/L					320	260	280	300	310	310	320	288	310
Thallium, total	ug/L	2												
Vanadium, total	ug/L					--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000											

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TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW18A[3] 5/00	8/00	11/00	2/01	5/01	8/01	11/01	2/02	5/02	8/02	11/02	11/02 Dup	5/03	11/03	5/04	11/04
Aluminum, total	ug/L		50-200			400	--		--		--		--		--						
Antimony, total	ug/L	6			10/5		--		--		--		--		--					--	--
Arsenic, total	ug/L	50/10[4]		4	50	1.6	1.9	1.6								1.4	1.4	1.4	3.2	2.6	2.6
Barium, total	ug/L	2000				370	--	460	--	370	--	310	--	260	--	280	280	320	340	280	300
Beryllium, total	ug/L	4		2	1*		--		--		--		--		--					--	--
Cadmium, total	ug/L	5					--		--		--		--		--					--	--
Calcium, total	ug/L					190000	192000	201000	181000	184000	194000	181000	183000	159000	129000	170000	171000	180000J	233000	201000	186000
Chromium, total	ug/L	100					--		--		--		--		--						
Cobalt, total	ug/L						--		--		--		--		--					--	--
Copper, total	ug/L	**	1000				--		--		--		--		--						
Iron, total	ug/L		300			3600	4700	7000	5600	5300	5200	4600	5600	2400	7400	2300	2400	7800J	7300J	7300	6300
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	1620	2830	840	--	1350	4820	2460	3130
Lead, total	ug/L	**					--		--		--		--		--						
Magnesium, total	ug/L					31100	31500	32000	28800	29100	30200	27400	28400	24200	35300	26700	26800	28500	38000	34400	33700
Manganese, total	ug/L		50			160	--	760	--	450	--	590	--	450	--	280	280	240	760	590	420
Mercury, total	ug/L	2			2		--		--		--		--		--						
Nickel, total	ug/L						--		--		--		--		--						
Potassium, total	ug/L					9300	10600	9800	7800	8000	8100	6600	6000	4400	12400	5500	5600	6200	6000	5100	5600
Selenium, total	ug/L	50					--		--	6.5	--		--		--						
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					24400	33300 J	36200	27400	23500	19600	20200	19300	15500	60600	24400	24500	24500	26200	21700	30000
Strontium	ug/L					880	--	1000J	--	1000	--	970J	--	970	--	790	840	860	1200J	1100	1000
Thallium, total	ug/L	2					--		--		--		--		--						
Vanadium, total	ug/L						--		--		--		--		--					--	--
Zinc, total	ug/L		5000				--		--		--		--		--						

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TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW18A (cont'd) 5/05	11/05	5/06	11/06	5/07	11/07	5/08	11/08	5/09	11/09
Aluminum, total	ug/L		50-200												
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	3.1	3.4	3.0	2.6	3.1		1.8	2.5	2.8	4.3
Barium, total	ug/L	2000				260	280	250	250	230	260	220	240	240	250
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					190000	189000	189000	193000	171000	159000	172000	167000	159000	152000
Chromium, total	ug/L	100													
Cobalt, total	ug/L					--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000												
Iron, total	ug/L		300			4500	5200	6500	3400	5200	7400	4800	5400	7200	6440
Iron, Ferrous	ug/L					1520	4720	2280	2000	--	1910	2610	2600	3050	600
Lead, total	ug/L	**													
Magnesium, total	ug/L					34100	33700	37500	36800	33900J+	30200	32700	33200	32700	34000
Manganese, total	ug/L		50			540	350	400	450	410	270	240	290	189	123
Mercury, total	ug/L	2			2										
Nickel, total	ug/L														
Potassium, total	ug/L					4600	4800	4900	4900	3700	4700	3600	4400	4450	4600
Selenium, total	ug/L	50													
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					23600	30500	20200	29200	17600	30400	17100	27400	32200	45100
Strontium	ug/L					1000	1100	760	840	930	750	840	950	797	810
Thallium, total	ug/L	2													
Vanadium, total	ug/L					--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000												

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METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW18B 5/00	8/00	11/00	2/01	5/01	8/01	11/01	2/02	5/02	8/02	11/02	5/03	11/03	5/04	11/04	5/05
Aluminum, total	ug/L		50-200			260	--		--		--		--		--						
Antimony, total	ug/L	6			10/5		--		--		--		--		--				--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	2.1	4.4	3.5	3.6	3.8	3.2	4.1	3.7	3.9	3.9	4.0	4.0	4.8	4.0	5.1	5.0
Barium, total	ug/L	2000				200	--	180	--	170	--	190	--	190	--	180	190	190	190	190	190
Beryllium, total	ug/L	4		2	1*		--		--		--		--		--				--	--	--
Cadmium, total	ug/L	5					--		--		--		--		--				--	--	--
Calcium, total	ug/L					113000	100000	104000	102000	94800	99500	102000	102000	96100	96900	98700	98500J	98400	99000	96200	98200
Chromium, total	ug/L	100					--		--		--		--		--						
Cobalt, total	ug/L						--		--		--		--		--				--	--	--
Copper, total	ug/L	**	1000				--		--		--		--		--						
Iron, total	ug/L		300			3400	3300	2900	2900	2600	2700	2700	2700	2600	2500	2500	2500J	2600J	2600	2500	2400
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	2340	2230	1680	1670	2270	1730	2510	2370
Lead, total	ug/L	**					--		--		--		--		--						
Magnesium, total	ug/L					43400	37800	38800	39100	36000	37800	38600	39000	36500	38100	38500	37300	37100	37300	36100	36300
Manganese, total	ug/L		50			72	--	61	--	57	--	61	--	59	--	60	60	60	62	61	59
Mercury, total	ug/L	2			2		--		--		--		--		--						
Nickel, total	ug/L						--		--		--		--		--						
Potassium, total	ug/L					2000	2000	1900	2000	2100	2400	2300	2300	2300	2300	2200	2400	2500	2500	2400	2400
Selenium, total	ug/L	50					--		--	9.7	--		--		--						
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--		--	--	--
Sodium, total	ug/L					20900	18400	19600	20000	19100	20800	20600	20200	21000	20900	20000	22500	23400	22600	21900	21600
Strontium	ug/L					1000	--	1000J	--	910	--	980J	--	1100	--	910	950	920J	1000	1100	1000
Thallium, total	ug/L	2					--		--		--		--		--						
Vanadium, total	ug/L						--		--		--		--		--				--	--	--
Zinc, total	ug/L		5000				--		--		--		--		--						

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METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW18B (cont'd) 11/05[3]	5/06	11/06	5/07	11/07	5/08	11/08	5/09	11/09
Aluminum, total	ug/L		50-200										106	
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	4.0	3.8	4.0	3.9	4.2	3.6	3.8	4.1	4.3
Barium, total	ug/L	2000				200	200	210	220	200	200	200	212	209
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					102000	99900	105000	102000	98700	101000	100000	103000	101000
Chromium, total	ug/L	100												
Cobalt, total	ug/L					--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000											
Iron, total	ug/L		300			2500	2700	2600	2600	2500	2500	2600	2600	2580
Iron, Ferrous	ug/L					1330	2410	1940	--	1380	2430	1440	2500	1260
Lead, total	ug/L	**												
Magnesium, total	ug/L					37500	39400	39200	39800J+	36100	37800	38300	38800	38800
Manganese, total	ug/L		50			59	64	63	64	60	61	62	63.9	63.8
Mercury, total	ug/L	2			2									
Nickel, total	ug/L													
Potassium, total	ug/L					2400	2600	2500	2600	2500	2500	2600	2600	2600
Selenium, total	ug/L	50												
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					22800	22700	24300	24800	24000	24300	25500	27200	27700
Strontium	ug/L					1100	780	870	1000	920	970	1000	937	1040
Thallium, total	ug/L	2												
Vanadium, total	ug/L					--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000											

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POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW19A 2/02	5/02	8/02	11/02	5/03	11/03	5/04	11/04	3/05	5/05	11/05	5/06	11/06	5/07	11/07	5/08	11/08
Aluminum, total	ug/L		50-200			--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony, total	ug/L	6			10/5	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	11	[10]	[16]	[15]		[12]	[16]	[20]	[21]	[16]	3.0	[14]	[11]	[13]	[17]	10	[12]
Barium, total	ug/L	2000				--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium, total	ug/L	4		2	1*	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					129000	124000	111000	117000	95600J	136000	133000	121000	--	141000	118000	151000	142000	111000	104000	133000	110000
Chromium, total	ug/L	100				--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt, total	ug/L					--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000			--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron, total	ug/L		300			6600	8100	7600	7500	81J	7400J	8900	7400	--	8000	1400	9100	9600	7000	6600	7400	6600
Iron, Ferrous	ug/L					--	9960	6440	2190		1540	1810	2730	--	1560	1280	1700	1900	--	1900	--	1150
Lead, total	ug/L	**				--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Magnesium, total	ug/L					40000	40500	37900	38800	22000	40400	42200	39400	--	46400	29800	45400	35600	37800J+	36600	40900	36800
Manganese, total	ug/L		50			--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury, total	ug/L	2			2	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel, total	ug/L					--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Potassium, total	ug/L					12400	11700	12200	11600	4600	10900	10300	10600	--	11400	6200	8800	8600	9000	8300	8400	8500
Selenium, total	ug/L	50				--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					44900	49100	51800	50300	16200	51600	52800	51000	--	48500	27700	47600	48300	44700	42900	42500	43100
Strontium	ug/L					--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium, total	ug/L	2				--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium, total	ug/L					--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000			--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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[1] Risk-based cleanup levels from Powell Road Landfill ROD, Table 21.

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[3] Samples associated with pumping test of MW16A. First result is prior to pumping, second is post pumping and third is post pumping duplicate.

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** MCL listed on Table 22 of the ROD for Beryllium is listed as 1 ug/L. The current MCL is 4 ug/L.*

*** Action level at tap for copper is 1,300 ug/L; at tap for lead is 15 ug/L.*

TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW19A (cont'd) 5/09[3]	11/09
Aluminum, total	ug/L		50-200			--	--
Antimony, total	ug/L	6			10/5	--	--
Arsenic, total	ug/L	50/10[4]		4	50	2.7	[11.6]
Barium, total	ug/L	2000				--	--
Beryllium, total	ug/L	4		2	1*	--	--
Cadmium, total	ug/L	5				--	--
Calcium, total	ug/L					132000	113000
Chromium, total	ug/L	100				--	--
Cobalt, total	ug/L					--	--
Copper, total	ug/L	**	1000			--	--
Iron, total	ug/L		300			1660	6760
Iron, Ferrous	ug/L					2560	1990
Lead, total	ug/L	**				--	--
Magnesium, total	ug/L					40100	38000
Manganese, total	ug/L		50			--	--
Mercury, total	ug/L	2			2	--	--
Nickel, total	ug/L					--	--
Potassium, total	ug/L					7500	12800
Selenium, total	ug/L	50				--	--
Silver, total	ug/L		100			--	--
Sodium, total	ug/L					38200	39400
Strontium	ug/L					--	--
Thallium, total	ug/L	2				--	--
Vanadium, total	ug/L					--	--
Zinc, total	ug/L		5000			--	--

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[1] Risk-based cleanup levels from Powell Road Landfill ROD, Table 21.

[2] Chemical specific Applicable or Relevant and Appropriate Requirements, Powell Road Landfill ROD, Table 22.

[3] Samples associated with pumping test of MW16A. First result is prior to pumping, second is post pumping and third is post pumping duplicate.

[4] MCL for arsenic changed to 10 ug/L effective 2/22/02.

** MCL listed on Table 22 of the ROD for Beryllium is listed as 1 ug/L. The current MCL is 4 ug/L.*

*** Action level at tap for copper is 1,300 ug/L; at tap for lead is 15 ug/L.*

TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW20A																	
						2/02	5/02	8/02	8/02 Dup.	11/02	5/03	11/03	5/04	11/04	3/05	5/05	11/05	5/06	11/06	5/07	11/07	5/08	11/08
Aluminum, total	ug/L		50-200			--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony, total	ug/L	6			10/5	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	9.7	8.3	9.5	8.8	[13]	8.9	[12]	9.3	[15]	[12]	[12]	[13]	8.3	9.8	8.6	[14]	10	[11]
Barium, total	ug/L	2000				--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium, total	ug/L	4		2	1*	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					166000	155000	154000	155000	158000	106000J	178000	174000	162000	--	158000	169000	172000	161000	134000	138000	147000	140000
Chromium, total	ug/L	100				--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt, total	ug/L					--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000			--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron, total	ug/L		300			13500	13700	12700	12600	13600	8100J	13000J	14300	11700	--	11700	11500	12800	30400R	9600	9200	11000	9400
Iron, Ferrous	ug/L					--	3060	10920	--	1630	2950	2020	1510	5160	--	2850	2250	2420	1640	--	1100	3090	3210
Lead, total	ug/L	**				--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Magnesium, total	ug/L					36800	36600	37900	38200	35900	22700	38100	42000	36100	--	40700	39100	40500	126000R	38300J+	35000	38300	36100
Manganese, total	ug/L		50			--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury, total	ug/L	2			2	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel, total	ug/L					--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Potassium, total	ug/L					10200	10100	11000	11000	13200	6800	10000	9500	10100	--	10300	10900	7200	8100	8500	8200	8100	8800
Selenium, total	ug/L	50				--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					35400	41000	44000	44200	48200	23500	42100	51400	51300	--	47400	50200	35700	728000R	38600	35000	33600	34900
Strontium	ug/L					--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium, total	ug/L	2				--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium, total	ug/L					--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000			--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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[1] *Risk-based cleanup levels from Powell Road Landfill ROD, Table 21.*

[2] *Chemical specific Applicable or Relevant and Appropriate Requirements, Powell Road Landfill ROD, Table 22.*

[3] *Samples associated with pumping test of MW16A. First result is prior to pumping, second is post pumping and third is post pumping duplicate.*

[4] *MCL for arsenic changed to 10 ug/L effective 2/22/02.*

* *MCL listed on Table 22 of the ROD for Beryllium is listed as 1 ug/L. The current MCL is 4 ug/L.*

** *Action level at tap for copper is 1,300 ug/L; at tap for lead is 15 ug/L.*

TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW20A 5/09	MW20A 11/09
Aluminum, total	ug/L		50-200			--	--
Antimony, total	ug/L	6			10/5	--	--
Arsenic, total	ug/L	50/10[4]		4	50	8.2	[11.1]
Barium, total	ug/L	2000				--	--
Beryllium, total	ug/L	4		2	1*	--	--
Cadmium, total	ug/L	5				--	--
Calcium, total	ug/L					110000	141000
Chromium, total	ug/L	100				--	--
Cobalt, total	ug/L					--	--
Copper, total	ug/L	**	1000			--	--
Iron, total	ug/L		300			7290	9530
Iron, Ferrous	ug/L					2700	900
Lead, total	ug/L	**				--	--
Magnesium, total	ug/L					28300	35800
Manganese, total	ug/L		50			--	--
Mercury, total	ug/L	2			2	--	--
Nickel, total	ug/L					--	--
Potassium, total	ug/L					6240	7970
Selenium, total	ug/L	50				--	--
Silver, total	ug/L		100			--	--
Sodium, total	ug/L					29200	36600
Strontium	ug/L					--	--
Thallium, total	ug/L	2				--	--
Vanadium, total	ug/L					--	--
Zinc, total	ug/L		5000			--	--

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[1] *Risk-based cleanup levels from Powell Road Landfill ROD, Table 21.*

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** *Action level at tap for copper is 1,300 ug/L; at tap for lead is 15 ug/L.*

TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-6} Risk[1]	ARARS[2]	P859										P862				
						2/95	5/95	5/95 Dup.	7-8/95	12/95	12/95 Dup.	5/96	11/96	5/97	11/97	2/95	2/95 Dup.	2/95 Dup.	5/95	7-8/95
Aluminum, total	ug/L		50-200							--	--	--	--	--	--					
Antimony, total	ug/L	6			10/5					--	--	--	--	--	--					
Arsenic, total	ug/L	50/10[4]		4	50				2.4	--	--	--	--	--	--					
Barium, total	ug/L	2000				361.0	375	389	428	--	--	--	--	--	--	144.0	140.0	140.0	148	185
Beryllium, total	ug/L	4		2	1*					--	--	--	--	--	--					
Cadmium, total	ug/L	5								--	--	--	--	--	--					
Calcium, total	ug/L					92000	93400	96600	108000	--	--	--	--	--	--	81100	78500	78500	83700	90600
Chromium, total	ug/L	100								--	--	--	--	--	--					
Cobalt, total	ug/L									--	--	--	--	--	--					
Copper, total	ug/L	**	1000							--	--	--	--	--	--					
Iron, total	ug/L		300			2150	2190	2260	2530	--	--	--	--	--	--	398.0	401.0	401.0	1580	12800
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead, total	ug/L	**							3.2 J	--	--	--	--	--	--					
Magnesium, total	ug/L					36800	36900	38100	42000	--	--	--	--	--	--	33000	31900	31900	34600	35200
Manganese, total	ug/L		50			53.8	54.9	56.7	63.6	--	--	--	--	--	--					
Mercury, total	ug/L	2			2				0.18											
Nickel, total	ug/L									--	--	--	--	--	--					
Potassium, total	ug/L					1660				--	--	--	--	--	--	2460	2420	2420	2170	3670
Selenium, total	ug/L	50								--	--	--	--	--	--					
Silver, total	ug/L		100							--	--	--	--	--	--					
Sodium, total	ug/L					10400	11200	11600	12900	--	--	--	--	--	--	34700	33500	33500	31300	43600
Strontium	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium, total	ug/L	2								--	--	--	--	--	--					
Vanadium, total	ug/L									--	--	--	--	--	--					
Zinc, total	ug/L		5000			59.5	65.6	64.2	100	--	--	--	--	--	--					28.4

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** *Action level at tap for copper is 1,300 ug/L; at tap for lead is 15 ug/L.*

TABLE N-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-6} Risk[1]	ARARS[2]	P865 2/95	P865 5/95	P865 7-8/95	P865 12/95	P865 5/96	P865 11/96	P865 5/97	P865 11/97	P868 2/95	P868 5/95	P868 7-8/95	P869 5/95	P869 7-8/95	P869 12/95	P869 5/96	P869 11/96	P869 5/97	P869 11/97
Aluminum, total	ug/L		50-200						--	--	--	--	--						--	--	--	--	--
Antimony, total	ug/L	6			10/5				--	--	--	--	--						--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50		3.8	2.5											--	--	--		--
Barium, total	ug/L	2000				245.0	239	261	--	--	--	--	--	92.7		103	103	75.2	--	--	--	--	--
Beryllium, total	ug/L	4		2	1*				--	--	--	--	--						--	--	--	--	--
Cadmium, total	ug/L	5							--	--	--	--	--						--	--	--	--	--
Calcium, total	ug/L					96300	94600	107000	--	--	--	--	--	95000	77800	83200	72800	52400	--	--	--	--	--
Chromium, total	ug/L	100							--	--	--	--	--						--	--	--	--	--
Cobalt, total	ug/L								--	--	--	--	--						--	--	--	--	--
Copper, total	ug/L	**	1000						--	--	--	--	--					27.2	--	--	--	--	--
Iron, total	ug/L		300			2600	3060	2940	--	--	--	--	--			183	640	702	--	--	--	--	--
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead, total	ug/L	**							--	--	--	--	--						--	--	--	--	--
Magnesium, total	ug/L					38900	37200	41300	--	--	--	--	--	31100	28600	30000	35000	20800	--	--	--	--	--
Manganese, total	ug/L		50			50.5	55.1	58.1	--	--	--	--	--				28.0	25.6	--	--	--	--	--
Mercury, total	ug/L	2			2			0.11									*3.0*						
Nickel, total	ug/L								--	--	--	--	--						--	--	--	--	--
Potassium, total	ug/L					1550			--	--	--	--	--	2070	2400	3010	2620		--	--	--	--	--
Selenium, total	ug/L	50							--	--	--	--	--			1.3			--	--	--	--	--
Silver, total	ug/L		100						--	--	--	--	--			2.7		3.3	--	--	--	--	--
Sodium, total	ug/L					13000	12600	14200	--	--	--	--	--	39400	51800	45100	63400	102000	--	--	--	--	--
Strontium	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium, total	ug/L	2							--	--		--	--						--	--	--	--	--
Vanadium, total	ug/L								--	--	--	--	--						--	--	--	--	--
Zinc, total	ug/L		5000			555.0	1610	1140	--	--	--	--	--	52.3	50.6	60			--	--	--	--	--

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* *MCL listed on Table 22 of the ROD for Beryllium is listed as 1 ug/L. The current MCL is 4 ug/L.*

** *Action level at tap for copper is 1,300 ug/L; at tap for lead is 15 ug/L.*

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW01A										
				Feb-95	May-95	Aug-95	Aug-95 dup	Dec-95	May-96	Nov-96	May-97	Nov-97	Sep-98	May-99
Alkalinity	mg/l													447J
Ammonia (as N)	mg/l			0 55										0.491
Biological Oxygen Demand	mg/l			<5										
Chemical Oxygen Demand	mg/l			<20										
Chloride	mg/l		250	27										17
Cyanide	ug/l	200		<0.75	<1.4	<1.4J	<1 4J							
Dissolved Oxygen	mg/l													0 06
Nitrate	mg/l	10												
Nitrate + Nitrite	mg/l	10		<0.05										<0.1R
Oil and Grease	mg/l			<5.2										
Ortho-Phosphate (Total)	mg/l			<0.02										
Oxidation Reduction Potential	mV													4
Phosphorus (Total)	mg/l													
pH	S.U.		6.5-8 5	6.75	7.22	6 76		7.04	6.87	6.92	6.97	6 95	7.07	6.98
Specific Conductance	um/cm			720	1460	1303		954	780	823	910	921	1037	807
Sulfate	mg/l		250	46										45.9
Sulfide	mg/l													
Total Dissolved Solids	mg/l		500	650										
Dissolved Organic Carbon	mg/l													2.3
Total Organic Carbon	mg/l			3										2.3
Total Suspended Solids	mg/l			<10										
Ethane	ug/l													<16
Ethene	ug/l													<15
Methane	ug/l													870

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution.

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW02AR May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02	May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05	Nov-05	May-06
Alkalinity	mg/l			578	533	418	376	363	412	465	341	371	408	369	317	436	387	370	284	369	317
Ammonia (as N)	mg/l			0.13	0.11	0.075	<0.020	0 027	<0.020	<0.020	0.025	<0 020	<0.020	<0.020	<0.020	<0.020	<0.020	0.090	<0.020	0.050	<0.020
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l			<10		<10		<10		<10		<10		<10	<10	<10	15.7	<10	<10	<10	<10
Chloride	mg/l		250	21 6	31.3	38.8	37.8	33.2	29.8	30 2	22.3	25 1	28.8	27.8	34.6	20.9	16.0	24 7	15.9	32.2	17.6
Cyanide	ug/l	200		<0.02		<0.02		<0.02		<0.02		<0.02		<0 02	<0.02	<0 02					
Dissolved Oxygen	mg/l				0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.86R	0.10	0.3	0.2	0.0	0.06	2.9R	0.64	0.17	0 49
Nitrate	mg/l	10			<0 050		0.18		0.24		1.0		<0.050								
Nitrate + Nitrite	mg/l	10		1		<0.05		0.21		0.22		1 5		<0.050	<0.050	<0.050	0.24	<0.050	0.58	<0 050	0.72
Oil and Grease	mg/l			<5		<5		<5		<5		<5		<5	<5	<5					
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV				-18	-7	27	7	12	28	82	159	-350R	-41.1	38.6	11.2	12.2	50.4	25 8	20.9	10.9
Phosphorus (Total)	mg/l			<0.02		<0.02		0.022		<0 01		<0.01		0.011	0.010	<0.01	<0.01	0.012	0 017	<0.010	0.012
pH	S.U		6.5-8.5	6.43	6 7	6.80	6.90	6.92	6.91	6.83	6.87	6 61	7.05	6 87	6.82	6.90	6 61	6.46	6.61	6.91	7.19
Specific Conductance	um/cm			1186	1230	1190	989	965	926	938	1170	1180	1044	941	1140	1170	1208	849	1191	1128	1170
Sulfate	mg/l		250	142	170	189	136	260	201	129	206	209	167	141	232	217	312	255	381	286	310
Sulfide	mg/l			<2	<2.0	<2	<2.0	<2	<2.0	<2 0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0					
Total Dissolved Solids	mg/l		500	763		732		850		645		805		601	822	836	859	776	812	751	858
Dissolved Organic Carbon	mg/l			2.4	4.2	1.4	3.7	3 6	4.8	5.8	2.5	3.2	5.1	2.5							
Total Organic Carbon	mg/l			2.2	2.6	<1.0	2.6	3	3 8	3.5	2.1	3.0	3 0	2.1	<1.0	2.9	<1.0	2.2	1.9	3.3	<1.0
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4.0	<4.0	<4.000	<4	<4	<4	<4	<4	<4	<4	<4	<4	<19	<4J	<4	<4	<4
Ethene	ug/l			<3	<3 0	<3.0	<3.000	<3	<3	<3	<3	<3	<3	<3	<3	<3	<9.8	<3J	<3	<3	<3
Methane	ug/l			16	260	39	4 5	4	<2	<2	<2	<2	<2	<2	7.6	140	330	3.3J	<2	2.2	<2

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E = Concentration exceeded the calibration range of the instrument
D = Analytical result after sample dilution.

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW02AR (cont'd)						
				Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09
Alkalinity	mg/l			326	395	345	375	402	458	420
Ammonia (as N)	mg/l			<0 020	<0 020	0.15	<0.020	0.28	0.050	0 097
Biological Oxygen Demand	mg/l									
Chemical Oxygen Demand	mg/l			<10	<10	<10	<10	<10 UJ	<10	<10
Chloride	mg/l		250	26 9	13 9	30.2	17.2	24.6	29 0	32.6
Cyanide	ug/l	200								
Dissolved Oxygen	mg/l			0.32	0.18	0 34	0.43	0.43	0.11	
Nitrate	mg/l	10								
Nitrate + Nitrite	mg/l	10		0.14	<0 05	<0.050	0.22	<0.050	<0 050	<0 050
Oil and Grease	mg/l									
Ortho-Phosphate (Total)	mg/l									
Oxidation Reduction Potential	mV			30.5	8.1	-40.7	1.2	-28.4	114.1	-11.8
Phosphorus (Total)	mg/l			0.081	0.042	<0.010	<0.010	<0 010	<0.010	0.0162
pH	S.U.		6.5-8.5	6.60	7.03	6.95	6.83	7.05	6.34	6.70
Specific Conductance	um/cm			977	1008	925	985	887	960	1050
Sulfate	mg/l		250	156	152	130	161	160	180	159
Sulfide	mg/l									
Total Dissolved Solids	mg/l		500	598	710	630	602	684	743	621
Dissolved Organic Carbon	mg/l									
Total Organic Carbon	mg/l			1 3	1.5	2.5	1.9	<1.0	1 7	2.5
Total Suspended Solids	mg/l									
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<7.5
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<7.5
Methane	ug/l			<2	120	13	<2	<2	3.6	11

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW02B																
				Sep-98	May-99	May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02	May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05
Alkalinity	mg/l				342J	330	318	323	343	344	343	317	284	294	271	279	237	289	345	302	247
Ammonia (as N)	mg/l				0.129	0.03	<0.020	<0.020	<0 020	0 03	<0.020	0.055	<0 02	<0.02	<0.020	<0.020	<0.020	<0.020	<0.020	0.10	0.04
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l					<10		<10		<10		<10		<10		<10	<10	<10	16.7	<10	<10
Chloride	mg/l		250		35.9	38 7	35.6	38.4	37.8	36.3	40.6	41.5	43.0	44.3	45.4	42.5	53.7	40.8	43.5	45.1	43.1
Cyanide	ug/l	200				<0.02		<0.02		<0.02		<0.02		<0.02		<0.02	<0.02	<0.02			
Dissolved Oxygen	mg/l				0.09			0.00	0.00	0.00	0.00	0.00	0.00	0.00R	0.05	0.20	0 20	0.0	0.04	1.7R	0.14
Nitrate	mg/l	10					<0.050		<0.050		<0.050		<0.05		<0.050						
Nitrate + Nitrite	mg/l	10			<0.1R	<0.05		<0.05		<0.05		<0.05		<0.05		<0 050	<0.050	<0.050	<0.050	<0.050	<0.050
Oil and Grease	mg/l					<5		<5		<5		<5		<5		<5	<5	<5			
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV				-72		-109	-142	-143	-148	-128	-153	-108	-115	-311R	-55.0	-120.4	-99.6	-100.8	-103.8	-158.9
Phosphorus (Total)	mg/l					0.06		0.055		0.039		0.052		<0.01		0 022	0.047	<0.01	<0.01	0.067	<0.010
pH	S.U.		6.5-8.5	7.64	7.42	6.91	7.13	7.14	6.85	7 24	6.97	7.12	7.04	6.90	7.20	7 11	7.05	7.54	6.97	7.03	6.81
Specific Conductance	um/cm			761	720	758	949	781	696	663	683	708	806	831	744	737	814	738	804	631	787
Sulfate	mg/l		250		44.6	59.5	51	54.6	53.7	51.3	60.3	65.9	70.4	68.8	67.7	65.0	90.3	60.9	61.9	63.8	64.2
Sulfide	mg/l					<2	<2	<2	<2.0	<2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0			
Total Dissolved Solids	mg/l		500			454		454		453		436		478		427	479	444	476	493	416
Dissolved Organic Carbon	mg/l				<1	1.4	5.7	1.4	3	2.2	2.5	2.8	1.3	2.0	2.5	1.0					
Total Organic Carbon	mg/l				<1	1	<1.0	<1	1.6	1.8	2.5	2.6	1.6	2.2	1.9	1.3	<1 0	1.1	<1.0	1.1	<1.0
Total Suspended Solids	mg/l																				
Ethane	ug/l				<16	<4	<4	<4.0	<4.000	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4J	<4
Ethene	ug/l				<15	<3	<3	<3.0	<3 000	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3J	<3
Methane	ug/l				<8 6	88	12	<2.0	17	7 4	7.4	3.6	<2	<2	<2	<2	<2	<2	18	<2J	5.7

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E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution.

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW02B (cont'd)								
				Nov-05	May-06	Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09
Alkalinity	mg/l			285	237	286	301	278	302	269	342	252
Ammonia (as N)	mg/l			<0.020	0.039	0.021	<0.020	0.033	0.100	0.090	0.033	0.048
Biological Oxygen Demand	mg/l											
Chemical Oxygen Demand	mg/l			<10	<10	<10	<10	<10	<10	<10 UJ	<10	<10
Chloride	mg/l		250	45.2	38.7	34.9	30.1	33.3	32.1	35.7	38.0	35.6
Cyanide	ug/l	200										
Dissolved Oxygen	mg/l				0.41	0.24	0.25	0.31	0.22	0.25	0.20	
Nitrate	mg/l	10										
Nitrate + Nitrite	mg/l	10		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.058
Oil and Grease	mg/l											
Ortho-Phosphate (Total)	mg/l											
Oxidation Reduction Potential	mV			-62.7	-73.5	-66.0	-92.5	-40.9	-97.6	-91.9	-79.4	-98.2
Phosphorus (Total)	mg/l			0.034	0.071	0.16	0.038	<0.010	<0.010	<0.010	<0.010	0.0686
pH	S.U.		6.5-8.5	7.25	7.30	7.50	7.02	7.15	7.07	7.26	6.82	6.94
Specific Conductance	um/cm			789	765	764	720	738	699	677	696	784
Sulfate	mg/l		250	71.8	43.7	46.1	44.8	51.3	40.8	42.1	55.0	51.3
Sulfide	mg/l											
Total Dissolved Solids	mg/l		500	470	442	429	429	374	408	432	463	329
Dissolved Organic Carbon	mg/l											
Total Organic Carbon	mg/l			2.5	<1.0	<1.0	<1.0	1.8	<1.0	<1.0	<1.0	1.7
Total Suspended Solids	mg/l											
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			3.7	<2	2.4	4.1	6.2	8.3	<2	2.9	6.1

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW04A										
				Feb-95	May-95	Aug-95	Dec-95	May-96	Nov-96	May-97	Nov-97	Sep-98	May-99	5/99 dup.
Alkalinity	mg/l												598J	545J
Ammonia (as N)	mg/l			8.4									8.93J	9.09
Biological Oxygen Demand	mg/l			8										
Chemical Oxygen Demand	mg/l			24										
Chloride	mg/l		250	83									88.7	91.3
Cyanide	ug/l	200		<2.2	<1.4	<1 4J								
Dissolved Oxygen	mg/l												0 07	
Nitrate	mg/l	10												
Nitrate + Nitrite	mg/l	10		<0.05									0.191J	0.183J
Oil and Grease	mg/l			<5.3										
Ortho-Phosphate (Total)	mg/l			<0.02										
Oxidation Reduction Potential	mV												-125	
Phosphorus (Total)	mg/l													
pH	S.U		6.5-8.5	6.82	6.99	6.92	6.95	6.85	6.96	6.86	6.99	6.99	6.75	
Specific Conductance	um/cm			1149	1394	1346	1295	1251	1064	1165	1186	1265	1178	
Sulfate	mg/l		250	9.8									47.6	47.5
Sulfide	mg/l													
Total Dissolved Solids	mg/l		500	650										
Dissolved Organic Carbon	mg/l												8	8.2
Total Organic Carbon	mg/l			7									9.3	8.1
Total Suspended Solids	mg/l			30										
Ethane	ug/l												<16	<16
Ethene	ug/l												<15	<15
Methane	ug/l												3800	3800

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution.

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW04AR May-00	Aug-00	Nov-00	11/00 dup	Feb-01	May-01	5/01 dup	Aug-01	8/01 Dup	Nov-01	Feb-02	May-02	5-02 dup	Aug-02	Nov-02	May-03	Nov-03	May-04
Alkalinity	mg/l			604	540	845	743	588	477	543	651	622	579	502	472	468	575	504	378	470	448
Ammonia (as N)	mg/l			11.4	13.7	14 4	15.0	8.9	11.6	11.5	19.2	19.2	16.5	13.5	13.0	12.4	28.2	25.3	6.7	13.5	9.6
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l			32.1		41.5	47.8		20.2	18.9			26.2		33.2	30 0		27.1	<10	11.0	28.9
Chloride	mg/l		250	150	174	204	202	63.4	127	128	155	155	136	120	126	126	165	143	126	133	89.7
Cyanide	ug/l	200		<0.02		<0.02	<0.02		<0.02	<0.02			<0.02		<0.02	<0 02		<0.02	<0.02	<0.02	
Dissolved Oxygen	mg/l				0.00	0.00		0.00	0 00		0.00		0.00	0.00	2.09R		0.04	0.30	0.10	0.0	0.03
Nitrate	mg/l	10			<0.050			0.46			0.13	0.13					<0.050				
Nitrate + Nitrite	mg/l	10		<0.05		<0.05	<0.05		0.20	0.20			0.099	0.14	<0.05	<0.05		0.22	<0.050	<0 050	<0.050
Oil and Grease	mg/l			<5		<5	<5		<5	<5			<5		<5	<5		<5	<5UJ	<5	
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV				-83	-124		-98	-119		-97		-110	-74	-119		-376R	-50.0	-101.5	-94.2	-105.2
Phosphorus (Total)	mg/l			0.08		0.083	0.13		0 039	0.04			0.021		0.046	0.045		0.063	0 051	0 078	<0.01
pH	S.U.		6.5-8.5	6.62	6.65	6.72		6.44	6.67		6.76		6 81	6.72	6.56		6 74	6.74	6.83	7.33	6.60
Specific Conductance	um/cm			1404	1630	1760		1430	1140		1500		1570	1490	1590		1615	1504	1360	1463	1531
Sulfate	mg/l		250	15.9	14	11.4	11.0	83.4	37.2	37.0	41.1	41.2	39.6	37.5	131.0	125.0	51.1	58.0	142.0	81.6	336
Sulfide	mg/l			<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
Total Dissolved Solids	mg/l		500	821		880	861		829	796			810		623	635		788	767J	832	986
Dissolved Organic Carbon	mg/l			10.2	16.7	14.9	15.3	7.1	10	10.5	13.8	15	13.8	7.9	7.1	7.8	14.6	14.4			
Total Organic Carbon	mg/l			10.1	14	14.9	15.0	7 2	10.4	10.5	13.4	13.3	12.3	8.2	8 8	8.5	12.6	11.7	3.5	8.7	4.9
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4	<4.000	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<47	<19
Ethene	ug/l			7.5	7.5	6.7	8.3	<3.000	<3	3 5	13	8.5	<3	<3	<3	<3	<3	<3	<3	<25	<9.8
Methane	ug/l			3200E	4200E 3100D	4000E 4200D	4600E 5600D	680	1100	1200	5300E 5000D	5000E 6300D	3700E 2700D	350	290	300	270	330	170	510	710

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution.

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TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW04AR (cont'd)																			
				Nov-04	11/04 Dup	Mar-05	May-05	Nov-05	11/05-Dup	May-06	5/06-Dup	11/06	11/06-Dup	May-07	Nov-07	11/07 Dup	May-08	Nov-08	11/08 Dup	May-09	5/09 Dup	Nov-09	11/09 Dup
Alkalinity	mg/l			529	438		415	450	503	412	442	467	486	472	458	444	467	537	578	439	436	382	376
Ammonia (as N)	mg/l			17.3	17.7		8.8	9.3	9 1	5.9	5.7	5.2	5.1	7.2	10 0	9 8	6.0	12.5	11.8	7.44	7 63	5.52	5.15
Biological Oxygen Demand	mg/l																						
Chemical Oxygen Demand	mg/l			<10	28.0		22.8J	24.8J	23.6J	<10	17.5	19.8	<10	15.2J+	25.3J+	20.7J+	<10	16.7 J-	21.8 J-	11.1	14.2	<10.0	<10.0
Chloride	mg/l		250	158	150		92.3	113	104	110	118	96.8	93.3	90.4	125	124	78 9	130	132	48	47	35 8	36.5
Cyanide	ug/l	200																					
Dissolved Oxygen	mg/l			0.12		0.14	0.14	0.13		0.51		0.19		0.13	0.28		0.27	0.37		1.44			
Nitrate	mg/l	10																					
Nitrate + Nitrite	mg/l	10		<0.050	<0 050		<0.050	0 13	0.13	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.32	0.29	0.085	0.084
Oil and Grease	mg/l																						
Ortho-Phosphate (Total)	mg/l																						
Oxidation Reduction Potential	mV			-71.5		-124.3	-152.3	-65.3		-69.0		-67.6		-80.4	-127.1		-56.2	-183.3		-99.9		-99.2	
Phosphorus (Total)	mg/l			0.091	0.12		0.095	0.078	0.061	0.099	0.085	0.022	0.044	0.058	0.074	0.061	<0.010	<0.010	<0.010	<0.010	<0.010	0.0162	<0.0100
pH	S U.		6.5-8.5	6.69		6.80	6.71	6.83		6 77		7.20		6.74	6.82		6.70	6.94		6 78		6.77	
Specific Conductance	um/cm			1264			1534	1454		1365		1293		1240	1074		1353	1203		1192		1144	
Sulfate	mg/l		250	43.0	42.4		248.0	145.0	133.0	96.7	98.6	117 0	113	127	30.1	24.4	135	10.6	10.9	170	170	222	227
Sulfide	mg/l																						
Total Dissolved Solids	mg/l		500	795	803		935	797	801	765	797	814	789	725	682	692	752	741	716	846J+	807J+	748	760
Dissolved Organic Carbon	mg/l																						
Total Organic Carbon	mg/l			10.8	10 7		6.8	6.4	4.5	5.5	5.5	5.0	4 8	5.0	8.6	8.8	6.1	5.2	5.5	4.0	3.9	3 7	4.1
Total Suspended Solids	mg/l																						
Ethane	ug/l			<19	<19		<19	<4	<4	<4	<4	<4	<9.4	<9.0	<4	<4	<4	<4	<4	<150	<30	<15	<15
Ethene	ug/l			<9.8	<9.8		<9 8	<3	<3	<3	<3	<3	<4.9	<7 5	<3	<3	<3	<3	<3	<150	<30	<15	<15
Methane	ug/l			140	180		720	37	34	370E 710D	9.8	11	230	520	130	91	1100	420E 470D	410E 340D	160	100	44	53

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW04BR										
				Feb-95	May-95	Aug-95	Dec-95	May-96	Nov-96	May-97	Nov-97	Sep-98	May-99	5/99 dup.
Alkalinity	mg/l												327J	332J
Ammonia (as N)	mg/l												0.402J	0.294
Biological Oxygen Demand	mg/l													
Chemical Oxygen Demand	mg/l													
Chloride	mg/l		250										51.1	52.1
Cyanide	ug/l	200		<0.75	<1.4	<1.4J								
Dissolved Oxygen	mg/l												0.58	
Nitrate	mg/l	10												
Nitrate + Nitrite	mg/l	10											<0.1R	<0.1R
Oil and Grease	mg/l													
Ortho-Phosphate (Total)	mg/l													
Oxidation Reduction Potential	mV												-7	
Phosphorus (Total)	mg/l													
pH	S.U.		6.5-8.5	7.66	7.57	7.55	7.16	7.23	7.04	7.38	7.44	7.28	7.43	
Specific Conductance	um/cm			681	783	756	788	800	753	776	825	764	741	
Sulfate	mg/l		250										44	44.1
Sulfide	mg/l													
Total Dissolved Solids	mg/l		500											
Dissolved Organic Carbon	mg/l												<1	<1
Total Organic Carbon	mg/l												1.6	2.3
Total Suspended Solids	mg/l													
Ethane	ug/l												<16	<16
Ethene	ug/l												<15	<15
Methane	ug/l												80	78

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution.

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW04BRR																	
				May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02	May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05	Nov-05	May-06
Alkalinity	mg/l			302	284	308	334	315	320	280	272	284	289	262	226	262	341	206	266	305	225
Ammonia (as N)	mg/l			0.13	0.12	1.9	0.029	0.14	0.027	0 14	0.085	0.13	0.12	<0.020	0.073	0.046	0.10	0.17	0.17	0.079	0.078
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l			<10		<10		<10		<10		13.0		<10	<10	<10	<10	<10	<10	<10	<10
Chloride	mg/l		250	46.7	48 2	51.1	52	54.7	56.3	60 8	62.8	68.1	63.7	65.9	65.7	51.5	49.4	53.6	51.5	51.3	50.4
Cyanide	ug/l	200		<0.02		<0.02		<0.02		<0 02		<0.02		<0.02	<0.02	<0.02					
Dissolved Oxygen	mg/l				0.00	0.00	0.00	0.00	0 00	0.00	0.00	1.54R	0.03	0.6	0.1	0.0	0 04	0.15	0.16	0.11	0.36
Nitrate	mg/l	10			<0.050		<0.050		<0 050		<0.05		<0 050								
Nitrate + Nitrite	mg/l	10		<0.05		<0.05		<0.05		<0.05		<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.050	<0.050	<0.050
Oil and Grease	mg/l			<5		<5		<5		<5		<5		<5	<5	<5					
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV				-102	-129	-119	-102	-112	-131	-104	-141	-341R	-52.2	-102.3	-102.6	-102.1	-59.7	-104.9	-89.3	-72 0
Phosphorus (Total)	mg/l			<0.02		<0.02		<0.02		<0.01		<0.01		<0 01	<0.01	<0.01	<0 01	<0.01	<0.010	<0.010	<0.010
pH	S.U.		6 5-8 5	7.08	7.17	7.19	6.78	7.15	7.29	7 28	7.14	6.85	7 17	7.17	7.24	7.56	6.97	6.99	7.11	7.33	7.05
Specific Conductance	um/cm			699	867	759	704	701	684	727	813	862	784	764	774	761	842	650	797	800	773
Sulfate	mg/l		250	47.6	47	45.4	48 0	50.9	52.3	51.7	51.1	51 4	50.1	50.6	62.2	71.7	68.3	49.7	94 7	56.7	53.4
Sulfide	mg/l			<2	<2	<2	<2.0	<2	<2.0	<2.0	<2.0	<2	<2 0	<2.0	<2 0	<2.0					
Total Dissolved Solids	mg/l		500	392		418		487		468		389		483	458	456	513	477	458	433	455
Dissolved Organic Carbon	mg/l			1.8	3.4	<1	3	2.4	2.5	2.4	1 2	1.1	2.1	3.6							
Total Organic Carbon	mg/l			<1	1	<1	<1.0	2	2	2.3	<1.0	1.6	1.6	<1.0	<1.0	<1.0	<1 0	<1.0	<1.0	1.3	<1.0
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4.000	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4 7	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3.000	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3.0	<3	<3	<3	<3
Methane	ug/l			6.2	30	180	130	15	29	22	2.5	<2	<2	<2	<2	5.2	55	6.8	18	<2	4.2

CONTINUED ON NEXT PAGE

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW04BRR (cont'd)							
				Nov-06	May-07	Nov-07	May-08	5/08 Dup	Nov-08	May-09	Nov-09
Alkalinity	mg/l			219	309	245	291	276	291	288	355
Ammonia (as N)	mg/l			0.062	0.032	0.055	0.074	0 190	0.085	0 089	0.072
Biological Oxygen Demand	mg/l										
Chemical Oxygen Demand	mg/l			<10	<10	<10	<10	<10	<10 UJ	<10	<10
Chloride	mg/l		250	2 8R	54 2	54.3	54 9	54 3	51.0	43	45.5
Cyanide	ug/l	200									
Dissolved Oxygen	mg/l			0.17	0.07	0.32	0.22		0.08	1 51	
Nitrate	mg/l	10									
Nitrate + Nitrite	mg/l	10		<0 050	<0.050	<0 050	<0 050	<0 050	<0.050	<0.050	<0.050
Oil and Grease	mg/l										
Ortho-Phosphate (Total)	mg/l										
Oxidation Reduction Potential	mV			-83.8	-90.8	-69.8	-81.2		-79.9	-112.1	-101.4
Phosphorus (Total)	mg/l			0 093	<0.010	0.058	<0.010	<0 010	<0.010	0 0243	<0.0100
pH	S.U.		6.5-8 5	7.75	7.12	7.28	7.11		7.31	7.18	7.09
Specific Conductance	um/cm			781	742	613	777		655	776	825
Sulfate	mg/l		250	<5.0R	51 3	49	44.2	44.2	47.9	66.0	62.8
Sulfide	mg/l										
Total Dissolved Solids	mg/l		500	506	430	433	388	398	441	529J+	491
Dissolved Organic Carbon	mg/l										
Total Organic Carbon	mg/l			<1.0	1.2	1.5	<1 0	<1.0	<1.0	<1.0	1.5
Total Suspended Solids	mg/l										
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			2.6	2.2	<2	5.8	4.5	4.4	2.4	16

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution.

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW05A Feb-95	2/95 dup.	May-95	Aug-95	Dec-95	May-96	Nov-96	May-97	Nov-97	Sep-98	May-99
Alkalinity	mg/l													440J
Ammonia (as N)	mg/l			2.6										4.85
Biological Oxygen Demand	mg/l			<5										
Chemical Oxygen Demand	mg/l			<20										
Chloride	mg/l		250	72										74
Cyanide	ug/l	200		<0.75	<0.75	<1 4	<1 4J							
Dissolved Oxygen	mg/l													0.16
Nitrate	mg/l	10												
Nitrate + Nitrite	mg/l	10		0.26										<0.1
Oil and Grease	mg/l			<5.1										
Ortho-Phosphate (Total)	mg/l			<0.02										
Oxidation Reduction Potential	mV													28
Phosphorus (Total)	mg/l													
pH	S.U		6.5-8.5	7 09		7.87	7.46	7.11	7.36	7.11	7.05	7.4	7.42	7.09
Specific Conductance	um/cm			815		981	982	844	1011	786	837	853	935	974
Sulfate	mg/l		250	41										38.1
Sulfide	mg/l													
Total Dissolved Solids	mg/l		500	490										
Dissolved Organic Carbon	mg/l													3.5
Total Organic Carbon	mg/l			2										4.6
Total Suspended Solids	mg/l			<10										
Ethane	ug/l													16
Ethene	ug/l													<15
Methane	ug/l													400

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution.

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW05AR May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02	May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05	Nov-05	May-06
Alkalinity	mg/l			314	295	340	336	311	314	298	294	320	348	329	290	323	348	374	332	347	272
Ammonia (as N)	mg/l			2.4	1.5	2.7	3	1.7	1.2	1.4	0.79	1.2	1.1	1.6	1.8	1.6	2.0	2.1	1.7	1.8	1.3
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l			<10		<10		<10		<10		<10		<10	<10	<10	<10	<10	10.4J	11.7J	<10
Chloride	mg/l		250	86.6	122	106	89	107	129	91.2	73.2	97.2	77.9	77.5	117	69.7	88.4	90.8	82.0	75.9	99.3
Cyanide	ug/l	200		<0.02		<0.02		<0.02		<0.02		<0.02		<0.02	<0.02	<0.02					
Dissolved Oxygen	mg/l				0.00	0.00	0.00	0.00	0.30	0.00	0.00	2.35R	0.26	0.2	0.2	0.0	0.16	0.11	0.12	0.17	0.47
Nitrate	mg/l	10			0.7		0.49		0.43		0.30		0.37								
Nitrate + Nitrite	mg/l	10		0.37		0.16		0.63		0.26		0.33		0.10	0.16	0.28	0.34	0.073	0.33	0.74	0.26
Oil and Grease	mg/l			<5		<5		<5		<5		<5		<5	<5UJ	<5					
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV				-71	-100	-67	3	-80	-105	46	-70	-347R	-42.7	-22.1	-71.9	-91.1	-62.6	-42.5	13.7	-8.6
Phosphorus (Total)	mg/l			0.03		0.039		<0.02		<0.01		0.016		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.022	<0.010
pH	S.U.		6.5-8.5	6.86	6.89	7.00	6.76	7.01	7.11	6.97	7.03	6.92	7.04	6.97	6.83	6.73	6.81	7.43	6.83	6.98	7.01
Specific Conductance	um/cm			872	885	1111	892	876	1250	1020	1000	1110	898	962	1126	985	1041	827	1061	995	985
Sulfate	mg/l		250	69.8	65	76.7	93.4	81.9	98.7	115	75.9	91.5	66.2	80.1	131	47.9	40.3	54.8	72.7	90.0	60.8
Sulfide	mg/l			<2	<2	<2	<2.0	<2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0					
Total Dissolved Solids	mg/l		500	502		583		626		617		504		571	668	569	579	652	595	567	581
Dissolved Organic Carbon	mg/l			1.9	4.7	2.1	3.2	3.6	2.9	4.8	2.4	2.2	2.2	2.3							
Total Organic Carbon	mg/l			2	1.1	<1	1.9	2.9	2.3	3.3	2.3	2.9	2.0	1.9	2.1	2.1	1.4	2.1	2.4	2.8	1.1
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4.000	<4	<4	<4	<4	<4	<4	<4	<4	<4.7	<19	<4.7	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3.000	<3	<3	<3	<3	<3	<3	<3	<3	<3	<9.8	<3.0	<3	<3	<3
Methane	ug/l			<2	30	36	19	6.5	27	120	6.2	5.8	4.1	4.6	170	73	270	28	24	4.3	<2

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution.

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TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW05AR (cont'd)						
				Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09
Alkalinity	mg/l			296	473	310	407	340	313	366
Ammonia (as N)	mg/l			1.1	2.7	3.2	1.4	1.6	1.59	2.22
Biological Oxygen Demand	mg/l									
Chemical Oxygen Demand	mg/l			<10	<10	<10	<10	<10 UJ	<10	<10
Chloride	mg/l		250	82.0	98 0	83.3	76.8	81.9	100.0	83.1
Cyanide	ug/l	200								
Dissolved Oxygen	mg/l			0.21	0.20	0.60	0.23	0.19	1 08	
Nitrate	mg/l	10								
Nitrate + Nitrite	mg/l	10		0.096	<0.050	0.074	0.15	0. 22	0.55	0.454
Oil and Grease	mg/l									
Ortho-Phosphate (Total)	mg/l									
Oxidation Reduction Potential	mV			-30.6	-26.7	-39.4	44.5	-34.4	84.3	-20.2
Phosphorus (Total)	mg/l			0.093	0.014	<0.010	<0.010	<0.010	<0.010	<0.0100
pH	S U.		6.5-8.5	7.25	6.90	6.88	6.89	7 18	6.93	6.89
Specific Conductance	um/cm			1001	1139	1021	1083	921	1014	937
Sulfate	mg/l		250	62 6	83.6	73 1	81.8	48 6	71.0	90 2
Sulfide	mg/l									
Total Dissolved Solids	mg/l		500	569	737	616	576	505	645J+	605
Dissolved Organic Carbon	mg/l									
Total Organic Carbon	mg/l			1.8	1.9	3.2	2.5	1.5	1 8	2.4
Total Suspended Solids	mg/l									
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<7.5
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<7.5
Methane	ug/l			6.4	74	6.3	36	2.0	2.6	5.9

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution.

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW05B Sep-98	MW05B May-99
Alkalinity	mg/l				272J
Ammonia (as N)	mg/l				<0.195
Biological Oxygen Demand	mg/l				
Chemical Oxygen Demand	mg/l				
Chloride	mg/l		250		102
Cyanide	ug/l	200			
Dissolved Oxygen	mg/l				2.42
Nitrate	mg/l	10			
Nitrate + Nitrite	mg/l	10			0.716
Oil and Grease	mg/l				
Ortho-Phosphate (Total)	mg/l				
Oxidation Reduction Potential	mV				138
Phosphorus (Total)	mg/l				
pH	S.U.		6.5-8.5	6.9	7.17
Specific Conductance	um/cm			789	833
Sulfate	mg/l		250		43 9
Sulfide	mg/l				
Total Dissolved Solids	mg/l		500		
Dissolved Organic Carbon	mg/l				1.6
Total Organic Carbon	mg/l				1 4
Total Suspended Solids	mg/l				
Ethane	ug/l				<16
Ethene	ug/l				<15
Methane	ug/l				<8.6

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution.

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW05BR May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02	May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05	Nov-05	May-06
Alkalinity	mg/l			237	231	263	273	267	272	275	279	311	325	293	235	293	322	308	289	237	263
Ammonia (as N)	mg/l			<0.02	<0 02	<0.02	<0.020	<0.02	<0.020	<0 020	<0.02	<0.02	<0.020	<0.020	<0.020	<0.020	<0 020	0.12	<0.020	<0.020	<0 020
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l			<10		<10		<10		<10		10		<10	<10	<10	<10	<10	<10	<10	<10
Chloride	mg/l		250	183	93.3	80.2	87.2	134	105	78.2	82.2	87.2	68.8	78.7	131	76.8	103	84.4	97.1	85.8	92.8
Cyanide	ug/l	200		<0 02		<0.02		<0.02		<0.02		<0.02		<0 02	<0.020	<0.020					
Dissolved Oxygen	mg/l				0.00	0.00	0.56	3.10	1.87	0.00	0.00	5.15R	0.97	0.6	1.3	0.2	1.88	0.43	1 95	1.18	1.70
Nitrate	mg/l	10			1.4		0.64		1.1		0.62		0.98								
Nitrate + Nitrite	mg/l	10		1		0.36		1.1		0.47		0.40		0.57	1.00	0.49	0.60	0.49	0.68	0 61	0.39
Oil and Grease	mg/l			<5		<5		<5		<5		<5		<5	<5UJ	<5					
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV				285	43	109	125	79	59	103	55	-322R	-19.2	95.4	38.2	58.0	123.7	22.5	39.6	62.8
Phosphorus (Total)	mg/l			<0.02		0.047		0.02		<0.01		<0.01		<0.01	0.011	<0.01	<0.01	<0.01	<0.01	0.016	0.024
pH	S.U.		6.5-8.5	7.03	7.23	7.33	7.02	7.30	7.36	7.18	7.20	7.11	7.25	7.11	7.19	6.58	6 98	6.44	7.01	7.31	7.03
Specific Conductance	um/cm			986	946	784	708	843	910	756	920	980	788	825	914	840	954	680	991	854	872
Sulfate	mg/l		250	51.1	49	45	45.4	46.9	47.5	42.7	43.7	44.9	40.3	42.2	51.2	44.6	39.9	39.2	55.1	41.7	40.6
Sulfide	mg/l			<2	<2	<2	<2.0	<2	<2.0	<2.0	<2.0	<2 0	<2.0	<2.0	<2.0	<2.0					
Total Dissolved Solids	mg/l		500	543		374		582		423		422		494	532	462	543	502	546	468	468
Dissolved Organic Carbon	mg/l			1.4	2.7	<1	1.2	2.2	4 1	3.0	<1.0	1.6	2.0	2.3							
Total Organic Carbon	mg/l			<1	<1	<1	<1.0	1.5	1.8	2.5	<1.0	1.8	1.6	<1.0	<1.0	1.0	<1 0	<1.0	<1.0	1.3	<1.0
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4.000	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3.000	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			140	950	<2	<2.000	<2	<2	<2	<2	<2	2	<2	<2	<2	<2	<2	<2	<2	<2

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E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW05BR (cont'd)						
				Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09
Alkalinity	mg/l			266	290	250	294	320	236	281
Ammonia (as N)	mg/l			<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.138
Biological Oxygen Demand	mg/l									
Chemical Oxygen Demand	mg/l			<10	<10	<10	<10	<10 UJ	<10	<10
Chloride	mg/l		250	75.0	60 6	75.9	81.1	79.7	99.0	90.7
Cyanide	ug/l	200								
Dissolved Oxygen	mg/l			0.58	0.06	1.14	0.84	0.29	6.83	
Nitrate	mg/l	10								
Nitrate + Nitrite	mg/l	10		0.33	0.42	0.40	0 32	0.39	1.07	0.551
Oil and Grease	mg/l									
Ortho-Phosphate (Total)	mg/l									
Oxidation Reduction Potential	mV			6.3	49.0	-35.8	47.2	5.3	90.6	59.2
Phosphorus (Total)	mg/l			0.099	<0.010	<0 010	<0.010	<0 010	<0.010	<0 0100
pH	S.U.		6.5-8.5	7.11	7 24	7.09	7.13	7.26	7.18	7.23
Specific Conductance	um/cm			868	715	848	883	843	1088	767
Sulfate	mg/l		250	37 6	42.5	40.4	45.6	36.8	46	39.0
Sulfide	mg/l									
Total Dissolved Solids	mg/l		500	455	482	457	444	467	600	471
Dissolved Organic Carbon	mg/l									
Total Organic Carbon	mg/l			<1.0	<1.0	1.8	<1 0	<1 0	<1.0	1 3
Total Suspended Solids	mg/l									
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			<2	2.1	<2	<2	<2	<2	<2

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution.

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW12A																	
				Feb-95	May-95	Aug-95	Dec-95	May-96	Nov-96	May-97	Nov-97	Sep-98	May-99	May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02
Alkalinity	mg/l												292J	276	292	281	307	332	343	333	304
Ammonia (as N)	mg/l			0.06									<0.1	<0.02	<0.02	<0.02	0.021	0.027	<0.02	<0 02	<0.02
Biological Oxygen Demand	mg/l			<5																	
Chemical Oxygen Demand	mg/l			<20										<10		<10		<10		<10	
Chloride	mg/l		250	58									53	83.9	71.9	76.8	78.3	137	68.4	76.1	93.1
Cyanide	ug/l	200		<0.75	<1.4	<1.4J								<0.02		<0.02		<0.02		<0 02	
Dissolved Oxygen	mg/l												4.34		2.31	1.16	0 00	3.08	1.90	1.57	3.22
Nitrate	mg/l	10													1.2		0.098		0.44		0.93
Nitrate + Nitrite	mg/l	10		0.97									1.21J	2.3		0 18		1 6		0.18	
Oil and Grease	mg/l			<5 3										<5		<5		<5		<5	
Ortho-Phosphate (Total)	mg/l			<0.02																	
Oxidation Reduction Potential	mV												109		152	106	62	119	36	63	138
Phosphorus (Total)	mg/l													0.02		<0.02		<0.02		<0.01	
pH	S.U.		6.5-8.5	7.32	7.78	6.93	7.35	7 58	7.2	7.48	7.52	7.21	7.45	6.8	6.98	7.13	6.87	7.17	7.23	6.99	7.21
Specific Conductance	um/cm			793	828	825	739	841	702	640	731	843	666	760	972	835	579	939	898	814	934
Sulfate	mg/l		250	42									40.5	48.8	50	39.0	41.6	34.9	45.8	39.9	46.8
Sulfide	mg/l													<2	<2	<2	<2.0	<2	<2.0	<2 0	<2 0
Total Dissolved Solids	mg/l		500	420										472		408		592		540	
Dissolved Organic Carbon	mg/l												<1	2 3	6 1	<1	1.4	3.7	4.4	3.2	2.1
Total Organic Carbon	mg/l			1									1.9	1 6	<1	<1	<1.0	1.9	2	3.3	1.6
Total Suspended Solids	mg/l			<10																	
Ethane	ug/l												<16	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l												<15	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l												<8 6	<2	<2	<2	<2	<2	<2	<2	<2

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E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW12A (cont'd)																
				May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05	Nov-05	May-06	Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09
Alkalinity	mg/l			287	313	242	250	315	318	293	264	304	271	209	309	267	319	295	286	303
Ammonia (as N)	mg/l			<0.02	<0.02	<0 02	0 057	<0.02	<0 02	0.08	<0.02	0.062	<0.020	0.022	0.043	<0 020	0 038	<0.020	<0.020	0.070
Biological Oxygen Demand	mg/l																			
Chemical Oxygen Demand	mg/l			<10		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 UJ	<10	<10
Chloride	mg/l		250	57.8	50 2	53.4	77.0	55 0	54.6	54.2	73.2	67.2	58.4	81.0	49.6	53.8	54.5	60.3	170.0	46.9
Cyanide	ug/l	200		<0.02		<0.02	<0.02	<0.02												
Dissolved Oxygen	mg/l			3.92R	0.34	0.2	1.0	1.3	3.02	0.54	5.94	0.55	2.45	5.02	0.96	1.05	4.04	0.58		
Nitrate	mg/l	10			0.35															
Nitrate + Nitrite	mg/l	10		0.66		0.25	1.3	0.058	0 58	0.25	0.36	0.68	0 12	0.062	0.2	0.31	0.16	<0.050	1 3	0.526
Oil and Grease	mg/l			<5		<5	<5J	<5												
Ortho-Phosphate (Total)	mg/l																			
Oxidation Reduction Potential	mV			125	-317R	-10.2	76.5	18 6	38.1	25.4	42.4	17.1	50.6	20.0	13 9	-114.0	79.2	14.7	78.1	47.6
Phosphorus (Total)	mg/l			0.022		<0 01	<0.01	<0.01	<0 01	0 059	0.015	0.036	0.022	<0.010	<0 010	<0 010	<0.010	<0.010	<0.010	0.0180
pH	S.U.		6.5-8 5	7 14	7.15	7.05	7.12	7 13	6.94	6 87	6.99	7 15	7.28	6.76	7 32	7.10	7 14	7.25	7 41	7.14
Specific Conductance	um/cm			836	712	767	809	798	774	611	886	802	788	981	690	777	786	770	1080	706
Sulfate	mg/l		250	45.4	37.6	33.4	52.2	32.1	36.4	48.2	45.4	42.0	41.5	37.9	35.6	28.9	36.0	32.6	27.0	31.8
Sulfide	mg/l			<2.0	<2.0	<2.0	<2.0	<2.0												
Total Dissolved Solids	mg/l		500	392		473	480	457	448	431	481	487	452	507	396	390	384	415	629	402
Dissolved Organic Carbon	mg/l			2.4	2.4	2.8														
Total Organic Carbon	mg/l			1.4	1.6	<1.0	<1 0	1.4	<1.0	<1.0	1.3	<1.0	<1 0	1.1	<1.0	1.9	<1.0	<1.0	1.2	<1.0
Total Suspended Solids	mg/l																			
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			<2	<2	<2	<2	12	3.6	3.6	<2	<2	<2	<2	<2	<2	<2	2.0	<2	<2

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution.

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW12B May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02	May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05	Nov-05	May-06
Alkalinity	mg/l			269	254	323	280	269	278	248	252	248	264	204	214	241	277	247	242	215	212
Ammonia (as N)	mg/l			0.065	<0.02	0.053	<0.020	0.088	<0.020	0.10	0.064	0.056	0.054	<0.020	<0.020	0.032	0.088	0.20	0.092	0.099	0.068
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l			<10		<10		<10		<10		<10		<10	<10	<10	<10	<10	<10	<10	<10
Chloride	mg/l		250	72.3	74.6	72.9	74.5	76.4	75.2	75.2	76.8	81.3	73.1	75.5	87.6	75.9	70.8	80.8	73.4	80.2	77.6
Cyanide	ug/l	200		<0.02		<0.02		<0.02		<0.02		<0.02		<0.02	<0.02	<0.02					
Dissolved Oxygen	mg/l				0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.57R	0.16	0.10	0.20	0.10	0.13	0.13	0.31	0.15	0.38
Nitrate	mg/l	10			<0.05		<0.050		<0.050		<0.05		<0.050								
Nitrate + Nitrite	mg/l	10		<0.05		<0.05		0.073		<0.05		<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Oil and Grease	mg/l			<5		<5		<5		<5		<5		<5	<5UJ	<5					
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV				-118	-137	-143	-136	-139	-161	-116	-144	-336R	-76.1	-109.1	-100.3	-138.4	-135.5	-134.6	-122.5	-95.7
Phosphorus (Total)	mg/l			<0.02		<0.02		<0.02		<0.01		<0.01		0.013	<0.01	<0.01	<0.01	<0.01	<0.01	0.018	0.034
pH	S.U.		6.5-8.5	7.19	7.02	7.29	6.90	7.31	7.43	7.29	7.38	7.20	7.40	7.17	7.35	7.22	7.17	7.08	7.20	7.80	7.54
Specific Conductance	um/cm			716	897	786	558	702	815	712	769	847	724	781	763	756	785	636	815	776	771
Sulfate	mg/l		250	44.6	46.2	45.0	46.8	45.2	44.8	44.9	46.1	47.0	43.3	45.2	53.3	47.7	44.7	48.5	46.3	51.0	45.9
Sulfide	mg/l			<2	<2	<2	<2.0	<2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0					
Total Dissolved Solids	mg/l		500	447		414		441		454		447		473	432	397	460	461	476	465	470
Dissolved Organic Carbon	mg/l			<1	3.5	<1	2.3	2.6	2.6	2.4	1.0	1.4	2.1	1.1							
Total Organic Carbon	mg/l			<1	<1	<1	<1.0	1.3	1.6	2.2	1.1	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4.000	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3.000	<3	<3	7.4	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			53	42	35	110	9.8	51	42	32	2.1	4.1	<2	<2	2.9	18	<2	5.2	<2	3.2

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E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW12B (cont'd) Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09
Alkalinity	mg/l			247	266	230	246	238	277	290
Ammonia (as N)	mg/l			0 076	0.075	0.076	0.13	0.14	3.74	0.070
Biological Oxygen Demand	mg/l									
Chemical Oxygen Demand	mg/l			<10	<10	<10	<10	<10 UJ	<10	<10
Chloride	mg/l		250	73.8	80 4	75.9	78.3	77.6	75	71.3
Cyanide	ug/l	200								
Dissolved Oxygen	mg/l			0.15	0.07	0.26	0.15	0 11	0 88	
Nitrate	mg/l	10								
Nitrate + Nitrite	mg/l	10		<0 05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Oil and Grease	mg/l									
Ortho-Phosphate (Total)	mg/l									
Oxidation Reduction Potential	mV			-113.1	-124 9	134.1	-111.4	-118.3	-113.2	-129.9
Phosphorus (Total)	mg/l			<0.010	0.016	<0.010	<0.010	<0.010	0.0167	<0 0100
pH	S.U.		6.5-8.5	8 03	7.38	7.35	7.33	7.49	7.39	7.33
Specific Conductance	um/cm			834	775	807	821	790	772	735
Sulfate	mg/l		250	46.2	49.2	48.0	49.6	48.1	49.0	45.4
Sulfide	mg/l									
Total Dissolved Solids	mg/l		500	436	383	352	403	437	448	430
Dissolved Organic Carbon	mg/l									
Total Organic Carbon	mg/l			<1.0	<1.0	1.5	<1.0	<1.0	<1.0	<1 0
Total Suspended Solids	mg/l									
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			2.8	2.7	3.6	3.9	<2	<2	5.1

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution.

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW13B																	
				Feb-95	May-95	Aug-95	Dec-95	May-96	Nov-96	May-97	Nov-97	Sep-98	May-99	May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02
Alkalinity	mg/l												307J	311	291	331	325	318	331	298	316
Ammonia (as N)	mg/l												<0.117	<0.02	<0.02	<0.02	<0.020	<0.02	<0.020	0.03	<0.020
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l															<10				<10	
Chloride	mg/l		250										36.9	41.7	40	41.7	40.5	39	39.5	41.0	42.3
Cyanide	ug/l	200		<0.75	<1.4	<1 4J										<0.02				<0.02	
Dissolved Oxygen	mg/l												0.05		0.00	0.00	0.00	0 00	0.00	0.00	0.00
Nitrate	mg/l	10												0.05	<0.05		<0.050		<0.050		<0.05
Nitrate + Nitrite	mg/l	10											<0.1			<0.05		<0.05		<0.05	
Oil and Grease	mg/l															<5				<5	
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV												-57		-106	-133	-117	-129	-128	-155	-107
Phosphorus (Total)	mg/l															<0 02				<0.01	
pH	S.U.		6.5-8.5	7.53	7.67	7.72	7.1	7.13	7.55	7.47	7.52	7.1	7.31	7.04	7.27	7.32	6.79	7.19	7.25	7.12	7.22
Specific Conductance	um/cm			553	786	757	735	799	694	706	721	829	742	712	920	779	549	656	797	710	768
Sulfate	mg/l		250										62.4	70.4	64.4	67.1	64.5	59	57.5	57.7	61.7
Sulfide	mg/l													<2	<2	<2	<2.0	<2	<2 0	<2.0	<2.0
Total Dissolved Solids	mg/l		500													400				461	
Dissolved Organic Carbon	mg/l												1.1	<1	5	<1	2	2.7	3.1	1.3	1 1
Total Organic Carbon	mg/l												1.5	<1	<1	<1	<1.0	1.1	1 6	1.0	1 1
Total Suspended Solids	mg/l																				
Ethane	ug/l												<16	<4	<4	<4	<4.000	<4	<4	<4	<4
Ethene	ug/l												<15	<3	<3	<3	<3.000	<3	<3	<3	<3
Methane	ug/l												<8.6	<2	<2	<2	<2.000	<2	2 2	<2	<2

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution.

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TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW13B (cont'd)																
				May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05	Nov-05	May-06	Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09
Alkalinity	mg/l			283	322	284	233	267	301	280	255	271	271	300	290	340	303	296	288	307
Ammonia (as N)	mg/l			<0 02	<0.020	<0.020	<0.020	<0.020	<0 020	0.092	<0.020	<0.020	0.066	0 025	0.034	0.033	<0.020	0.061	<0.020	0.094
Biological Oxygen Demand	mg/l																			
Chemical Oxygen Demand	mg/l					<10		<10		<10		<10		<10		<10		<10 UJ		
Chloride	mg/l		250	44.0	44.8	44.0	56.6	48.2	46.8	48.3	45.6	43.8	43.7	52.8	49 5	52.6	46.0	44.6	46.0	55.8
Cyanide	ug/l	200				<0.02		<0.02												
Dissolved Oxygen	mg/l			3.16R	0.05	0.30	0.10	0.00	0.03	0.56	0.14	0.13	0 33	0.15	0.08	0.37	0.10	0.04	1.10	
Nitrate	mg/l	10		<0.05	<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050	
Nitrate + Nitrite	mg/l	10				<0.05		<0.05		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050
Oil and Grease	mg/l					<5		<5												
Ortho-Phosphate (Total)	mg/l																			
Oxidation Reduction Potential	mV			-126	-313R	-54.7	-118	-98.5	-130.6		-131.2	-105.9	-72.5	-88.5	-107.8	-182.4	-89.3	-116.1	-123.6	-115.7
Phosphorus (Total)	mg/l					<0 01		<0.01		<0.01		<0 01		0 1		<0.010		<0.010		0.0143
pH	S.U.		6.5-8.5	7.15	7 22	7.14	7.23	7.54	7.05	6 93	7.09	7.59	7.30	7.17	6.98	7.22	7.53	7.40	7.23	7 20
Specific Conductance	um/cm			830	759	703	768	716	769	864	789	741	754	720	805	725	809	659	797	757
Sulfate	mg/l		250	62.7	64.2	64 8	75.9	63 3	60.1	58.6	58 3	60 4	58.0	54.3	52.1	46.7	49.5	53.4	50.0	50.1
Sulfide	mg/l			<2.0	<2.0	<2.0	<2.0	<2.0												
Total Dissolved Solids	mg/l		500			413		459		418		465		397		435		438		396
Dissolved Organic Carbon	mg/l			2.0	2.5	6.3														
Total Organic Carbon	mg/l			<1.0	1.8	<1.0	<1.0	<1.0	<1.0	<1 0	<1 0	<1 0	<1.0	<1.0	<1.0	<1 0	<1.0	<1.0	<1.0	<1.0
Total Suspended Solids	mg/l																			
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			<2	<2	<2	<2	<2	4.4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution.

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW13C																	
				Sep-98	May-99	May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02	May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05
Alkalinity	mg/l				292J	302	283	323	302	302	317	285	278	286	318	287	234	262	289	267	246
Ammonia (as N)	mg/l				<0.121	0 06	<0.02	<0.02	<0.020	0.07	<0.020	0.074	0.026	0.034	<0.020	<0.020	<0 020	<0.020	0.051	0.073	0.070
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l					25				<10				<10			<10		<10		<10
Chloride	mg/l		250		30.6	35	34.9	38.3	38.1	36.9	37.4	38.1	39.3	41.6	41.9	41 2	52.2	47.8	48 5	50 3	60.8
Cyanide	ug/l	200				<0.02				<0.02				<0.02			<0.02				
Dissolved Oxygen	mg/l				0.06		0.00	0.00	0 00	0.00	0.00	0.00	0.00	1.79R	0.06	0 10	0.10	0.00	0.05	0 80	0 16
Nitrate	mg/l	10					<0.05		<0 050		<0.050	<0.050	<0.05		<0 050	<0.050				<0.050	
Nitrate + Nitrite	mg/l	10			<0.1	<0.05		<0 05		<0.05				<0.05			<0.05	<0.05	<0.05		<0 050
Oil and Grease	mg/l					<5				<5				<5			<5				
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV				2		-114	-140	-140	-134	-137	-160	-104	-131	-320R	-62.0	-114.5	-111.1	-125.3		-131 3
Phosphorus (Total)	mg/l					<0.02				<0.02				0.012			<0.01		<0.01		<0.01
pH	S.U.		6.5-8.5	7.1	7.38	7.11	7.28	7.35	7.14	7.27	7.35	7.31	7.31	7.28	7 28	7.28	7.30	7.41	7.11	7.31	7.19
Specific Conductance	um/cm			781	677	676	897	754	538	673	777	686	755	813	736	693	744	705	766	855	769
Sulfate	mg/l		250		52.2	68.2	63	68.5	68.7	64.7	65	65.2	67 2	66.2	62.6	59.4	68.9	60.4	58.6	60.3	75 9
Sulfide	mg/l					<2	<2	<2	<2.0	<2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0			
Total Dissolved Solids	mg/l		500			434				444				434			435J		473		427
Dissolved Organic Carbon	mg/l				<1	2.8	3.7	<1	2.1	2.9	2.4	3.4	1.0	1.5	1.8	<1.0					
Total Organic Carbon	mg/l				1	<1	1.1	<1	<1.0	1.5	1.4	1.0	<1.0	<1.0	1.0	<1.0	<1.0	1.0	<1.0	<1.0	<1.0
Total Suspended Solids	mg/l																				
Ethane	ug/l				<16	<4	<4	<4	<4.000	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l				<15	<3	<3	<3	<3.000	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l				<8.6	<2	<2	2	2.2	<2	2.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2

CONTINUED ON NEXT PAGE

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution.

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW13C (cont'd)								
				Nov-05	May-06	Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09
Alkalinity	mg/l			228	236	254	277	285	302	304	275	329
Ammonia (as N)	mg/l			0.066	0.068	0.062	0.060	0.083	0 10	0.13	0.079	0.083
Biological Oxygen Demand	mg/l											
Chemical Oxygen Demand	mg/l				<10		<10		<10		<10	
Chloride	mg/l		250	44.8	41.4	41 3	39.2	38.7	38.9	36.0	39	45.3
Cyanide	ug/l	200										
Dissolved Oxygen	mg/l			0.17	0.57	0.17	0.04	0.40	1.40	0.22	1.37	
Nitrate	mg/l	10		<0.050		<0.050		<0.050		<0.050		<0.050
Nitrate + Nitrite	mg/l	10			<0.050		<0.050		<0.050		<0.050	
Oil and Grease	mg/l											
Ortho-Phosphate (Total)	mg/l											
Oxidation Reduction Potential	mV			-112.4	-86.1	-102 5	-110.4	-181.2	-91 2	-108.8	-125.0	-116.8
Phosphorus (Total)	mg/l				0.036		<0.010		<0.010		<0.010	
pH	S.U.		6.5-8.5	7.72	7.53	7 30	7.14	7.35	7.65	7.47	7.30	7.26
Specific Conductance	um/cm			713	724	666	748	654	751	623	762	726
Sulfate	mg/l		250	63.1	57.2	59.6	57 4	54.6	54.1	50.4	50.0	50.6
Sulfide	mg/l											
Total Dissolved Solids	mg/l		500		436		511		434		488J+	
Dissolved Organic Carbon	mg/l											
Total Organic Carbon	mg/l			<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total Suspended Solids	mg/l											
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			<2	<2	<2	<2	<2	<2	<2	<2	<2

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW14B																	
				Feb-95	May-95	Aug-95	Dec-95	May-96	Nov-96	May-97	Nov-97	Sept-98	May-99	May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02
Alkalinity	mg/l												305J	308	284	322	308	296	305	277	268
Ammonia (as N)	mg/l												0.154	<0.02	<0.02	<0.02	<0.020	<0.02	<0.02	0.04	<0.02
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l															<10				<10	
Chloride	mg/l		250										40.6	45 5	43.1	45.9	45.2	44.7	44.7	45.4	46.4
Cyanide	ug/l	200		<0.75	<1.4	<1.41										<0.02				<0.02	
Dissolved Oxygen	mg/l												1.03		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nitrate	mg/l	10												<0.05	<0.05		<0.050		<0 050		<0.05
Nitrate + Nitrite	mg/l	10											<0 1R			<0.05		<0.05		<0.05	
Oil and Grease	mg/l															<5				<5	
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV												-76		-89	-134	-131	-129	-137	-157	-101
Phosphorus (Total)	mg/l															<0.02				<0.01	
pH	S.U.		6.5-8.5	7.16	7 74	7 37	7.37	7.13	7.76	7 43	7.62	7.17	7.26	7.05	7 02	7.20	7.05	7 22	7.20	7 34	7.30
Specific Conductance	um/cm			542	762	830	722	801	666	691	696	833	689	710	911	766	547	671	752	673	744
Sulfate	mg/l		250										5.72	63.2	56	58.5	57.9	53.3	53	53 3	55 0
Sulfide	mg/l													<2	<2	<2	<2.0	<2	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/l		500													446				427	
Dissolved Organic Carbon	mg/l												<1	1.5	3 5	<1	1.2	1.8	1.9	1 9	1 9
Total Organic Carbon	mg/l												1.8	<1	<1	<1	<1 0	1.3	1.4	<1.0	1.0
Total Suspended Solids	mg/l																				
Ethane	ug/l												<16	<4	<4	<4	<4.000	<4	<4	<4	<4
Ethene	ug/l												<15	<3	<3	<3	<3.000	<3	<3	<3	<3
Methane	ug/l												<8.6	<2	<2	<2	<2.000	<2	<2	<2	<2

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution

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TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW14B (cont'd) May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05	Nov-05	May-06	Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09
Alkalinity	mg/l			273	309	219	236	262	296	215	247	216	228	272	272	264	286	251	229	284
Ammonia (as N)	mg/l			<0.02	<0.020	<0.020	<0.020	<0.020	<0.020	0.071	0.085	0.044	0 062	0.027	0.062	0.029	<0.020	0.053	<0.020	0 034
Biological Oxygen Demand	mg/l																			
Chemical Oxygen Demand	mg/l					<10		<10		<10		<40		<10		<10		<10 UJ		<10
Chloride	mg/l		250	48 5	47.0	47.4	64.7	55 0	55.7	62.4	59.7	59.8	55.7	53.2	50 0	50.3	49.4	50.8	48.0	51.0
Cyanide	ug/l	200				<0.02		<0.02												
Dissolved Oxygen	mg/l			2.00R	0 06	0 10	0.10	0 00	0.06	0.31	0.28	0.23	0 72	0.23	0.10	0.72	0.17	0.14	1 10	
Nitrate	mg/l	10		<0.05	<0 050		<0.050		<0 050		<0.050		<0.050		<0.050		<0.050		<0.050	
Nitrate + Nitrite	mg/l	10				<0.05		<0.05		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050
Oil and Grease	mg/l					<5		<5												
Ortho-Phosphate (Total)	mg/l																			
Oxidation Reduction Potential	mV			-139	-300R	-71.4	-115.1	-141.7	-104.1		-129.9	-116.4	-70 5	-98.9	-109.1	-143.3	-88 6	-99 9	-129.2	-105.4
Phosphorus (Total)	mg/l					<0.01		<0 01		<0.01				<0.01		<0.010		<0.010		0.0105
pH	S.U.		6.5-8.5	7.00	7.19	7.21	7.28	6.82	6.91	7.29	7.14	7.86	7.08	7.11	7.13	7.03	7.22	7.41	7.27	7.24
Specific Conductance	um/cm			833	732	747	775	752	800	886	814	750	758	678	766	654	768	627	726	711
Sulfate	mg/l		250	55.4	55.1	56.4	67.5	59.6	56.9	58.0	57.6	57.6	51.4	53.1	51.9	48.7	50.4	50.1	46.0	47.4
Sulfide	mg/l			<2.0	<2 0	<2.0	<2.0	<2.0												
Total Dissolved Solids	mg/l		500			471		430		423		455		422		407		413		415
Dissolved Organic Carbon	mg/l			1.5	3.7	5.6														
Total Organic Carbon	mg/l			<1.0	1.2	<1.0	<1 0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1 0	<1.0	<1.0	<1.0	<1.0	<1.0
Total Suspended Solids	mg/l																			
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2

E = Concentration exceeded the calibration range of the instrument
D = Analytical result after sample dilution.

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standards	MW15B																	
				Feb-95	May-95	Aug-95	Dec-95	May-96	Nov-96	May-97	Nov-97	Sep-98	May-99	May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02
Alkalinity	mg/l												349J	329	303	336	336	300	326	287	294
Ammonia (as N)	mg/l												0 808	0.79	0 6	0.57	0.53	0.57	0.37	0.28	0 29
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l													22.8		<10		<10	-	<10	
Chloride	mg/l		250										62.4	74.7	77.3	72.1	70.1	95	79.5	74 7	73.2
Cyanide	ug/l	200		<0.75	<1 4	<1.4J								<0.02		<0.02		<0.02		<0 02	
Dissolved Oxygen	mg/l												0.4		0.00	0.00	0.00	0 00	0.00	0.00	0.00
Nitrate	mg/l	10													<0.05		<0.050		<0.050		<0.05
Nitrate + Nitrite	mg/l	10											<0 1R	<0.05		<0 05		<0.05		<0 05	
Oil and Grease	mg/l													<5		<5		<5		<5	
Ortho-Phosphate (Total)	*mg/l*																				
Oxidation Reduction Potential	mV												207		200	40	44	98	-1	46	89
Phosphorus (Total)	mg/l													<0.02		<0.02		<0.02		<0.01	
pH	S.U.		6.5-8.5	7.23	7.33	6.93	7.42	7.66	7.52	7.35	7.49	7.51	7.35	6.87	6.99	7.16	6.77	7.06	7.15	7.16	7 16
Specific Conductance	um/cm			587	846	851	814	836	746	749	766	847	814	777	850	864	622	785	873	752	859
Sulfate	mg/l		250										26.2	36.1	39.1	46.4	47.9	46.3	45.5	44.7	47.6
Sulfide	mg/l													<2	<2	<2	<2.0	<2	<2.0	<2.0	<2 0
Total Dissolved Solids	mg/l		500											491		459		536		416	
Dissolved Organic Carbon	mg/l												1.2	1.5	3 1	<1	2 8	3.4	2.8	1.3	1.8
Total Organic Carbon	mg/l												3.8	1	<1	<1	1.2	1	2	1.4	1.4
Total Suspended Solids	mg/l																				
Ethane	ug/l												<16	<4	<4	<4	<4.000	<4	<4	<4	<4
Ethene	ug/l												<15	<3	<3	<3	<3.000	<3	<3	<3	<3
Methane	ug/l												240	210	62	82	140	7.7	62	68	59

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E = Concentration exceeded the calibration range of the instrument
D = Analytical result after sample dilution.

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW15B (cont'd)																
				May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05	Nov-05	May-06	Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09
Alkalinity	mg/l			316	342	249	272	321	361	258	293	277	275	324	369	290	313	318	322	270
Ammonia (as N)	mg/l			0.38	0.57	0.32	0 79	0.70	0 73	1 1	1 2	1.2	0.92	0.54	1.0	0.69	1 1	1 2	0.806	0.356
Biological Oxygen Demand	mg/l																			
Chemical Oxygen Demand	mg/l			<10		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 UJ	<10	<10
Chloride	mg/l		250	74 6	65.7	65.8	88.4	67.4	61.4	68.4	79.3	76.2	66.1	66.0	60.2	64.1	58.8	60.2	84.0	94.6
Cyanide	ug/l	200		<0.02		<0.02	<0 02	<0.02												
Dissolved Oxygen	mg/l			3.02R	0.04	0.10	0.00	0.00	0.05	0.14	0.11	0.12	0 38	0.15	0.04	0.35	0.14	0.06	1.39	
Nitrate	mg/l	10			<0.050															
Nitrate + Nitrite	mg/l	10		<0 05		<0.05	<0.05	<0.05	<0 05	<0.05	<0.05	<0.05	0.33	<0 05	<0 050	<0.050	<0.050	<0.050	<0.050	<0 050
Oil and Grease	mg/l			<5		<5	<5UJ	<5												
Ortho-Phosphate (Total)	mg/l																			
Oxidation Reduction Potential	mV			58	-325R	-15.5	55.8	62.3	14 6		-2.4	-8.6	6.0	-37.9	-30.8	-171.9	-42.0	-36 6	-54.5	-51.1
Phosphorus (Total)	mg/l			0.01		<0.01	<0.01	<0.01	<0.01	<0 01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.010	<0.010	<0.010	<0.010	<0.0100
pH	S.U.		6.5-8.5	7.00	7.07	7.09	7.13	6.87	6.84	7.11	6.97	7.49	7.34	7.16	7.01	7.09	7.45	7 26	7.10	7.20
Specific Conductance	um/cm			980	816	831	880	895	994	958	984	853	846	753	900	714	816	705	896	795
Sulfate	mg/l		250	50.9	49.0	46.6	53.6	66.6	42.1	37.8	93.8	55.6	40.0	41.1	38.3	39 1	40.5	44.8	38.0	40.8
Sulfide	mg/l			<2.0	<2.0	<2.0	<2.0	<2.0												
Total Dissolved Solids	mg/l		500	481		519	473J	546	576	497	552	510	512	451	583	421	480	500	555J+	419
Dissolved Organic Carbon	mg/l			2.2	3.2	1.7														
Total Organic Carbon	mg/l			1.4	1.9	<1.0	<1.0	1.6	1.5	1.4	1.9	<1.0	1.2	<1.0	<1.0	1 4	<1.0	<1.0	1 4	<1.0
Total Suspended Solids	mg/l																			
Ethane	ug/l			<4	<4	<4	<4	<9.4	<47	<9.4	<9 4	<4	<4.7	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3	<4.9	<25	<4 9	<4.9	<3	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			20	17	5.9	22	120	600	74	51	13	59	4.7	220	26	79	21	15	6 0

E = Concentration exceeded the calibration range of the instrument
D = Analytical result after sample dilution

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW15C																	
				Sep-98	May-99	May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02	May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05
Alkalinity	mg/l				315J	314	292	330	312	284	317	286	284	287	319	234	244	273	309	282	261
Ammonia (as N)	mg/l				0.377	0.24	0.21	0.15	0.14	0.23	0.13	0 25	0.17	0.20	0.18	0 12	0.16	0.16	0.22	0.26	0.26
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l					21.9				<10				<10			<10		<10		<10
Chloride	mg/l		250		41.5	46.5	45	48	47.4	49.6	48	49 5	48.4	52.7	50.4	49.4	63.4	53.2	56.3	57.3	67.1
Cyanide	ug/l	200				<0.02				<0 02				<0.02			<0.02				
Dissolved Oxygen	mg/l				0 18		1.47	0.00	0.00	0.00	0.00	0 00	0.00	2.09R	0.10	0.20	0.20	0.10	0.10	0.28	0.26
Nitrate	mg/l	10					<0 050		<0.050		<0.050	<0 050	<0.05		<0.050	<0.050		<0.05		<0.050	
Nitrate + Nitrite	mg/l	10			<0.1R	<0.05		<0.05		<0.05				<0.05			<0.05		<0.05		<0.05
Oil and Grease	mg/l					<5				<5				<5			<5				
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV				-79		-108	-140	-138	-144	-139	-164	-111	-146	-320R	-81.0	-124.6	-124.8	-124.8		-126.8
Phosphorus (Total)	mg/l					<0.02				<0.02				0.019			0.017		<0.01		<0.01
pH	S.U.		6.5-8.5	7.77	7.65	7.14	7.23	7.37	7.15	7.31	7.38	7.39	7.48	7.25	7.30	7.30	7.40	7.02	7.09	7.40	7.23
Specific Conductance	um/cm			714	677	671	867	738	526	655	741	662	726	809	715	721	741	725	760	824	771
Sulfate	mg/l		250		27	31	31.6	32.2	32.9	31.6	31.9	31.5	32.7	33.5	33.5	32.3	37.9	34.1	32.9	34.9	39.7
Sulfide	mg/l					<2	<2	<2	<2 0	<2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0			
Total Dissolved Solids	mg/l		500			457				418				399			424J		443		434
Dissolved Organic Carbon	mg/l				<1	8.3	3.3	<1	2.2	1.8	2.7	1.2	2.5	1.6	2.2	1.9					
Total Organic Carbon	mg/l				<1	<1	<1	<1	1	1 9	1.8	1.2	1.8	<1 0	1.5	<1.0	<1.0	<1.0	<1.0	<1 0	<1.0
Total Suspended Solids	mg/l																				
Ethane	ug/l				<16	<4	<4	<4	<4.000	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l				<15	<3	<3	<3	<3.000	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l				<8.6	4 1	2.9	5.7	5.3	3.6	6.5	3.9	3.6	<2	<2	<2	<2	2.0	5.7	2.0	2.1

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution.

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TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW15C (cont'd)								
				Nov-05	May-06	Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09
Alkalinity	mg/l			255	248	266	269	285	255	276	258	303
Ammonia (as N)	mg/l			0.30	0.18	0.17	0.23	0.23	0.27	0.32	0.326	0.271
Biological Oxygen Demand	mg/l											
Chemical Oxygen Demand	mg/l				<10		<10		<10		<10	
Chloride	mg/l		250	57.0	57.2	56.2	56.0	57.8	57.5	59.4	57.0	58.6
Cyanide	ug/l	200										
Dissolved Oxygen	mg/l			0.18	0.47	0.23	0.16	0.37	0 49	0 16	1.13	
Nitrate	mg/l	10		<0.05		<0 05		<0.050		<0.050		<0.050
Nitrate + Nitrite	mg/l	10			<0 050		<0.050		<0.050		<0.050	
Oil and Grease	mg/l											
Ortho-Phosphate (Total)	mg/l											
Oxidation Reduction Potential	mV			-116.1	-91.5	-111.9	-116.4	-177 4	-97.6	-117.8	-132.0	-120.6
Phosphorus (Total)	mg/l				0.024		<0.010		<0.010		<0.010	
pH	S.U.		6.5-8.5	7.93	7.56	7.39	7.21	7.34	7.69	7.54	7.36	7.33
Specific Conductance	um/cm			722	741	656	763	648	759	641	761	717
Sulfate	mg/l		250	35.3	32.7	34.4	33 5	34 5	34.5	33.6	34	32.8
Sulfide	mg/l											
Total Dissolved Solids	mg/l		500		443		502		406		475J+	
Dissolved Organic Carbon	mg/l											
Total Organic Carbon	mg/l			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total Suspended Solids	mg/l											
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			<2	2.2	<2	3.4	2.1	<2	<2	<2	2.0

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution.

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW16A																	
				Feb-95	May-95	Aug-95	Dec-95	May-96	Aug-96	Nov-96	May-97	Nov-97	Sep-98	May-99	May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01
Alkalinity	mg/l													444J	474	368	369	431	368	360	338
Ammonia (as N)	mg/l			4.6										7.16J	5.4	5.8	6.1	4.4	4.1	4	3.4
Biological Oxygen Demand	mg/l			<5																	
Chemical Oxygen Demand	mg/l			<20											<10		<10		<10		<10
Chloride	mg/l		250	67										80.4	92.2	72.4	71.8	76.4	77.4	77	80.5
Cyanide	ug/l	200		<1.8	<1.4	<1.4J									<0.02		<0.02		<0.02		<0.02
Dissolved Oxygen	mg/l													0.05		0.00	0.00	0.00	0.00	0.00	0.00
Nitrate	mg/l	10														<0.050		<0.050		<0.050	
Nitrate + Nitrite	mg/l	10		<0.05										<0.1R	<0.05		<0.05		<0.05		<0.05
Oil and Grease	mg/l			<5.3											<5		<5		<5		<5
Ortho-Phosphate (Total)	mg/l			<0.02																	
Oxidation Reduction Potential	mV													-120		-114	-145	-125	-135	-138	-158
Phosphorus (Total)	mg/l														0.05		0.08		0.033		<0.01
pH	S.U.		6.5-8.5	6.95	7	6.77	7.03	7.48	7.05	6.85	7.08	7.28	7	6.92	6.7	6.87	6.96	6.70	6.91	6.98	6.89
Specific Conductance	um/cm			910	1039	955	1073	1231	1003	949	995	1070	1034	923	1046	950	990	910	867	956	901
Sulfate	mg/l		250	9.9										5.99	14.7	24.5	37.0	48.4	48.9	46.6	55.7
Sulfide	mg/l														<2	<2	<2	<2.0	<2	<2.0	<2.0
Total Dissolved Solids	mg/l		500	520											503		497		552		537
Dissolved Organic Carbon	mg/l													4.7	5	5.9	2.6	4.3	4.5	5	5.3
Total Organic Carbon	mg/l			4										4.8	5.1	3.3	2.5	3.4	4	3.8	5.0
Total Suspended Solids	mg/l			46																	
Ethane	ug/l													<16	<4	<4	<4	<4.000	<4	<4	<4
Ethene	ug/l													<15	4.6	<3	<3	<3.000	<3	<3	<3
Methane	ug/l													1800	1400	39	360	250	80	270	940

E = Concentration exceeded the calibration range of the instrument
D = Analytical result after sample dilution.

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TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW16A (cont'd)																				
				Feb-02	Feb-02dup	May-02	Aug-02	Nov-02	May-03	May-03 dup	Nov-03	Nov-03 dup	May-04	Nov-04	May-05	Nov-05	May-06	Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09
Alkalinity	mg/l			371	375	390	376	330	300	302	379	381	382	401	359	266	325	361	531	425	462	387	370	360
Ammonia (as N)	mg/l			5.3	5 1	4 0	4 8	4 0	3.9	3 9	5 6	5.6	4.7	4.0	4.0	3 5	2.5	2.1	6.1	2 6	3.7	3 4	0.095	1.41
Biological Oxygen Demand	mg/l																							
Chemical Oxygen Demand	mg/l					17.0		<10	<10	<10	<10	<10	13.1	<10	13.4J	21.0J	17.2	33.5	<10	<10	12 4	<10 UJ	<10	<10
Chloride	mg/l		250	89.1	89.4	93.7	75.8	67.7	79.2	79.4	89.7	91.3	77.7	64.8	76.4	76.0	71.6	65.8	96 2	63.8	78 9	70.4	65 0	53.3
Cyanide	ug/l	200				<0.02		<0.02	<0.02	<0.02	<0.02	<0.02UJ												
Dissolved Oxygen	mg/l			0.00		2.99R	0 05	0.2	0 1		0.0		0.02	0.11	0.19	0.15	0.44	0 21	0 20	0.44	0.25	0.22		
Nitrate	mg/l	10		<0.05	<0.05		<0.050																	
Nitrate + Nitrite	mg/l	10				<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.054	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0 050
Oil and Grease	mg/l					<5		<5	<5	<5UJ	<5	<5												
Ortho-Phosphate (Total)	mg/l																							
Oxidation Reduction Potential	mV			-101		-139	-328R	-69.5	-110.8		-112.2		-119.1	-129.7	-154.5	-106.6	-83.2	-103.1	-105.6	-49.3	-66.7	-177.8	-79.0	-114.6
Phosphorus (Total)	mg/l					0.04		0.064	0.049	0.043	0.041	0.023	<0.01	<0.01	0.034	0.039	0.034	<0.010	0.053	<0.010	<0.010	<0.010	<0.010	<0.0100
pH	S.U.		6.5-8 5	6.88		6.87	7.00	6.96	6.87		6.94		6.69	6.91	6.79	7.14	7.07	7.46	6.94	6.97	6 84	7.07	6.94	6.89
Specific Conductance	um/cm			1170		1180	934	914	1040		1095		1227	818	1156	1055	1020	977	1194	808	1137	987	966	948
Sulfate	mg/l		250	54.3	54.5	51.4	46.0	51.0	98.2	98.6	45.6	46.4	51.8	39.4	60.6	56.2	35.6	46.7	23.2	39.8	34.2	37.5	65.0	82.2
Sulfide	mg/l			<2.0	<2 0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0												
Total Dissolved Solids	mg/l		500			538		520	613	608	627	638	675	568	630	533	558	567	666	537	571	547	567	572
Dissolved Organic Carbon	mg/l			3.8	4.3	4.3	4.6	6.1																
Total Organic Carbon	mg/l			4.0	4.5	4.8	4.2	3.1	2.6	2.7	4.9	4.9	3.6	3.3	3.6	3.8	2.4	2.5	4.2	4.2	2.6	1.9	3.0	2.9
Total Suspended Solids	mg/l																							
Ethane	ug/l			<4	<4	<4	<4	<4	<12	<12	<47	<47	<47	<47	<47	<47	<4	<4	<7.2	<7.2	<7 2	<4	<7 5	<75
Ethene	ug/l			<3	<3	<3	<3	<3	<9	<9	<25	<25	<25	<25	<25	<25	<3	<3	<6.0	<6.0	<6.0	<3	<7.5	<75
Methane	ug/l			160	160	130	<2	63	510	460	450	550	1200	350	380	270	8	210	770	180	280	31	29	80

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW16B																	
				Feb-95	May-95	Aug-95	8/95 dup	Dec-95	May-96	Nov-96	May-97	Nov-97	Sep-98	May-99	May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01
Alkalinity	mg/l													311J	307	272	274	292	284	283	260
Ammonia (as N)	mg/l													0.527J	0.48	0.21	0.24	0.069	0.17	0.062	0.14
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l														11.3		<10		<10		<10
Chloride	mg/l		250											55.8	57.1	57.4	62.4	64.9	69	67.9	69.8
Cyanide	ug/l	200		<0.75	<1.4	<1.4J	<1.4J								<0.02		<0.02		<0 02		<0 02
Dissolved Oxygen	mg/l													0.06		0.00	0.00	0.00	0.00	0.00	0.00
Nitrate	mg/l	10														<0.050		<0.050		<0.050	
Nitrate + Nitrite	mg/l	10												<0 1R	0.06		<0.05		<0 05		<0 05
Oil and Grease	mg/l														<5		<5		<5		<5
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV													50		-105	-141	-118	-129	-133	-152
Phosphorus (Total)	mg/l														0.19		0 057		<0.02		<0.01
pH	S.U.		6.5-8.5	7.81	7 9	7 21		7.05	7.9	6.98	7.47	7.59	7.6	6.97	7.08	7.16	7.24	6.95	7.29	7.25	7 13
Specific Conductance	um/cm			649	725	744		803	776	710	703	828	741	710	706	878	746	673	678	770	713
Sulfate	mg/l		250											32 7	35.6	45 5	45.8	44.3	38 9	41.6	44.4
Sulfide	mg/l														<2	<2	<2	<2.0	<2	<2.0	<2.0
Total Dissolved Solids	mg/l		500												423		400		484		435
Dissolved Organic Carbon	mg/l													1.5	1.4	4.2	1.5	1.9	2 2	2.2	3.9
Total Organic Carbon	mg/l													2.5	1.2	<1	<1	<1.0	1.4	1.9	2 0
Total Suspended Solids	mg/l																				
Ethane	ug/l													<16	<4	<4	<4	<4.000	<4	<4	<4
Ethene	ug/l													<15	<3	<3	<3	<3.000	<3	<3	<3
Methane	ug/l													160	92	<2	25	13	6.7	9	21

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution.

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TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW16B (cont'd)																	
				Feb-02	May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05	Nov-05	May-06	Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09
Alkalinity	mg/l			266	284	292	279	253	284	334	336	288	256	259	253	356	250	290	281	296	314
Ammonia (as N)	mg/l			0.086	0.11	0.06	<0.020	0.072	0.026	0.25	0 52	0.25	0 14	0.17	0.12	0.14	0.12	0.12	0.16	0.14	0 169
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l				<10		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 UJ	<10	<10
Chloride	mg/l		250	68.0	72 0	57 6	57.4	71 3	60 8	58.0	58.4	60.5	63.4	58.7	58.7	64.2	53.5	59.4	58.8	71.0	79.0
Cyanide	ug/l	200			<0.02		<0.02	<0.02	<0.02												
Dissolved Oxygen	mg/l			0.00	3.22R	0.07	0.10	0 30	0.10	0 02	0.12	0.15	0.11	0.34	0.14	0.06	0 39	0.14	0.07	0.43	
Nitrate	mg/l	10		<0.05		<0.050															
Nitrate + Nitrite	mg/l	10			<0.05		<0.05	<0.05	<0.05	<0 05	<0.05	<0.05	<0.05	<0.05	<0 05	<0.05	<0.050	<0.050	<0.050	<0.050	<0 050
Oil and Grease	mg/l				<5		<5	<5UJ	<5												
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV			-109	-137	-312R	-60.9	-108.7	-101.3	-110.5	-114.6	-125.6	-97.6	-75.4	-91.5	-95.2	-42.6	-77.2	-73.5	-114.9	-116.7
Phosphorus (Total)	mg/l				0 018		<0 01	0.011	<0 01	<0 01	<0.01	<0 01	<0.01	<0.01	0.13	<0.01	<0 010	<0.010	<0.010	<0.010	<0.0100
pH	S.U.		6 5-8.5	7.24	7.15	7.36	7.25	7.23	7.25	7.09	7.00	7.09	7.49	7.38	7.72	7.16	7.36	7.21	7.33	7.26	7.20
Specific Conductance	um/cm			819	870	724	750	798	700	852	663	900	806	797	614	830	612	801	760	825	869
Sulfate	mg/l		250	35.6	44.2	45.5	40.2	48.2	61.3	44 0	36.7	69.7	49.8	44.4	39.5	44 0	40.2	45.6	41.7	35.0	38.2
Sulfide	mg/l			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0												
Total Dissolved Solids	mg/l		500		371		421	461	472	482	471	484	446	458	451	438	454	396	418	516J+	507
Dissolved Organic Carbon	mg/l			1.3	1.4	4.6	2.4														
Total Organic Carbon	mg/l			1.2	2.0	1.5	<1.0	<1.0	1.6	<1.0	1.1	1.1	1.5	<1.0	<1.0	<1.0	1 7	<1.0	<1.0	<1.0	1.6
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4	<4	<4.7	<9.4	<9.4	<9 4	<4	<4	<4	<4	<4	<4	<4	<4	<7.5
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<4.9	<4.9	<4.9	<3	<3	<3	<3	<3	<3	<3	<3	<7 5
Methane	ug/l			14	2.7	4	8.4	23	55	240	41	48	<2	<2	3.9	200	10	14	<2	2.6	20

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW17A May-00	5/00 dup.	Aug-00	8/00 dup.	Nov-00	Feb-01	2/01 dup.	May-01	Aug-01	Nov-01	11/01 dup.	Feb-02	May-02	Aug-02	Nov-02	May-03	Nov-03	May-04
Alkalinity	mg/l			594	599	559	517	660	791	654	582	534	500	517	415	454	421	362	379	401	431
Ammonia (as N)	mg/l			5.6	4 9	7.9	10	10	5.9	6.3	4.9	7	4.9	5 2	6.3	4.4	1.9	4.5	3.2	3.6	3.1
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l			37 5	37.5			11 3			<10		12.1	12.7		17.0		13 6	15.6	<10	21.0
Chloride	mg/l		250	79.4	79.1	125	125	129	73.4	42.9	58.4	111	94.1	93.9	95.9	93.4	110	98.6	51.4	133	86.1
Cyanide	ug/l	200		<0 02	<0.02			<0 02			<0 02		<0.02	<0.02		<0.02		<0.02	<0.02	<0.02	
Dissolved Oxygen	mg/l						0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.28R	0.04	0.40	0.10	0.10	0.03
Nitrate	mg/l	10				<0.050	<0.050		<0.050	<0.050		<0 050			0 060		<0.050				
Nitrate + Nitrite	mg/l	10		0.08	0.08			<0.05			0.078		<0.05	<0.05		<0.05		<0 05	<0 05	<0 05	0.077
Oil and Grease	mg/l			<5	<5			<5			<5		<5	<5		<5		<5	<5UJ	<5	
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV					-74		-121	-85		-92	-98	-108		-64	-80	-363R	-47 5	-94.2	-88.3	-90.6
Phosphorus (Total)	mg/l			0.04	0.04			0.048			0.049		0.027	0.023		0 039		0.077	0.081	0.080	<0.01
pH	S U.		6.5-8.5	6.47		6.65		6 76	6 52		6.69	6 82	6.76		6.81	6.54	6.90	6.75	6.60	7.45	6 65
Specific Conductance	um/cm			1197		1220		1380	1410		1180	1190	1300		1380	1360	1181	1152	1510	1205	1347
Sulfate	mg/l		250	30.2	29.9	<5	<5	8.3	118	117	162	36.2	50.8	51.6	56.1	105	55.6	79.0	207.0	50.4	163.0
Sulfide	mg/l			<2	<2	<2	<2	<2	<2.0	<2.0	<2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2 0	<2.0	
Total Dissolved Solids	mg/l		500	708	716			660			828		746	656		724		721	1020J	693	846
Dissolved Organic Carbon	mg/l			4.6	4.7	10.4	10.1	5.4	6.1	5.0	6.9	7.5	7.6	7.9	6.1	6.3	5.6	10.7			
Total Organic Carbon	mg/l			4.6	4.7	8	8.0	5.6	5.5	5.6	5.3	6.9	8.0	8.5	4 8	6.1	5 0	5.2	1.9	4 7	2 8
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4	4.4	<4.000	<4.000	<4	<4	6 8	7.3	<4	<4	<4	<4	<12	<4.7	<47
Ethene	ug/l			3.6	<3	<3	3	<3	<3.000	<3.000	<3	5.3	<3	<3	<3	<3	<3	<3	<9	<3	<25
Methane	ug/l			1100	810	1300	1400	530	160	150	120	590	970	940	120	160	29	34	760	93	330

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution

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TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW17A (cont'd)													
				4/04 Dup.	Nov-04	May-05	5/05 Dup.	Nov-05	May-06	Nov-06	May-07	5/07 Dup.	Nov-07	May-08	Nov-08	May-09	Nov-09
Alkalinity	mg/l			467	372	377	362	333	372	428	373	355	402	495	448	401	488
Ammonia (as N)	mg/l			3.6	4.5	3.1	2.8	3.0	2.0	2.0	2.3	2.4	2.8	1.9	2.8	2.31	2.98
Biological Oxygen Demand	mg/l																
Chemical Oxygen Demand	mg/l			17.4	19.1	<10	<10	<10	22 2	<10	<10	12.4J+	10.9J+	<10	12 J-	<10	21.7
Chloride	mg/l		250	86.3	119	87.5	82.2	68.2	87 6	75.1	78.3	76.9	81 5	67.1	95.1	58	83.6
Cyanide	ug/l	200															
Dissolved Oxygen	mg/l				0.17	0.16		0.15	0.41	0.24	0.19		0.24	0.21	0.42	0.26	
Nitrate	mg/l	10															
Nitrate + Nitrite	mg/l	10		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0 05	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Oil and Grease	mg/l																
Ortho-Phosphate (Total)	mg/l																
Oxidation Reduction Potential	mV				9.9	-109.2		-85.9	-40.6	-58.4	-61.7		-105.8	-83.5	-105.0	-78.5	-107.2
Phosphorus (Total)	mg/l			<0.01	0.069	0 026	0 022	0 090	0.097	0.036	0.033	0.029	<0.010	0.034	<0.010	<0.010	0.0274
pH	S.U.		6.5-8.5		6 15	6.63		6.92	6.87	7.00	6.97		6.68	6 76	6.86	6.79	6 70
Specific Conductance	um/cm				1054	1309		1061	1223	1194	1003		956	1237	1090	1011	1211
Sulfate	mg/l		250	194.0	45.0	151	142	66.5	94.4	88.5	79.5	78	51.4	62.4	10.5	110	40.6
Sulfide	mg/l																
Total Dissolved Solids	mg/l		500	837	711	735	752	575	748	710	708	756	640	667	627	687	631
Dissolved Organic Carbon	mg/l																
Total Organic Carbon	mg/l			2.8	4.7	3.8	3.9	3.9	2.5	3.0	2.5	2.4	5.2	3.4	2.3	3.0	5.6
Total Suspended Solids	mg/l																
Ethane	ug/l			<9 4	<4.7	<4.7	<4	<4 7	<4	<4	<4	<4	<4	<4	<4	<7.5	<15
Ethene	ug/l			<4.9	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<7.5	<15
Methane	ug/l			230	24	26	37	33	65E 88D	36	69	65	32	150	31	21	51

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution.

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW17B May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02	May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05	Nov-05	May-06
Alkalinity	mg/l			325	282	302	314	322	340	299	300	302	312	244	236	281	333	319	270	306	306
Ammonia (as N)	mg/l			<0.02	<0.02	<0.02	<0.020	<0.02	<0.020	<0.020	<0.020	<0.02	<0.020	0.054	<0.020	<0.020	<0.020	0.060	0.054	<0.020	0.14
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l			29.1		<10		<10		<10		<10		<10	<10	<10	<10	<10	<10	<10	<10
Chloride	mg/l		250	56 6	53.9	57.7	59.4	57.7	55.6	55.4	56.3	63.1	61.5	65.3	88 5	78.4	72.6	70.7	66.5	64.4	59.9
Cyanide	ug/l	200		<0.02		<0.02		<0.02		<0.02		<0.02		<0.02	<0 02	<0.02					
Dissolved Oxygen	mg/l				0.00	0.00	0.00	0.00	0.00	0 00	0.00	0.00R	0.05	0.1	0.1	0.1	0.04	1 1R	0.13	0.14	0.39
Nitrate	mg/l	10			<0 050		<0.050		<0.050		<0.05		<0.050								
Nitrate + Nitrite	mg/l	10		<0 05		<0.05		<0.05		<0.05		<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Oil and Grease	mg/l			<5		<5		<5		<5		<5		<5	<5	<5					
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV				-89	-126	-94	-109	-106	-114	-83	-88	-348R	-43.2	-87.5	-91.4	-92.9	-125.5	-116.1	-84 2	-56
Phosphorus (Total)	mg/l			<0.02		<0.02		<0.02		<0.01		<0.01		<0.01	<0.01	<0 01	<0.01	<0.01	<0.01	<0.01	<0.01
pH	S.U.		6.5-8.5	7 00	7.07	7 04	6.79	7.30	7.26	7.16	7.12	6.90	7.29	7 10	7.17	7.80	6.98	7.07	7.01	7 17	7.28
Specific Conductance	um/cm			753	935	799	723	701	706	744	836	881	830	773	870	850	893	660	899	909	895
Sulfate	mg/l		250	56.3	52.4	54.2	54.6	52	53.1	53.4	55.6	57.0	53.8	56.4	68.4	59.8	56.4	55.8	59.8	65.7	63.9
Sulfide	mg/l			<2	<2	<2	<2.0	<2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0					
Total Dissolved Solids	mg/l		500	563		413		499		406		501		487	505	506	533	510	460	500	549
Dissolved Organic Carbon	mg/l			<1	4.6	2.9	2	2.5	2.9	2.5	<1 0	1.6	2.2	4.1							
Total Organic Carbon	mg/l			<1	<1	<1	1.6	1.7	2.1	2.3	<1.0	1.9	1.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1 0	1.5	<1.0
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4.000	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4J	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3.000	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3J	<3	<3	<3
Methane	ug/l			11	9.3	6.6	7.1	3.9	6.2	4.2	<2	<2	<2	<2	<2	<2	2.4	<2J	<2	2.3	23E 22D

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution.

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TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW17B (cont'd)						
				Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09
Alkalinity	mg/l			332	338	300	337	336	341	279
Ammonia (as N)	mg/l			<0.020	<0.020	<0.020	0.024	0 048	<0.020	0.200
Biological Oxygen Demand	mg/l									
Chemical Oxygen Demand	mg/l			<10	<10	<10	<10	<10 UJ	<10	<10
Chloride	mg/l		250	58.3	57.1	56.9	53.3	59.3	56	49 5
Cyanide	ug/l	200								
Dissolved Oxygen	mg/l			0.17	0.08	0.23	0.20	0.17	0 29	
Nitrate	mg/l	10								
Nitrate + Nitrite	mg/l	10		<0.05	<0.05	<0.050	<0 050	<0.050	<0.050	<0.050
Oil and Grease	mg/l									
Ortho-Phosphate (Total)	mg/l									
Oxidation Reduction Potential	mV			-58.3	-91.1	-95.1	-87.1	-81.1	-88.7	-104.9
Phosphorus (Total)	mg/l			0 095	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0100
pH	S.U.		6.5-8.5	7.28	7.10	7 17	7.15	7.27	7.14	7.09
Specific Conductance	um/cm			903	856	695	883	765	731	806
Sulfate	mg/l		250	60.3	52.8	55.1	50.8	48.4	44.0	40.4
Sulfide	mg/l									
Total Dissolved Solids	mg/l		500	509	533	335	485	504	447	422
Dissolved Organic Carbon	mg/l									
Total Organic Carbon	mg/l			<1.0	<1.0	1.8	<1.0	<1.0	<1 0	1.3
Total Suspended Solids	mg/l									
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			29	37	18	13	<2	2.5	<2

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution.

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW18A May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02	May-02	Aug-02	Nov-02	Nov 02 Dup	May-03	Nov-03	May-04	Nov-04	May-05	Nov-05
Alkalinity	mg/l			556	731	576	667	529	466	433	407	390	466	341	337	326	479	486	488	402	377
Ammonia (as N)	mg/l			1.8	2.5	4.1	3	3.1	2.3	1.5	1.5	0.93	8.4	0.67	0.86	1.5	0.91	1.2	1.5	1.1	0.93
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l			34.4		<10		<10		<10		11.2		<10	<10	<10	<10	<10	<10	<10	<10
Chloride	mg/l		250	36.1	62.8	68.6	51.4	44.6	37.3	40.4	41.0	33.6	53.9	47.5	47.4	51.2	58.3	45.7	64.6	58.4	68.9
Cyanide	ug/l	200		<0.02		<0.02		<0.02		<0.02		<0.02		<0.02	<0.02	<0.02	<0.02				
Dissolved Oxygen	mg/l				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00R	0.06	0.2		0.10	0.10	0.04	1.4R	0.15	0.19
Nitrate	mg/l	10			0.091		0.44		<0.050		0.080		<0.050								
Nitrate + Nitrite	mg/l	10		0.86		<0.05		0.22		0.28		1.1		0.22	0.23	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Oil and Grease	mg/l			<5		<5		<5		<5		<5		<5	<5	<5	<5				
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV				-4	-68	-46	-148	-61	-64	-30	-39	-355R	-14.8		-62.9	-63.4	-66.7	-80.4	-122.3	-60.6
Phosphorus (Total)	mg/l			0.03		<0.02		<0.02		<0.01		<0.01		<0.01	0.016	<0.01	<0.01	<0.01	<0.01	<0.01	0.02
pH	S.U.		6.5-8.5	6.48	6.73	6.60	6.65	6.70	6.82	6.74	6.70	6.56	6.83	6.71		6.72	7.09	6.59	6.58	6.52	6.83
Specific Conductance	um/cm			991	1190	1350	1320	1070	980	982	1220	1050	1166	966		1057	1312	1229	878	1249	1214
Sulfate	mg/l		250	25	21.8	49.7	131	137	179	160	147	124	124	108	108	136	169	138	81.0	135	124
Sulfide	mg/l			<2	<2	<2	<2.0	<2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0				
Total Dissolved Solids	mg/l		500	651		689		823		609		623		637	669	658	922	795	728	742	757
Dissolved Organic Carbon	mg/l			3.4	5.6	3.6	5.2	5.5	5.7	5.5	4.3	3.8	7.1	19.5	4.4						
Total Organic Carbon	mg/l			3.1	4.5	3.3	5.1	5.5	5.1	6.2	3.3	4.0	5.9	3.9	3.7	1.5	4.7	2.2	4.8	3.7	5.1
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4.000	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<19	<4J	<19	<4
Ethene	ug/l			<3	<3	<3	<3.000	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<9.8	<3J	<9.8	<3
Methane	ug/l			210	360	<2	120	48	26	39	27	9.6	32	5.9	5.7	12	76	230	14J	49	8.8

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution

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TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW18A (cont'd) May-06	Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09
Alkalinity	mg/l			399	468	453	446	446	449	483	447
Ammonia (as N)	mg/l			0.78	0.59	0.69	0.99	0.66	1.2	1.4	1.39
Biological Oxygen Demand	mg/l										
Chemical Oxygen Demand	mg/l			<10	<10	<10	<10	<10	<10 UJ	<10	<10
Chloride	mg/l		250	41.0	60.8	39.0	66.2	32.7	65.9	60.0	78.1
Cyanide	ug/l	200									
Dissolved Oxygen	mg/l			0.73	0.24	0.30	0.29	0.32	0.57	0.21	
Nitrate	mg/l	10									
Nitrate + Nitrite	mg/l	10		<0.05	<0.05	<0.05	<0.050	<0.050	<0.050	<0.050	0.162
Oil and Grease	mg/l										
Ortho-Phosphate (Total)	mg/l										
Oxidation Reduction Potential	mV			-23.3	-20.2	-55	-52.2	-64.0	-66.7	-66.0	-87.8
Phosphorus (Total)	mg/l			0.024	0.046	0.038	0.017	<0.010	<0.010	<0.010	<0.0100
pH	S.U.		6.5-8.5	6.85	6.80	6.77	6.77	6.75	6.88	6.67	6.68
Specific Conductance	um/cm			1171	1196	1009	1130	1113	1089	1024	1131
Sulfate	mg/l		250	191	101	120	43.8	144	65	73	35.7
Sulfide	mg/l										
Total Dissolved Solids	mg/l		500	797	710	789	622	671	729	658	611
Dissolved Organic Carbon	mg/l										
Total Organic Carbon	mg/l			1.6	2.1	2.0	5.0	2.5	2.0	3.1	4.3
Total Suspended Solids	mg/l										
Ethane	ug/l			<4	<4.7	<9.0	<4	<4	<4	<7.5	<15
Ethene	ug/l			<3	<3	<7.5	<3	<3	<3	<7.5	<15
Methane	ug/l			<2	54	300	67	48	21	20	35

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW18B May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02	May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05	Nov-05	May-06
Alkalinity	mg/l			335	315	328	344	331	348	328	303	310	324	245	249	287	341	311	256	345	278
Ammonia (as N)	mg/l			0.04	<0.020	0.026	<0.020	0.05	<0.020	0.062	<0.020	0.033	0.061	<0.020	<0.020	0.038	0.048	0.13	0.064	0.063	0.052
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l			24.4		<10		<10		<10		<10		<10	<10	<10	<10	<10	<10	<10	<10
Chloride	mg/l		250	50.6	47.6	51.1	51.2	50.5	49.9	51.4	50.2	52.6	48.7	50.0	59.2	49.7	50.4	54.0	54.2	52.9	55.8
Cyanide	ug/l	200		<0.02		<0.02		<0.02		<0.02		<0.02		<0.02	<0.02	<0.02					
Dissolved Oxygen	mg/l				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00R	0.05	0.10	0.10	0.00	0.06	1.4R	0.15	0.14	0.41
Nitrate	mg/l	10			<0.050		<0.050		<0.050		<0.05		<0.050	<0.05							
Nitrate + Nitrite	mg/l	10		<0.05		<0.05		<0.05		<0.05		<0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Oil and Grease	mg/l			<5		<5		<5		<5		<5		<5	<5	<5					
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV				-121	-146	-153	-153	-136	-150	-107	-117	-305R	-48.6	-124.7	-112.7	-115.0	-128.3	-167.0	-106.6	-76.8
Phosphorus (Total)	mg/l			<0.02		<0.02		<0.02		<0.01		<0.01		<0.01	<0.01	<0.01	<0.01	0.18	<0.01	0.026	<0.010
pH	S.U.		6.5-8.5	7.04	7.26	7.23	7.22	7.38	7.23	7.24	7.16	6.95	7.37	7.06	7.21	7.58	7.03	7.11	7.04	7.30	7.36
Specific Conductance	um/cm			765	936	829	709	688	709	727	835	872	809	735	812	758	827	641	850	832	821
Sulfate	mg/l		250	66.4	60.2	61.9	61.2	56.3	55.4	56.9	57.5	57.6	53.9	56.4	66.6	58.5	57.3	58.7	60.9	60.7	57.3
Sulfide	mg/l			<2	<2	<2	<2.0	<2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0					
Total Dissolved Solids	mg/l		500	608		383		463		470		566		459	477		501	468	430	459	528
Dissolved Organic Carbon	mg/l			1.3	2.4	<1	2.0	3.1	3.3	1.6	1.0	1.6	2.6	2.5							
Total Organic Carbon	mg/l			<1	<1	<1	1.6	1.7	2.2	1.7	<1.0	1.6	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.4	<1.0
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4.000	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4J	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3.000	<3	<3	6.0	<3	<3	<3	<3	<3	<3	<3	<3J	<3	<3	<3
Methane	ug/l			28	14	34	32	15	25	30	6.3	4.6	6.9	<2	7.8	4.7	30	7.3J	13	15	14

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution

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TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW18B (cont'd)						
				Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09
Alkalinity	mg/l			190	282	314	316	355	353	315
Ammonia (as N)	mg/l			0.039	0.057	0.079	0.059	0.12	0.074	0.054
Biological Oxygen Demand	mg/l									
Chemical Oxygen Demand	mg/l			<10	<10	<10	<10	<10 UJ	<10	11.4
Chloride	mg/l		250	55.9	57.9	57 8	54.1	60.0	59.0	56.0
Cyanide	ug/l	200								
Dissolved Oxygen	mg/l			0 15	0 09	0.19	0.19	0.24	0 19	
Nitrate	mg/l	10								
Nitrate + Nitrite	mg/l	10		<0 05	<0 05	<0 050	<0.050	<0.050	<0.050	<0.050
Oil and Grease	mg/l									
Ortho-Phosphate (Total)	mg/l									
Oxidation Reduction Potential	mV			-79.2	-107.4	-62.3	-106.5	-94.0	-103.4	-117.0
Phosphorus (Total)	mg/l			<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0100
pH	S.U.		6.5-8.5	7.55	7.09	7.21	7.17	7.36	7.11	7.07
Specific Conductance	um/cm			847	846	859	910	805	796	882
Sulfate	mg/l		250	58.6	57.8	60.4	58.1	55.5	54	51.3
Sulfide	mg/l									
Total Dissolved Solids	mg/l		500	491	547	492	492	514	491	433
Dissolved Organic Carbon	mg/l									
Total Organic Carbon	mg/l			<1 0	<1.0	1.8	<1.0	<1.0	<1 0	1.4
Total Suspended Solids	mg/l									
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			8.4	5.6	6.8	6.0	<2	3.5	3.1

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution.

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW19A																		
				Feb-02	May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	Mar-05	May-05	Nov-05	May-06	Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09
Alkalinity	mg/l			403	400	411	290	223	372	357	429		368	310	380	360	425	371	490	423	438	456
Ammonia (as N)	mg/l			5.0	4.9	4.3	5.0	<0.020	4.0	3.3	3.9		3.7	1.2	1 5	1.8	3.2	3.0	2.6	3.0	2.44	6.85
Biological Oxygen Demand	mg/l																					
Chemical Oxygen Demand	mg/l				17.2	14.0	<10	13.2	16.1	<10	10.5		<10	15.6J	29.7	<10	<10	<10	11.1	<10 UJ	<10	23.4
Chloride	mg/l		250	97.2	101	100	93.9	35.2	89.5	82.8	87.7		81.0	51.8	87.6	72.0	81.9	85.8	77.8	80.2	66.0	64.7
Cyanide	ug/l	200																				
Dissolved Oxygen	mg/l			0.00	2.31R	0.03	0.20	0.40	0.00	0.02	0.14	0.10	0.32	0.25	0.65	0.27	0.10	0.24	0.33	0.18		
Nitrate	mg/l	10		<0.05	<0 05	<0.050	<0.050	2.6	<0.05	<0 05	<0.05		<0.05	0.83	<0.05	<0 05	<0.05	<0.050	<0.050	<0 050	<0.050	<0 050
Nitrate + Nitrite	mg/l	10																				
Oil and Grease	mg/l																					
Ortho-Phosphate (Total)	mg/l																					
Oxidation Reduction Potential	mV			-65	-128	-317R	-67.2	59.9	-88.6	-98.1	-66.1	-81.4	-85.5	-64.2	-54.4	-73.6	-78.7	-53.9	-46.1	-102.2	-47 3	-102.8
Phosphorus (Total)	mg/l																					
pH	S.U.		6 5-8.5	6.77	6.65	6.91	6.83	7.17	7.25	6.74	6 49	6.96	6.82	7.10	6.81	7 31	7.00	6.90	6 75	7 02	6.86	6.85
Specific Conductance	um/cm			1220	1290	1100	1103	683	1143	1169	907		1260	876	1182	1000	930	1064	1183	895	1026	1006
Sulfate	mg/l		250	41.0	82.7	47.2	65.5	63.4	73.8	85.5	58 4		117 0	56.5	85.3	49 5	49 3	43.9	54 3	27.0	77.0	40.2
Sulfide	mg/l			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0													
Total Dissolved Solids	mg/l		500																			
Dissolved Organic Carbon	mg/l			4.1	5.0	5.7	5.9															
Total Organic Carbon	mg/l			4.4	4.1	5.2	3.4	1.3	4.5	3.1	4.3		4.1	3.6	2.8	2.9	2.8	4.2	3.7	2.3	3.3	4.6
Total Suspended Solids	mg/l																					
Ethane	ug/l			<4	<4	<4	<4	<4	<4.7	<4.7	<4.7		<4.7	<4.7	<4	<4	<4	<4	<4	<4	<30	<30
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<3	<3		<3	<3	<3	<3	<3	<3	<3	<3	<30	<30
Methane	ug/l			51	19	49	23	14	73	99	29		74	41	75E 92D	38	52	28	220	22	23	200

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution.

TABLE N-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW20A																			
				Feb-02	May-02	Aug-02	Aug-02 Dup	Nov-02	May-03	Nov-03	May-04	Nov-04	Mar-05	May-05	Nov-05	May-06	Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09
Alkalinity	mg/l			462	459	480	475	357	249	426	369	477		379	400	414	407	375	442	445	443	311	471
Ammonia (as N)	mg/l			3.1	3.5	5.7	4.0	3.7	2.3	2.7	2.5	3 0		2.8	3.1	1.3	1.5	2.4	2.1	2.1	2.5	1.97	2.27
Biological Oxygen Demand	mg/l																						
Chemical Oxygen Demand	mg/l				17.5	16.0		<10	11.8	10.3	<10	16.1		15.7J	21.6J	<10	<10	<10	<10	<10	<10 UJ	<10	<10
Chloride	mg/l		250	67.1	81.8	84.0	82.8	86.0	52.8	96.7	89.8	90.3		83 4	92.1	69.0	91 5	68.9	68.3	57.5	69.2	53.0	61.7
Cyanide	ug/l	200																					
Dissolved Oxygen	mg/l			0.00	4.24R	0.03		0.30	0.10	0.00	0.02	0.14	0.11	0.15	0.24	0.53	0.20	0.08	0.24	0.28	0 26		
Nitrate	mg/l	10		<0 05	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0 05	<0.050	<0.050	<0.050	<0.050	<0.050
Nitrate + Nitrite	mg/l	10																					
Oil and Grease	mg/l																						
Ortho-Phosphate (Total)	mg/l																						
Oxidation Reduction Potential	mV			-84	-120	-342R		-50.9	-94.0	-93.5	-98.5	-85.4	-79.5	-92.7	-95 2	-55.4	-76.8	-77.8	-50.4	-52.6	-73.9	-84	-97 7
Phosphorus (Total)	mg/l																						
pH	S.U.		6.5-8.5	6.59	6.61	6 76		6.61	6.96	7.10	6.62	6.53	6.93	6.72	6.95	6.77	7.23	6.95	6.79	6.68	6.92	6.97	6.81
Specific Conductance	um/cm			1280	1380	1222		1236	821	1230	1300	1036		1290	1276	1245	1134	960	1142	1154	960	841	1037
Sulfate	mg/l		250	74.7	90.0	78.7	78.4	73.8	83.0	83.1	81.2	88.6		91.9	76.6	145.0	49.0	77.2	59.3	93.6	46.3	50.0	63.5
Sulfide	mg/l			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0													
Total Dissolved Solids	mg/l		500																				
Dissolved Organic Carbon	mg/l			4.5	5 6	6.1	6.0	5.9															
Total Organic Carbon	mg/l			4.2	4 8	5.5	5.3	4.5	<1.0	4.2	3.5	4.9		3.9	4.5	2.9	3.2	2.4	4.6	3 2	2.0	2.5	4.4
Total Suspended Solids	mg/l																						
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<9.4	<80	<9.4		<4	<4	<4	<4.7	<4	<4	<4	<4	<15	<15
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<4.9	<60	<4.9		<3	<3	<3	<3	<3	<3	<3	<3	<15	<15
Methane	ug/l			68	47	74	48	54	20	98	130	26		37	89	44E 56D	62	100	36	75	22	12	26

E = Concentration exceeded the calibration range of the instrument
D = Analytical result after sample dilution.