MEMORANDUM

Date 1/15/2014

To: BOL File Room

From: Pamela Ketchum

Re: LPC# 2018000002 - Winnebago County
CLEAN HARBORS PECATONICA LLC
Subpart F

The 2013 Semi-Annual Groundwater Data without LPC160's for the above referenced facility was dated 1/14/2014 and was received by the Agency on 1/15/2014. A copy is attached.

cc: Rockford Regional Office - Dave Retzlaff, Manager
Permit Section - Amy Boley

IEPA-DIVISION OF RECORDS MANAGEMENT
RELEASABLE
FEB 20 2014
REVIEWER: MJK

St. John-Mittelhauser & Associates, Inc.

1401 Branding Avenue
Downers Grove, IL 60515
630-427-8100
Fax 630-427-8129

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

LETTER OF TRANSMITTAL

DATE: January 14, 2014

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TO:

[x]	Steve Nightingale	Illinois EPA	3 copies	(Fed Ex)

CC:

[x]	Martin Smith	Clean Harbors	w/o enclosure	(Standard Mail)
[x]	Jim Laubsted	Clean Harbors	2 copies	(Standard Mail)
[x]	Sam Marquis	Cameron-Cole	1 copy (CD)	(Standard Mail)

WE ARE SENDING:

Project: 15-10011.04-003

ITEM	COPIES	DATE	DESCRIPTION
A	3	01/15/2014	Semi-Annual Report for the Groundwater Monitoring System, 4th Quarter 2013
B	3	01/15/2014	Illinois EPA RCRA Facility Groundwater, Leachate, and Gas Reporting Form

REMARKS:

Please contact me at 847-561-8717, if you have any questions.

SIGNED: Michelle M. Wagner

Michelle M. Wagner, P.G.
Senior Project Manager

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4Q13 Semi-Annual Transmittal\ 01/14/14\MMW

Illinois
Environmental
Protection Agency

Bureau of Land
1021 North Grand Avenue East
Box 19276
Springfield, IL 62794-9276

RCRA FACILITY GROUNDWATER, LEACHATE AND GAS REPORTING FORM

This form must be used as a cover sheet for the notices and reports, identified below as required by: (1) a facility's RCRA interim status closure plan; (2) the RCRA interim status regulations; or (3) a facility's RCRA permit. All reports must be submitted to the Illinois EPA's Bureau of Land Permit Section. This form is for use by Hazardous Waste facilities only. Reporting for Solid Waste facilities should be submitted on a separate form. All reports submitted to the Illinois EPA's Bureau of Land Permit Section must contain an original, plus a minimum of two copies.

Note: This form is not to be used with permit or closure plan modification requests. The facility's approved permit or closure plan will state whether the document you are submitting is required as a report or a modification request.

Facility Name: Clean Harbors Pecatonica LLC Site ID #: 2018000002
Facility Address: 6125 North Pecatonica Road Fed ID #: ILD980502744

Check the appropriate heading. Only one heading may be checked for each corresponding submittal. Check the appropriate sub-heading, where applicable. Attach the original and all copies behind this form.

___ LPC-160 Forms

Groundwater
___ Quarterly – Indicate one: 1 2 3 4
___ Semi-Annual
___ Annual
___ Biennial

Leachate
___ Quarterly – Indicate one: 1 2 3 4
___ Semi-Annual
___ Annual
___ Biennial

X Groundwater Data (without LPC-160 Forms)
___ Quarterly – Indicate one: 1 2 3 4
___ Annual X Semi-Annual ___ Biennial

___ Well Construction Information
___ Well Construction Forms, Boring Logs and/or Abandonment Forms
___ Well Survey Data (e.g., Stick-up Elevation Data)

___ Notice of Statistically Significant Evidence of Groundwater Contamination (35 Ill. Adm. Code 724.198)

___ Notice of Exceedence of Groundwater Concentration Limit (35 Ill. Adm. Code 724.199(h))

___ Notice of Alternate Source or Error in Sampling Analysis or Evaluation of Groundwater (35 Ill. Adm. Code 724.199(i))

___ Gas Monitoring Reports

___ Other (identify) _____

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Semi-Annual Report for the Groundwater Monitoring System (Fourth Quarter 2013)

2018000002 – Winnebago County – ILD 980502744
RCRA Permit Log No. B-13R-M-4
Clean Harbors Environmental Services, Inc.
6125 North Pecatonica Road
Pecatonica, Illinois 61063

January 15, 2014
SMA Project No.15-10011.04-003

Prepared For:

Clean Harbors Environmental Services, Inc.
Norwell, Massachusetts

Prepared By:

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1.0 INTRODUCTION

St. John-Mittelhauser & Associates, Inc. (SMA), on behalf of Clean Harbors Environmental Services (Clean Harbors), is presenting this Semi-Annual Report for the Groundwater Monitoring System (Fourth Quarter 2013) for the Clean Harbors facility (the Facility), located at 6125 North Pecatonica Road (the Site) in Pecatonica, Illinois. The Site consists of the entire Clean Harbors property including the northern half which contains the operational or active portion (the Facility) of the Site and the southern half which is leased for agricultural purposes. The Illinois Environmental Protection Agency (Illinois EPA or Agency) issued the Facility a Resource Conservation and Recovery Act (RCRA) Hazardous Waste Management Part B Permit on July 17, 1995 with an effective date of August 21, 1995.

The RCRA Part B Permit has subsequently been renewed and modified with the most recent issuance (Log B-13R-M-4) on December 6, 2011. The current RCRA Part B Permit includes a modification to the operation of pumping wells, a revision of groundwater analytical requirements, and pilot-testing of a new groundwater sampling method (HydraSleeve™). RCRA Part B Permit requirements or conditions referenced in this report correspond to the most recent permit issued and became effective on January 1, 2012, to coincide with the new monitoring year (Illinois EPA, Amy Boley, December 9, 2011).

In accordance with the RCRA Part B Permit, a Groundwater Corrective Action Program (GCAP) has been implemented at the Site to manage historic releases of constituents detected in groundwater above Illinois Pollution Control Board (IPCB) Class I GQS (GQS) listed in 35 Illinois Administrative Code (IAC) 620.410. The GCAP includes a Groundwater Remediation System active since August 21, 1995; and a Groundwater Monitoring Program implemented in 1995.

The GCAP requires maintaining the Groundwater Remediation System and conducting semi-annual groundwater monitoring and sampling during the second and fourth quarters of each calendar year. Semi-annual reports presenting second and fourth quarter Groundwater

Monitoring Program efforts and results as well as semi-annual Groundwater Remediation System data, are respectively required to be submitted to the Illinois EPA by July 15 and January 15, per RCRA Part B Permit Condition V.J.2.

This semi-annual report for fourth quarter 2013 presents Groundwater Remediation System data for the second half of 2013 and fourth quarter 2013 groundwater monitoring and sampling data, and provides a demonstration that the groundwater flow in the uppermost aquifer is being adequately controlled. In 2013, the fourth quarter groundwater monitoring and sampling event was performed during October 8 through October 10. In addition, groundwater monitoring and sampling was performed at monitoring well DW-10[*,GMZ] on November 21, 2013, upon completion of well repairs. The groundwater sampling techniques and procedures implemented during this event were in accordance with those outlined in the Groundwater Monitoring System Sampling and Analysis Plan (GMSSAP) dated October 19, 1995, as required by RCRA Part B Permit Condition V.H.1., and plan revisions subsequently approved by the Illinois EPA, as noted in this report. In addition, activities associated with the HydraSleeve™ Sampling Pilot Study are also presented in this report, as requested by the Illinois EPA (Amy Boley, June 28, 2012).

2.0 GROUNDWATER REMEDIATION SYSTEM OPERATION MONITORING

The Groundwater Remediation System began operation at the Site on August 21, 1995, utilizing the following components: five bedrock pumping wells (PW-1 through PW-5), five bedrock injection wells (IW-1 through IW-5), three infiltration basins (North, South, and East), an interception trench and sump, and a groundwater treatment system [shallow tray air stripper and two 2,000-pound granular activated carbon (GAC) units]. The locations of Groundwater Remediation System components are shown in Figure 1. Pumping wells and injection wells were strategically located to maximize groundwater remediation and control. Three infiltration basins were installed in three respective former lagoon areas: North Infiltration Basin in the former north lagoon area, South Infiltration Basin in the former south lagoon area, and East Infiltration Basin in the former grease trap area. The infiltration basins were designed to flush contaminants from impacted shallow soils and carry the dissolved constituents into the perched Glacial Drift Aquifer. An interception trench was constructed through the glacial drift, to capture

perched water in the shallow perched Glacial Drift Aquifer, hydraulically downgradient from the infiltration basins. A sump installed in the interception trench (Interception Trench Sump) pumps groundwater from the trench and subsequently transfers it to the groundwater treatment system for treatment.

In 2012, in accordance with the RCRA Part B Permit, the operational status of two pumping wells (PW-2 and PW-5) was changed and only three pumping wells (PW-1, PW-3, and PW-4) operate as part of the Groundwater Remediation System. Pumping well PW-2 had been chronically plagued with iron deposits resulting in operational issues and minimal effectiveness. The most feasible long term remedy at PW-2 was to permanently exclude the well from operating as part of the Groundwater Remediation System and to increase the pumping rate at nearby pumping wells PW-3 and PW-4. In January 2012, pumping well PW-2 was officially removed from inclusion in the Groundwater Remediation System and pumping well PW-5 was taken offline as it is located in an area where groundwater is no longer impacted by contaminants. In March 2012, pumping well PW-2 was modified to a piezometer and renamed as piezometer PPW-2, to be utilized for water level purposes only. Also in January 2012, efforts began to increase pumping rates at wells PW-3 and PW-4, as discussed further in this section.

The Groundwater Remediation System operations include (1) pumping groundwater to control contaminants and groundwater flow; (2) treating pumped groundwater to remove contaminants; (3) injecting treated groundwater into infiltration basins to flush soils; and (4) injecting treated groundwater into bedrock injection wells to control groundwater flow. More specifically, groundwater from the bedrock pumping wells and from the Interception Trench Sump is combined in a common header to supply the influent to the groundwater treatment system. The entering flow first passes through a pre-filter for removing silt and particulate matter. After filtration, the water passes through the air stripper before entering the GAC units. Following treatment, the water flows through a surge tank and is directed to the North and East Infiltration Basins. Water sent to the North Infiltration Basin flows into the South Infiltration Basin. Direct injection of treated groundwater to the South Infiltration Basin has been turned off to avoid basin flooding. Treated water that cannot be handled by the infiltration basins is directed to the bedrock injection wells.

Each pump in the pumping wells and the Interception Trench Sump are controlled by automatic sensors that measure the amperage being drawn by the pump motor. In the event a well is pumped dry, the controller reports the amperage change and shuts down the pump to protect it from running dry. The controller will automatically try to restart the pump after a set time to allow the well to recharge. Each pump discharge is also equipped with a flow meter which shows the flow rate and total gallons pumped on a display in the treatment building. Likewise, the flow rate to each injection well and infiltration basin is measured and on display in the treatment building. These rates/measurements are recorded during weekdays by onsite Clean Harbor's personnel. The groundwater remediation system is maintained by Anderson Environmental & Engineering (Anderson) of Rockford, Illinois.

According to the RCRA Part B Permit, the semi-annual report requires presentation of Groundwater Remediation System monitoring, which is discussed below. Further details regarding the Groundwater Remediation System effectiveness are presented annually in the Groundwater Corrective Action Program report due to the Agency March 1.

The Groundwater Remediation System was in operation during the second half of 2013, except for the following time periods:

- The system shut down for a short period of time on July 24, August 27 and September 9 through 11 due to a high water alarm associated with the air stripper unit. The high water was pumped down and the system was restarted, functioning without incident in July and August. In September, the issue could not be resolved. Initial trouble shooting identified the issue to be malfunctioning floats in the surge tank. These were replaced on September 11 and the system was restarted and functioned without incident until October 2, when the system went down again due to high water alarm. Subsequently, the issue was further identified as a malfunctioning solenoid valve controlling water exiting the surge tank and flowing into the injection well pump. The purpose of this solenoid was to provide prime but the gravity plumbing configuration manages this. Therefore, in resolution, the interior parts of the solenoid were removed, providing open flow via gravity into the injection well pump on October 4. Since then, the system has remained fully operational.

A summary of the Groundwater Remediation System pumping wells and the Interception Trench Sump operation for the weeks of July 1, 2013 through December 31, 2013 are presented in Table 1. Pumping well and injection well rates are discussed in Section 4.1. A description of individual well issues, malfunctions, and/or items of note during the second half of 2013, are as follows:

- Pumping wells PW-1 and PW-3 operated continuously without issues during system operation.

  Pumping well PW-3 operated at lower pumping rates (averaging 1.2 to 5.5 gallons per minute [gpm]) due to continued but lessening drought conditions during the second half of 2013. The higher end of the pumping rates occurred primarily in July through the beginning of August when the area received substantial precipitation.

- Pumping well PW-4 was not in operation on September 9 through 12 and September 20 through September 25. The pump was subsequently pulled on September 20 and found to be clogged and in disrepair. A new pump was installed on September 23 through 25 and the well was in operation September 26 through December 31.

- The Interception Trench Sump appeared not to be in operation from July 24 through November 26, when it was discovered that the pump likely burned out due to drought conditions. Subsequently, on November 27, a new pump was installed equipped with a float that will turn the pump on when sufficient water is present. The Interception Trench Sump was back in operation on November 27 through December 31.

Other Groundwater Remediation System items noted during the second half of 2013 include the following:

- All injection wells (IW-1 through IW-5) operated continuously without issues during system operation.

- The East and North Infiltration Basins operated continuously without issue during system operation.

- Direct injection of treated groundwater to the South Infiltration Basin remains turned off to avoid basin flooding. However, water sent to the North Infiltration Basin flows downgradient into the South Infiltration Basin.

- The Interception Trench Sump flow meter did not operate properly in January. Repairs made on January 29 and on February 28 resolved the issue.

Clean Harbors is continuing to evaluate, upgrade and repair the Groundwater Remediation System to improve the operation and efficiency of the system.

3.0 GROUNDWATER MONITORING, SAMPLING, AND ANALYSES

The Groundwater Monitoring System consists of 26 monitoring wells, as identified in RCRA Part B Permit Condition V.D.1. The locations of all Site wells (i.e., monitoring, pumping, injection, piezometers, and the Interception Trench Sump), including Groundwater Monitoring System wells, are shown in Figure 1. Note that in Figure 1, the Groundwater Monitoring System wells are depicted with a larger-size monitoring well symbol. In addition, on Figure 1 and within this report, the Illinois EPA designated Compliance Point wells are noted with asterisks (*) and the Groundwater Management Zone (GMZ) wells are noted with the superscript GMZ. A summary of the Groundwater Monitoring System wells listing their Site identification and their Illinois EPA identification is provided in Table 2.

The following sections present monitoring well integrity, groundwater surface elevation gauging, groundwater evacuation and field parameter monitoring, and groundwater sampling and analysis for fourth quarter 2013. Semi-annual groundwater monitoring activities were conducted at the Site on October 8 through October 10, 2013. In addition, groundwater monitoring and sampling was performed at monitoring well DW-10^{*,GMZ} on November 21, 2013, upon completion of well repairs. Field equipment used for groundwater gauging, monitoring, and sampling were decontaminated prior to and after each use, in accordance with the decontamination procedures outlined in the GMSSAP Section 7.1.2. Meters used to collect data were calibrated in accordance with manufacturers' specifications.

3.1 MONITORING WELL INTEGRITY SURVEY

The integrity of monitoring wells, piezometers, pumping wells, injection wells, and the Interception Trench Sump is evaluated during semi-annual (second and fourth quarter) groundwater monitoring. The integrity evaluation includes visual inspection of each well's protective casing, piping, and concrete pad to identify any conditions which may compromise the

integrity of the well. During fourth quarter 2013, the integrity survey identified minor damage to three monitoring wells: (1) bent protective casing hinge and latch at monitoring well DW-5^{GMZ}; (2) bent protective casing and riser at monitoring well DW-10^{*,GMZ}; and (3) stripped bolt for the flush mount cover at monitoring well DW-12^{GMZ}. The protective casings were reportedly damaged by lawn mowing equipment. Also identified was the addition of fencing around monitoring wells DW-10^{*,GMZ} and GDW-11, to aid in preventing buffalo which graze in the area from rubbing against the wells and causing damage as they had in the past.

The damage to monitoring well DW-10^{*,GMZ} prevented the well from being accessed during the October monitoring event. Repairs to well protective casings at DW-10^{*,GMZ} and DW-5^{GMZ} and rethreading of the flush mount bolt for DW-12^{GMZ} were completed on November 21, 2013. Well DW-10^{*,GMZ} was subsequently sampled on November 21, 2013 and re-surveying was performed on December 9, 2013. The updated survey information for DW-10^{*,GMZ} was provided to the Agency in a Class 1* Modification letter to the Illinois EPA dated December 12, 2013.

3.2 STATIC GROUNDWATER ELEVATION MEASUREMENTS

Static groundwater levels were gauged at all Site wells on October 8 and 9, 2013, except for well DW-10^{*,GMZ} which was measured on November 21, 2013 (see above well integrity discussion). Static water levels were measured using an electric sounding meter with a weighted probe. The water level measurement in each well was referenced to a permanent marking on the top of the casing (i.e., surveyor's notch). The static water level was read and recorded in the field logbook and groundwater sampling log sheets to the nearest 0.01-foot.

Static groundwater level measurements, along with the most recent April 2013 survey data (December 2013 for DW-10^{*,GMZ}), were used to compute the groundwater surface elevation at each well, referenced to mean sea level (msl). Historic through current groundwater surface elevations for glacial drift monitoring wells and bedrock monitoring wells are provided in Tables 3 and 4, respectively.

3.3 MONITORING WELL EVACUATION AND FIELD ANALYSES

Groundwater monitoring well evacuation and field analyses was performed in accordance with procedures outlined in the GMSSAP Section 4.0, at 15 of the 26 Groundwater Monitoring System wells (see Table 2). Eleven of the 26 wells could not be evacuated/field-analyzed because they were dry at the time of the monitoring event: EMW-1, EMW-2, EMW-3, EMW-4, GDW-1*, GDW-4, GDW-8A, GDW-11*, GDW-12*, PC-2* AND PC-3A*. As noted previously, monitoring well DW-10*,GMZ was could not be monitored and sampled during the fourth quarter semi-annual groundwater monitoring event, due to damage preventing access to the well. Upon completion of repairs, well DW-10*,GMZ was monitored and sampled on November 21, 2013

Well evacuation was implemented to remove standing water in each monitoring well prior to sampling, in order to obtain a representative groundwater sample from the aquifer. Well evacuation included removal of a minimum of three well volumes or bailing the well dry twice, if possible. During well evacuation, field parameters (i.e., temperature, pH, specific conductance, and turbidity per RCRA Part P Permit Condition V.E.1.) were measured. Upon completion of well evacuation and stabilization of field parameters, four replicate measurements of field parameters were obtained, when sufficient water was available. Evacuation data and field parameter measurements were recorded in the field logbook and on groundwater sampling log sheets. Groundwater evacuation data and replicate monitoring of field parameters are presented on Groundwater Replicate Monitoring and Sampling Forms in Appendix A and summarized in
Table 5.

3.4 GROUNDWATER SAMPLE COLLECTION

Groundwater samples were collected from 15 of the 26 Groundwater Monitoring System wells. Eleven Groundwater Monitoring System wells could not be sampled due to being dry. A list of the Groundwater Monitoring System wells showing their sampling order and their status with

respect to the fourth quarter 2013 sampling event is provided in Table 2. A specific well sampling order is not required by the Illinois EPA (Amy Boley, April 24, 2008), since disposable bailers are used for sample collection.

Groundwater samples were collected according to the procedures outlined in the GMSSAP Section 4.3, and included sample collection using disposable polyethylene bailers (equipped with a VOC sampling tip) as approved by the Illinois EPA (Amy Boley, October 9, 2007). Waste materials generated during the field activities associated with groundwater sampling were disposed according to the procedures outlined in the GMSSAP Section 8.0. Groundwater samples were maintained under chain of custody in accordance with GMSSAP Section 6.0 and transported to an offsite laboratory for analysis, as discussed in the following section.

3.5 LABORATORY ANALYTICAL METHODOLOGY AND QA/QC RESULTS

Groundwater samples collected from Groundwater Monitoring System wells semi-annually (second and fourth quarters) are required to be analyzed for nine Site-Specific volatile organic compounds (Site-Specific VOCs), in accordance with the RCRA Part B Permit Condition V.E.1.:

- 1,1-dichloroethane
- 1,1-dichloroethene
- trans-1,2-dichloroethene
- ethylbenzene
- tetrachloroethene
- 1,1,1-trichloroethane
- trichloroethene
- vinyl chloride
- total xylenes

The addition of vinyl chloride to the list of Site-Specific VOCs is a RCRA Part B Permit modification implemented in 2012. Under the previous RCRA Part B Permit, groundwater samples were analyzed semi-annually for the other eight Site-Specific VOCs (excludes vinyl chloride) and annually (fourth quarter) for Appendix I constituents listed in 35 IAC 724. Historic groundwater analytical results for Site-Specific VOCs and Appendix I analyses indicated only three VOCs (tetrachloroethene, trichloroethene, and vinyl chloride) exceeded IPCB Class I GQS

since 2007. Based on this, the current RCRA Part B Permit excludes the requirement for annual Appendix I analyses and requires the addition of vinyl chloride to the list of Site-Specific VOCs analyzed semi-annually.

In 2013, fourth quarter groundwater samples were submitted to Accutest Laboratories of the North East (Accutest) in Marlborough, Massachusetts for analysis of the nine Site-Specific VOCs. Accutest performed all sample analysis at their Massachusetts laboratory using United States Environmental Protection Agency (USEPA) SW-846 Method 8260B, in accordance with 35 IAC 724. Upon completion of laboratory analysis, data was validated by the laboratory manager and a laboratory case narrative was prepared for each laboratory report.

All fourth quarter 2013 groundwater samples were analyzed within holding time. Groundwater samples were analyzed to the lowest possible reporting limit based on pre-screening and within the constraints of the analytical method. In cases where initial analytical results indicate a constituent is present at a concentration exceeding the linear calibration curve, it is necessary to re-analyze the sample at a higher dilution factor to achieve an in-range concentration for the exceeding constituent. The lowest dilution factor which achieved an in-range constituent concentration, based on initial and re-analysis, is used for reporting and evaluation of each sample. For this semi-annual groundwater monitoring event, samples were reported a dilution factor of 1 for all Site-Specific VOCs; except for the sample collected from well DW-3*, which reported trichloroethene at a dilution factor of 20. The dilution did not appear to have impacted sample evaluation.

The Quality Assurance/Quality Control (QA/QC) procedures outlined in the GMSSAP Section 7.2, and its modifications were followed accordingly. In addition, Illinois EPA (Amy Boley, October 9, 2007) has approved the use of disposable polyethylene bailers for sample collection. In conjunction with this, the Illinois EPA (Amy Boley, April 24, 2008) approved omission of equipment blanks when using disposable polyethylene bailers. The purpose of equipment blanks to determine decontamination thoroughness is therefore not applicable when using disposable bailers. QA/QC sample collection procedures during fourth quarter 2013

included the use of two trip blanks, two duplicate samples, and matrix spike/matrix spike duplicate (MS/MSD) samples, which were submitted to Accutest for analysis. A summary of the QA/QC samples is as follows:

- The trip blank samples consisted of laboratory provided bottles filled with laboratory-grade deionized water. The trip blank samples were placed in the sample cooler which contained groundwater samples being submitted for Site-Specific VOCs analysis. The trip blank samples (TRIP01, October and November, respectively) were analyzed for Site-Specific VOCs. None of the Site-Specific VOC constituents were present above laboratory detection limits in the trip blank samples.

- Duplicate samples were collected from monitoring wells GDW-3* [Illinois EPA well number G03S, duplicate sample number RL1(D)] and DW-12 ^{GMZ} [Illinois EPA well number G12M, duplicate sample number RL2(D)] in accordance with procedures outlined in the GMSSAP Section 7.2.3. Duplicate samples were submitted for Site-Specific VOCs analysis. The analytical results of the duplicate samples correlate with the analytical results of the original samples.

- One MS/MSD sample was collected from monitoring well SP-1^{GMZ} (Illinois EPA Well Number G01D). Matrix spike and matrix spike duplicate samples were analyzed for the Site-Specific VOCs, and the results were within the established QA/QC criteria under USEPA SW-846.

A copy of the laboratory analytical report is provided in Appendix B.

4.0 EVALUATION OF MONITORING RESULTS

4.1 GROUNDWATER REMEDIATION SYSTEM

Since the Groundwater Remediation System began operation (August 21, 1995), a total of more than 214,727,209 gallons of groundwater have been extracted from the pumping wells and Interception Trench Sump and treated by the groundwater treatment system. During the period of July 1, 2013 through December 31, 2013, the groundwater extraction system removed more than 7,709,001 gallons of water, which were then treated by the groundwater treatment system. The total gallons of extracted groundwater indicate the minimum removed, as historically, some well meters have sporadically malfunctioned thus not accurately recording the total gallons

pumped. A detailed summary of the weekly average pumping rates and amounts extracted from each of the pumping wells and the Interception Trench Sump and the totals for the second half of 2013 is provided in Table 1 and summarized below:

- The average weekly pumping rate ranged from a low of 1.2 gpm (PW-3, December 23 through December 31) to a high of 22 gpm (PW-4, August 5 through August 11).
- The average weekly volume of groundwater extracted from pumping wells ranged from a low of 10,000 gallons (PW-3, September 9 through September 15) to a high of 230,000 gallons (PW-4, July 29 through August 11).
- The weekly total volume of groundwater extracted from all pumping wells ranged from a low of approximately 130,000 gallons (September 9 through September 15) to a high of approximately 410,000 gallons (July 29 through August 11).

The calculated average groundwater pumping rate, average volume of groundwater pumped per week, and the total volume of groundwater pumped for each pumping well and the Interception Trench Sump, are summarized below:

July 1 through December 31, 2013				
Site Well ID	**IEPA Well ID**	**Average Pumping Rate (gpm)**	**Average Water Pumped (gal/week)**	**Total Water Pumped (gal)**
PW-1	P01M	13	117,692	3,060,001
PW-3	P03M	3.5	34,038	885,000
PW-4	P04M	15	141,923	3,690,000
SUMP	--	NR	2,846	74,000

Note: NR = Not required to be reported.

During the second half of 2013, on average, approximately 84% of the treated groundwater was directed to the bedrock injection wells: 18.6% to IW-1, 18.6% to IW-2, 18.6% to IW-3, 1.1% to IW-4, and 27.5% to IW-5. On average, approximately 16% of the treated groundwater was directed to the infiltration basins: 1.1% to the East Infiltration Basin (former Grease Trap area) and 14.4% to the North Infiltration Basin (former North Lagoon area). As previously stated, water sent to the North Infiltration Basin flows into the South Infiltration Basin (former South Lagoon area) and direct injection of treated groundwater to the South Infiltration Basin has been turned off to avoid basin flooding.

4.2 GROUNDWATER MONITORING SYSTEM

Evaluation of the Groundwater Monitoring System includes groundwater elevations, groundwater analytical results, the GMZ, and groundwater statistical analysis. These are discussed in the following sections.

4.2.1 Groundwater Elevations

Fourth quarter 2013 static groundwater surface elevations were calculated based on depth to water measurements at all Site monitoring wells, piezometers, interception trench and infiltration basin sumps, injection wells, and pumping wells on October 8 and 9, 2013. Groundwater elevation data was used to construct potentiometric contour maps and to determine the horizontal hydraulic gradients and interstitial groundwater flow velocities for the Glacial Drift Aquifer and the Galena-Platteville Aquifer. The groundwater elevation conditions for these aquifers are discussed below.

Glacial Drift Aquifer

The October 2013 potentiometric contour map for the Glacial Drift Aquifer, presented in Figure 2, indicates that the general groundwater flow direction continues to be southwestward. In addition, there is an area of higher groundwater elevations in the vicinity of the infiltration basins, indicating recharge of groundwater directed to the area from the groundwater treatment system. The October 2013 groundwater flow pattern for the Glacial Drift Aquifer is consistent with past monitoring events.

A comparison of historic Glacial Drift Aquifer groundwater elevations during the Fall, indicate that in October 2013, elevations were lower than average given the general range considering seasonal fluctuations (see Table 3). Fourteen monitoring wells (EMW-1, EMW-2, EMW-3, EMW-4, GDW-1*, GDW-4, GDW-8A, GDW-9, GDW-10, GDW-11*, GDW-12*, MW-1000B, PC-2, and PC-3A) and two piezometers (MP-1 and MP-7) were dry this event, as they have been for the majority of the Fall groundwater sampling events. Also, as historically observed,

groundwater elevation data indicates that one well (MW-1000B) continued to have a groundwater elevation that did not coincide with an adjacent well elevation. Historically, the groundwater elevation at well MW-1000B is either dry or significantly lower than that of adjacent glacial drift well MW-1000C, which has consistently contained water. The difference in groundwater elevations at these wells is attributed to the geologic/hydrogeologic differences and well screen intervals in comparison to other local wells. Well MW-1000B is completed in the basal valley fill, screened at approximately 49 to 54 feet below grade (BG) while monitoring well MW-1000C is completed in the shallower glacial drift, screened at approximately 24 feet to 34 feet BG.

In October 2013, the sumps in the South Infiltration Basin (S-Lagoon NW and S-Lagoon SE), the North Infiltration Basin (N-Lagoon NE and N-Lagoon SW), and the East Infiltration Basin (Grease Trap N and Grease Trap S) were dry. The infiltration basin sumps were installed so that their well base is above their respective infiltration basin galleries. As such, these sumps typically remain dry.

The Glacial Drift Aquifer horizontal hydraulic gradient is calculated using upgradient monitoring well MW-1000C and downgradient monitoring well GDW-3*, where the distance between the wells is 407 ft. The October 2013 horizontal hydraulic gradient for the Glacial Drift Aquifer was 0.036. Historically, the horizontal hydraulic gradient for the Glacial Drift Aquifer has ranged from 0.027 to 0.059, with the average gradient being 0.038.

Galena-Platteville Aquifer

The October 2013 potentiometric contour map for bedrock aquifer, presented in Figure 3, indicates that the general groundwater flow direction is southward with flow locally affected by groundwater pumping wells and injection wells. As such, a more pronounced groundwater flow to the west is evident along the eastern portion of the southern half of the property, as a result of the high groundwater elevations at local injection wells IW-3, IW-4 and IW-5. The October 2013 groundwater flow pattern for the Galena-Platteville Aquifer is consistent with past monitoring events.

A comparison of historic bedrock aquifer groundwater elevations for the Fall, indicate that in October 2013, elevations were slightly higher than average, but remain in the same general range considering seasonal fluctuations (see Table 4). Also, as historically observed, one well (SP-1^{GMZ}) continued to have a groundwater elevation that did not coincide with groundwater elevations at adjacent wells. Historically, groundwater elevations at bedrock well SP-1^{GMZ}, which is installed in the St. Peter Sandstone aquifer, have been consistently lower than elevations detected in other nearby bedrock wells, which are installed in the Galena-Platteville Aquifer. During the fourth quarter 2013 monitoring event, the groundwater elevation at well SP-1 ^{GMZ} was 3.15 feet lower than that of adjacent well DW-4A. Past hydrogeologic pump tests concluded that there is no direct hydraulic connection between the Galena-Platteville Aquifer and the St. Peter Sandstone aquifer in the area of the Site.

During fourth quarter 2013, while the groundwater elevations were within seasonal range; the groundwater elevation at pumping well PW-3 was more than fifty feet lower than what is typically observed, and was near the well's pump intake depth (approximately 698 ft MSL). As previously discussed in Section 2.0, the significantly lower water elevation at PW-3 is related to the prolonged drought conditions (lack of recharge to the aquifer) that began in 2011 and the bedrock hydrogeology.

The Galena-Platteville Aquifer horizontal hydraulic gradient is calculated using upgradient injection well IW-1 and downgradient monitoring well DW-8, where the distance between the wells is 895 feet. The October 2013 horizontal hydraulic gradient for the Galena-Platteville Aquifer was 0.027. Historically, the horizontal hydraulic gradient for the Galena-Platteville Aquifer has ranged from 0.012 to 0.036, with the average gradient being 0.023.

4.2.2 Groundwater Analytical Results

A summary of the fourth quarter 2013 groundwater analytical results for samples collected from the Groundwater Monitoring System wells completed in the glacial drift and bedrock aquifers are shown in Figures 4 and 5, respectively. A historic though current summary of groundwater analytical results for Groundwater Monitoring System wells analyzed for the nine Site-Specific

VOC constituents, as required by RCRA Part B Permit Condition V.F.3., is provided in the series of tables contained in Appendix C. The analytical results presented in the tables are the results run at the lowest dilution, and within the calibration range, where possible. A copy of the fourth quarter 2013 laboratory reports, which include a laboratory case narratives, are provided in Appendix B.

As required by RCRA Part B Permit Condition V.F.3., groundwater sample analytical results for Groundwater Monitoring System wells were compared to IPCB Class I GQS (35 IAC 620.410). Groundwater analytical tables in Appendix C contain a column that includes the IPCB Class I GQS for each of the constituents. A review of the historical analytical results for the nine Site-Specific VOCs indicates the detected constituents and concentrations observed in fourth quarter 2013 were consistent with recent results, and in general, continue to show a decline. One Site-Specific VOC (trichloroethene) which has been detected during previous sampling events was detected at concentrations which exceeded its IPCB Class I GQS [5.0 micrograms per liter (µg/L)] in two bedrock monitoring wells: DW-3* (457 µg/L) and DW-12^{GMZ} (6.5 µg/L and 6.5 µg/L for its duplicate). Site-Specific VOC concentrations in groundwater samples collected from other bedrock monitoring wells and all glacial drift monitoring wells were below IPCB Class I GQS.

The two bedrock monitoring wells which had elevated trichloroethene concentrations detected during fourth quarter 2013 semi-annual groundwater sampling, are located along the buried bedrock valley. Monitoring well DW-3* is located immediately downgradient of the infiltration basins, installed in the central portion of the buried bedrock valley, in the central portion of the bedrock contaminant plume. Monitoring well DW-12^{GMZ} is located approximately 760 feet southwest of the interception trench and offsite along the west easement of Pecatonica Road. Well DW-12^{GMZ} is installed along the western flank of the buried bedrock valley and is on or near the western fringe of the bedrock contaminant plume.

Monitoring well DW-3*, along with all Groundwater Monitoring System wells except well DW-12^{GMZ}, was installed pre-1995, prior to the commencement of the RCRA Part B Permit groundwater sampling program. Well DW-12^{GMZ} was installed in 2006 and was established as the western boundary of the GMZ. A summary assessment of the groundwater quality at DW-3* and DW-12^{GMZ}, based on review of historical analytical results, is as follows:

- DW-3*: The number of detected constituents and their concentrations detected in groundwater samples from bedrock monitoring well DW-3* have generally fluctuated since the beginning of sampling events, however, the number of constituents detected above IPCB Class I GQS has generally decreased. Trichloroethene had been the only constituent detected in samples from well DW-3* above its IPCB Class I GQS from fourth quarter 2002 through fourth quarter 2013. The slight increase in constituents detected and their concentrations observed in second and fourth quarters 2013 is likely related to drought conditions and will continue to be evaluated during future sampling events.

- DW-12^{GMZ}: Well DW-12^{GMZ} was initially sampled in fourth quarter 2006 and at that time, no Site-Specific VOCs were present at concentrations above IPCB Class I GQS. Since second quarter 2007, trichloroethene has been detected in well DW-12^{GMZ}, at concentrations just above its IPCB Class I GQS, with the exception of fourth quarter 2012 when it was below detection limits. The concentrations and number of constituents detected in groundwater samples from GMZ bedrock monitoring well DW-12^{GMZ} have been relatively consistent since second quarter 2007.

The RCRA Part B Permit [Condition V.E.1.(1) and V.E.1.(2)] provides equations to evaluate the potential risk for liver toxicity and liver tumors using Site groundwater analytical results. These evaluations were not performed for fourth quarter 2012 as the risk equations provided in the RCRA Part B Permit are incorrect and furthermore, the Site is in corrective action and the risk calculations are required only if requesting closure. The Illinois EPA (Amy Boley, June 22, 2012) in recognition of this, requested that Clean Harbors submit a modification to the RCRA Part B Permit, addressing the error and calculation requirement, and stated that it is acceptable to stop calculating the liver protection risk equations from this point forward until the Agency has finalized a response to the proposed aforementioned modification request. A written request to eliminate the requirement to perform liver protection risk equations was made to the Illinois EPA on September 5, 2012. As of January 15, 2014, the Illinois EPA has not responded to this request.

4.2.3 Groundwater Management Zone

Six monitoring wells have been designated as defining the GMZ boundary. Five of the GMZ wells are installed in the Galena-Platteville Aquifer: MW-1000A^{GMZ} (upgradient, north end of the property); DW-10^{*,GMZ} (cross to down-gradient, northeast portion of the property); DW-5 ^{GMZ} (downgradient, mid-portion of the property); DW-11 ^{GMZ} (downgradient, leading edge of the plume, south end of the property); and well DW-12^{GMZ} (downgradient, offsite of the mid-portion of the property). One GMZ well is installed in the deeper St. Peter Sandstone Aquifer: SP-1 ^{GMZ} (downgradient, mid-portion of the property). An illustration of the GMZ well locations and their most recent groundwater analytical results are provided in Figure 5.

The fourth quarter 2013 groundwater analytical results indicate that none of the Site-Specific VOCs have been detected in GMZ well samples, at concentrations above IPCB Class I GQS, except for trichloroethene at well DW-12^{GMZ} (see Section 4.2.2). As stated previously, trichloroethene has been detected in groundwater samples from well DW-12^{GMZ} at concentrations just above its IPCB Class I GQS during the majority of sampling events. All Site-Specific VOCs concentrations were below IPCB Class I GQS during initial DW-12^{GMZ} sampling in fourth quarter 2006 and in fourth quarter 2012. To further evaluate the presence of trichloroethene detected in well DW-12^{GMZ}, a statistical analysis has been done and is presented in Section 4.2.4.

In general, the historic through current analytical results for groundwater samples collected from the six GMZ wells indicate that concentrations and number of constituents detected continue to decline. A historic through current summary of groundwater analytical results for GMZ monitoring wells are provided in tables contained in Appendix C.

4.2.4 Groundwater Statistical Analysis

In accordance with Part B Permit Condition V.I., this section presents the statistical analysis used to evaluate groundwater analytical results for samples collected from GMZ wells, in cases where constituent concentrations are above IPCB Class I GQS and/or have shown a significant

increase over two consecutive sampling events. Historically, trichloroethene concentrations in groundwater samples from GMZ monitoring well DW-12 ^{GMZ} have been just above its IPCB Class I GQS; therefore, a statistical analysis was performed to determine if a statistically significant increase (SSI) for trichloroethene has occurred.

In June 2010, Leppert Associates (Leppert) of Golden, Colorado performed a statistical analysis to establish the baseline for trichloroethene at well DW-12^{GMZ} using the required minimum of eight sets of analytical data (fourth quarter 2006 through second quarter 2010). The baseline was used as a comparison basis to determine if a SSI has occurred for trichloroethene in subsequent sampling events commencing in fourth quarter 2010. The statistical method to determine the baseline and the statistical analysis of subsequent data are discussed below. The supporting table, figures and references for this statistical analysis are presented in Appendix D.

Statistical Methodology

The objective of this statistical program is to determine if a SSI in constituent concentrations at a given well has occurred. First, it is necessary to establish a statistical baseline of at least eight samples taken no more frequently than one sample per quarter. This baseline can then be used as a comparison to subsequent samples to determine if a SSI has occurred for a given constituent at a given well.

The Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities Unified Guidance (USEPA 2009) recommends the combined Shewhart-CUSUM control chart (Lucas 1982) for intrawell comparisons of groundwater quality. This statistical method combines two traditional approaches to trend analysis: the Shewhart control chart and the cumulative sum (CUSUM) control chart. These techniques have been adapted for water quality monitoring purposes from their original use in manufacturing and engineering. For a comprehensive description of Shewhart-CUSUM control charts is described in the references (Gibbons 1994 and USEPA 2009) listed in Appendix F.

The combined Shewhart-CUSUM control chart is particularly powerful because it combines two trend detecting techniques. In the event of a Shewhart or CUSUM failure a SSI has occurred. Furthermore the continuous plot of the concentration value, CUSUM value, and both (CUSUM and Shewhart) limits over time provides a clear visual representation of potential trends as they develop.

The combined Shewhart-CUSUM control chart makes the assumption that the data is normally distributed. Accordingly, it is required to first check for normality and properly normalize the data if needed. To evaluate the normality of the baseline data for a constituent at a given well a quantile-quantile plot (Q-Q plot) for the raw data and natural log transformed data is prepared.

For details of preparing a Q-Q plot see USEPA 2009, Probability Plots. In the event that the Q-Q plot indicates that the data is natural log normal then the natural log transformed data will be used in subsequent analysis.

The Shewhart control chart is a statistical test to detect rapid and significant changes in a parameter. To accomplish this, a new sample value is compared to the Shewhart limit. The Shewhart limit has units of concentration and is computed by the following equation:

$$SL = \bar{x} + h * s$$

Where:

SL = the Shewhart limit,
$\bar{x}$ = the arithmetic mean of the baseline data,
h = the standardized control limit = 4.5, and
s = the standard deviation of the baseline data.

In the event that a single parameter exceeds the Shewhart limit, a SSI has occurred.

The CUSUM control chart is a statistical test to detect gradually increasing trends in a parameter. This is accomplished by computing a CUSUM value for each monitoring event. The CUSUM value is a unitless quantity which represents the cumulative sum of positive differences from the baseline mean concentration. The CUSUM value for the *i*th sample is computed by the following equation:

$$S_i = MAX[0, (z_i - k) + S_{i-1}]$$

Where:

S_i = the *i*th CUSUM value and
k = a significance factor = 1.0.

z_i represents the relative difference from the baseline mean and is computed by:

$$z_i = \frac{x_i - \bar{x}}{s}$$

Where:

x_i = the *i*th sample value.

The CUSUM value is then compared to the CUSUM limit of 4.5 and a SSI has occurred if the CUSUM exceeds the limit.

Statistical Analysis

A statistical analysis of trichloroethene in samples collected from GMZ well DW-12^{GMZ} has been performed to determine if a SSI has occurred. As required by Part B Permit Condition V.I.2., a baseline was established using eight sets of analytical data collected from GMZ monitoring well DW-12^{GMZ}, from fourth quarter 2006 through second quarter 2010.

The Q-Q Plot of the baseline data for trichloroethene at DW-12^{GMZ} shows that the data is slightly better represented by the Natural Log Normal Distribution. Commencing in fourth quarter 2010, well DW-12^{GMZ} analytical results for trichloroethene from four events (two semi-annual sets of data) were used to establish the first compliance period data set, thus the first compliance period

covered fourth quarter 2010 through second quarter 2012. The baseline and compliance data was plotted on a control chart showing combined Shewhart-CUSUM, assuming a Natural Log Normal Distribution. Statistical analyses of trichloroethene concentrations detected at monitoring well DW-12^{GMZ} during the first compliance period shows Shewhart and CUSUM values were below the prescribed limits, indicating that a SSI for trichloroethene at DW-12^{GMZ} had not occurred during the initial compliance period ending in second quarter 2012.

Since a SSI had not occurred during the initial compliance period, that compliance period data set completed in second quarter 2012 was added to the background dataset and used to calculate an updated Shewhart limit and the CUSUM value was reset to zero (as prescribed in Gibbons 1994 and USEPA 2009). This updating of background will occur every two years (two semi-annual sets of data), as long as a SSI has not occurred. As subsequent groundwater quality data become available, the new data will be compared to the Shewhart limit and used to compute the CUSUM value. The new values will be plotted as an extension which will provide a clear visual representation of possible trends as they occur.

The second compliance period commenced in fourth quarter 2012. The trichloroethene concentration detected in well DW-12^{GMZ} during fourth quarter 2012 was below the IPCB Class I GQS, and thus, by default, is below limits and thus a SSI has not occurred for this event. The trichloroethene concentrations detected in well DW-12^{GMZ} during second and fourth quarters 2013 were above the IPCB Class I GQS, however, a SSI has not occurred for these events.

A table and figures summarizing the statistical analysis performed to date, along with references, are provided in Appendix D.

5.0 HYDRASLEEVE™ SAMPLING PILOT TEST

In accordance with the RCRA Part B Permit (Condition V.F.4), a 2-year HydraSleeve™ passive sampling pilot study (hereinafter referred to as the Pilot Test) was implemented in second quarter 2012 and concluded in fourth quarter 2013. The HydraSleeve™ is an effective passive groundwater sampling method used for collection of samples that are representative of the

formation within the screened portion of the well. The HydraSleeve™ sampling device is a flexible sleeve made of low density polyethylene, which is closed at the bottom with a self-sealing reed-valve at the top, a reusable weight, and a suspension tether for lowering, locating, and retrieving the sleeve. The sampling device remains empty until retrieval. The HydraSleeve™ sampling device should be deployed at least 48 hours prior to sample collection to allow the sampling device to acclimate in the well. It is common to install a new HydraSleeve™ sampler upon removal of the previously deployed sampler in preparation for the next sampling event. The sample is collected with minimal drawdown in the well and minimal sample agitation. At the surface, the HydraSleeve™ is punctured with the pointed discharge straw and the sample can be transferred to the appropriate sampling containers for laboratory analysis.

During the Pilot Test, HydraSleeve™ groundwater sampling is to be conducted immediately prior to the semi-annual groundwater sampling which is performed using a disposable bailer. The HydraSleeve™ sampling is to be implemented at six Groundwater Monitoring System wells: three Glacial Drift Aquifer monitoring wells (GDW-3*, GDW-5, and GDW-7) and three Galena-Platteville Aquifer monitoring wells (DW-3*, DW-11[GMZ], and DW-12 [GMZ]). These wells typically contain a sufficient amount of water for groundwater sampling and also produce sample results ranging from below detection limits to above IPCB Class I GQS. HydraSleeve SuperSleeve™ sampling devices are to be installed in glacial drift monitoring wells GDW-3, GDW-5, and GDW-7, which have 5-foot length well screens. The HydraSleeve SuperSleeve™ sampling device facilitates sampling within a shorter screened interval by utilizing an additional top weight on the sampling device which compresses the sampler at the base of the well upon installation until deployment. Traditional HydraSleeve™ sampling devices are to be installed in Galena-Platteville Aquifer monitoring wells DW-3, DW-11, and DW-12, which have 10-foot length well screens. The traditional HydraSleeve™ sampling device is installed at the base of the well with a bottom weight only and extends 30-inches above the installation depth. Groundwater samples are then collected within the well screen, opening the HydraSleeve SuperSleeve™ or the traditional HydraSleeve™ device upon retrieval.

During fourth quarter 2013, groundwater samples were collected using the HydraSleeve™ sampling devices, immediately prior to conducting semi-annual groundwater sampling as discussed in Sections 3.2 and 3.3. Groundwater samples collected using the HydraSleeve™ sampling devices were submitted to Accutest for analysis of the nine Site-Specific VOCs using USEPA SW-846 Method 8260B. Upon completion of laboratory analysis, data was validated by the laboratory manager and a laboratory case narrative was prepared for the laboratory report. All HydraSleeve™ groundwater samples were analyzed within holding times, were analyzed to the lowest possible reporting limit based on pre-screening and within the constraints of the analytical method, and were analyzed and reported at a dilution of 1. A comparison of the groundwater analytical results using a bailer and a HydraSleeve™ is provided on the tables in Appendix E along with the laboratory report.

A comparison of groundwater analytical results for bailer samples and HydraSleeve™ samples indicates that the results generally correlate with each other. A more detailed evaluation of the the effectiveness of the HydraSleeve™ groundwater sampling method and request regarding which sampling method should be utilized for all Groundwater Monitoring System wells going forward, will be presented to the Illinois EPA in a stand-alone document anticipated to be submitted by January 21, 2014.

6.0 CONCLUSIONS

Based on the evaluation of the monitoring results, the following conclusions can be made:

1. Operation of the Groundwater Remediation System utilizing wells PW-1, PW-3, and PW-4 continues to control groundwater flow in the uppermost aquifer, as historically has been observed. Upgrades, repairs and replacements made to the system continue to enhance system operation.

2. In general, groundwater analytical results for samples collected from Groundwater Monitoring System wells are consistent with recent results and continue to support the trend that concentration levels of detected contaminants are declining.

3. Fourth quarter 2013 groundwater analytical results for samples collected from GMZ wells do not indicate the presence of the nine Site-Specific VOCs at concentrations above their IPCB Class I GQS, with the exception of trichloroethene detected in the sample from well DW-12^{GMZ}. Trichloroethene has been detected just above its IPCB Class I GQS at well DW-12^{GMZ} during all but two semi-annual sampling events since 2006. Trichloroethene concentrations at well DW-12^{GMZ} were below IPCB Class I GQS during fourth quarter 2006 and fourth quarter 2012. Statistical analysis of DW-12^{GMZ} results has determined that a SSI has not occurred. The presence of trichloroethene in groundwater samples from monitoring well DW-12^{GMZ} will continue to be evaluated during future groundwater sampling events using statistical analysis.

4. The next round of groundwater monitoring and sampling will take place during the second quarter of 2014.

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FIGURES

O:\'10 Projects\15-10011 Clean Harbors, Pecatonica, IL\
Reports\Semi-Annual\4Q2013\1/15/2014\MMW

Illinois EPA FOIA Exemption Reference Sheet

SID: 12676

Agency ID: 170000169243 Media File Type: LAND
Bureau ID: 2018000002
Site Name: Clean Harbors Pecatonica LLC
Site Address1: 6125 N Pecatonica Rd
Site Address2:
Site City: Pecatonica State: IL Zip: 61063-

This record has been determined to be partially or wholly exempt from public disclosure

Exemption Type:

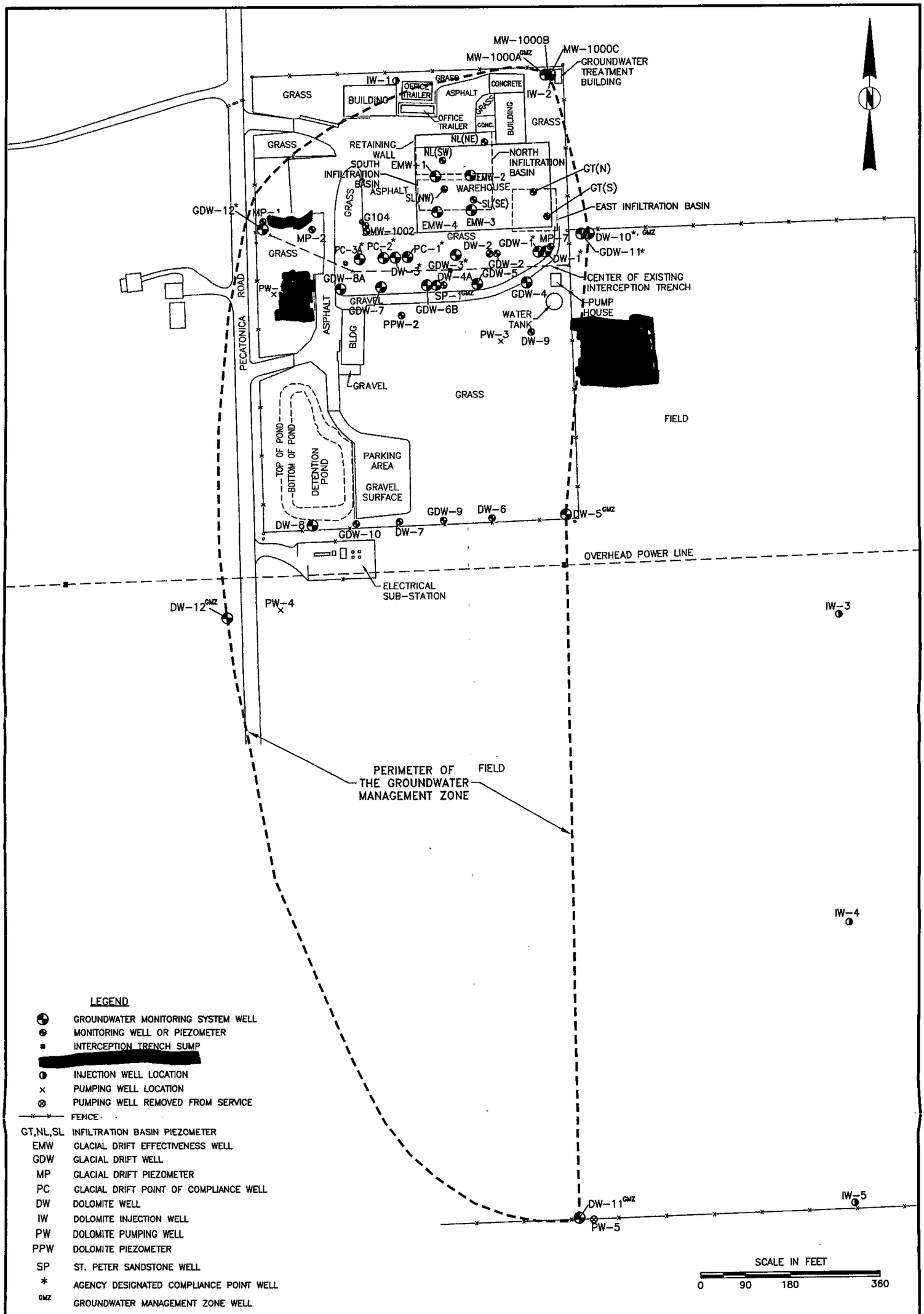
Redaction

Exempt Doc #: 231 **Document Date:** 1 /15/2014 **Staff:** MJK

Document Description: SEMI-ANUAL GROUNDWATER MONITOR REPORT (4TH QUARTER 2013)

Category ID: 24C **Category Description:** SUBPART F - RCRA GROUNDWATER **Exempt Type:** Redaction

Permit ID: **Date of Determination:** 2 /20/2014



CHECK BY MMW	SITE FEATURES MAP CLEAN HARBORS ENVIRONMENTAL SERVICES, INC. PECATONICA, ILLINOIS	SM&A ST. JOHN-MITTELHAUSER & ASSOCIATES	FIGURE 1
DRAWN BY OS			
DATE 11-26-12			
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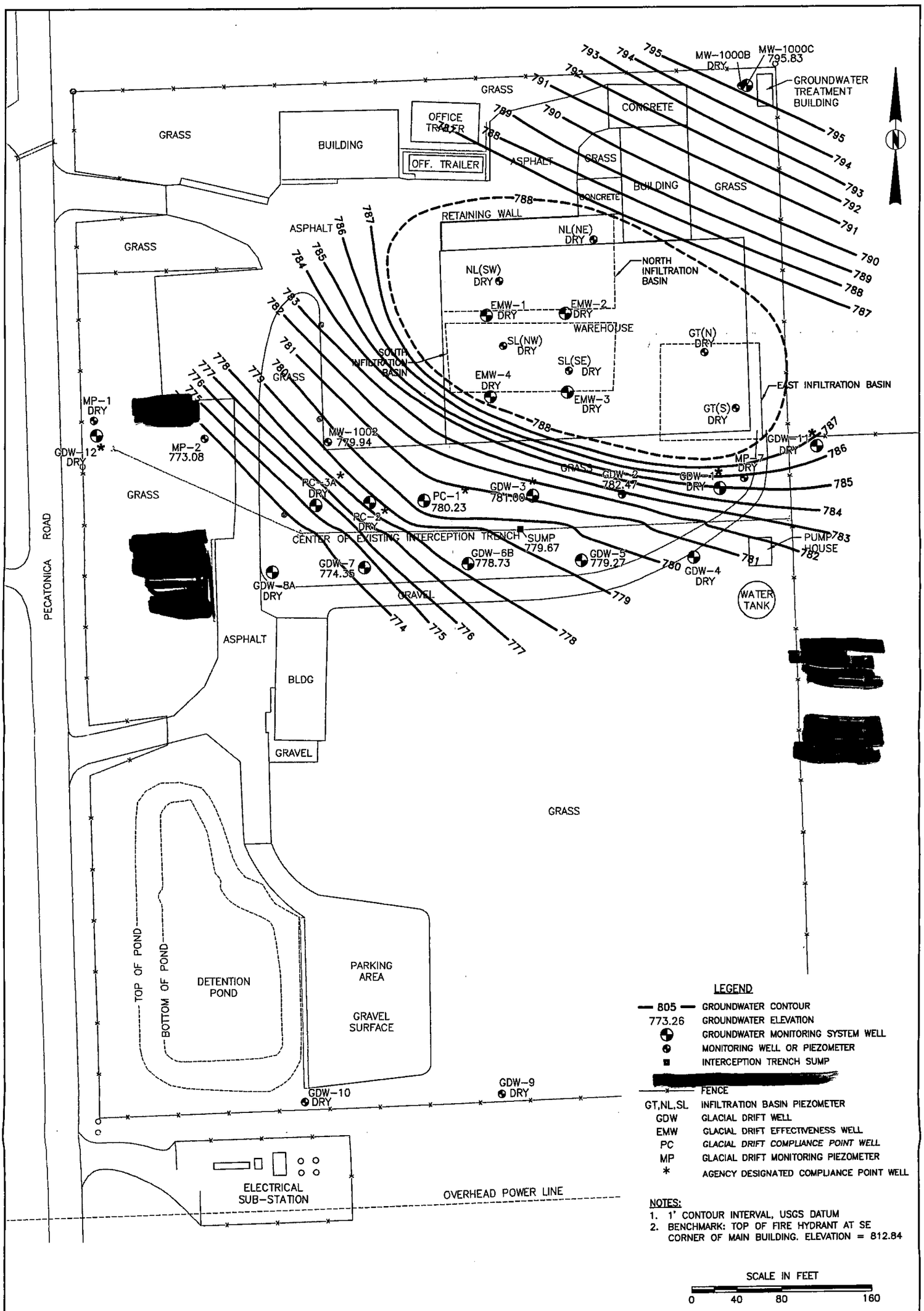
CAD NO. 10011.03Q			
PRJ NO. 15-10011.02-003			



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DRAWN BY	OS
DATE	11-1-13
SCALE	AS SHOWN
CAD NO.	SAR2012Q4.03B
PRJ NO.	15-10011.02-003

POTENTIOMETRIC CONTOUR MAP
OF THE GLACIAL DRIFT AQUIFER
OCTOBER 8 & 9, 2013

CLEAN HARBORS ENVIRONMENTAL SERVICES, INC.
PECATONICA, ILLINOIS

SM&A
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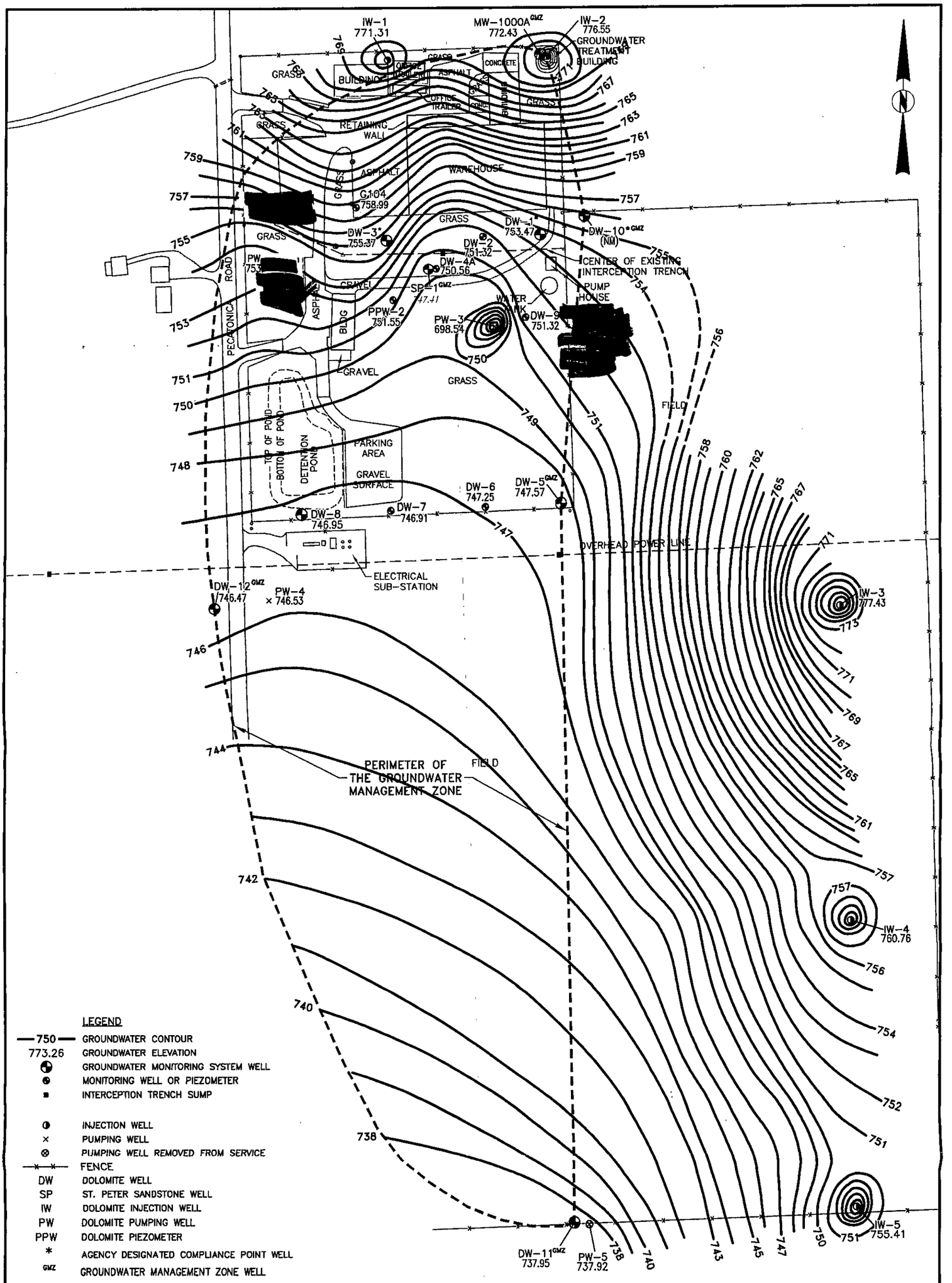
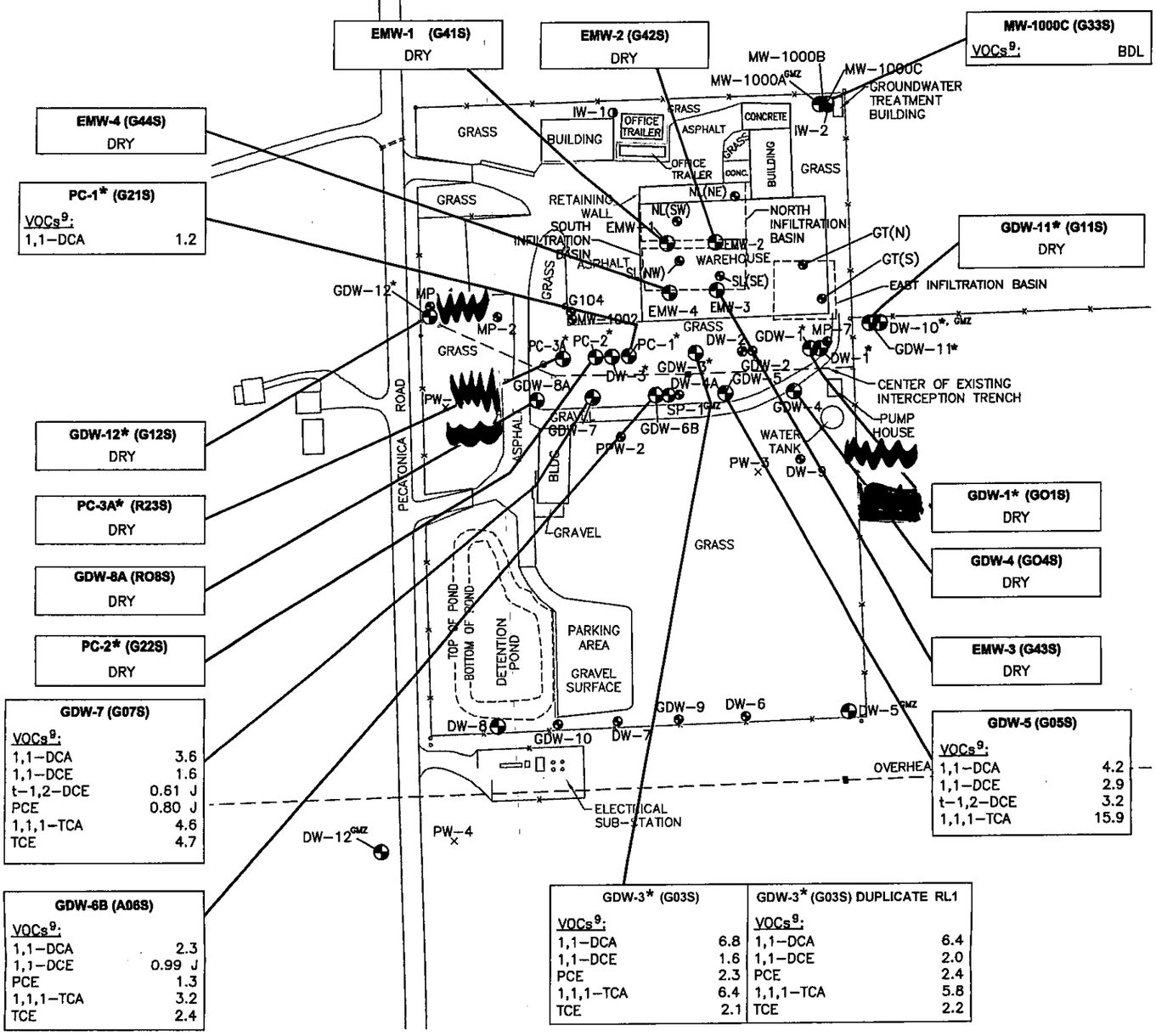
FIGURE
2



NOTES:

1. 1' CONTOUR INTERVAL, USGS DATUM (10' CONTOUR AROUND PW-3)
2. BENCHMARK: TOP OF FIRE HYDRANT AT SE CORNER OF MAIN BUILDING. ELEVATION = 812.84
3. *757.42* = SP-1 GMZ MONITORS THE POTENTIOMETRIC SURFACE OF THE ST. PETER SANDSTONE AQUIFER
4. (NM) = NOT MEASURED, WELL WAS DAMAGED AT TIME OF GAUGING

CHECK BY MMW	POTENTIOMETRIC CONTOUR MAP OF THE GALENA-PLATTEVILLE DOLOMITE AQUIFER OCTOBER 8 & 9, 2013	SM&A ST. JOHN · MITTELHAUSER & ASSOCIATES	FIGURE
DRAWN BY OS			3
DATE 11-1-13	CLEAN HARBORS ENVIRONMENTAL SERVICES, INC. PECATONICA, ILLINOIS		
SCALE AS SHOWN			
CAD NO. SAR2013Q4.03C			
PRJ NO. 15-10011.02-003			



LEGEND

- GROUNDWATER MONITORING SYSTEM WELL
- MONITORING WELL OR PIEZOMETER
- INTERCEPTION TRENCH SUMP
- INJECTION WELL LOCATION
- × PUMPING WELL LOCATION
- ⊗ PUMPING WELL REMOVED FROM SERVICE
- —×—×— FENCE
- GT,NL,SL INFILTRATION BASIN PIEZOMETER
- EMW GLACIAL DRIFT EFFECTIVENESS WELL
- GDW GLACIAL DRIFT WELL
- MP GLACIAL DRIFT PIEZOMETER
- PC GLACIAL DRIFT POINT OF COMPLIANCE WELL
- DW DOLOMITE WELL
- IW DOLOMITE INJECTION WELL
- PW DOLOMITE PUMPING WELL
- PPW DOLOMITE PIEZOMETER
- SP ST. PETER SANDSTONE WELL
- * AGENCY DESIGNATED COMPLIANCE POINT WELL
- GMZ GROUNDWATER MANAGEMENT ZONE WELL

NOTES:

1. PERMIT CONDITIONS IN REFERENCE TO RCRA PART B PERMIT MODIFICATION, DECEMBER 6, 2011
2. VOCs9 = NINE SITE SPECIFIC VOCs (PERMIT CONDITION V.E.1.)
3. * = AGENCY DESIGNATED COMPLIANCE POINT WELL, (PERMIT CONDITION V.D.1.)
4. ANALYTICAL RESULTS IN µg/L (PARTS PER BILLION)
5. BDL = BELOW DETECTION LIMIT, WHICH IS AT OR BELOW THE IPCB CLASS I GQS (35 IAC 620.410)
6. ***6.0*** = LARGER, BOLD AND ITALICIZED VALUE INDICATES EXCEEDANCE OF THE IPCB CLASS I GQS (35 IAC 620.410)
7. THE "J" QUALIFIER INDICATES CONCENTRATION BELOW LABORATORY DETECTION LIMIT

SCALE IN FEET

0 90 180 360

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DRAWN BY	OS
DATE	11-1-13
SCALE	AS SHOWN
CAD NO.	SAR2013Q4.03D
PRJ NO.	15-10011.03-002

ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
GLACIAL DRIFT WELLS
FOURTH QUARTER 2013

CLEAN HARBORS ENVIRONMENTAL SERVICES, INC.
PECATONICA, ILLINOIS

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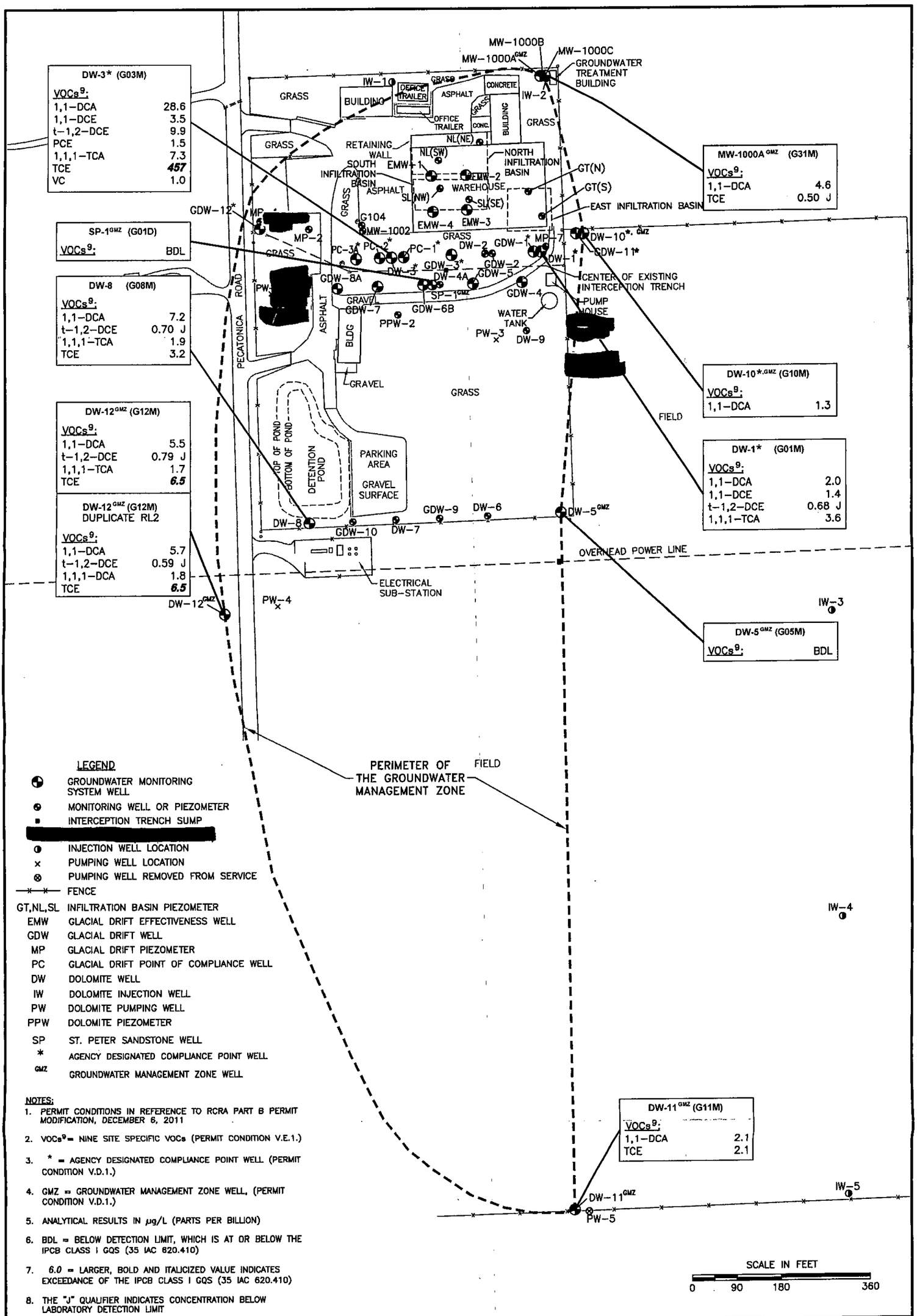
FIGURE 4



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CAD NO.	SAR2013Q4.03D
PRJ NO.	15-10011.03-002

ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
BEDROCK WELLS
FOURTH QUARTER 2013

CLEAN HARBORS ENVIRONMENTAL SERVICES, INC.
PECATONICA, ILLINOIS

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FIGURE
5

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TABLES

TABLE 1
Treatment System Weekly Average Pumping Well Rates and Extraction Volumes

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

FACILITY WELL ID	IEPA WELL ID	UNITS	WEEKLY AVERAGE PUMPING RATE (gpm) AND AMOUNT EXTRACTED (gallons)								
			01/01-01/07/13	01/08-01/14/13	01/15-01/21/13	01/22-01/28/13	01/29-02/04/13	02/05-02/11/13	02/12-02/18/13	02/19-02/25/13	02/26-03/04/13
PW-1	P01M	gpm	10	10	10	10	11	10	11	11	9.9
		gallons	110,000	110,000	100,000	110,000	100,000	100,000	100,000	110,000	70,000
Cumulative Subtotal		gallons	40,347,775	40,457,775	40,557,775	40,667,775	40,767,775	40,867,775	40,967,775	41,077,775	41,147,775
PW-3	P03M	gpm	2.0	2.0	2.0	2.0	1.9	1.9	1.8	1.9	1.8
		gallons	19,000	18,000	18,000	17,000	16,000	17,000	17,000	17,000	13,000
Cumulative Subtotal		gallons	20,616,328	20,634,328	20,652,328	20,669,328	20,685,328	20,702,328	20,719,328	20,736,328	20,749,328
PW-4	P04M	gpm	22	22	22	22	22	22	22	22	16
		gallons	220,000	220,000	220,000	230,000	220,000	220,000	220,000	220,000	110,000
Cumulative Subtotal		gallons	75,865,617	76,085,617	76,305,617	76,535,617	76,755,617	76,975,617	77,195,617	77,415,617	77,525,617
Interception Trench Sump		gallons	0	0	0	0	20,000	22,000	22,000	22,000	16,000
Cumulative Subtotal		gallons	3,368,107	3,368,107	3,368,107	3,368,107	3,388,107	3,410,107	3,432,107	3,454,107	3,470,107
CUMULATIVE TOTAL		gallons	198,617,208	198,965,208	199,303,208	199,660,208	200,016,208	200,375,208	200,734,208	201,103,208	201,312,208

NOTES: Due to historic meter malfunctions, the measured total gallons extracted since startup is lower than the actual amount extracted.
Cumulative Subtotal = Cumulative Subtotal since system start up (8/21/95).
Cumulative Total = Total gallons extracted from pumping wells (PW-1 through PW-5) and Interception Trench Sump since system startup (8/21/95).
Note that as of 2012, PW-2 was excluded from the system and PW-5 was taken offline, in accordance with the RCRA Part B Permit (12/6/2011).
gpm = gallons per minute

TABLE 1
Treatment System Weekly Average Pumping Well Rates and Extraction Volumes

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

FACILITY WELL ID	IEPA WELL ID	UNITS	WEEKLY AVERAGE PUMPING RATE (gpm) AND AMOUNT EXTRACTED (gallons)								
			03/05-03/11/13	03/12-03/18/13	03/19-03/25/13	03/26-04/01/13	04/02-04/08/13	04/09-04/15/13	04/16-04/22/13	04/23-04/29/13	04/30-05/06/13
PW-1	P01M	gpm	9.9	11	11	3.8	11	10	13	13	13
		gallons	50,000	120,000	100,000	40,000	50,000	100,000	130,000	110,000	130,000
Cumulative Subtotal		gallons	41,197,775	41,317,775	41,417,775	41,457,775	41,507,775	41,607,775	41,737,775	41,847,775	41,977,775
PW-3	P03M	gpm	1.8	1.8	1.8	1.8	2.5	2.6	4.4	10	9.2
		gallons	10,000	20,000	18,000	16,000	11,000	25,000	59,000	88,000	93,000
Cumulative Subtotal		gallons	20,759,328	20,779,328	20,797,328	20,813,328	20,824,328	20,849,328	20,908,328	20,996,328	21,089,328
PW-4	P04M	gpm	16	9.9	7.9	4.6	13	17	22	22	21
		gallons	100,000	120,000	100,000	50,000	50,000	150,000	220,000	190,000	210,000
Cumulative Subtotal		gallons	77,625,617	77,745,617	77,845,617	77,895,617	77,945,617	78,095,617	78,315,617	78,505,617	78,715,617
Interception Trench Sump		gallons	14,000	33,000	20,000	24,000	12,000	26,000	26,000	23,000	27,000
Cumulative Subtotal		gallons	3,484,107	3,517,107	3,537,107	3,561,107	3,573,107	3,599,107	3,625,107	3,648,107	3,675,107
CUMULATIVE TOTAL		gallons	201,486,208	201,779,208	202,017,208	202,147,208	202,270,208	202,571,208	203,006,208	203,417,208	203,877,208

NOTES: Due to historic meter malfunctions, the measured total gallons extracted since startup is lower than the actual amount extracted.
Cumulative Subtotal = Cumulative Subtotal since system start up (8/21/95).
Cumulative Total = Total gallons extracted from pumping wells (PW-1 through PW-5) and Interception Trench Sump since system startup (8/21/95).
Note that as of 2012, PW-2 was excluded from the system and PW-5 was taken offline, in accordance with the RCRA Part B Permit (12/6/2011).
gpm = gallons per minute

TABLE 1
Treatment System Weekly Average Pumping Well Rates and Extraction Volumes

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

FACILITY WELL ID	IEPA WELL ID	UNITS	WEEKLY AVERAGE PUMPING RATE (gpm) AND AMOUNT EXTRACTED (gallons)								
			05/07-05/13/13	05/14-05/20/13	05/21-05/27/13	05/28-06/03/13	06/04-06/10/13	06/11-06/17/13	06/18-06/24/13	06/25-06/30/13	
PW-1	P01M	gpm	13	13	13	13	13	13	13	13	End of Second Quarter 2013
		gallons	130,000	140,000	120,000	140,000	140,000	130,000	140,000	110,000	
Cumulative Subtotal		gallons	42,107,775	42,247,775	42,367,775	42,507,775	42,647,775	42,777,775	42,917,775	43,027,775	
PW-3	P03M	gpm	5.5	5.2	4.1	2.3	1.7	2.1	2.3	5.4	
		gallons	57,000	50,000	31,000	28,000	14,000	20,000	20,000	40,000	
Cumulative Subtotal		gallons	21,146,328	21,196,328	21,227,328	21,255,328	21,269,328	21,289,328	21,309,328	21,349,328	
PW-4	P04M	gpm	22	22	21	21	21	21	21	20	
		gallons	220,000	210,000	200,000	230,000	220,000	220,000	210,000	180,000	
Cumulative Subtotal		gallons	78,935,617	79,145,617	79,345,617	79,575,617	79,795,617	80,015,617	80,225,617	80,405,617	
Interception Trench Sump		gallons	26,000	25,000	14,000	17,000	12,000	11,000	14,000	22,000	
Cumulative Subtotal		gallons	3,701,107	3,726,107	3,740,107	3,757,107	3,769,107	3,780,107	3,794,107	3,816,107	
CUMULATIVE TOTAL		gallons	204,310,208	204,735,208	205,100,208	205,515,208	205,901,208	206,282,208	206,666,208	207,018,208	

NOTES: Due to historic meter malfunctions, the measured total gallons extracted since startup is lower than the actual amount extracted.
Cumulative Subtotal = Cumulative Subtotal since system start up (8/21/95).
Cumulative Total = Total gallons extracted from pumping wells (PW-1 through PW-5) and Interception Trench Sump since system startup (8/21/95).
Note that as of 2012, PW-2 was excluded from the system and PW-5 was taken offline, in accordance with the RCRA Part B Permit (12/6/2011).
gpm = gallons per minute

TABLE 1
Treatment System Weekly Average Pumping Well Rates and Extraction Volumes

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

FACILITY WELL ID	IEPA WELL ID	UNITS	WEEKLY AVERAGE PUMPING RATE (gpm) AND AMOUNT EXTRACTED (gal)								
			07/01-07/07/13	07/08-07/14/13	07/15-07/21/13	07/22-07/28/13	07/29-08/04/13	08/05-08/11/13	08/12-08/18/13	08/19-08/25/13	08/26-09/01/13
PW-1	P01M	gpm	13	13	13	13	13	13	13	13	13
		gallons	130,000	140,000	130,000	120,000	130,000	120,000	120,000	130,000	100,000
Cumulative Subtotal		gallons	43,157,775	43,297,775	43,427,775	43,547,775	43,677,775	43,797,775	43,917,775	44,047,775	44,147,775
PW-3	P03M	gpm	5.4	5.5	5.4	5.5	5.5	5.5	4.8	4.0	4.2
		gallons	55,000	60,000	60,000	50,000	50,000	60,000	50,000	30,000	30,000
Cumulative Subtotal		gallons	21,404,328	21,464,328	21,524,328	21,574,328	21,624,328	21,684,328	21,734,328	21,764,328	21,794,328
PW-4	P04M	gpm	20	20	19	21	22	23	22	19	19
		gallons	170,000	180,000	190,000	190,000	230,000	230,000	220,000	180,000	160,000
Cumulative Subtotal		gallons	80,575,617	80,755,617	80,945,617	81,135,617	81,365,617	81,595,617	81,815,617	81,995,617	82,155,617
Interception Trench Sump		gallons	17,000	18,000	12,000	0	0	0	0	0	0
Cumulative Subtotal		gallons	3,833,107	3,851,107	3,863,107	3,863,107	3,863,107	3,863,107	3,863,107	3,863,107	3,863,107
CUMULATIVE TOTAL		gallons	207,390,208	207,788,208	208,180,208	208,540,208	208,950,208	209,360,208	209,750,208	210,090,208	210,380,208

NOTES: Due to historic meter malfunctions, the measured total gallons extracted since startup is lower than the actual amount extracted.
Cumulative Subtotal = Cumulative Subtotal since system start up (8/21/95).
Cumulative Total = Total gallons extracted from pumping wells (PW-1 through PW-5) and Interception Trench Sump since system startup (8/21/95).
Note that as of 2012, PW-2 was excluded from the system and PW-5 was taken offline, in accordance with the RCRA Part B Permit (12/6/2011).
gpm = gallons per minute

TABLE 1
Treatment System Weekly Average Pumping Well Rates and Extraction Volumes

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

FACILITY WELL ID	IEPA WELL ID	UNITS	WEEKLY AVERAGE PUMPING RATE (gpm) AND AMOUNT EXTRACTED (gal)								
			09/02-09/08/13	09/09-09/15/13	09/16-09/22/13	09/23-09/29/13	09/30-10/06/13	10/07-10/13/13	10/14-10/20/13	10/21-10/27/13	10/28-11/03/13
PW-1	P01M	gpm	13	13	13	13	13	13	13	13	13
		gallons	130,000	60,000	130,000	130,000	60,000	130,000	130,000	130,000	130,000
Cumulative Subtotal		gallons	44,277,775	44,337,775	44,467,775	44,597,775	44,657,775	44,787,775	44,917,775	45,047,775	45,177,775
PW-3	P03M	gpm	3.6	4.2	3.5	3.3	4.8	3.2	2.9	2.8	3.0
		gallons	40,000	10,000	40,000	30,000	20,000	30,000	30,000	30,000	20,000
Cumulative Subtotal		gallons	21,834,328	21,844,328	21,884,328	21,914,328	21,934,328	21,964,328	21,994,328	22,024,328	22,044,328
PW-4	P04M	gpm	18	19	20	15	14	10	11	11	11
		gallons	190,000	60,000	200,000	20,000	110,000	110,000	100,000	110,000	110,000
Cumulative Subtotal		gallons	82,345,617	82,405,617	82,605,617	82,625,617	82,735,617	82,845,617	82,945,617	83,055,617	83,165,617
Interception Trench Sump		gallons	0	0	0	0	0	0	0	0	0
Cumulative Subtotal		gallons	3,863,107	3,863,107	3,863,107	3,863,107	3,863,107	3,863,107	3,863,107	3,863,107	3,863,107
CUMULATIVE TOTAL		gallons	210,740,208	210,870,208	211,240,208	211,420,208	211,610,208	211,880,208	212,140,208	212,410,208	212,670,208

NOTES: Due to historic meter malfunctions, the measured total gallons extracted since startup is lower than the actual amount extracted.
Cumulative Subtotal = Cumulative Subtotal since system start up (8/21/95).
Cumulative Total = Total gallons extracted from pumping wells (PW-1 through PW-5) and Interception Trench Sump since system startup (8/21/95).
Note that as of 2012, PW-2 was excluded from the system and PW-5 was taken offline, in accordance with the RCRA Part B Permit (12/6/2011).
gpm = gallons per minute

TABLE 1
Treatment System Weekly Average Pumping Well Rates and Extraction Volumes

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

FACILITY WELL ID	IEPA WELL ID	UNITS	WEEKLY AVERAGE PUMPING RATE (gpm) AND AMOUNT EXTRACTED (gal)								End of Fourth Quarter and End of 2013
			11/04-11/10/13	11/11-11/17/13	11/18-11/24/13	11/25-12/01/13	12/02-12/08/13	12/09-12/15/13	12/16-12/22/13	12/23-12/31/13	
PW-1	P01M	gpm	13	13	13	13	13	13	13	13	
		gallons	140,000	120,000	130,000	130,000	130,000	130,000	130,000	1	
Cumulative Subtotal		gallons	45,317,775	45,437,775	45,567,775	45,697,775	45,827,775	45,957,775	46,087,775	46,087,776	
PW-3	P03M	gpm	2.1	1.2	2.8	2.7	1.3	1.6	1.3	1.2	
		gallons	20,000	20,000	30,000	30,000	20,000	20,000	20,000	30,000	
Cumulative Subtotal		gallons	22,064,328	22,084,328	22,114,328	22,144,328	22,164,328	22,184,328	22,204,328	22,234,328	
PW-4	P04M	gpm	11	11	11	11	11	11	11	11	
		gallons	100,000	110,000	110,000	110,000	110,000	110,000	110,000	170,000	
Cumulative Subtotal		gallons	83,265,617	83,375,617	83,485,617	83,595,617	83,705,617	83,815,617	83,925,617	84,095,617	
Interception Trench Sump		gallons	0	0	4,000	7,000	5,000	4,000	3,000	4,000	
Cumulative Subtotal		gallons	3,863,107	3,863,107	3,867,107	3,874,107	3,879,107	3,883,107	3,886,107	3,890,107	
CUMULATIVE TOTAL		gallons	212,930,208	213,180,208	213,454,208	213,731,208	213,996,208	214,260,208	214,523,208	214,727,209	

NOTES: Due to historic meter malfunctions, the measured total gallons extracted since startup is lower than the actual amount extracted.
Cumulative Subtotal = Cumulative Subtotal since system start up (8/21/95).
Cumulative Total = Total gallons extracted from pumping wells (PW-1 through PW-5) and Interception Trench Sump since system startup (8/21/95).
Note that as of 2012, PW-2 was excluded from the system and PW-5 was taken offline, in accordance with the RCRA Part B Permit (12/6/2011).
gpm = gallons per minute

TABLE 2
Groundwater Monitoring System Well List
Fourth Quarter 2013 Sampling Event

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SAMPLING ORDER[1]	FACILITY WELL ID	IEPA WELL ID	QUALITY ASSURANCE / QUALITY CONTROL ID	SITE-SPECIFIC VOCs ANALYSIS[2] SAMPLING STATUS[3]	
				Date	Time
1	SP-1 [GMZ]	G01D	G01D (MS/MSD)	10/8	1620
2	MW-1000A [GMZ]	G31M	-	10/8	1745
3	MW-1000C	G33S	-	10/8	1807
4	DW-3*	G03M	-	10/9	1044
5	PC-1*	G21S	-	10/9	1108
6	DW-11 [GMZ]	G11M	-	10/9	1350
7	DW-12 [GMZ]	G12M	RL2D	10/9	1510
8	DW-5 [GMZ]	G05M	-	10/9	1620
9	DW-1*	G01M	-	10/10	0913
10	GDW-5	G05S	-	10/10	1015
11	GDW-6B	A06S	-	10/10	1100
12	GDW-7	G07S	-	10/10	1135
13	DW-8	G08M	-	10/10	1345
14	GDW-3*	G03S	RL1D	10/10	1430
15	DW-10 *, [GMZ]	G10M	-	11/21	1055
16	GDW-11*	G11S	-	NS-Dry	
17	EMW-1	G41S	-	NS-Dry	
18	EMW-2	G42S	-	NS-Dry	
19	EMW-3	G43S	-	NS-Dry	
20	EMW-4	G44S	-	NS-Dry	
21	GDW-1*	G01S		NS-Dry	
22	GDW-4	G04S	-	NS-Dry	
23	GDW-8A	R08S	-	NS-Dry	
24	GDW-12*	G12S	-	NS-Dry	
25	PC-2*	G22S	-	NS-Dry	
26	PC-3A*	R23S	-	NS-Dry	

NOTES:

[1] = The order in which wells with sufficient water volume were sampled. A specific sampling order was not required, based on the use of disposable bailers for sample collection.

[2] = Site-Specific VOCs to be analyzed semi-annually (second and fourth quarters) per Condition VI.D.1. of the RCRA Part B Permit (12/6/2011).

[3] = This column shows the date and time wells were sampled during the specified sampling event, or the well's status if a sample could not be collected.

* = Agency designated Point of Compliance well

GMZ = Groundwater Management Zone well

- = Not used for QA/QC sample purposes

NS-Dry = Not sampled, well dry during monitoring event

TABLE 3
Historic Groundwater Surface Elevations
Glacial Drift

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

FACILITY WELL ID	IEPA WELL ID	GROUND SURFACE ELEVATION	NOV. 1994 TOP OF CASING ELEVATION	STATIC WATER ELEVATIONS								
				01/16/95	04/17/95	07/25/95	11/13/95	4/22-23/96	10/01-03/96	4/14-16/97	10/13-15/97	4/20/98
MONITORING WELLS AND PIEZOMETERS												
EMW-1	G41S	815.50	815.23	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
EMW-2	G42S	818.00	817.73	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
EMW-3	G43S	817.90	817.54	Dry	Dry	Dry	Dry	795.91	Dry	796.74	794.68	797.60
EMW-4	G44S	814.80	814.50	Dry	Dry	Dry	Dry	NM	NM	792.95	Dry	794.44
GDW-1*	G01S	811.90	814.57	Dry	Dry	Dry	Dry	783.65	Dry	782.11	Dry	782.17
GDW-2	G02S	807.80	810.48	Dry	Dry	781.72	784.37	789.27	787.95	788.50	787.10	791.62
GDW-3*	G03S	803.20	804.46	779.15	778.65	779.69	783.87	784.59	784.38	785.35	784.08	788.59
GDW-4	G04S	808.40	811.75	Dry	Dry	Dry	Dry	Dry	Dry	781.72	Dry	Dry
GDW-5	G05S	803.00	805.40	Dry	Dry	Dry	Dry	Dry	780.85	780.87	779.94	785.45
GDW-6B	A06S	798.20	799.84	776.65	776.42	777.21	780.07	778.67	780.60	780.86	777.26	785.30
GDW-7	G07S	793.60	795.65	Dry	Dry	771.78	773.24	772.39	776.67	775.77	773.33	780.02
GDW-8A	R08S	793.50	796.74	Dry	Dry	Dry	Dry	Dry	772.63	771.30	Dry	775.42
GDW-9	NA	797.80	799.40	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
GDW-10	NA	792.20	793.65	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
GDW-11*	G11S	815.90	818.70	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	799.25
GDW-12*	G12S	795.70	797.62	Dry	Dry	Dry	Dry	Dry	Dry	777.28	Dry	Dry
MP-1	P01S	796.50	799.82	Dry	Dry	Dry	Dry	Dry	779.66	Dry	Dry	781.71
MP-2	P02S	798.50	801.47	Dry	Dry	773.15	Dry	773.06	773.16	773.09	Dry	778.54
MP-7	NA	813.70	814.25	Dry	Dry	Dry	789.49	794.06	792.50	NM	791.60	799.37
MW1000B	NA	823.50	824.17	Dry	Dry	Dry	Dry	Dry	771.60	Dry	Dry	773.34
MW1000C	G33S	823.90	824.50	792.42	792.37	796.94	798.56	795.58	800.36	797.20	797.74	806.42
MW1002	NA	811.10	814.76	Dry	Dry	Dry	Dry	780.35	782.56	782.68	781.60	784.78
PC-1*	G21S	799.70	801.59	778.12	777.74	778.53	781.41	782.31	782.76	784.07	782.16	787.53
PC-2*	G22S	798.40	801.42	Dry	Dry	Dry	Dry	Dry	Dry	781.93	Dry	785.63
PC-3A*	R23S	797.40	799.40	Dry	Dry	Dry	Dry	Dry	Dry	778.01	Dry	783.26
INTERCEPTION TRENCH SUMP												
Interception Trench	NA	800.82	804.72	777.47	777.30	777.95	780.02	779.77	781.27	781.86	777.94	786.26

NOTES: Elevation in feet Mean Sea Level
NA = Not Assigned NM = Not Measured * = Compliance Point well

TABLE 3
Historic Groundwater Surface Elevations
Glacial Drift

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

FACILITY WELL ID	IEPA WELL ID	GROUND SURFACE ELEVATION	NOV. 1998 TOP OF CASING ELEVATION	STATIC WATER ELEVATIONS								
				10/05/98	05/10/99	10/25/99	04/03/00	10/23/00	04/17/01	12/11/01	04/22/02	12/09/02
MONITORING WELLS AND PIEZOMETERS												
EMW-1	G41S	815.50	814.45	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
EMW-2	G42S	818.00	816.91	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
EMW-3	G43S	817.90	817.48	796.02	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
EMW-4	G44S	814.80	813.72	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
GDW-1*	G01S	811.90	814.55	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
GDW-2	G02S	807.80	810.46	789.79	782.46	785.71	784.81	784.95	784.10	782.31	783.86	779.56
GDW-3*	G03S	803.20	804.45	786.07	781.01	782.82	782.38	783.20	783.27	780.71	781.65	779.50
GDW-4	G04S	808.40	811.74	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
GDW-5	G05S	803.00	805.39	783.03	779.27	779.81	779.65	780.59	781.25	779.19	782.13	777.25
GDW-6B	A06S	798.20	799.83	781.72	778.73	776.26	776.86	780.29	781.11	778.54	780.24	777.48
GDW-7	G07S	793.60	795.63	777.89	774.35	773.38	771.91	776.03	777.08	774.18	775.51	772.76
GDW-8A	R08S	793.50	796.74	774.62	Dry	Dry	Dry	771.97	772.10	Dry	Dry	Dry
GDW-9	NA	797.80	799.38	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
GDW-10	NA	792.20	793.63	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
GDW-11*	G11S	815.90	818.65	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
GDW-12*	G12S	795.70	797.61	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MP-1	P01S	796.50	799.84	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MP-2	P02S	798.50	801.47	773.37	773.08	773.12	773.08	Dry	Dry	Dry	Dry	Dry
MP-7	NA	813.70	814.22	796.18	Dry	789.08	Dry	Dry	791.77	Dry	791.92	Dry
MW1000B	NA	823.50	824.11	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW1000C	G33S	823.90	824.44	800.26	795.83	797.18	795.37	797.94	798.30	794.82	798.02	796.03
MW1002	NA	811.10	814.74	782.88	779.99	780.33	780.42	780.09	782.07	778.17	780.63	777.76
PC-1*	G21S	799.70	801.60	785.10	780.25	781.67	781.51	782.50	783.45	779.83	780.84	778.76
PC-2*	G22S	798.40	801.44	782.61	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
PC-3A*	R23S	797.40	799.38	779.50	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
INTERCEPTION TRENCH SUMP												
Interception Trench Sump	NA	800.82	804.71	782.70	779.69	775.49	777.69	781.01	781.51	779.22	780.80	778.17

NOTES: Elevation in feet Mean Sea Level
NA = Not Assigned NM = Not Measured * = Compliance Point well

TABLE 3
Historic Groundwater Surface Elevations
Glacial Drift

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

FACILITY WELL ID	IEPA WELL ID	GROUND SURFACE ELEVATION	APRIL 2003 TOP OF CASING ELEVATION	STATIC WATER ELEVATIONS									
				04/07/03	10/13/03	04/27/04	10/05/04	04/04/05	11/14-15/05	05/16/06	11/04-05/06	5/15/07	10/21/07
MONITORING WELLS AND PIEZOMETERS													
EMW-1	G41S	815.45	815.21	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
EMW-2	G42S	817.97	817.75	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
EMW-3	G43S	817.78	817.47	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	795.97	Dry
EMW-4	G44S	814.74	813.72	NM	NM	NM	NM	NM	Dry	Dry	Dry	Dry	Dry
GDW-1*	G01S	811.71	814.55	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
GDW-2	G02S	807.60	810.46	Dry	Dry	782.63	784.54	783.03	785.96	787.44	783.49	787.55	785.98
GDW-3*	G03S	802.89	804.43	778.19	778.32	780.75	782.73	781.35	782.17	784.47	781.62	785.08	782.80
GDW-4	G04S	808.36	811.73	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
GDW-5	G05S	803.07	805.38	Dry	Dry	781.14	779.48	779.77	776.86	783.51	778.85	783.26	781.01
GDW-6B	A06S	798.21	799.83	776.27	776.57	779.42	780.16	779.68	779.57	782.14	777.73	782.68	780.54
GDW-7	G07S	793.54	795.63	Dry	770.87	774.56	775.72	775.49	774.16	778.37	775.47	779.22	777.11
GDW-8A	R08S	793.47	796.79	Dry	Dry	Dry	Dry	Dry	Dry	773.37	Dry	775.51	772.95
GDW-9	NA	797.48	799.39	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
GDW-10	NA	791.94	793.63	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
GDW-11*	G11S	815.82	818.64	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
GDW-12*	G12S	795.60	797.61	Dry	Dry	Dry	Dry	Dry	Dry	777.18	777.22	Dry	777.08
MP-1	P01S	796.45	799.88	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	779.75	779.70
MP-2	P02S	798.59	801.48	Dry	Dry	Dry	Dry	Dry	Dry	773.02	772.99	774.07	773.16
MP-7	NA	813.65	814.22	Dry	Dry	789.74	Dry	Dry	Dry	792.32	Dry	792.05	789.55
MW1000B	NA	823.46	824.12	Dry	Dry	Dry	Dry	Dry	Dry	Dry	770.39	770.75	Dry
MW1000C	G33S	823.84	824.46	792.89	795.10	795.03	796.43	795.50	794.37	798.11	795.50	805.26	797.32
MW1002	NA	810.98	814.74	Dry	778.66	783.01	780.09	779.71	779.71	783.69	779.80	783.16	782.79
PC-1*	G21S	799.20	801.61	777.73	777.75	780.22	781.75	780.77	780.72	783.76	780.87	784.38	781.83
PC-2*	G22S	798.15	801.44	Dry	Dry	Dry	Dry	Dry	Dry	782.55	Dry	783.10	Dry
PC-3A*	R23S	797.16	799.37	Dry	Dry	Dry	Dry	Dry	Dry	778.95	Dry	780.27	Dry
INTERCEPTION TRENCH SUMP													
Interception Trench Sump	NA	800.85	804.99	777.60	777.65	780.33	780.99	780.46	780.66	784.80	782.33	783.14	781.15

NOTES: Elevation in feet Mean Sea Level
NA = Not Assigned NM = Not Measured * = Compliance Point well

TABLE 3
Historic Groundwater Surface Elevations
Glacial Drift

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

FACILITY WELL ID	IEPA WELL ID	GROUND SURFACE ELEVATION	May 2008 TOP OF CASING ELEVATION	STATIC WATER ELEVATIONS									
				04/29/08	11/3/08	4/13/09	10/05/09	04/06/10	10/18/10	04/05/11	10/25/11	04/09/12[a]	10/16/12[b]
MONITORING WELLS AND PIEZOMETERS													
EMW-1	G41S	815.45	815.20	Dry	Dry	799.37	Dry	Dry	Dry	799.15	Dry	Dry	Dry
EMW-2	G42S	817.93	817.67	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
EMW-3	G43S	817.74	817.42	Dry	Dry	Dry	Dry	Dry	Dry	796.70	796.95	Dry	Dry
EMW-4	G44S	814.69	814.52	Dry	Dry	Dry	Dry	Dry	Dry	795.47	794.40	Dry	Dry
GDW-1*	G01S	811.78	814.55	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
GDW-2	G02S	807.46	810.46	787.58	784.77	788.17	787.30	786.85	785.31	788.92	787.51	784.62	785.32
GDW-3*	G03S	802.71	804.43	785.60	782.09	785.50	783.95	782.42	781.65	787.69	784.90	780.83	781.85
GDW-4	G04S	808.38	811.73	781.89	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
GDW-5	G05S	802.89	805.38	784.86	779.54	784.02	781.91	781.87	779.98	785.50	781.94	780.94	779.08
GDW-6B	A06S	798.22	799.83	783.97	779.41	783.15	780.70	777.21	775.90	785.19	781.01	776.14	775.41
GDW-7	G07S	793.61	795.63	780.22	775.44	779.47	777.45	775.92	772.94	780.32	777.23	772.86	770.81
GDW-8A	R08S	793.62	796.78	776.17	Dry	775.84	773.99	773.26	Dry	775.64	773.55	Dry	Dry
GDW-9	NA	797.35	799.39	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
GDW-10	NA	791.79	793.62	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
GDW-11*	G11S	815.81	818.64	794.06	Dry	793.78	Dry	Dry	Dry	Dry	Dry	Dry	Dry
GDW-12*	G12S	795.63	797.60	777.23	777.15	777.18	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MP-1	P01S	796.62	799.93	Dry	Dry	779.78	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MP-2	P02S	798.81	801.47	777.03	773.09	775.21	Dry	773.16	773.13	779.11	773.17	773.07	772.99
MP-7	NA	813.50	814.22	793.65	Dry	793.42	792.12	791.44	Dry	792.83	790.72	789.14	Dry
MW1000B	NA	823.47	824.09	Dry	Dry	772.20	Dry	773.18	Dry	Dry	Dry	Dry	Dry
MW1000C	G33S	823.71	824.43	805.25	797.09	809.50	798.52	805.18	798.59	802.84	798.77	797.93	793.64
MW1002	NA	811.06	814.71	785.82	779.19	787.58	783.91	780.61	778.63	790.74	783.17	779.21	779.34
PC-1*	G21S	799.56	801.57	785.13	781.04	784.78	783.07	781.78	780.25	787.61	783.99	779.36	780.04
PC-2*	G22S	798.36	801.39	784.58	Dry	783.77	Dry	Dry	Dry	786.91	782.54	Dry	Dry
PC-3A*	R23S	797.26	799.37	782.26	Dry	781.42	Dry	Dry	Dry	784.55	778.98	Dry	Dry
INTERCEPTION TRENCH SUMP													
Interception Trench Sump	NA	800.86	805.00	784.56	780.24	784.02	781.55	776.62	775.75	786.49	781.90	775.67	774.86

Notes: Elevation in feet Mean Sea Level
NA = Not Assigned NM = Not Measured * = Compliance Point well
a = Measured on 04/10/12 for GDW-3, GDW-5, and GDW-7.
b = Measured on 10/09/13: GDW-1*, PC-2*, and PC-3A*.

TABLE 3
Historic Groundwater Surface Elevations
Glacial Drift

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

FACILITY WELL ID	IEPA WELL ID	GROUND SURFACE ELEVATION	April 2013 TOP OF CASING ELEVATION	STATIC WATER ELEVATIONS									
				04/08/13[a]	10/08/13[b]								
MONITORING WELLS AND PIEZOMETERS													
EMW-1	G41S	815.44	815.19	Dry	Dry								
EMW-2	G42S	817.95	817.67	Dry	Dry								
EMW-3	G43S	817.75	817.44	Dry	Dry								
EMW-4	G44S	814.73	814.46	Dry	Dry								
GDW-1*	G01S	811.70	814.55	Dry	Dry								
GDW-2	G02S	807.62	810.47	785.70	782.47								
GDW-3*	G03S	802.89	804.44	782.42	781.00								
GDW-4	G04S	808.43	811.73	Dry	Dry								
GDW-5	G05S	803.05	805.39	779.61	779.27								
GDW-6B	A06S	798.18	799.83	777.81	778.73								
GDW-7	G07S	793.65	795.63	773.35	774.35								
GDW-8A	R08S	793.57	796.78	Dry	Dry								
GDW-9	NA	797.65	799.41	Dry	Dry								
GDW-10	NA	791.83	793.64	Dry	Dry								
GDW-11*	G11S	815.81	818.64	793.74	Dry								
GDW-12*	G12S	795.60	797.61	777.19	Dry								
MP-1	P01S	796.54	799.92	Dry	Dry								
MP-2	P02S	798.84	801.47	772.93	773.08								
MP-7	NA	813.68	814.22	792.24	Dry								
MW1000B	NA	823.48	824.11	Dry	Dry								
MW1000C	G33S	823.73	824.44	793.51	795.83								
MW1002	NA	811.06	814.69	781.78	779.94								
PC-1*	G21S	799.48	801.58	781.77	780.23								
PC-2*	G22S	798.52	801.4	Dry	Dry								
PC-3A*	R23S	797.31	799.38	Dry	Dry								
INTERCEPTION TRENCH SUMP													
Interception Trench Sump	NA	800.74	804.69	779.01	779.67								

Notes: Elevation in feet Mean Sea Level
NA = Not Assigned NM = Not Measured * = Compliance Point well
a = Measured on 04/09/13: EMW-1 through EMW-4, GDW-11, and Interception Trench Sump.
b = Measured on 10/09/13: GDW-1*, PC-2*, and PC-3A*.

TABLE 4
Historic Groundwater Surface Elevations
Bedrock

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

FACILITY WELL ID	IEPA WELL ID	GROUND SURFACE ELEVATION	NOV. 1994 TOP OF CASING ELEVATION	STATIC WATER ELEVATIONS								
				01/16/95	04/17/95	07/25/95	11/13/95	4/22-23/96	10/01-03/96	4/14-16/97	10/13-15/97	04/20/98
MONITORING WELLS AND PIEZOMETERS												
DW-1*	G01M	812.90	813.98	751.06	751.00	755.24	750.63	750.56	756.90	752.41	752.90	761.43
DW-2	NA	807.10	809.28	749.81	749.75	752.84	749.48	748.84	754.30	750.46	750.26	758.94
DW-3*	G03M	798.70	801.85	753.43	753.34	755.13	753.11	750.87	755.99	752.32	751.10	760.59
DW-4A	NA	800.50	802.91	748.84	748.73	752.01	748.56	747.09	753.24	748.75	748.03	758.27
DW-5[GMZ]	NA	810.00	811.84	746.83	746.92	749.80	748.51	744.74	750.72	746.61	746.06	755.94
DW-6	NA	802.00	804.14	746.66	748.94	749.48	748.53	744.58	750.36	747.14	745.68	755.29
DW-7	NA	794.90	797.27	746.50	746.55	749.17	746.67	744.11	749.98	746.03	745.18	754.65
DW-8	G08M	788.30	790.45	746.43	746.56	749.20	747.72	743.82	750.01	746.11	745.10	754.52
DW-9	NA	804.70	807.83	749.99	750.02	753.22	749.88	749.68	754.62	750.47	750.61	759.84
DW-10*,[GMZ]	G10M	816.60	818.65	751.48	752.44	756.18	751.70	751.00	758.37	753.50	754.46	763.01
DW-11[GMZ]	G11M	773.70	774.19	739.42	739.16	738.37	738.32	737.85	738.35	738.65	737.45	741.77
DW-12[GMZ]	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
G104	NA	810.90	815.02	758.74	758.36	758.65	758.09	757.43	761.35	758.89	758.62	765.68
MW1000A[GMZ]	G31M	823.20	825.36	759.78	759.87	763.23	760.91	768.51	772.92	771.43	770.51	777.56
SP-1[GMZ]	G01D	799.50	802.09	747.68	747.67	748.03	746.70	746.26	748.36	746.93	746.09	751.62
INJECTION WELLS												
IW-1	W01M	809.70	811.21	762.94	762.01	763.33	NM	776.21	775.35	777.24	777.03	777.29
IW-2	W02M	823.80	825.19	759.54	759.74	762.96	760.26	783.89	793.45	769.88	789.77	792.77
IW-3	W03M	816.00	817.36	750.71	751.43	756.90	752.37	764.04	783.24	763.84	763.98	771.82
IW-4	W04M	819.80	821.15	746.50	746.10	754.79	755.36	762.53	760.85	760.71	790.85	790.63
IW-5	W05M	802.50	804.07	739.54	739.44	738.90	738.85	755.53	771.65	766.16	769.05	764.29
PUMPING WELLS												
PW-1	P01M	792.30	793.59	758.55	758.21	758.31	757.74	756.19	753.87	755.12	NM	762.04
PW-2	P02M	795.10	796.66	750.18	750.06	752.72	749.29	744.71	745.80	745.12	738.36	753.60
PW-3	P03M	801.60	803.24	748.57	748.61	752.28	748.13	746.66	752.12	749.21	740.21	758.96
PW-4	P04M	790.31	791.35	746.30	746.25	748.81	745.56	743.51	749.56	745.40	744.62	754.01
PW-5	P05M	774.60	775.85	739.39	739.23	738.47	738.50	737.82	738.51	738.11	737.45	741.83

NOTES: Elevation in feet Mean Sea Level
NA = Not Assigned NM = Not Measured NI = Not Installed
* = Compliance Point well [GMZ] = Groundwater Management Zone well

TABLE 4
Historic Groundwater Surface Elevations
Bedrock

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

FACILITY WELL ID	IEPA WELL ID	GROUND SURFACE ELEVATION	NOV. 1998 TOP OF CASING ELEVATION	STATIC WATER ELEVATIONS								
				10/05/98	05/10/99	10/25/99	04/03/00	10/23-24/00	04/17/01	12/11-12/01	04/22/02	12/09/02
MONITORING WELLS AND PIEZOMETERS												
DW-1*	G01M	812.90	813.97	755.83	762.64	753.63	751.29	755.30	759.80	751.57	756.42	751.17
DW-2	NA	807.10	809.27	753.05	760.28	751.49	749.99	752.59	758.04	750.27	753.80	750.03
DW-3*	G03M	798.70	801.82	755.69	762.15	754.37	752.83	755.20	760.50	753.99	756.28	753.27
DW-4A	NA	800.50	802.90	751.67	759.76	750.31	748.68	751.68	757.68	749.44	753.07	749.11
DW-5[GMZ]	NA	810.00	811.79	748.99	756.53	748.09	746.58	749.61	Dry	747.05	750.60	759.59
DW-6	NA	802.00	804.10	748.58	755.89	747.85	746.44	748.28	Dry	746.89	750.30	746.40
DW-7	NA	794.90	797.23	748.11	755.32	747.65	746.26	749.02	Dry	746.75	749.95	746.23
DW-8	G08M	788.30	790.44	748.15	755.22	747.72	746.31	749.09	754.00	746.82	750.01	746.29
DW-9	NA	804.70	807.82	753.41	761.04	751.55	750.24	752.97	Dry	750.14	754.57	749.91
DW-10*,[GMZ]	G10M	816.60	818.59	757.26	764.36	754.80	751.75	756.03	761.47	752.44	757.55	751.77
DW-11[GMZ]	G11M	773.70	774.24	738.09	740.89	738.10	738.08	738.59	740.49	738.69	739.96	737.87
DW-12[GMZ]	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
G104	NA	810.90	815.00	761.78	766.01	759.94	758.41	760.46	762.30	758.38	759.83	757.59
MW1000A[GMZ]	G31M	823.20	825.30	770.07	776.34	764.95	761.81	766.41	769.76	760.81	764.96	760.76
SP-1[GMZ]	G01D	799.50	802.07	747.69	752.14	747.31	747.33	748.37	750.75	747.71	749.24	746.81
INJECTION WELLS												
IW-1	W01M	809.70	810.91	779.11	776.11	772.76	768.71	770.81	765.01	760.44	763.36	759.81
IW-2	W02M	823.80	824.98	787.80	775.00	793.06	792.88	768.38	768.88	760.46	764.53	760.45
IW-3	W03M	816.00	817.25	763.65	769.03	754.89	751.92	755.51	761.73	751.80	761.41	751.96
IW-4	W04M	819.80	820.91	790.51	790.27	760.47	760.52	760.66	760.49	760.42	760.43	760.55
IW-5	W05M	802.50	803.74	773.36	769.84	754.99	754.65	755.18	750.49	738.81	755.19	738.12
PUMPING WELLS												
PW-1	P01M	792.30	792.91	757.53	761.97	756.31	736.37	756.01	759.53	756.58	757.43	756.07
PW-2	P02M	795.10	795.93	748.27	757.45	747.71	745.08	750.35	756.88	749.37	752.82	749.17
PW-3	P03M	801.60	802.76	739.57	759.79	745.40	716.06	748.46	757.55	748.72	753.33	748.36
PW-4	P04M	790.31	791.30	747.51	754.56	747.31	747.93	748.71	753.21	746.42	749.56	746.03
PW-5	P05M	774.60	775.50	737.71	740.73	737.72	737.79	738.33	740.22	738.40	739.66	737.58

NOTES: Elevation in feet Mean Sea Level
NA = Not Assigned NM = Not Measured NI = Not Installed
* = Compliance Point well [GMZ] = Groundwater Management Zone well

TABLE 4
Historic Groundwater Surface Elevations
Bedrock

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

FACILITY WELL ID	IEPA WELL ID	GROUND SURFACE ELEVATION	TOP OF CASING ELEVATION		STATIC WATER ELEVATIONS									
			April 2003	Nov. 2006	04/04/2003	10/13/2003	04/27/2004	10/05/04	04/04/2005	11/14-16/05	05/16/06	11/04-05/06[b]	05/15/07	10/21/07
MONITORING WELLS AND PIEZOMETERS														
DW-1*	G01M	812.67	813.97	NS	749.55	749.76	751.46	753.26	753.73	749.05	754.12	750.60	757.20	754.88
DW-2	NA	806.69	809.26	NS	748.01	748.15	749.98	750.87	750.89	746.72	752.42	748.97	755.23	752.57
DW-3*	G03M	798.46	801.81	NS	751.61	752.05	754.35	754.82	754.71	751.37	756.66	753.07	759.89	757.00
DW-4A	NA	800.49	802.89	NS	747.04	747.27	749.51	750.00	750.10	745.92	752.18	747.92	755.19	752.22
DW-5[GMZ]	G05M	810.05	811.80	NS	744.52	744.71	747.31	747.04	746.52	742.23	749.31	745.82	752.48	749.44
DW-6	NA	802.06	804.09	NS	744.36	745.50	747.10	746.70	746.13	741.79	749.98	747.79	751.98	749.00
DW-7	NA	794.85	797.23	NS	744.19	744.32	746.95	746.30	745.59	741.44	749.64	744.63	751.40	748.58
DW-8	G08M	788.37	790.44	NS	744.18	744.28	747.00	746.35	745.61	741.10	749.68	744.56	751.40	748.62
DW-9	NA	804.73	807.82	NS	749.53	749.51	750.32	751.25	752.18	749.44	753.08	749.65	755.52	752.90
DW-10*,[GMZ]	G10M	816.60	818.58	NS	749.82	750.01	751.92	753.90	754.26	749.67	754.63	751.07	758.44	755.73
DW-11[GMZ]	G11M	773.75	774.31	NS	737.41	736.75	739.26	737.73	738.32	736.17	740.00	737.59	740.18	739.53
DW-12[GMZ]	G12M	784.71	NI	784.56	NI	NI	NI	NI	NI	NI	NI	744.22	750.86	748.14
G104	NA	810.75	814.99	NS	756.20	756.41	758.23	758.83	758.38	756.31	760.74	758.25	764.29	760.85
MW1000A[GMZ]	G31M	823.09	825.32	NS	758.06	758.27	760.13	763.30	760.33	762.43	765.03	764.97	774.45	771.43
SP-1[GMZ]	G01D	799.73	801.87	801.58	745.39	744.76	747.74	746.76	747.02	744.20	749.10	745.97	750.17	748.07
INJECTION WELLS														
IW-1	W01M	809.74	811.16	NS	758.95	758.89	761.05	771.31	761.18	771.31	763.23	771.38	782.25	771.36
IW-2	W02M	823.85	825.12	NS	757.33	757.60	759.86	785.28	760.19	785.20	764.40	785.37	779.23	785.27
IW-3	W03M	815.75	817.41	NS	748.94	749.17	752.05	752.95	751.05	763.09	760.97	793.56	762.43	761.66
IW-4	W04M	819.80	821.16	NS	760.74	760.73	754.15	781.29	760.62	764.62	760.28	760.85	760.87	760.91
IW-5	W05M	802.61	804.08	NS	746.78	736.97	741.74	738.30	738.67	764.13	752.88	764.25	755.49	757.33
PUMPING WELLS														
PW-1	P01M	791.45	793.60	NS	755.96	755.93	757.73	757.49	757.12	754.19	759.41	755.94	759.95	757.90
PW-2	P02M	793.81	796.61	NS	747.76	748.52	751.10	751.20	751.50	747.75	753.01	746.88	753.11	753.40
PW-3	P03M	801.58	803.20	NS	746.09	746.27	749.13	735.45	750.66	744.43	753.49	717.62	754.57	714.40
PW-4	P04M	790.03	791.32	NS	743.97	744.07	746.81	745.77	744.87	740.10	749.39	744.07	750.82	748.02
PW-5	P05M	774.52	775.86	NS	737.41	736.75	739.28	737.74	738.32	733.45	740.11	737.55	740.26	739.61

NOTES: Elevation in feet Mean Sea Level
NA = Not Assigned NM = Not Measured NI = Not Installed NS = Not Surveyed
* = Compliance Point well [GMZ] = Groundwater Management Zone well
[a] = Elevations referenced to November 2006 survey for wells DW-12 and SP-1, for November 2006 through October 2007.
[b] = Water elevation measured on 11/9/06 for well DW-12.

TABLE 4
Historic Groundwater Surface Elevations
Bedrock

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

FACILITY WELL ID	IEPA WELL ID	GROUND SURFACE ELEVATION	MAY 2008 TOP OF CASING ELEVATION	STATIC WATER ELEVATIONS									
				04/29/08[a]	11/03/08	04/13/09	10/05/09[b]	04/06/10[c]	10/18/10	04/05/11	10/25/11	04/09/12[d]	10/15/12[e]
MONITORING WELLS AND PIEZOMETERS													
DW-1*	G01M	812.58	813.97	762.55	753.84	760.39	755.68	762.27	756.37	759.95	753.83	753.68	750.31
DW-2	NA	806.71	809.27	760.94	751.69	758.80	753.68	760.86	754.75	758.35	751.70	751.52	748.91
DW-3*	G03M	798.50	801.82	762.80	755.90	760.09	756.35	763.06	757.94	761.05	756.07	755.42	752.54
DW-4A	NA	800.49	802.89	760.63	751.13	758.31	752.87	760.68	754.53	758.24	751.18	750.83	747.51
DW-5[GMZ]	G05M	809.90	811.79	758.15	748.41	756.09	750.54	757.46	751.35	755.67	748.51	748.39	744.10
DW-6	NA	801.95	804.09	757.49	748.15	755.49	750.15	756.86	753.00	755.20	748.19	747.98	743.75
DW-7	NA	794.76	797.22	756.93	747.88	755.01	749.73	756.34	750.72	754.81	747.80	747.53	743.14
DW-8	G08M	788.34	790.43	756.79	747.92	754.93	749.76	756.21	750.69	754.75	747.84	747.54	742.98
DW-9	NA	804.71	807.82	761.16	751.87	758.99	753.84	761.19	754.92	758.54	751.95	751.67	749.51
DW-10*,[GMZ]	G10M	816.57	818.58	764.01	755.20	762.05	757.05	763.56	757.89	761.22	755.14	754.58	750.88
DW-11[GMZ]	G11M	773.64	774.22	741.94	738.49	740.92	739.55	740.99	739.22	740.83	738.65	739.34	736.08
DW-12[GMZ]	G12M	784.71	784.42	756.26	747.36	754.47	749.20	755.63	750.10	754.27	747.27	746.99	742.50
G104	NA	810.83	814.96	765.58	760.06	764.55	762.08	765.28	760.97	763.50	759.71	758.81	756.53
MW1000A[GMZ]	G31M	823.07	825.29	772.79	770.00	772.50	769.53	774.26	767.78	770.20	762.59	762.37	767.07
PPW-2	NA	793.86	795.91	758.76	NP	NP	NP	NP	NP	NP	NP	751.07	747.54
SP-1[GMZ]	G01D	799.42	801.37	753.29	747.07	751.24	748.30	751.42	748.48	750.90	747.37	747.93	744.22
INJECTION WELLS													
IW-1	W01M	809.71	810.94	772.44	768.91	775.32	771.11	773.49	771.14	767.61	764.20	764.99	762.54
IW-2	W02M	823.94	824.96	785.16	785.11	771.46	785.10	772.99	785.09	769.73	762.22	762.05	772.36
IW-3	W03M	815.65	817.23	766.23	759.21	763.78	777.35	772.79	761.75	767.40	777.33	771.84	765.31
IW-4	W04M	819.47	820.87	760.52	760.43	781.02	760.55	760.56	760.53	760.61	760.57	780.01	781.02
IW-5	W05M	802.64	803.74	763.94	754.92	755.07	763.87	756.92	763.89	763.30	763.74	763.88	755.75
PUMPING WELLS													
PW-1	P01M	791.49	792.68	760.88	754.56	758.78	755.37	761.42	757.46	758.44	753.75	754.00	751.62
PW-2	P02M	793.86	795.91	758.76	751.26	749.09	746.01	760.07	754.38	758.00	751.51	RS	RS
PW-3	P03M	801.26	802.71	761.21	738.21	757.35	697.98	760.18	753.96	757.15	697.98	742.52	698.21
PW-4	P04M	790.07	791.30	756.29	747.60	754.90	749.35	755.75	750.20	754.39	747.35	747.05	742.38
PW-5	P05M	774.16	775.48	741.83	738.28	740.78	739.34	740.62	738.96	740.62	738.32	739.06	735.99

NOTES: Elevation in feet Mean Sea Level NA = Not Assigned NM = Not Measured NI = Not Installed
* = Compliance Point well [GMZ] = Groundwater Management Zone well RS = Removed from service
NP = Not used as a piezometer (Piezometer PPW-2 was formerly pumping well PW-2).
[a] = Measured on 04/30/08 for PW-3, due to flooding observed in the control box on 04/29/08.
[b] = Measured on 10/06/09 for Injection and Pumping Wells.
[c] = Measured on 04/05/10 for IW-3, IW-4, IW-5, and PW-5.
[d] = Measured on 04/10/12 for DW-3, DW-11, and DW-12.
[e] = Measured on 10/16/12 for DW-3, DW-4A, DW-9, DW-10, G104, MW-1000A, SP-1, IW-2, and PW-3.

TABLE 4
Historic Groundwater Surface Elevations
Bedrock

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

FACILITY WELL ID	IEPA WELL ID	GROUND SURFACE ELEVATION	TOP OF CASING ELEVATION April 2013	TOP OF CASING ELEVATION Dec. 2013	STATIC WATER ELEVATIONS 04/08/13[a]	10/08/13[b]								
MONITORING WELLS AND PIEZOMETERS														
DW-1*	G01M	812.74	813.97	NS	751.44	753.47								
DW-2	NA	807.05	809.27	NS	750.23	751.32								
DW-3*	G03M	798.77	801.81	NS	755.19	755.37								
DW-4A	NA	800.48	802.89	NS	749.71	750.56								
DW-5[GMZ]	G05M	809.97	811.80	NS	746.93	747.57								
DW-6	NA	801.93	804.10	NS	746.70	747.25								
DW-7	NA	794.90	797.25	NS	746.43	746.91								
DW-8	G08M	788.38	790.45	NS	746.52	746.95								
DW-9	NA	804.80	807.82	NS	750.44	751.32								
DW-10[*,GMZ]	G10M	816.68	818.58	818.93	752.30	753.11								
DW-11[GMZ]	G11M	773.76	774.25	NS	739.53	737.95								
DW-12[GMZ]	G12M	784.71	784.57	NS	746.06	746.47								
G104	NA	810.84	814.96	NS	759.09	758.99								
MW1000A[GMZ]	G31M	823.04	825.30	NS	762.40	772.43								
PPW-2	NA	794.90	796.60	NS	750.71	751.55								
SP-1[GMZ]	G01D	799.59	802.05	NS	747.60	747.41								
INJECTION WELLS														
IW-1	W01M	809.73	811.14	NS	771.34	771.31								
IW-2	W02M	823.96	825.10	NS	783.56	776.55								
IW-3	W03M	815.71	817.43	NS	768.08	777.43								
IW-4	W04M	819.66	821.17	NS	760.87	760.76								
IW-5	W05M	802.57	804.06	NS	755.58	755.41								
PUMPING WELLS														
PW-1	P01M	791.71	793.52	NS	755.60	753.12								
PW-3	P03M	801.58	803.02	NS	698.47	698.54								
PW-4	P04M	789.92	791.32	NS	745.62	746.53								
PW-5	P05M	774.62	775.69	NS	739.51	737.92								

NOTES: Elevation in feet Mean Sea Level NA = Not Assigned
* = Compliance Point well [GMZ] = Groundwater Management Zone well
[a] = Measured on 04/09/13: DW-10[*,GMZ], PPW-2, SP-1, IW-1, IW-2, IW-5, PW-1, PW-3, and PW-4.
[b] = Measured on 10/09/13: DW-3* and measured on 11/21/13: DW-10 [*,GMZ].

TABLE 5
Summary of Replicate Field Parameter Measurements
Fourth Quarter 2013 Sampling Event

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

FACILITY WELL ID	IEPA WELL ID	SAMPLING DATE	TOTAL VOLUME REMOVED (gal)[1]	REPLICATE MONITORING PARAMETERS				
				pH (unitless)	CONDUCTIVITY (µS/cm)	TURBIDITY (ntu)	TEMPERATURE	
							(degrees C)	(degrees F)
GLACIAL DRIFT WELLS								
GDW-3*	G03S	10/10/2013	3.5	6.98	1.02	59.1	14.3	57.7
				7.00	1.03	51.3	14.2	57.6
				7.01	1.01	23.9	14.2	57.6
				7.00	1.01	19.9	14.3	57.7
GDW-5	G05S	10/10/2013	2.3	7.25	0.560	68.3	13.1	55.6
				7.24	0.559	68.6	13.1	55.6
				7.24	0.560	69.6	13.2	55.8
				7.23	0.560	70.1	13.1	55.6
GDW-6B	A06S	10/10/2013	2.3	7.06	0.998	89.8	13.1	55.6
				7.06	0.990	89.0	13.3	55.9
				7.02	0.987	103	13.1	55.6
				7.02	0.989	97.9	13.0	55.4
GDW-7	G07S	10/10/2013	1.8	7.12	1.06	533	12.7	54.9
				7.09	1.07	646	12.7	54.9
				7.06	1.06	602	12.7	54.9
				7.05	1.06	513	12.7	54.9
MW-1000C	G33S	10/8/2013	3.6	7.43	0.929	228	12.8	55.0
				7.44	0.930	220	12.8	55.0
				7.44	0.929	231	12.8	55.0
				7.42	0.929	232	12.8	55.0
PC-1*	G21S	10/9/2013	3.0	6.63	0.875	161	14.1	57.4
				6.64	0.875	160	14.1	57.4
				6.63	0.875	121	14.3	57.7
				6.63	0.875	122	14.3	57.7

TABLE 5
Summary of Replicate Field Parameter Measurements
Fourth Quarter 2013 Sampling Event

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

FACILITY WELL ID	IEPA WELL ID	SAMPLING DATE	TOTAL VOLUME REMOVED (gal)[1]	REPLICATE MONITORING PARAMETERS				
				pH (unitless)	CONDUCTIVITY (µS/cm)	TURBIDITY (ntu)	TEMPERATURE (degrees C)	TEMPERATURE (degrees F)
BEDROCK WELLS								
DW-1*	G01M	10/10/2013	3.8	7.13	0.922	8.9	11.0	51.8
				7.12	0.921	13.0	11.0	51.8
				7.12	0.921	13.6	11.0	51.8
				7.11	0.924	13.7	10.9	51.6
DW-3*	G03M	10/9/2013	20	6.54	1.39	6.82	12.7	54.9
				6.52	1.39	5.46	12.7	54.9
				6.52	1.38	4.07	12.8	55.0
				6.52	1.38	4.10	12.8	55.0
DW-5[GMZ]	G05M	10/9/2013	4.5	6.78	0.905	57.4	10.9	51.6
				6.78	0.920	34.7	10.9	51.6
				6.77	0.919	32.0	11.0	51.8
				6.78	0.920	33.0	10.9	51.6
DW-8	G08M	10/10/2013	7.5	7.11	1.01	10.3	11.9	53.4
				7.11	1.01	9.08	11.9	53.4
				7.12	1.01	13.8	11.9	53.4
				7.14	1.01	11.8	12.0	53.6
DW-10*,[GMZ]	G10M	11/21/2013	4.5	6.93	0.645	MNA	10.2	50.4
				7.01	0.647	MNA	10.2	50.4
				7.00	0.645	MNA	10.1	50.2
				6.98	0.645	MNA	10.1	50.2
DW-11[GMZ]	G11M	10/9/2013	12	6.97	0.976	6.60	10.7	51.3
				6.96	0.976	6.56	10.7	51.3
				6.96	0.975	4.56	10.7	51.3
				6.95	0.975	4.63	10.7	51.3
DW-12[GMZ]	G12M	10/9/2013	7.5	6.82	1.51	8.9	11.6	52.9
				6.82	1.57	8.1	11.4	52.5
				6.81	1.56	7.3	11.5	52.7
				6.80	1.56	7.4	11.5	52.7
MW-1000A[GMZ]	G31M	10/8/2013	9.0	7.59	1.11	6.66	12.5	54.5
				7.58	1.11	6.67	12.5	54.5
				7.59	1.11	4.02	12.6	54.7
				7.59	1.11	3.81	12.6	54.7
SP-1[GMZ]	G01D	10/8/2013	225	7.11	0.697	0.35	12.5	54.5
				7.12	0.700	1.26	12.6	54.7
				7.13	0.703	0.84	12.5	54.5
				7.12	0.705	0.66	12.7	54.9

NOTES: * = Compliance Point well
[GMZ] = Groundwater Management Zone well
[1] = Estimated gallons purged
µS/cm = Microsiemens per centimeter
ntu = Nephelometric turbidity units
C = Celcius
F = Fahrenheit
MNF = Meter not available

SM&A
ST. JOHN · MITTELHAUSER & ASSOCIATES

APPENDIX A

GROUNDWATER REPLICATE MONITORING AND SAMPLING FORMS

GROUNDWATER REPLICATE MONITORING AND SAMPLING FORM

PROJECT INFORMATION

Project Name	Clean Harbors / Pecatonica, IL	Well ID	GDW-3* (G03S)
Project No.	15-10011.03-003	Start Date	10/10/2013
Field Personnel	John Talley and Tim Nevins	Weather	Clear, 65°F

WELL INFORMATION		PURGE INFORMATION	
Stick-up	N/M	Purging Method / Rate	48" Disposable Bailer / NA
Casing ID	2 inch	Pump Make, Size, or Type	NA
Screened Interval	23-28 ft bg	Tube/Pump Intake Depth	NA
Borehole ID	NA	**VOLUME PRODUCTION INFORMATION**	

DEPTH MEASUREMENTS	INITIAL		FINAL		VOLUME PRODUCTION INFORMATION				
					Volume Type:		Borehole	X	Well Casing
	Depth	Time	Depth	Time	Linear Feet of Water in Well	6.5			
Groundwater	23.6	1359	24.20	1440	Standing Well Volume	1.0 gal			
Well Casing Base	30.12		10/10/2013		Total Gallons Purged	3.5 gal			
					Total Well Volumes Purged	3.4 vol			
					Well Bailed Dry?	No			

MONITORING INSTRUMENT INFORMATION		DIAMETER VOLUMES			
Tri-Meter Model #:	YSI-63 / #13596				
Turbidity Meter #:	Hanna HI / #98703	2.0"d=0.16 g/ft	3.0"d=0.37 g/ft	4.0"d=0.65 g/ft	6.0"d=1.47 g/ft

REPLICATE MONITORING DATA

Replicate No.	Time	pH	Specific Conductance (_mS/cm_)	Temp (°C)	Turbidity (NTUs)
1	1419	6.98	1.02	14.3	59.1
2	1421	7.00	1.03	14.2	51.3
3	1423	7.01	1.01	14.2	23.9
4	1425	7.00	1.01	14.3	19.9

SAMPLING INFORMATION

Sample ID	Time Collected	Collection Method
LES-1310-G03S	1430	Disposable Bailer
LES-1310-RL1D	1435	Disposable Bailer

Sample Parameter	No. of Containers	Container Type
Site-Specific VOCs	3	40 ml. vial, HCL
Site-Specific VOCs - Duplicate	3	40 ml. vial, HCL

REMARKS / OBSERVATIONS

Duplicate sample RL1 collected.

SIGNATURE

GROUNDWATER REPLICATE MONITORING AND SAMPLING FORM

PROJECT INFORMATION

Project Name	Clean Harbors / Pecatonica, IL	Well ID	GDW-5 (G05S)
Project No.	15-10011.03-003	Start Date	10/10/2013
Field Personnel	John Talley and Tim Nevins	Weather	Clear, 65°F

WELL INFORMATION

Stick-up	N/M
Casing ID	2 inch
Screened Interval	22.7-27.7 ft bg
Borehole ID	NA

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth	Time	Depth	Time
Groundwater	26.52	931	28.66	1030
Well Casing Base	30.08		10/10/2013	

MONITORING INSTRUMENT INFORMATION

Tri-Meter Model #:	YSI-63 / #13596
Turbidity Meter #:	Hanna HI / #98703

PURGE INFORMATION

Purging Method / Rate	48" Disposable Bailer / NA
Pump Make, Size, or Type	NA
Tube/Pump Intake Depth	NA

VOLUME PRODUCTION INFORMATION

Volume Type:		Borehole	X	Well Casing

Linear Feet of Water in Well	3.6
Standing Well Volume	0.6 gal
Total Gallons Purged	2.3 gal
Total Well Volumes Purged	4.0 vol
Well Bailed Dry?	No

DIAMETER VOLUMES

2.0"d=0.16 g/ft	3.0"d=0.37 g/ft	4.0"d=0.65 g/ft	6.0"d=1.47 g/ft

REPLICATE MONITORING DATA

Replicate No.	Time	pH	Specific Conductance (mS/cm)	Temp (°C)	Turbidity (NTUs)
1	1009	7.25	0.560	13.1	68.3
2	1011	7.24	0.559	13.1	68.6
3	1013	7.24	0.560	13.2	69.6
4	1015	7.23	0.560	13.1	70.1

SAMPLING INFORMATION

Sample ID	Time Collected	Collection Method
LES-1310-G05S	1015	Disposable Bailer

Sample Parameter	No. of Containers	Container Type
Site-Specific VOCs	3	40 ml. vial, HCL

REMARKS / OBSERVATIONS

SIGNATURE

GROUNDWATER REPLICATE MONITORING AND SAMPLING FORM

PROJECT INFORMATION

Project Name	Clean Harbors / Pecatonica, IL	Well ID	GDW-6B (A06S)
Project No.	15-10011.03-003	Start Date	10/10/2013
Field Personnel	John Talley and Tim Nevins	Weather	Clear, 65°F

WELL INFORMATION		PURGE INFORMATION	
Stick-up	N/M	Purging Method / Rate	48" Disposable Bailer / NA
Casing ID	2 inch	Pump Make, Size, or Type	NA
Screened Interval	18.4-23.4 ft bg	Tube/Pump Intake Depth	NA
Borehole ID	NA	**VOLUME PRODUCTION INFORMATION**	

DEPTH MEASUREMENTS	INITIAL		FINAL	
	Depth	Time	Depth	Time
Groundwater	21.1	1037	22.72	1102
Well Casing Base	25.05		10/10/2013	

VOLUME PRODUCTION INFORMATION				
Volume Type:		Borehole	X	Well Casing
Linear Feet of Water in Well	4.0			
Standing Well Volume	0.6 gal			
Total Gallons Purged	2.3 gal			
Total Well Volumes Purged	3.6 vol			
Well Bailed Dry?	No			

MONITORING INSTRUMENT INFORMATION	
Tri-Meter Model #:	YSI-63 / #13596
Turbidity Meter #:	Hanna HI / #98703

DIAMETER VOLUMES			
2.0"d=0.16 g/ft	3.0"d=0.37 g/ft	4.0"d=0.65 g/ft	6.0"d=1.47 g/ft

REPLICATE MONITORING DATA

Replicate No.	Time	pH	Specific Conductance (mS/cm)	Temp (°C)	Turbidity (NTUs)
1	1052	7.06	0.998	13.1	89.8
2	1054	7.06	0.990	13.3	89.0
3	1056	7.02	0.987	13.1	103
4	1058	7.02	0.989	13.0	97.9

SAMPLING INFORMATION

Sample ID	Time Collected	Collection Method
LES-1310-A06S	1100	Disposable Bailer

Sample Parameter	No. of Containers	Container Type
Site-Specific VOCs	3	40 ml. vial, HCL

REMARKS / OBSERVATIONS

SIGNATURE

GROUNDWATER REPLICATE MONITORING AND SAMPLING FORM

PROJECT INFORMATION

Project Name	Clean Harbors / Pecatonica, IL	Well ID	GDW-7 (G07S)
Project No.	15-10011.03-003	Start Date	10/10/2013
Field Personnel	John Talley and Tim Nevins	Weather	Clear, 65°F

WELL INFORMATION

Stick-up	N/M
Casing ID	2 inch
Screened Interval	17-22 ft bg
Borehole ID	NA

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth	Time	Depth	Time
Groundwater	21.35	1114	21.78	1136
Well Casing Base	25.04		10/10/2013	

MONITORING INSTRUMENT INFORMATION

Tri-Meter Model #:	YSI-63 / #13596
Turbidity Meter #:	Hanna HI / #98703

PURGE INFORMATION

Purging Method / Rate	48" Disposable Bailer / NA
Pump Make, Size, or Type	NA
Tube/Pump Intake Depth	NA

VOLUME PRODUCTION INFORMATION

Volume Type:		Borehole	X	Well Casing

Linear Feet of Water in Well	3.7
Standing Well Volume	0.59 gal
Total Gallons Purged	1.8 gal
Total Well Volumes Purged	3.0 vol
Well Bailed Dry?	no

DIAMETER VOLUMES

2.0"d=0.16 g/ft	3.0"d=0.37 g/ft	4.0"d=0.65 g/ft	6.0"d=1.47 g/ft

REPLICATE MONITORING DATA

Replicate No.	Time	pH	Specific Conductance (mS/cm)	Temp (°C)	Turbidity (NTUs)
1	1128	7.12	1.06	12.7	533
2	1130	7.09	1.07	12.7	646
3	1132	7.06	1.06	12.7	602
4	1134	7.05	1.06	12.7	513

SAMPLING INFORMATION

Sample ID	Time Collected	Collection Method
LES-1310-G07S	1135	Disposable Bailer
LES-1310-G07SH	1111	Hydrosleeve

Sample Parameter	No. of Containers	Container Type
Site-Specific VOCs	3	40 ml. vial, HCL

REMARKS / OBSERVATIONS

SIGNATURE

Well ID No. ___GDW-7__

GROUNDWATER REPLICATE MONITORING AND SAMPLING FORM

PROJECT INFORMATION

Project Name	Clean Harbors / Pecatonica, IL	Well ID	MW-1000C (G33S)
Project No.	15-10011.03-003	Start Date	10/8/2013
Field Personnel	John Talley and Tim Nevins	Weather	Clear, 74°F

WELL INFORMATION

Stick-up	N/M
Casing ID	2 inch
Screened Interval	21.2-26.2 ft bg
Borehole ID	NA

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth	Time	Depth	Time
Groundwater	28.61	858	2881	1807
Well Casing Base	35.90		10/8/2013	

MONITORING INSTRUMENT INFORMATION

Tri-Meter Model #:	YSI-63 / #13596
Turbidity Meter #:	Hanna HI / #98703

PURGE INFORMATION

Purging Method / Rate	48" Disposable Bailer / NA
Pump Make, Size, or Type	NA
Tube/Pump Intake Depth	NA

VOLUME PRODUCTION INFORMATION

Volume Type:		Borehole	X	Well Casing
Linear Feet of Water in Well	7.29			
Standing Well Volume	1.2 gal			
Total Gallons Purged	3.6 gal			
Total Well Volumes Purged	3.1 vol			
Well Bailed Dry?	no			

DIAMETER VOLUMES

2.0"d=0.16 g/ft	3.0"d=0.37 g/ft	4.0"d=0.65 g/ft	6.0"d=1.47 g/ft

REPLICATE MONITORING DATA

Replicate No.	Time	pH	Specific Conductance (_mS/cm_)	Temp (°C)	Turbidity (NTUs)
1	1801	7.43	0.929	12.8	228
2	1803	7.44	0.930	12.8	220
3	1805	7.44	0.929	12.8	231
4	1807	7.42	0.929	12.8	232

SAMPLING INFORMATION

Sample ID	Time Collected	Collection Method
LES-1310-G33S	1807	Disposable Bailer

Sample Parameter	No. of Containers	Container Type
Site-Specific VOCs	3	40 ml. vial, HCL

REMARKS / OBSERVATIONS

SIGNATURE

GROUNDWATER REPLICATE MONITORING AND SAMPLING FORM

PROJECT INFORMATION

Project Name	Clean Harbors / Pecatonica, IL	Well ID	PC-1* (G21S)
Project No.	15-10011.03-003	Start Date	10/9/2013
Field Personnel	John Talley and Tim Nevins	Weather	Clear, 74°F

WELL INFORMATION

Stick-up	N/M
Casing ID	2 inch
Screened Interval	21.2-26.2 ft bg
Borehole ID	NA

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth	Time	Depth	Time
Groundwater	21.35	1400	21.54	1109
Well Casing Base	27.51		1/21/1900	

MONITORING INSTRUMENT INFORMATION

Tri-Meter Model #:	YSI-63 / #13596
Turbidity Meter #:	Hanna HI / #98703

PURGE INFORMATION

Purging Method / Rate	48" Disposable Bailer / NA
Pump Make, Size, or Type	NA
Tube/Pump Intake Depth	NA

VOLUME PRODUCTION INFORMATION

Volume Type:		Borehole	X	Well Casing

Linear Feet of Water in Well	6.2
Standing Well Volume	1.0 gal
Total Gallons Purged	3.0 gal
Total Well Volumes Purged	3.0 vol
Well Bailed Dry?	No

DIAMETER VOLUMES

2.0"d=0.16 g/ft	3.0"d=0.37 g/ft	4.0"d=0.65 g/ft	6.0"d=1.47 g/ft

REPLICATE MONITORING DATA

Replicate No.	Time	pH	Specific Conductance (mS/cm)	Temp (°C)	Turbidity (NTUs)
1	1027	6.63	0.875	14.1	161
2	1030	6.64	0.875	14.1	160
3	1033	6.63	0.875	14.3	121
4	1036	6.63	0.875	14.3	122

SAMPLING INFORMATION

Sample ID	Time Collected	Collection Method
LES-1310-G21S	1108	Disposable Bailer

Sample Parameter	No. of Containers	Container Type
Site-Specific VOCs	3	40 ml. vial, HCL

REMARKS / OBSERVATIONS

SIGNATURE

GROUNDWATER REPLICATE MONITORING AND SAMPLING FORM

PROJECT INFORMATION

Project Name	Clean Harbors / Pecatonica, IL	Well ID	DW-1* (G01M)
Project No.	15-10011.03-003	Start Date	10/10/2013
Field Personnel	John Talley and Tim Nevins	Weather	Clear, 65°F

WELL INFORMATION

Stick-up	N/M
Casing ID	2 inch
Screened Interval	56.3-66.3 ft bg
Borehole ID	NA

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth	Time	Depth	Time
Groundwater	60.60	0838	60.63	915
Well Casing Base	67.73		10/10/2013	

MONITORING INSTRUMENT INFORMATION

Tri-Meter Model #:	YSI-63 / #13596
Turbidity Meter #:	Hanna HI / #98703

PURGE INFORMATION

Purging Method / Rate	48" Disposable Bailer / NA
Pump Make, Size, or Type	NA
Tube/Pump Intake Depth	NA

VOLUME PRODUCTION INFORMATION

Volume Type:		Borehole	X	Well Casing

Linear Feet of Water in Well	7.1
Standing Well Volume	1.1 gal
Total Gallons Purged	3.8 gal
Total Well Volumes Purged	3.3 vol
Well Bailed Dry?	No

DIAMETER VOLUMES

2.0"d=0.16 g/ft	3.0"d=0.37 g/ft	4.0"d=0.65 g/ft	6.0"d=1.47 g/ft

REPLICATE MONITORING DATA

Replicate No.	Time	pH	Specific Conductance (_mS/cm_)	Temp (°C)	Turbidity (NTUs)
1	0906	7.13	0.922	11.0	8.93
2	0908	7.12	0.921	11.0	13.0
3	0910	7.12	0.921	11.0	13.6
4	0912	7.11	0.924	10.9	13.7

SAMPLING INFORMATION

Sample ID	Time Collected	Collection Method
LES-1310-G01M	0913	Disposable Bailer

Sample Parameter	No. of Containers	Container Type
Site-Specific VOCs	3	40 ml. vial, HCL

REMARKS / OBSERVATIONS

SIGNATURE

GROUNDWATER REPLICATE MONITORING AND SAMPLING FORM

PROJECT INFORMATION

Project Name	Clean Harbors / Pecatonica, IL	Well ID	DW-3* (G03M)
Project No.	15-10011.03-003	Start Date	10/9/2013
Field Personnel	John Talley and Tim Nevins	Weather	Clear, 74°F

WELL INFORMATION

Stick-up	N/M
Casing ID	2 inch
Screened Interval	72.5-82.5 ft bg
Borehole ID	NA

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth	Time	Depth	Time
Groundwater	46.44	703	54.8	1050
Well Casing Base	86.84		10/9/2013	

MONITORING INSTRUMENT INFORMATION

Tri-Meter Model #:	YSI-63 / #13596
Turbidity Meter #:	Hanna HI / #98703

PURGE INFORMATION

Purging Method / Rate	48" Disposable Bailer / NA
Pump Make, Size, or Type	NA
Tube/Pump Intake Depth	NA

VOLUME PRODUCTION INFORMATION

Volume Type:		Borehole	X	Well Casing

Linear Feet of Water in Well	40.4
Standing Well Volume	6.5 gal
Total Gallons Purged	20 gal
Total Well Volumes Purged	3.0 vol
Well Bailed Dry?	No

DIAMETER VOLUMES

2.0"d=0.16 g/ft	3.0"d=0.37 g/ft	4.0"d=0.65 g/ft	6.0"d=1.47 g/ft

REPLICATE MONITORING DATA

Replicate No.	Time	pH	Specific Conductance (mS/cm)	Temp (°C)	Turbidity (NTUs)
1	1041	6.54	1.39	12.7	6.82
2	1043	6.52	1.39	12.7	5.46
3	1045	6.52	1.38	12.8	4.07
4	1047	6.52	1.38	12.8	4.10

SAMPLING INFORMATION

Sample ID	Time Collected	Collection Method
LES-1310-G03M	1044	Disposable Bailer
LES-1310-G03MH	853	Hydrosleeve

Sample Parameter	No. of Containers	Container Type
Site-Specific VOCs	6	40 ml. vial, HCL

REMARKS / OBSERVATIONS

Field tech noted VOC-type odor

SIGNATURE

Well ID No. ___DW-3*__

GROUNDWATER REPLICATE MONITORING AND SAMPLING FORM

PROJECT INFORMATION

Project Name	Clean Harbors / Pecatonica, IL	Well ID	DW-5 GMZ(G05M)
Project No.	15-10011.03-003	Start Date	10/9/2013
Field Personnel	John Talley and Tim Nevins	Weather	Clear, 74°F

WELL INFORMATION

Stick-up	N/M
Casing ID	2 inch
Screened Interval	60.8-70.8 feet BG
Borehole ID	NA

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth	Time	Depth	Time
Groundwater	64.23	913	64.38	1620
Well Casing Base	72.73		10/9/2013	

MONITORING INSTRUMENT INFORMATION

Tri-Meter Model #:	YSI-63 / #13596
Turbidity Meter #:	Hanna HI / #98703

PURGE INFORMATION

Purging Method / Rate	48" Disposable Bailer / NA
Pump Make, Size, or Type	NA
Tube/Pump Intake Depth	NA

VOLUME PRODUCTION INFORMATION

Volume Type:		Borehole	X	Well Casing
Linear Feet of Water in Well	8.5			
Standing Well Volume	1.4 gal			
Total Gallons Purged	4.5 gal			
Total Well Volumes Purged	3.3 vol			
Well Bailed Dry?	No			

DIAMETER VOLUMES

2.0"d=0.16 g/ft	3.0"d=0.37 g/ft	4.0"d=0.65 g/ft	6.0"d=1.47 g/ft

REPLICATE MONITORING DATA

Replicate No.	Time	pH	Specific Conductance (mS/cm)	Temp (°C)	Turbidity (NTUs)
1	1613	6.78	0.905	10.9	57.4
2	1615	6.78	0.920	10.9	34.7
3	1617	6.77	0.919	11.0	32.0
4	1619	6.78	0.920	10.9	33.0

SAMPLING INFORMATION

Sample ID	Time Collected	Collection Method
LES-1310-G05M	1620	Disposable Bailer

Sample Parameter	No. of Containers	Container Type
Site-Specific VOCs	3	40 ml. vial, HCL

REMARKS / OBSERVATIONS

SIGNATURE

GROUNDWATER REPLICATE MONITORING AND SAMPLING FORM

PROJECT INFORMATION

Project Name	Clean Harbors / Pecatonica, IL	Well ID	DW-8 (GO8M)
Project No.	15-10011.03-003	Start Date	10/10/2013
Field Personnel	John Talley and Tim Nevins	Weather	Clear, 65°F

WELL INFORMATION

Stick-up	N/M
Casing ID	2 inch
Screened Interval	46.3-56.3 ft bg
Borehole ID	NA

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth	Time	Depth	Time
Groundwater	43.6	1254	43.6	1346
Well Casing Base	58.37		10/10/2013	

MONITORING INSTRUMENT INFORMATION

Tri-Meter Model #:	YSI-63 / #13596
Turbidity Meter #:	Hanna HI / #98703

PURGE INFORMATION

Purging Method / Rate	48" Disposable Bailer / NA
Pump Make, Size, or Type	NA
Tube/Pump Intake Depth	NA

VOLUME PRODUCTION INFORMATION

Volume Type:		Borehole	X	Well Casing

Linear Feet of Water in Well	14.77
Standing Well Volume	2.4 gal
Total Gallons Purged	7.5 gal
Total Well Volumes Purged	3.2 vol
Well Bailed Dry?	No

DIAMETER VOLUMES

2.0"d=0.16 g/ft	3.0"d=0.37 g/ft	4.0"d=0.65 g/ft	6.0"d=1.47 g/ft

REPLICATE MONITORING DATA

Replicate No.	Time	pH	Specific Conductance (mS/cm)	Temp (°C)	Turbidity (NTUs)
1	1335	7.11	1.01	11.9	10.3
2	1337	7.11	1.01	11.9	9.08
3	1339	7.12	1.01	11.9	13.8
4	1341	7.14	1.01	12.0	11.8

SAMPLING INFORMATION

Sample ID	Time Collected	Collection Method
LES-1310-G08M	1345	Disposable Bailer

Sample Parameter	No. of Containers	Container Type
Site-Specific VOCs	3	40 ml. vial, HCL

REMARKS / OBSERVATIONS

SIGNATURE

Well ID No. ____DW-8_____

GROUNDWATER REPLICATE MONITORING AND SAMPLING FORM

PROJECT INFORMATION			
Project Name	Clean Harbors / Pecatonica, IL	Well ID	DW-10*,GMZ (G10M)
Project No.	15-10011.03-003	Start Date	11/21/2013
Field Personnel	Steve Swenson	Weather	Overcast, 40°F

WELL INFORMATION		PURGE INFORMATION	
Stick-up	N/M	Purging Method / Rate	48" Disposable Bailer / NA
Casing ID	2 inch	Pump Make, Size, or Type	NA
Screened Interval	61.9-71.9 ft bg	Tube/Pump Intake Depth	NA
Borehole ID	NA	**VOLUME PRODUCTION INFORMATION**	

DEPTH MEASUREMENTS	INITIAL		FINAL	
	Depth	Time	Depth	Time
Groundwater	65.82	1020	66.02	1100
Well Casing Base	74.21		11/21/2013	

VOLUME PRODUCTION INFORMATION				
Volume Type:		Borehole	X	Well Casing
Linear Feet of Water in Well	8.4			
Standing Well Volume	1.3 gal			
Total Gallons Purged	4.5 gal			
Total Well Volumes Purged	3.4 vol			
Well Bailed Dry?	No			

MONITORING INSTRUMENT INFORMATION	
Tri-Meter Model #:	YSI-556
Turbidity Meter #:	Not available

DIAMETER VOLUMES			
2.0"d=0.16 g/ft	3.0"d=0.37 g/ft	4.0"d=0.65 g/ft	6.0"d=1.47 g/ft

REPLICATE MONITORING DATA

Replicate No.	Time	pH	Specific Conductance (mS/cm)	Temp (°C)	Turbidity (NTUs)
1	1043	6.93	0.645	10.2	clear (MNA)
2	1046	7.01	0.647	10.2	clear (MNA)
3	1049	7.00	0.645	10.1	clear (MNA)
4	1052	6.98	0.645	10.1	clear (MNA)

SAMPLING INFORMATION

Sample ID	Time Collected	Collection Method
LES-1311-G10M	1055	Disposable Bailer

Sample Parameter	No. of Containers	Container Type
Site-Specific VOCs	4	40 ml. vial, HCL

REMARKS / OBSERVATIONS

SIGNATURE MMW for SS

GROUNDWATER REPLICATE MONITORING AND SAMPLING FORM

PROJECT INFORMATION

Project Name	Clean Harbors / Pecatonica, IL	Well ID	DW-11^{GMZ} (G11M)
Project No.	15-10011.03-003	Start Date	10/9/2013
Field Personnel	John Talley and Tim Nevins	Weather	Clear, 74°F

WELL INFORMATION

Stick-up	N/M
Casing ID	2 inch
Screened Interval	49.5-59.5 ft bg
Borehole ID	NA

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth	Time	Depth	Time
Groundwater	36.30	1012	36.40	1352
Well Casing Base	60.68		10/9/2013	

MONITORING INSTRUMENT INFORMATION

Tri-Meter Model #:	YSI-63 / #13596
Turbidity Meter #:	Hanna HI / #98703

PURGE INFORMATION

Purging Method / Rate	48" Disposable Bailer / NA
Pump Make, Size, or Type	NA
Tube/Pump Intake Depth	NA

VOLUME PRODUCTION INFORMATION

Volume Type:		Borehole	X	Well Casing
Linear Feet of Water in Well	24.4			
Standing Well Volume	3.9 gal			
Total Gallons Purged	12 gal			
Total Well Volumes Purged	3.1 vol			
Well Bailed Dry?	No			

DIAMETER VOLUMES

2.0"d=0.16 g/ft	3.0"d=0.37 g/ft	4.0"d=0.65 g/ft	6.0"d=1.47 g/ft

REPLICATE MONITORING DATA

Replicate No.	Time	pH	Specific Conductance (_mS/cm_)	Temp (°C)	Turbidity (NTUs)
1	1342	6.97	0.976	10.7	6.60
2	1344	6.96	0.976	10.7	6.56
3	1346	6.96	0.975	10.7	4.56
4	1348	6.95	0.975	10.7	4.63

SAMPLING INFORMATION

Sample ID	Time Collected	Collection Method
LES-1310-G11M	1350	Disposable Bailer
LES-1310-G11MH	1301	Hydrosleeve

Sample Parameter	No. of Containers	Container Type
Site-Specific VOCs	6	40 ml. vial, HCL

REMARKS / OBSERVATIONS

SIGNATURE

GROUNDWATER REPLICATE MONITORING AND SAMPLING FORM

PROJECT INFORMATION

Project Name	Clean Harbors / Pecatonica, IL	Well ID	DW-12^{GMZ} / G12M
Project No.	15-10011.03-003	Start Date	10/9/2013
Field Personnel	John Talley and Tim Nevins	Weather	Clear, 74°F

WELL INFORMATION

Stick-up	N/M
Casing ID	2 inch
Screened Interval	43-53 ft bg
Borehole ID	na

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth	Time	Depth	Time
Groundwater	38.1	1137	38.18	1518
Well Casing Base	52.97		10/9/2013	

MONITORING INSTRUMENT INFORMATION

Tri-Meter Model #:	YSI-63 / #13596
Turbidity Meter #:	Hanna HI / #98703

PURGE INFORMATION

Purging Method / Rate	48" Disposable Baile / NA
Pump Make, Size, or Type	NA
Tube/Pump Intake Depth	NA

VOLUME PRODUCTION INFORMATION

Volume Type:		Borehole	X	Well Casing
Linear Feet of Water in Well	14.9			
Standing Well Volume	2.4 gal			
Total Gallons Purged	7.5 gal			
Total Well Volumes Purged	3.2 vol			
Well Bailed Dry	No			

DIAMETER VOLUMES

2.0"d=0.16 g/ft	3.0"d=0.37 g/ft	4.0"d=0.65 g/ft	6.0"d=1.47 g/ft

REPLICATE MONITORING DATA

Replicate No.	Time	pH	Specific Conductance (_mS/cm_)	Temp (°C)	Turbidity (NTUs)
1	1507	6.82	1.51	11.6	8.9
2	1509	6.82	1.57	11.4	8.1
3	1511	6.81	1.56	11.5	7.3
4	1513	6.80	1.56	11.5	7.4

SAMPLING INFORMATION

Sample ID	Time Collected	Collection Method
LES-1310-G12M	1510	Disposable Bailer
LES-1310-RL2D	1512	Disposable Bailer
LES-1310-G12MH	1415	Hydrosleeve

Sample Parameter	No. of Containers	Container Type
Site-Specific VOCs	9	40 ml. vial, HCL

REMARKS / OBSERVATIONS

Sample collected for duplicate RL2D.

SIGNATURE

GROUNDWATER REPLICATE MONITORING AND SAMPLING FORM

PROJECT INFORMATION

Project Name	Clean Harbors / Pecatonica, IL	Well ID	MW-1000A GMZ (G31M)
Project No.	15-10011.03-003	Start Date	10/8/2013
Field Personnel	John Talley and Tim Nevins	Weather	Clear, 74°F

WELL INFORMATION

Stick-up	N/M
Casing ID	2 inch
Screened Interval	62.5-67.5 ft bg
Borehole ID	NA

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth	Time	Depth	Time
Groundwater	52.87	859	53.00	17.45
Well Casing Base	70.53		10/8/2013	

MONITORING INSTRUMENT INFORMATION

Tri-Meter Model #:	YSI-63 / #13596
Turbidity Meter #:	Hanna HI / #98703

PURGE INFORMATION

Purging Method / Rate	48" Disposable Bailer / NA
Pump Make, Size, or Type	NA
Tube/Pump Intake Depth	NA

VOLUME PRODUCTION INFORMATION

Volume Type:		Borehole	X	Well Casing

Linear Feet of Water in Well	17.66
Standing Well Volume	2.8 gal
Total Gallons Purged	9 gal
Total Well Volumes Purged	3.2 vol
Well Bailed Dry?	No

DIAMETER VOLUMES

2.0"d=0.16 g/ft	3.0"d=0.37 g/ft	4.0"d=0.65 g/ft	6.0"d=1.47 g/ft

REPLICATE MONITORING DATA

Replicate No.	Time	pH	Specific Conductance (mS/cm)	Temp (°C)	Turbidity (NTUs)
1	1737	7.59	1.11	12.5	6.66
2	1739	7.58	1.11	12.5	6.67
3	1741	7.59	1.11	12.6	4.02
4	1743	7.59	1.11	12.6	3.81

SAMPLING INFORMATION

Sample ID	Time Collected	Collection Method
LES-1310-G31M	1745	Disposable Bailer

Sample Parameter	No. of Containers	Container Type
Site-Specific VOCs	3	40 ml. vial, HCL

REMARKS / OBSERVATIONS

SIGNATURE

GROUNDWATER REPLICATE MONITORING AND SAMPLING FORM

PROJECT INFORMATION

Project Name	Clean Harbors / Pecatonica, IL	Well ID	SP-1[GMZ] (G01D)
Project No.	15-10011.03-003	Start Date	10/8/2013
Field Personnel	John Talley and Tim Nevins	Weather	Clear, 74°F

WELL INFORMATION

Stick-up	N/M
Casing ID	4 inch
Screened Interval	158-168 ft bg
Borehole ID	NA

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth	Time	Depth	Time
Groundwater	54.64	1345	54.84	1630
Well Casing Base	169.96		10/8/2013	

MONITORING INSTRUMENT INFORMATION

Tri-Meter Model #:	YSI-63 / #13596
Turbidity Meter #:	Hanna HI / #98703

PURGE INFORMATION

Purging Method / Rate	insitu pump / 10 gpm
Pump Make, Size, or Type	na
Tube/Pump Intake Depth	screened interval

VOLUME PRODUCTION INFORMATION

Volume Type:		Borehole	X	Well Casing

Linear Feet of Water in Well	115.3
Standing Well Volume	75 gal
Total Gallons Purged	225 gal
Total Well Volumes Purged	3.0 vol
Well Bailed Dry?	No

DIAMETER VOLUMES

2.0"d=0.16 g/ft	3.0"d=0.37 g/ft	4.0"d=0.65 g/ft	6.0"d=1.47 g/ft

REPLICATE MONITORING DATA

Replicate No.	Time	pH	Specific Conductance (_mS/cm_)	Temp (°C)	Turbidity (NTUs)
1	1612	7.11	0.697	12.5	0.35
2	1614	7.12	0.700	12.6	1.26
3	1616	7.13	0.703	12.5	0.84
4	1618	7.12	0.705	12.7	0.66

SAMPLING INFORMATION

Sample ID	Time Collected	Collection Method
LES-1310-G01D	1620	Disposable Bailer
LES-1310-G01D(MS)	1620	Disposable Bailer
LES-1310-G01D(MSD)	1620	Disposable Bailer

Sample Parameter	No. of Containers	Container Type
Site-Specific VOCs	3	40 ml. vial, HCL
Site-Specific VOCs-MS/MSD	6	40 ml. vial, HCL

REMARKS / OBSERVATIONS

Sample collected for MS/MSD.

Pumped 10gpm

SIGNATURE

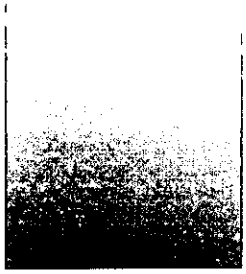
SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

APPENDIX B

LABORATORY ANALYTICAL REPORTS

New England
ACCUTEST
LABORATORIES

10/18/13



Technical Report for

Clean Harbors Environmental

Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL

PE5025672-003

Accutest Job Number: MC25236

Sampling Dates: 10/08/13 - 10/10/13

Report to:

St. John - Mittelhauser & Associates
1401 Branding Avenue Suite 315
Downers Grove, IL 60515
michellew@st-ma.com

ATTN: Michelle Wagner

Total number of pages in report: **38**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Reza Tand
Lab Director

Client Service contact: Justin Boucher 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) ISO 17025:2005 (L2235)

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Sample Summary

Clean Harbors Environmental

Job No: MC25236

Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL
Project No: PE5025672-003

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
MC25236-1	10/08/13	16:20 JTTN	10/11/13	AQ	Ground Water	LES-1310-G01D
MC25236-1D	10/08/13	16:20 JTTN	10/11/13	AQ	Water Dup/MSD	LES-1310-G01D
MC25236-1S	10/08/13	16:20 JTTN	10/11/13	AQ	Water Matrix Spike	LES-1310-G01D
MC25236-2	10/08/13	17:45 JTTN	10/11/13	AQ	Ground Water	LES-1310-G31M
MC25236-3	10/08/13	18:07 JTTN	10/11/13	AQ	Ground Water	LES-1310-G33S
MC25236-4	10/09/13	10:44 JTTN	10/11/13	AQ	Ground Water	LES-1310-G03M
MC25236-5	10/09/13	11:08 JTTN	10/11/13	AQ	Ground Water	LES-1310-G21S
MC25236-6	10/09/13	13:50 JTTN	10/11/13	AQ	Ground Water	LES-1310-G11M
MC25236-7	10/09/13	15:10 JTTN	10/11/13	AQ	Ground Water	LES-1310-G12M
MC25236-8	10/09/13	15:12 JTTN	10/11/13	AQ	Ground Water	LES-1310-RL2D
MC25236-9	10/09/13	16:20 JTTN	10/11/13	AQ	Ground Water	LES-1310-G05M
MC25236-10	10/10/13	09:13 JTTN	10/11/13	AQ	Ground Water	LES-1310-G01M
MC25236-11	10/10/13	10:15 JTTN	10/11/13	AQ	Ground Water	LES-1310-G05S

Sample Summary
(continued)

Clean Harbors Environmental

Job No: MC25236

Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL
Project No: PE5025672-003

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
MC25236-12	10/10/13	11:00 JTTN	10/11/13	AQ	Ground Water	LES-1310-G06S
MC25236-13	10/10/13	11:35 JTTN	10/11/13	AQ	Ground Water	LES-1310-G07S
MC25236-14	10/10/13	13:45 JTTN	10/11/13	AQ	Ground Water	LES-1310-G08M
MC25236-15	10/10/13	14:30 JTTN	10/11/13	AQ	Ground Water	LES-1310-G03S
MC25236-16	10/10/13	14:35 JTTN	10/11/13	AQ	Ground Water	LES-1310-RL1D
MC25236-17	10/10/13	00:00 JTTN	10/11/13	AQ	Trip Blank Water	LES-1310-TRIP01

ACCUTEST LABORATORIES

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Clean Harbors Environmental	**Job No**	MC25236
Site:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL	**Report Date**	10/18/2013 1:11:49 PM

16 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on between 10/08/2013 and 10/10/2013 and were received at Accutest on 10/11/2013 properly preserved, at 1.7 Deg. C and intact. These Samples received an Accutest job number of MC25236. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ **Batch ID:** MSN3043

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC25236-1MS, MC25236-1MSD were used as the QC samples indicated.

Matrix: AQ **Batch ID:** MSN3044

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC25348-2MS, MC25348-2MSD were used as the QC samples indicated.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC25236).

Summary of Hits

Job Number: MC25236
Account: Clean Harbors Environmental
Project: Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL
Collected: 10/08/13 thru 10/10/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC25236-1	LES-1310-G01D					
No hits reported in this sample.						
MC25236-2	LES-1310-G31M					
1,1-Dichloroethane		4.6	1.0	0.37	ug/l	SW846 8260B
cis-1,2-Dichloroethene		23.6	1.0	0.54	ug/l	SW846 8260B
Trichloroethene		0.50 J	1.0	0.45	ug/l	SW846 8260B
MC25236-3	LES-1310-G33S					
No hits reported in this sample.						
MC25236-4	LES-1310-G03M					
1,1-Dichloroethane		28.6	1.0	0.37	ug/l	SW846 8260B
1,1-Dichloroethene		3.5	1.0	0.67	ug/l	SW846 8260B
cis-1,2-Dichloroethene		205	1.0	0.54	ug/l	SW846 8260B
trans-1,2-Dichloroethene		9.9	1.0	0.54	ug/l	SW846 8260B
Tetrachloroethene		1.5	1.0	0.61	ug/l	SW846 8260B
1,1,1-Trichloroethane		7.3	1.0	0.94	ug/l	SW846 8260B
Trichloroethene		457	20	9.0	ug/l	SW846 8260B
Vinyl chloride		1.0	1.0	0.61	ug/l	SW846 8260B
MC25236-5	LES-1310-G21S					
1,1-Dichloroethane		1.2	1.0	0.37	ug/l	SW846 8260B
cis-1,2-Dichloroethene		3.9	1.0	0.54	ug/l	SW846 8260B
MC25236-6	LES-1310-G11M					
1,1-Dichloroethane		2.1	1.0	0.37	ug/l	SW846 8260B
cis-1,2-Dichloroethene		12.9	1.0	0.54	ug/l	SW846 8260B
Trichloroethene		2.1	1.0	0.45	ug/l	SW846 8260B
MC25236-7	LES-1310-G12M					
1,1-Dichloroethane		5.5	1.0	0.37	ug/l	SW846 8260B
cis-1,2-Dichloroethene		33.3	1.0	0.54	ug/l	SW846 8260B
trans-1,2-Dichloroethene		0.79 J	1.0	0.54	ug/l	SW846 8260B
1,1,1-Trichloroethane		1.7	1.0	0.94	ug/l	SW846 8260B
Trichloroethene		6.5	1.0	0.45	ug/l	SW846 8260B

Summary of Hits

Job Number: MC25236
Account: Clean Harbors Environmental
Project: Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL
Collected: 10/08/13 thru 10/10/13

3

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC25236-8	LES-1310-RL2D					
1,1-Dichloroethane		5.7	1.0	0.37	ug/l	SW846 8260B
cis-1,2-Dichloroethene		33.3	1.0	0.54	ug/l	SW846 8260B
trans-1,2-Dichloroethene		0.59 J	1.0	0.54	ug/l	SW846 8260B
1,1,1-Trichloroethane		1.8	1.0	0.94	ug/l	SW846 8260B
Trichloroethene		6.5	1.0	0.45	ug/l	SW846 8260B
MC25236-9	LES-1310-G05M					
No hits reported in this sample.						
MC25236-10	LES-1310-G01M					
1,1-Dichloroethane		2.0	1.0	0.37	ug/l	SW846 8260B
1,1-Dichloroethene		1.4	1.0	0.67	ug/l	SW846 8260B
cis-1,2-Dichloroethene		27.7	1.0	0.54	ug/l	SW846 8260B
trans-1,2-Dichloroethene		0.68 J	1.0	0.54	ug/l	SW846 8260B
1,1,1-Trichloroethane		3.6	1.0	0.94	ug/l	SW846 8260B
MC25236-11	LES-1310-G05S					
1,1-Dichloroethane		4.2	1.0	0.37	ug/l	SW846 8260B
1,1-Dichloroethene		2.9	1.0	0.67	ug/l	SW846 8260B
cis-1,2-Dichloroethene		230	1.0	0.54	ug/l	SW846 8260B
trans-1,2-Dichloroethene		3.2	1.0	0.54	ug/l	SW846 8260B
1,1,1-Trichloroethane		15.9	1.0	0.94	ug/l	SW846 8260B
MC25236-12	LES-1310-G06S					
1,1-Dichloroethane		2.3	1.0	0.37	ug/l	SW846 8260B
1,1-Dichloroethene		0.99 J	1.0	0.67	ug/l	SW846 8260B
cis-1,2-Dichloroethene		25.1	1.0	0.54	ug/l	SW846 8260B
Tetrachloroethene		1.3	1.0	0.61	ug/l	SW846 8260B
1,1,1-Trichloroethane		3.2	1.0	0.94	ug/l	SW846 8260B
Trichloroethene		2.4	1.0	0.45	ug/l	SW846 8260B
MC25236-13	LES-1310-G07S					
1,1-Dichloroethane		3.6	1.0	0.37	ug/l	SW846 8260B
1,1-Dichloroethene		1.6	1.0	0.67	ug/l	SW846 8260B
cis-1,2-Dichloroethene		34.1	1.0	0.54	ug/l	SW846 8260B
trans-1,2-Dichloroethene		0.61 J	1.0	0.54	ug/l	SW846 8260B
Tetrachloroethene		0.80 J	1.0	0.61	ug/l	SW846 8260B
1,1,1-Trichloroethane		4.6	1.0	0.94	ug/l	SW846 8260B

Summary of Hits

Job Number: MC25236
Account: Clean Harbors Environmental
Project: Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL
Collected: 10/08/13 thru 10/10/13

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Trichloroethene		4.7	1.0	0.45	ug/l	SW846 8260B
MC25236-14	LES-1310-G08M					
1,1-Dichloroethane		7.2	1.0	0.37	ug/l	SW846 8260B
cis-1,2-Dichloroethene		36.3	1.0	0.54	ug/l	SW846 8260B
trans-1,2-Dichloroethene		0.70 J	1.0	0.54	ug/l	SW846 8260B
1,1,1-Trichloroethane		1.9	1.0	0.94	ug/l	SW846 8260B
Trichloroethene		3.2	1.0	0.45	ug/l	SW846 8260B
MC25236-15	LES-1310-G03S					
1,1-Dichloroethane		6.8	1.0	0.37	ug/l	SW846 8260B
1,1-Dichloroethene		1.6	1.0	0.67	ug/l	SW846 8260B
cis-1,2-Dichloroethene		24.7	1.0	0.54	ug/l	SW846 8260B
Tetrachloroethene		2.3	1.0	0.61	ug/l	SW846 8260B
1,1,1-Trichloroethane		6.4	1.0	0.94	ug/l	SW846 8260B
Trichloroethene		2.1	1.0	0.45	ug/l	SW846 8260B
MC25236-16	LES-1310-RL1D					
1,1-Dichloroethane		6.4	1.0	0.37	ug/l	SW846 8260B
1,1-Dichloroethene		2.0	1.0	0.67	ug/l	SW846 8260B
cis-1,2-Dichloroethene		24.1	1.0	0.54	ug/l	SW846 8260B
Tetrachloroethene		2.4	1.0	0.61	ug/l	SW846 8260B
1,1,1-Trichloroethane		5.8	1.0	0.94	ug/l	SW846 8260B
Trichloroethene		2.2	1.0	0.45	ug/l	SW846 8260B
MC25236-17	LES-1310-TRIP01					

No hits reported in this sample.

New England ACCUTEST LABORATORIES

4

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

4.1

4

Client Sample ID:	LES-1310-G01D		
Lab Sample ID:	MC25236-1	Date Sampled:	10/08/13
Matrix:	AQ - Ground Water	Date Received:	10/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N81488.D	1	10/16/13	AMY	n/a	n/a	MSN3043
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	LES-1310-G31M		
Lab Sample ID:	MC25236-2	Date Sampled:	10/08/13
Matrix:	AQ - Ground Water	Date Received:	10/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N81491.D	1	10/16/13	AMY	n/a	n/a	MSN3043
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	4.6	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	23.6	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-01-6	Trichloroethene	0.50	1.0	0.45	ug/l	J
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	98%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	LES-1310-G33S		
Lab Sample ID:	MC25236-3	Date Sampled:	10/08/13
Matrix:	AQ - Ground Water	Date Received:	10/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N81492.D	1	10/16/13	AMY	n/a	n/a	MSN3043
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	99%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	LES-1310-G03M		
Lab Sample ID:	MC25236-4	Date Sampled:	10/09/13
Matrix:	AQ - Ground Water	Date Received:	10/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N81493.D	1	10/16/13	AMY	n/a	n/a	MSN3043
Run #2	N81524.D	20	10/17/13	JB	n/a	n/a	MSN3044

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	28.6	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	3.5	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	205	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	9.9	1.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	1.5	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	7.3	1.0	0.94	ug/l	
79-01-6	Trichloroethene	457 [a]	20	9.0	ug/l	
75-01-4	Vinyl chloride	1.0	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%	86%	70-130%
2037-26-5	Toluene-D8	95%	91%	70-130%
460-00-4	4-Bromofluorobenzene	102%	98%	70-130%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

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Client Sample ID:	LES-1310-G21S		
Lab Sample ID:	MC25236-5	Date Sampled:	10/09/13
Matrix:	AQ - Ground Water	Date Received:	10/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N81512.D	1	10/17/13	JB	n/a	n/a	MSN3044
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	1.2	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	3.9	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	85%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	LES-1310-G11M		
Lab Sample ID:	MC25236-6	Date Sampled:	10/09/13
Matrix:	AQ - Ground Water	Date Received:	10/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N81495.D	1	10/16/13	AMY	n/a	n/a	MSN3043
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	2.1	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	12.9	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-01-6	Trichloroethene	2.1	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	102%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

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Client Sample ID:	LES-1310-G12M		
Lab Sample ID:	MC25236-7	Date Sampled:	10/09/13
Matrix:	AQ - Ground Water	Date Received:	10/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N81496.D	1	10/16/13	AMY	n/a	n/a	MSN3043
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	5.5	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	33.3	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.79	1.0	0.54	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	1.7	1.0	0.94	ug/l	
79-01-6	Trichloroethene	6.5	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	99%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	LES-1310-RL2D		
Lab Sample ID:	MC25236-8	Date Sampled:	10/09/13
Matrix:	AQ - Ground Water	Date Received:	10/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N81497.D	1	10/16/13	AMY	n/a	n/a	MSN3043
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	5.7	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	33.3	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.59	1.0	0.54	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	1.8	1.0	0.94	ug/l	
79-01-6	Trichloroethene	6.5	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	102%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

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Client Sample ID:	LES-1310-G05M		
Lab Sample ID:	MC25236-9	Date Sampled:	10/09/13
Matrix:	AQ - Ground Water	Date Received:	10/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N81498.D	1	10/16/13	AMY	n/a	n/a	MSN3043
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	LES-1310-G01M		
Lab Sample ID:	MC25236-10	Date Sampled:	10/10/13
Matrix:	AQ - Ground Water	Date Received:	10/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N81499.D	1	10/16/13	AMY	n/a	n/a	MSN3043
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	2.0	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	1.4	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	27.7	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.68	1.0	0.54	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	3.6	1.0	0.94	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	97%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	LES-1310-G05S		
Lab Sample ID:	MC25236-11	Date Sampled:	10/10/13
Matrix:	AQ - Ground Water	Date Received:	10/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N81500.D	1	10/16/13	AMY	n/a	n/a	MSN3043
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	4.2	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	2.9	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	230	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	3.2	1.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	15.9	1.0	0.94	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	98%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	LES-1310-G06S		
Lab Sample ID:	MC25236-12	Date Sampled:	10/10/13
Matrix:	AQ - Ground Water	Date Received:	10/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N81501.D	1	10/16/13	AMY	n/a	n/a	MSN3043
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	2.3	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	0.99	1.0	0.67	ug/l	J
156-59-2	cis-1,2-Dichloroethene	25.1	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	1.3	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	3.2	1.0	0.94	ug/l	
79-01-6	Trichloroethene	2.4	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	99%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	LES-1310-G07S		
Lab Sample ID:	MC25236-13	Date Sampled:	10/10/13
Matrix:	AQ - Ground Water	Date Received:	10/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N81502.D	1	10/16/13	AMY	n/a	n/a	MSN3043
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	3.6	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	1.6	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	34.1	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.61	1.0	0.54	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	0.80	1.0	0.61	ug/l	J
71-55-6	1,1,1-Trichloroethane	4.6	1.0	0.94	ug/l	
79-01-6	Trichloroethene	4.7	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	99%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	LES-1310-G08M		
Lab Sample ID:	MC25236-14	Date Sampled:	10/10/13
Matrix:	AQ - Ground Water	Date Received:	10/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N81513.D	1	10/17/13	JB	n/a	n/a	MSN3044
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	7.2	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	36.3	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.70	1.0	0.54	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	1.9	1.0	0.94	ug/l	
79-01-6	Trichloroethene	3.2	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	99%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	LES-1310-G03S		
Lab Sample ID:	MC25236-15	Date Sampled:	10/10/13
Matrix:	AQ - Ground Water	Date Received:	10/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N81514.D	1	10/17/13	JB	n/a	n/a	MSN3044
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	6.8	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	1.6	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	24.7	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	2.3	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	6.4	1.0	0.94	ug/l	
79-01-6	Trichloroethene	2.1	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	101%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	LES-1310-RL1D		
Lab Sample ID:	MC25236-16	Date Sampled:	10/10/13
Matrix:	AQ - Ground Water	Date Received:	10/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N81515.D	1	10/17/13	JB	n/a	n/a	MSN3044
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	6.4	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	2.0	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	24.1	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	2.4	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	5.8	1.0	0.94	ug/l	
79-01-6	Trichloroethene	2.2	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	103%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	LES-1310-TRIP01		
Lab Sample ID:	MC25236-17	Date Sampled:	10/10/13
Matrix:	AQ - Trip Blank Water	Date Received:	10/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N81511.D	1	10/17/13	JB	n/a	n/a	MSN3044
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	101%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

Issue as a stand alone report

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

FED-EX Tracking #: | Bottle Order Control #: | Accutest Quote #: | Accutest Job #: MC25236

Client / Reporting Information

Company Name: Clean Harbors
Street Address: 42 Longwater Dr
City, State, Zip: Norwell MA 02061
Project Contact, E-mail: M Wagner Michelw@st-ma.com
Phone #, Fax #: 847-561-8777
Sampler(s) Name(s), Phone #: John Tally 781-247-3161

Project Information

Project Name: Pecatonica - Fall 2013
Street: 6125 Pecatonica Rd
City: Pecatonica, IL
Project #: PE 5025672-002
Client PO#:
Project Manager: Michelle Wagner

Billing Information (If different from Report to):
Company Name:
Street Address:
City, State, Zip:
Attention: PO#:

Requested Analysis (see TEST CODE sheet): VOCs (8260B) Site Specific

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED - Sediment; OJ - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB - Field Blank; EB - Equipment Blank; RB - Rinse Blank; TB - Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	MeOH	HNO3	H2SO4	NONE	DI Water	MeOH	ENCORE	Reactive	VOCs (8260B) Site Specific	LAB USE ONLY
-1	LES-1310-G01D	10/8/13	10/8/13	1620	JT/AN	GW	3	3									X	
-1S	LES-1310-G01D (MS)		10/8/13	1620	JT/AN	GW	3	3									X	
-1SD	LES-1310-G01D (MSD)		10/8/13	1620	JT/AN	GW	3	3									X	
-2	LES-1310-G31M		10/8/13	1745	JT/AN	GW	3	3									X	
-3	LES-1310-G33S		10/8/13	1807	JT/AN	GW	3	3									X	
-4	LES-1310-G03M		10/9/13	1044	JT/AN	GW	3	3									X	
-5	LES-1310-G21S		10/9/13	1108	JT/AN	GW	3	3									X	
-6	LES-1310-G11M		10/9/13	1350	JT/AN	GW	3	3									X	4E1
-7	LES-1310-G12M		10/9/13	1510	JT/AN	GW	3	3									X	4E2
-8	LES-1310-RL2D		10/9/13	1512	JT/AN	GW	3	3									X	
-9	LES-1310-G05M		10/9/13	1620	JT/AN	GW	3	3									X	
-10																		

Turnaround Time (Business days) — Approved By (Accutest PM): / Date:

- ☐ Std. 10 Business Days
- ☒ Std. 5 Business Days (By Contract only)
- ☐ 5 Day RUSH
- ☐ 3 Day EMERGENCY
- ☐ 2 Day EMERGENCY
- ☐ 1 Day EMERGENCY

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- ☐ Commercial "A" (Level 1)
- ☐ Commercial "B" (Level 2)
- ☐ FULLT1 (Level 3+4)
- ☐ CT RCP
- ☐ MA MCP
- ☐ NYASP Category A
- ☐ NYASP Category B
- ☐ State Forms
- ☐ EDD Format
- ☒ Other Contact M Wagner

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

Comments / Special Instructions

Sample LES-1310-G01D (MS) and LES-1310-G01D (MSD) are to be used for matrix spike and matrix spike duplicate samples. Can delete if not required. Issue report separately from other. Cooler @ 4°C. Seal broken. Kelly

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 John Tally	10/10/13 @ 1800	2 Fx	2 Fx	10-11-13 0750	2 [illegible]
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # 001 ☐ Intact ☐ Not intact	Preserved where applicable ☐	On Ice ☒ Cooler Temp. 1.2°C

MC25236: Chain of Custody
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ACCUTEST Laboratories

CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE
MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #: MC25236
ACCUTEST QUOTE #:

CLIENT INFORMATION

NAME: Clean Harbors
ADDRESS: 42 Longwater Dr.
CITY, STATE, ZIP: Norwell MA 02061
SEND REPORT TO: Michelle Wagner Michele@st-ma.com
PHONE #: 847-561-8717

FACILITY INFORMATION

PROJECT NAME: Pecatonica - Fall 2013
LOCATION: 6125 Pecatonica Rd Pecatonica, IL
PROJECT NO.: PE 5025672-003
FAX #:

ANALYTICAL INFORMATION

MATRIX CODES

DW - DRINKING WATER
GW - GROUND WATER
WW - WASTE WATER
SO - SOIL
SL - SLUDGE
OI - OIL
LIQ - OTHER LIQUID
SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION DATE	COLLECTION TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	PRESERVATION HCl	NaOH	HNO3	H2SO4	NONE	VOCs (8260B) Site Specific	LAB USE ONLY
-10	LES-1310-G01M	10/10/13	0913	ST/TN	GW	3	3					X	
-11	LES-1310-G05S	10/10/13	1015	ST/TN	GW	3	3					X	
-12	LES-1310-G06S	10/10/13	1100	ST/TN	GW	3	3					X	
-13	LES-1310-G07S	10/10/13	1135	ST/TN	GW	3	3					X	
-14	LES-1310-G08M	10/10/13	1345	ST/TN	GW	3	3					X	
-15	LES-1310-G03S	10/10/13	1430	ST/TN	GW	3	3					X	
-16	LES-1310-RL1D	10/10/13	1435	ST/TN	GW	3	3					X	
-17	LES-1310-Trip01					3	3					X	

DATA TURNAROUND INFORMATION

- ☒ 14 DAYS STANDARD — APPROVED BY:
- ☐ 7 DAYS *RUSH*
- ☐ 48 HOUR EMERGENCY
- ☐ OTHER

14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

- ☐ STANDARD
- ☐ COMMERCIAL "B"
- ☐ DISK DELIVERABLE
- ☐ STATE FORMS
- ☒ OTHER (SPECIFY) Contact M. Wagner

COMMENTS/REMARKS

Sampler John Talley 781-247-3966
Please use standard one report, low detection limit required, see attached table
Cooler 6.4°C

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
1. John Talley	10/10/13 1800	1. [illegible]	2. [illegible]	10-11-13 930	2. [illegible]
3.		3.	4.		4.
5.		5.			

SEAL # 001 — PRESERVE WHERE APPLICABLE ☐ — ON ICE ☒ — TEMPERATURE 1.2 C

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MC25236: Chain of Custody
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ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC25236 **Client:** CLEAN HARBORS **Immediate Client Services Action Required:** No

Date / Time Received: 10/11/2013 **Delivery Method:** **Client Service Action Required at Login:** No

Project: PECATONICA FALL 2013 **No. Coolers:** 1 **Airbill #'s:**

Cooler Security	Y	N		Y	N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	Infared gun	
3. Cooler media:	Ice (bag)	

Quality Control Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☑	☐	☐
2. Trip Blank listed on COC:	☑	☐	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☑	☐	☐

Sample Integrity - Documentation	Y	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Accutest Laboratories
V:508.481.6200

495 Technology Center West, Bldg One
F: 508.481.7753

Marlborough, MA
www/accutest.com

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MC25236: Chain of Custody
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New England
ACCUTEST
LABORATORIES

6

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC25236
Account: CLNHMAN Clean Harbors Environmental
Project: Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3043-MB	N81481.D	1	10/16/13	AMY	n/a	n/a	MSN3043

The QC reported here applies to the following samples: Method: SW846 8260B

MC25236-1, MC25236-2, MC25236-3, MC25236-4, MC25236-6, MC25236-7, MC25236-8, MC25236-9, MC25236-10, MC25236-11, MC25236-12, MC25236-13

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	86%	70-130%
2037-26-5	Toluene-D8	92%	70-130%
460-00-4	4-Bromofluorobenzene	100%	70-130%

Method Blank Summary

Job Number: MC25236
Account: CLNHMAN Clean Harbors Environmental
Project: Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3044-MB	N81510.D	1	10/17/13	JB	n/a	n/a	MSN3044

The QC reported here applies to the following samples: Method: SW846 8260B

MC25236-4, MC25236-5, MC25236-14, MC25236-15, MC25236-16, MC25236-17

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	86%	70-130%
2037-26-5	Toluene-D8	93%	70-130%
460-00-4	4-Bromofluorobenzene	100%	70-130%

Blank Spike Summary

Job Number: MC25236
Account: CLNHMAN Clean Harbors Environmental
Project: Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3043-BS	N81478.D	1	10/16/13	AMY	n/a	n/a	MSN3043

The QC reported here applies to the following samples: Method: SW846 8260B

MC25236-1, MC25236-2, MC25236-3, MC25236-4, MC25236-6, MC25236-7, MC25236-8, MC25236-9, MC25236-10, MC25236-11, MC25236-12, MC25236-13

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-34-3	1,1-Dichloroethane	50	48.3	97	70-130
75-35-4	1,1-Dichloroethene	50	44.2	88	70-130
156-59-2	cis-1,2-Dichloroethene	50	44.9	90	70-130
156-60-5	trans-1,2-Dichloroethene	50	46.5	93	70-130
100-41-4	Ethylbenzene	50	46.7	93	70-130
127-18-4	Tetrachloroethene	50	49.6	99	70-130
71-55-6	1,1,1-Trichloroethane	50	50.1	100	70-130
79-01-6	Trichloroethene	50	47.1	94	70-130
75-01-4	Vinyl chloride	50	44.1	88	70-130
1330-20-7	Xylene (total)	150	141	94	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	86%	70-130%
2037-26-5	Toluene-D8	90%	70-130%
460-00-4	4-Bromofluorobenzene	89%	70-130%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC25236
Account: CLNHMAN Clean Harbors Environmental
Project: Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3044-BS	N81507.D	1	10/17/13	JB	n/a	n/a	MSN3044

The QC reported here applies to the following samples: Method: SW846 8260B

MC25236-4, MC25236-5, MC25236-14, MC25236-15, MC25236-16, MC25236-17

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-34-3	1,1-Dichloroethane	50	47.9	96	70-130
75-35-4	1,1-Dichloroethene	50	44.4	89	70-130
156-59-2	cis-1,2-Dichloroethene	50	45.1	90	70-130
156-60-5	trans-1,2-Dichloroethene	50	46.0	92	70-130
100-41-4	Ethylbenzene	50	49.3	99	70-130
127-18-4	Tetrachloroethene	50	51.3	103	70-130
71-55-6	1,1,1-Trichloroethane	50	51.3	103	70-130
79-01-6	Trichloroethene	50	47.8	96	70-130
75-01-4	Vinyl chloride	50	42.8	86	70-130
1330-20-7	Xylene (total)	150	147	98	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	88%	70-130%
2037-26-5	Toluene-D8	92%	70-130%
460-00-4	4-Bromofluorobenzene	89%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC25236
Account: CLNHMAN Clean Harbors Environmental
Project: Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC25236-1MS	N81489.D	1	10/16/13	AMY	n/a	n/a	MSN3043
MC25236-1MSD	N81490.D	1	10/16/13	AMY	n/a	n/a	MSN3043
MC25236-1	N81488.D	1	10/16/13	AMY	n/a	n/a	MSN3043

The QC reported here applies to the following samples: Method: SW846 8260B

MC25236-1, MC25236-2, MC25236-3, MC25236-4, MC25236-6, MC25236-7, MC25236-8, MC25236-9, MC25236-10, MC25236-11, MC25236-12, MC25236-13

CAS No.	Compound	MC25236-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
75-34-3	1,1-Dichloroethane	ND		50	44.9	90	46.0	92	2	70-130/30
75-35-4	1,1-Dichloroethene	ND		50	40.6	81	41.9	84	3	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		50	42.5	85	43.4	87	2	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		50	42.9	86	44.2	88	3	70-130/30
100-41-4	Ethylbenzene	ND		50	45.9	92	46.9	94	2	70-130/30
127-18-4	Tetrachloroethene	ND		50	48.0	96	48.3	97	1	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		50	47.4	95	48.3	97	2	70-130/30
79-01-6	Trichloroethene	ND		50	44.1	88	45.6	91	3	70-130/30
75-01-4	Vinyl chloride	ND		50	38.8	78	40.3	81	4	70-130/30
1330-20-7	Xylene (total)	ND		150	140	93	141	94	1	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	MC25236-1	Limits
1868-53-7	Dibromofluoromethane	87%	88%	86%	70-130%
2037-26-5	Toluene-D8	93%	92%	92%	70-130%
460-00-4	4-Bromofluorobenzene	90%	89%	100%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC25236
Account: CLNHMAN Clean Harbors Environmental
Project: Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC25348-2MS	N81522.D	5	10/17/13	JB	n/a	n/a	MSN3044
MC25348-2MSD	N81523.D	5	10/17/13	JB	n/a	n/a	MSN3044
MC25348-2	N81516.D	1	10/17/13	JB	n/a	n/a	MSN3044

The QC reported here applies to the following samples: Method: SW846 8260B

MC25236-4, MC25236-5, MC25236-14, MC25236-15, MC25236-16, MC25236-17

CAS No.	Compound	MC25348-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
75-34-3	1,1-Dichloroethane	ND		250	221	88	226	90	2	70-130/30
75-35-4	1,1-Dichloroethene	ND		250	206	82	208	83	1	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		250	209	84	210	84	0	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		250	209	84	218	87	4	70-130/30
100-41-4	Ethylbenzene	ND		250	232	93	234	94	1	70-130/30
127-18-4	Tetrachloroethene	ND		250	246	98	249	100	1	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		250	239	96	239	96	0	70-130/30
79-01-6	Trichloroethene	ND		250	223	89	226	90	1	70-130/30
75-01-4	Vinyl chloride	ND		250	197	79	196	78	1	70-130/30
1330-20-7	Xylene (total)	ND		750	695	93	710	95	2	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	MC25348-2	Limits
1868-53-7	Dibromofluoromethane	86%	86%	87%	70-130%
2037-26-5	Toluene-D8	92%	92%	93%	70-130%
460-00-4	4-Bromofluorobenzene	90%	89%	100%	70-130%

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC25236
Account: CLNHMAN Clean Harbors Environmental
Project: Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL

Method: SW846 8260B Matrix: AQ

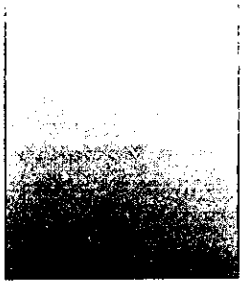
Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC25236-1	N81488.D	86.0	92.0	100.0
MC25236-2	N81491.D	87.0	91.0	98.0
MC25236-3	N81492.D	86.0	92.0	99.0
MC25236-4	N81524.D	86.0	91.0	98.0
MC25236-4	N81493.D	88.0	95.0	102.0
MC25236-5	N81512.D	85.0	93.0	100.0
MC25236-6	N81495.D	86.0	91.0	102.0
MC25236-7	N81496.D	87.0	91.0	99.0
MC25236-8	N81497.D	86.0	92.0	102.0
MC25236-9	N81498.D	88.0	93.0	100.0
MC25236-10	N81499.D	86.0	93.0	97.0
MC25236-11	N81500.D	87.0	92.0	98.0
MC25236-12	N81501.D	87.0	93.0	99.0
MC25236-13	N81502.D	88.0	92.0	99.0
MC25236-14	N81513.D	86.0	92.0	99.0
MC25236-15	N81514.D	89.0	93.0	101.0
MC25236-16	N81515.D	87.0	93.0	103.0
MC25236-17	N81511.D	88.0	92.0	101.0
MC25236-1MS	N81489.D	87.0	93.0	90.0
MC25236-1MSD	N81490.D	88.0	92.0	89.0
MC25348-2MS	N81522.D	86.0	92.0	90.0
MC25348-2MSD	N81523.D	86.0	92.0	89.0
MSN3043-BS	N81478.D	86.0	90.0	89.0
MSN3043-MB	N81481.D	86.0	92.0	100.0
MSN3044-BS	N81507.D	88.0	92.0	89.0
MSN3044-MB	N81510.D	86.0	93.0	100.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

New England ACCUTEST LABORATORIES

11/27/13



Technical Report for

Clean Harbors Environmental

Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL

15-10011.03-007

Accutest Job Number: MC26517

Sampling Date: 11/21/13

Report to:

St. John - Mittelhauser & Associates
1401 Branding Avenue Suite 315
Downers Grove, IL 60515
michellew@st-ma.com

ATTN: Michelle Wagner

Total number of pages in report: **16**

NELAP ACCREDITED LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Reza Tand
Lab Director

Client Service contact: Frank DAgostino 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Sample Summary

Clean Harbors Environmental

Job No: MC26517

Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL
Project No: 15-10011.03-007

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
MC26517-1	11/21/13	10:00 SS	11/22/13	AQ	Ground Water	LES-1311-G10M
MC26517-2	11/21/13	00:00 SS	11/22/13	AQ	Trip Blank Water	LES-1311-TRIP01

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SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Clean Harbors Environmental **Job No** MC26517

Site: Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL **Report Date** 11/27/2013 11:10:28 AM

1 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on 11/21/2013 and were received at Accutest on 11/22/2013 properly preserved, at 1.2 Deg. C and intact. These Samples received an Accutest job number of MC26517. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix: AQ **Batch ID:** MSU790

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC26512-1MS, MC26512-1MSD were used as the QC samples indicated.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC26517).

Summary of Hits

Job Number: MC26517
Account: Clean Harbors Environmental
Project: Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL
Collected: 11/21/13

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC26517-1	LES-1311-G10M					
1,1-Dichloroethane		1.3	1.0	0.37	ug/l	SW846 8260C
cis-1,2-Dichloroethene		6.7	1.0	0.54	ug/l	SW846 8260C
MC26517-2	LES-1311-TRIP01					

No hits reported in this sample.

New England ACCUTEST LABORATORIES

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Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	LES-1311-G10M		
Lab Sample ID:	MC26517-1	Date Sampled:	11/21/13
Matrix:	AQ - Ground Water	Date Received:	11/22/13
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U16445.D	1	11/26/13	GK	n/a	n/a	MSU790
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	1.3	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	6.7	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	126%		70-130%
2037-26-5	Toluene-D8	113%		70-130%
460-00-4	4-Bromofluorobenzene	114%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	LES-1311-TRIP01		
Lab Sample ID:	MC26517-2	Date Sampled:	11/21/13
Matrix:	AQ - Trip Blank Water	Date Received:	11/22/13
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U16431.D	1	11/26/13	GK	n/a	n/a	MSU790
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	130%		70-130%
2037-26-5	Toluene-D8	115%		70-130%
460-00-4	4-Bromofluorobenzene	111%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

PAGE 1 OF 1

FED-EX Tracking #:
Bottle Order Control #:
Accutest Quote #:
Accutest Job # MC26517

Client / Reporting Information

Company Name: SMA
Street Address: 1401 Brending Ave
City / State / Zip: Downers Grove IL 60515
Project Contact / E-mail: Michelle Wagner
Phone # / Fax #: 630-427-8100
Sampler(s) Name(s) / Phone #: Steve Swenson

Project Information

Project Name: Clean Harbors
Street: 6125 N. Pulaski
City: Pulaski IL
Project #: 15-10011.03-007
Client PO#:
Project Manager: Michelle Wagner

Billing Information (If different from Report to)
Company Name:
Street Address:
City / State / Zip:
Attention: PO#:

Requested Analysis (see TEST CODE sheet): Site Specific Vocs; Sw 8260 Full List; Low Detection Limit (Required)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB- Equipment Blank; RB- Rinse Blank; TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEONDI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Bisulfite	Site Specific Vocs	Sw 8260 Full List	Low Detection Limit (Required)	LAB USE ONLY
-1	LES-1311-GWM	4	11-21-13	10:55	SS	W	4	X									X			
-2	LES-1311-Trip#1	2				W	2	X									X			
																				4B4

Data Deliverable Information

Turnaround Time (Business days) — Approved By (Accutest PM): / Date:
- [x] Std. 10 Business Days
- [ ] Std. 8 Business Days (By Contract only)
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY

Emergency & Rush T/A data available VIA Lablink

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] CT RCP
- [ ] MA MCP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

Comments / Special Instructions

Ship on ICE.

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	11-21-13 14:00	1	2 FX	11-22-13 9:30	2
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal #	Intact / Not intact	Preserved where applicable	On Ice	Cooler Temp.
5		5					1.2°C

5.1 5

MC26517: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC26517 Client: SMA Immediate Client Services Action Required: No

Date / Time Received: 11/22/2013 Delivery Method: Client Service Action Required at Login: No

Project: CLEAN HARBORS No. Coolers: 1 Airbill #'s:

Cooler Security	Y	or N		Y	or N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	or N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	Infared gun	
3. Cooler media:	Ice (bag)	

Quality Control ,Preservation	Y	or N	N/A
1. Trip Blank present / cooler:	☑	☐	☐
2. Trip Blank listed on COC:	☑	☐	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☑	☐	☐

Sample Integrity - Documentation	Y	or N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	or N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	or N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Accutest Laboratories
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495 Technology Center West, Bldg One
F: 508.481.7753

Marlborough, MA
www.accutest.com

5.1

5

MC26517: Chain of Custody
Page 2 of 2

New England ACCUTEST LABORATORIES

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GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC26517
Account: CLNHMAN Clean Harbors Environmental
Project: Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSU790-MB	U16427.D	1	11/26/13	GK	n/a	n/a	MSU790

The QC reported here applies to the following samples: Method: SW846 8260C

MC26517-1, MC26517-2

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	126%	70-130%
2037-26-5	Toluene-D8	114%	70-130%
460-00-4	4-Bromofluorobenzene	113%	70-130%

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC26517
Account: CLNHMAN Clean Harbors Environmental
Project: Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSU790-BS	U16424.D	1	11/26/13	GK	n/a	n/a	MSU790
MSU790-BSD	U16425.D	1	11/26/13	GK	n/a	n/a	MSU790

The QC reported here applies to the following samples: Method: SW846 8260C

MC26517-1, MC26517-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
75-34-3	1,1-Dichloroethane	50	55.8	112	55.6	111	0	70-130/25
75-35-4	1,1-Dichloroethene	50	53.4	107	55.2	110	3	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	51.9	104	51.4	103	1	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	54.3	109	55.7	111	3	70-130/25
100-41-4	Ethylbenzene	50	50.2	100	51.9	104	3	70-130/25
127-18-4	Tetrachloroethene	50	49.8	100	52.1	104	5	70-130/25
71-55-6	1,1,1-Trichloroethane	50	54.6	109	56.5	113	3	70-130/25
79-01-6	Trichloroethene	50	47.2	94	49.7	99	5	70-130/25
75-01-4	Vinyl chloride	50	50.8	102	52.9	106	4	70-130/25
1330-20-7	Xylene (total)	150	146	97	149	99	2	70-130/25

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	124%	125%	70-130%
2037-26-5	Toluene-D8	116%	115%	70-130%
460-00-4	4-Bromofluorobenzene	111%	110%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC26517
Account: CLNHMAN Clean Harbors Environmental
Project: Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC26512-1MS	U16440.D	5	11/26/13	GK	n/a	n/a	MSU790
MC26512-1MSD	U16441.D	5	11/26/13	GK	n/a	n/a	MSU790
MC26512-1	U16433.D	1	11/26/13	GK	n/a	n/a	MSU790

The QC reported here applies to the following samples: Method: SW846 8260C

MC26517-1, MC26517-2

CAS No.	Compound	MC26512-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
75-34-3	1,1-Dichloroethane	ND		250	284	114	279	112	2	70-130/30
75-35-4	1,1-Dichloroethene	ND		250	265	106	275	110	4	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		250	256	102	256	102	0	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		250	259	104	266	106	3	70-130/30
100-41-4	Ethylbenzene	ND		250	271	108	264	106	3	70-130/30
127-18-4	Tetrachloroethene	ND		250	265	106	259	104	2	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		250	285	114	280	112	2	70-130/30
79-01-6	Trichloroethene	ND		250	253	101	240	96	5	70-130/30
75-01-4	Vinyl chloride	ND		250	311	124	309	124	1	70-130/30
1330-20-7	Xylene (total)	ND		750	805	107	784	105	3	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	MC26512-1	Limits
1868-53-7	Dibromofluoromethane	123%	127%	125%	70-130%
2037-26-5	Toluene-D8	115%	116%	116%	70-130%
460-00-4	4-Bromofluorobenzene	110%	110%	113%	70-130%

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC26517
Account: CLNHMAN Clean Harbors Environmental
Project: Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL

Method: SW846 8260C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC26517-1	U16445.D	126.0	113.0	114.0
MC26517-2	U16431.D	130.0	115.0	111.0
MC26512-1MS	U16440.D	123.0	115.0	110.0
MC26512-1MSD	U16441.D	127.0	116.0	110.0
MSU790-BS	U16424.D	124.0	116.0	111.0
MSU790-BSD	U16425.D	125.0	115.0	110.0
MSU790-MB	U16427.D	126.0	114.0	113.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

6.4.1

6

ST. JOHN - MITTELHAUSER & ASSOCIATES

APPENDIX C

HISTORICAL SUMMARY OF GROUNDWATER ANALYTICAL RESULTS FOR SITE-SPECIFIC CONSTITUENTS

C-1 GLACIAL DRIFT WELLS
C-2 BEDROCK WELLS

GENERAL NOTES

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

Nine (9) site-specific Volatile Organic Compound (VOC) constituents were analyzed using USEPA SW846 Method 8260B

General Notes: Analytical parameters and protection objectives per RCRA Part B Permit Modification Condition V.F.3. (12/06/2011)

(1)	=	Groundwater protection objective is the Class I Groundwater Quality Standard (35 IAC 620.410)
*	=	Agency designated Compliance Point well
GMZ	=	Groundwater Management Zone well
µg/L	=	micrograms per liter = ppb (parts per billion)
NR	=	Not required to be analyzed
Dx5	=	Dilution factor of 5
5	=	Bolded and shaded analytical result is above the Groundwater Protection Objective
B	=	Constituent detected in associated blank(s)
J	=	Estimated concentration below reporting limit
L	=	Estimated value

Sample specific notes on respective sample table

APPENDIX C-1

GLACIAL DRIFT WELLS

EMW-1	(IEPA Well No. G41S)
EMW-2	(IEPA Well No. G42S)
EMW-3	(IEPA Well No. G43S)
EMW-4	(IEPA Well No. G44S)
GDW-1*	(IEPA Well No. G01S)
GDW-3*	(IEPA Well No. G03S)
GDW-4	(IEPA Well No. G04S)
GDW-5	(IEPA Well No. G05S)
GDW-6B	(IEPA Well No. A06S)
GDW-7	(IEPA Well No. G07S)
GDW-8A	(IEPA Well No. R08S)
GDW-11*	(IEPA Well No. G11S)
GDW-12*	(IEPA Well No. G12S)
MW-1000C	(IEPA Well No. G33S)
PC-1*	(IEPA Well No. G21S)
PC-2*	(IEPA Well No. G22S)
PC-3A*	(IEPA Well No. R23S)

EMW-1 (IEPA Well No. G41S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Jan-95	Apr-95	Jul-95	Nov-95	Apr-96	Oct-96	Apr-97	Oct-97	Apr-98
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

EMW-1 (IEPA Well No. G41S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-98	May-99	Oct-99	Apr-00	Oct-00	Apr-01	Dec-01	Apr-02	Dec-02
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

EMW-1 (IEPA Well No. G41S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-03	Oct-03	Apr-04	Oct-04	Apr-05	Nov-05	May-06	Nov-06	May-07
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

EMW-1 (IEPA Well No. G41S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-07	Apr-08	Nov-08	Apr-09 Dx20'	Oct-09	Apr-10	Oct-10	Apr-11	Oct-11
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	468	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	19.1	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	55.3	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	60.4	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	5.9	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	97.5	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	3.8	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	306	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)
20' = Dilution factor of 20 for 1,1-Dichloroethane

EMW-1 (IEPA Well No. G41S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-12	Oct-12	Apr-13	Oct-13					
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA					
1,1-Dichloroethene	7.0	NA	NA	NA	NA					
trans-1,2-Dichloroethene	100	NA	NA	NA	NA					
Ethylbenzene	700	NA	NA	NA	NA					
Tetrachloroethene	5.0	NA	NA	NA	NA					
1,1,1-Trichloroethane	200	NA	NA	NA	NA					
Trichloroethene	5.0	NA	NA	NA	NA					
Vinyl Chloride	2.0	NA	NA	NA	NA					
Xylenes (Total)	10,000	NA	NA	NA	NA					

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

EMW-2 (IEPA Well No. G42S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Jan-95	Apr-95	Jul-95	Nov-95	Apr-96	Oct-96	Apr-97	Oct-97	Apr-98
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

EMW-2 (IEPA Well No. G42S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-98	May-99	Oct-99	Apr-00	Oct-00	Apr-01	Dec-01	Apr-02	Dec-02
VOCs (µg/L)	**Class I Groundwater Quality Standard**									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

EMW-2 (IEPA Well No. G42S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-03	Oct-03	Apr-04	Oct-04	Apr-05	Nov-05	May-06	Nov-06	May-07
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

EMW-2 (IEPA Well No. G42S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County–ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-07	Apr-08	Nov-08	Apr-09	Oct-09	Apr-10	Oct-10	Apr-11	Oct-11
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

EMW-2 (IEPA Well No. G42S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-12	Oct-12	Apr-13	Oct-13					
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA					
1,1-Dichloroethene	7.0	NA	NA	NA	NA					
trans-1,2-Dichloroethene	100	NA	NA	NA	NA					
Ethylbenzene	700	NA	NA	NA	NA					
Tetrachloroethene	5.0	NA	NA	NA	NA					
1,1,1-Trichloroethane	200	NA	NA	NA	NA					
Trichloroethene	5.0	NA	NA	NA	NA					
Vinyl Chloride	2.0	NA	NA	NA	NA					
Xylenes (Total)	10,000	NA	NA	NA	NA					

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

EMW-3 (IEPA Well No. G43S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, IL

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Jan-95	Apr-95	Jul-95	Nov-95	Apr-96	Oct-96	Apr-97	Oct-97	Apr-98
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	2.7	NA	NA	NA	3.9
1,1-Dichloroethene	7.0	NA	NA	NA	NA	<0.2	NA	NA	NA	<0.2
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	<0.2	NA	NA	NA	<0.2
Ethylbenzene	700	NA	NA	NA	NA	0.65	NA	NA	NA	<0.2
Tetrachloroethene	5.0	NA	NA	NA	NA	5.8	NA	NA	NA	0.38
1,1,1-Trichloroethane	200	NA	NA	NA	NA	0.68	NA	NA	NA	<0.2
Trichloroethene	5.0	NA	NA	NA	NA	6.5	NA	NA	NA	2.6
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	3.1	NA	NA	NA	0.22

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

EMW-3 (IEPA Well No. G43S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, IL

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-98	May-99	Oct-99	Apr-00	Oct-00	Apr-01	Dec-01	Apr-02	Dec-02
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	2.4	2.0	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	<0.2	<0.2	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	0.28	0.21	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	<0.2	<0.2	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	0.31	0.25	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	<0.2	<0.2	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	1.2	0.88	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	0.80	0.94	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

EMW-3 (IEPA Well No. G43S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, IL

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-03	Oct-03	Apr-04	Oct-04	Apr-05	Nov-05	May-06	Nov-06	May-07
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

EMW-3 (IEPA Well No. G43S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, IL

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-07	Apr-08	Nov-08	Apr-09	Oct-09	Apr-10	Oct-10	Apr-11	Oct-11
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	1.5	1.0
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	<0.39	<0.30
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	<0.35	<0.30
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

EMW-3 (IEPA Well No. G43S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, IL

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-12	Oct-12	Apr-13	Oct-13					
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA					
1,1-Dichloroethene	7.0	NA	NA	NA	NA					
trans-1,2-Dichloroethene	100	NA	NA	NA	NA					
Ethylbenzene	700	NA	NA	NA	NA					
Tetrachloroethene	5.0	NA	NA	NA	NA					
1,1,1-Trichloroethane	200	NA	NA	NA	NA					
Trichloroethene	5.0	NA	NA	NA	NA					
Vinyl Chloride	2.0	NA	NA	NA	NA					
Xylenes (Total)	10,000	NA	NA	NA	NA					

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

EMW-4 (IEPA Well No. G44S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, IL

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Jan-95	Apr-95	Jul-95	Nov-95	Apr-96	Oct-96	Apr-97	Oct-97	Apr-98
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	1.8
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	<0.2
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	<0.2
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	<0.2
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	<0.2
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	<0.2
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	2.2
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	<0.2

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

EMW-4 (IEPA Well No. G44S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, IL

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-98	May-99	Oct-99	Apr-00	Oct-00	Apr-01	Dec-01	Apr-02	Dec-02
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

EMW-4 (IEPA Well No. G44S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, IL

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-03	Oct-03	Apr-04	Oct-04	Apr-05	Nov-05	May-06	Nov-06	May-07
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

EMW-4 (IEPA Well No. G44S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, IL

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-07	Apr-08	Nov-08	Apr-09	Oct-09	Apr-10	Oct-10	Apr-11	Oct-11
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	<0.70	1.8
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	<0.39	<0.30
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	<0.35	<0.30
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

EMW-4 (IEPA Well No. G44S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, IL

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-12	Oct-12	Apr-13	Oct-13					
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA					
1,1-Dichloroethene	7.0	NA	NA	NA	NA					
trans-1,2-Dichloroethene	100	NA	NA	NA	NA					
Ethylbenzene	700	NA	NA	NA	NA					
Tetrachloroethene	5.0	NA	NA	NA	NA					
1,1,1-Trichloroethane	200	NA	NA	NA	NA					
Trichloroethene	5.0	NA	NA	NA	NA					
Vinyl Chloride	2.0	NA	NA	NA	NA					
Xylenes (Total)	10,000	NA	NA	NA	NA					

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-1* (IEPA Well No. G01S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Jan-95	Apr-95	Jul-95	Nov-95	Apr-96	Oct-96	Apr-97	Oct-97	Apr-98
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	35	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	NA	14	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	7.2	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA	<0.2	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	NA	46	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	NA	380	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	NA	72	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	<0.2	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-1* (IEPA Well No. G01S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE (1)	SAMPLING DATE								
		Oct-98	May-99	Oct-99	Apr-00	Oct-00	Apr-01	Dec-01	Apr-02	Dec-02
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-1* (IEPA Well No. G01S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE (1)	SAMPLING DATE								
		Apr-03	Oct-03	Apr-04	Oct-04	Apr-05	Nov-05	May-06	Nov-06	May-07
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-1* (IEPA Well No. G01S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE (1)	SAMPLING DATE								
		Oct-07	Apr-08	Nov-08	Apr-09	Oct-09	Apr-10	Oct-10	Apr-11	Oct-11
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-1* (IEPA Well No. G01S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-12	Oct-12	Apr-13	Oct-13					
VOCs (µg/L)	**Class I Groundwater Quality Standard**									
1,1-Dichloroethane	700	NA	NA	NA	NA					
1,1-Dichloroethene	7.0	NA	NA	NA	NA					
trans-1,2-Dichloroethene	100	NA	NA	NA	NA					
Ethylbenzene	700	NA	NA	NA	NA					
Tetrachloroethene	5.0	NA	NA	NA	NA					
1,1,1-Trichloroethane	200	NA	NA	NA	NA					
Trichloroethene	5.0	NA	NA	NA	NA					
Vinyl Chloride	2.0	NA	NA	NA	NA					
Xylenes (Total)	10,000	NA	NA	NA	NA					

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-3* (IEPA Well No. G03S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--IDL980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Jan-95	Apr-95	Jul-95	Nov-95	Apr-96	Oct-96	Apr-97	Oct-97	Apr-98
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	44	38	71	77	86	17	11	5.8	6.9
1,1-Dichloroethene	7.0	39	27	32	<1.0	25	<10	4.6	<5.0	2.6
trans-1,2-Dichloroethene	100	21	24	31	23	58	<10	1.8	<5.0	0.54
Ethylbenzene	700	<1.0	<1.0	<10	<1.0	<0.2	<10	60	88	<0.2
Tetrachloroethene	5.0	29	19	24	12	15	16	13	6.2	7.1
1,1,1-Trichloroethane	200	420	430	750	500	410	82	50	27	39
Trichloroethene	5.0	170	130	210	94	91	39	21	18	26
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<1.0	<1.0	1.4	2.4	<0.2	19	96	230	5.9

NOTES: ***General Notes on self titled table page.***

GDW-3* (IEPA Well No. G03S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--IDL980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-98	May-99	Oct-99	Apr-00	Oct-00	Apr-01	Dec-01	Apr-02	Dec-02 Dx4
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	4.6	2.7	7.9	5.6	5.74	9.47	6.9	9.3	71
1,1-Dichloroethene	7.0	1.5	0.45	1.2	0.83	1.49	2.64	2.0	2.7	**7.7**
trans-1,2-Dichloroethene	100	0.59	<0.2	0.31	0.26	0.8	0.58	0.60	0.93	16
Ethylbenzene	700	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.28	<0.51	<2.0
Tetrachloroethene	5.0	**6.5**	2.5	**6.1**	3.9	3.22	2.30	4.5	4.1	**6.3**
1,1,1-Trichloroethane	200	22	5.7	16	8.1	8.82	28.6	17	22	66
Trichloroethene	5.0	**27**	**9.4**	**30**	**13**	**10.6**	**12.5**	**16**	**13**	**13**
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	22 B	9.3	<0.2	0.39	0.31	3.60	1.1	<0.73	<2.9

NOTES: ***General Notes on self titled table page.***

GDW-3* (IEPA Well No. G03S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--IDL980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-03 Dx25	Oct-03 Dx2'	Apr-04	Oct-04 Dx13.33	Apr-05 Dx4	Nov-05	May-06 Dx2	Nov-06	May-07 Dx2
VOCs (µg/L)	**Class I Groundwater Quality Standard**									
1,1-Dichloroethane	700	48	46	18	26	42	43.7	40	46	27
1,1-Dichloroethene	7.0	**14**	**17**	4.4	5.8	5.9	**8.15**	6.9	6.4	2.6
trans-1,2-Dichloroethene	100	14	14	2.4	5.5	8.3	8.25	5.1	2.2	0.69
Ethylbenzene	700	<13	<0.51	<3.4	<6.8	<2.0	<2.0	<1.0	<0.51	<1.0
Tetrachloroethene	5.0	**7.6**	**9.6**	4.4	<3.6	**5.9**	**10 B**	**5.5**	4.0	3.0
1,1,1-Trichloroethane	200	59	72	31	39	49	77.5	87	34	12
Trichloroethene	5.0	**13 J**	**12**	**6.7 J**	4.8	**7.3 J**	**9.87**	**6.5**	**6.3**	3.2
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<18	3.0	<4.9	<9.7	2.4 J	<6.0	<1.5	0.88	<1.5

NOTES: ***General Notes on self titled table page.***
2' = Dilution factor of 2 for 1,1,1-Trichloroethane

GDW-3* (IEPA Well No. G03S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--IDL980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-07	Apr-08	Nov-08	Apr-09	Oct-09	Apr-10	Oct-10	Apr-11	Oct-11
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	17	19	20	13.4	21.5	13.5	10.6	12.0	5.2
1,1-Dichloroethene	7.0	1.6	1.2	1.9	1.3	<1.0	1.0	1.2	1.2	<1.0
trans-1,2-Dichloroethene	100	0.62	0.34	0.46	1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	700	<0.51	<0.51	<0.51	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	5.0	2.7	2.1	1.6	2.4	<0.25	4.8	5.1	1.3	1.2
1,1,1-Trichloroethane	200	12	3.8	7.3	4.7	2.9	9.3	12.3	3.2	3.2
Trichloroethene	5.0	6.0	3.5	2.7	5.1	2.5	9.3	10.3	1.4	1.1
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	0.25 J	<0.73	<0.73	<1.0	<1.0	0.58 J	<1.0	0.65 J	<1.0

NOTES: ***General Notes on self titled table page.***

GDW-3* (IEPA Well No. G03S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--IDL980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-12	Oct-12	Apr-13	Oct-13					
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	3.9	6.0	4.2	6.8					
1,1-Dichloroethene	7.0	1.1	<1.0	2.9	1.6					
trans-1,2-Dichloroethene	100	<1.0	<1.0	<1.0	<1.0					
Ethylbenzene	700	<1.0	<1.0	<1.0	<1.0					
Tetrachloroethene	5.0	2.7	1.4	2.8	2.3					
1,1,1-Trichloroethane	200	2.4	10.2	6.8	6.4					
Trichloroethene	5.0	3.6	1.2	2.1	2.1					
Vinyl Chloride	2.0	<1.0	<1.0	<1.0	<1.0					
Xylenes (Total)	10,000	<1.0	<1.0	<1.0	<1.0					

NOTES: ***General Notes on self titled table page.***

GDW-4 (IEPA Well No. G04S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Jan-95	Apr-95	Jul-95	Nov-95	Apr-96	Oct-96	Apr-97	Oct-97	Apr-98
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-4 (IEPA Well No. G04S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE (1)	SAMPLING DATE								
		Oct-98	May-99	Oct-99	Apr-00	Oct-00	Apr-01	Dec-01	Apr-02	Dec-02
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-4 (IEPA Well No. G04S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-03	Oct-03	Apr-04	Oct-04	Apr-05	Nov-05	May-06	Nov-06	May-07
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-4 (IEPA Well No. G04S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-07	Apr-08	Nov-08	Apr-09	Oct-09	Apr-10	Oct-10	Apr-11	Oct-11
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-4 (IEPA Well No. G04S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-12	Oct-12	Apr-13	Oct-13					
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA					
1,1-Dichloroethene	7.0	NA	NA	NA	NA					
trans-1,2-Dichloroethene	100	NA	NA	NA	NA					
Ethylbenzene	700	NA	NA	NA	NA					
Tetrachloroethene	5.0	NA	NA	NA	NA					
1,1,1-Trichloroethane	200	NA	NA	NA	NA					
Trichloroethene	5.0	NA	NA	NA	NA					
Vinyl Chloride	2.0	NA	NA	NA	NA					
Xylenes (Total)	10,000	NA	NA	NA	NA					

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-5 (IEPA Well No. G05S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Jan-95	Apr-95	Jul-95	Nov-95	Apr-96	Oct-96	Apr-97	Oct-97	Apr-98
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	6.0	8.0	<5.0	15
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	2.6	2.7	8.4	2.0
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	3.2	3.0	<5.0	2.4
Ethylbenzene	700	NA	NA	NA	NA	NA	<0.2	<0.2	<5.0	<0.2
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	<0.2	<0.2	<5.0	0.24
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	61	53	48	73
Trichloroethene	5.0	NA	NA	NA	NA	NA	9.2	12	6.8	7.3
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	<0.2	<0.2	<5.0	<0.2

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-5 (IEPA Well No. G05S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-98	May-99	Oct-99	Apr-00	Oct-00 Dx5'	Apr-01	Dec-01	Apr-02	Dec-02 Dx4
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	12	26	86	42	12.1	15.4	10	5.9	3.4
1,1-Dichloroethene	7.0	1.7	3.4	9.5	5.9	2.57	2.29	2.1	1.8	<1.2
trans-1,2-Dichloroethene	100	2.8	9.7	17	13	3.78	3.95	2.8	1.7	<1.0
Ethylbenzene	700	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.56	<2.6	<2.0
Tetrachloroethene	5.0	0.75	1.7	4.1	1.9	1.24	0.85	1.3	<1.4	<1.1
1,1,1-Trichloroethane	200	79	140	340	210	68.6	80.3	57	39	25
Trichloroethene	5.0	3.7	5.6	13	6.6	3.06	2.83	< 4.0	1.8 J	1.3 J
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	< 1.9	<3.6	<2.9

NOTES: ***General Notes on self titled table page.***
5' = Dilution Factor of 5 for 1,1,1-Trichloroethane

GDW-5 (IEPA Well No. G05S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-03	Oct-03	Apr-04	Oct-04	Apr-05	Nov-05	May-06	Nov-06	May-07
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	1.1	0.84	0.53	NA	0.23 J	<0.29	<0.29
1,1-Dichloroethene	7.0	NA	NA	<1.0	0.52	0.28 J	NA	0.23 J	<0.31	<0.31
trans-1,2-Dichloroethene	100	NA	NA	<0.83	0.30	0.21 J	NA	<0.25	<0.25	<0.25
Ethylbenzene	700	NA	NA	<1.7	<0.51	<0.51	NA	<0.51	<0.51	<0.51
Tetrachloroethene	5.0	NA	NA	<0.90	0.62	0.60	NA	0.37	0.39	0.35
1,1,1-Trichloroethane	200	NA	NA	15	14	10	NA	4.8	3.6	4.1
Trichloroethene	5.0	NA	NA	0.74 J	0.78 J	0.65 J	NA	0.36	0.31	0.36
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	<2.4	<0.73	<0.73	NA	<0.73	<0.73	<0.73

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-5 (IEPA Well No. G05S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-07	Apr-08	Nov-08	Apr-09	Oct-09	Apr-10	Oct-10	Apr-11	Nov-11
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	0.24 J	<0.29	0.34	<0.50	1.9	1.0	3.0	2.2	6.4
1,1-Dichloroethene	7.0	<0.31	<0.31	0.39	<1.0	<1.0	<1.0	1.0	<1.0	<1.0
trans-1,2-Dichloroethene	100	<0.25	<0.25	<0.25	<1.0	<1.0	<1.0	3.5	1.2	3.8
Ethylbenzene	700	<0.51	<0.51	<0.51	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	5.0	0.47	0.35	<0.27	0.63	<0.25	<0.30	<1.0	<0.39	0.69
1,1,1-Trichloroethane	200	5.3	2.8	2.9	1.2	7.2	7.5	17.5	8.7	23.5
Trichloroethene	5.0	0.35	0.21 J	<0.24	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<0.73	<0.73	<0.73	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES: ***General Notes on self titled table page.***

GDW-5 (IEPA Well No. G05S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-12	Oct-12	Apr-13 Dx2	Oct-13					
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	9.1	8.7	8.1	4.2					
1,1-Dichloroethene	7.0	3.6	3.8	6.0	2.9					
trans-1,2-Dichloroethene	100	4.1	3.5	2.6	3.2					
Ethylbenzene	700	<1.0	<1.0	<2.0	<1.0					
Tetrachloroethene	5.0	<1.0	<1.0	3.0	<1.0					
1,1,1-Trichloroethane	200	36.1	27.7	26.8	15.9					
Trichloroethene	5.0	<1.0	<1.0	<2.0	<1.0					
Vinyl Chloride	2.0	<1.0	<1.0	<2.0	<1.0					
Xylenes (Total)	10,000	<1.0	<1.0	<2.0	<1.0					

NOTES: ***General Notes on self titled table page.***

GDW-6B (IEPA Well No. A06S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Jan-95	Apr-95	Jul-95	Nov-95	Apr-96	Oct-96	Apr-97	Oct-97	Apr-98
VOCs (µg/L)	**Class I Groundwater Quality Standard**									
1,1-Dichloroethane	700	18	14	16	15	18	16	26	22	17
1,1-Dichloroethene	7.0	**19**	**12**	**8.8**	<0.2	**9.8**	**8.9**	**8.5**	6.8	3.7
trans-1,2-Dichloroethene	100	3.0	2.0	2.1	<0.2	3.5	2.6	2.2	<2.0	1.1
Ethylbenzene	700	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.2	<2.0	<0.2
Tetrachloroethene	5.0	**20**	**14**	**14**	**10**	**16**	**18**	**16**	**12**	**12**
1,1,1-Trichloroethane	200	**230**	200	**300**	**270**	190	140	110	88	100
Trichloroethene	5.0	**70**	**55**	**69**	**60**	**54**	**55**	**38**	**50**	**39**
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.2	<2.0	<0.2

NOTES: ***General Notes on self titled table page.***

GDW-6B (IEPA Well No. A06S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-98	May-99	Oct-99	Apr-00	Oct-00	Apr-01	Dec-01	Apr-02	Dec-02 Dx1.33
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	10	7.3	19	9.7	6.35	8.37	13	10	18
1,1-Dichloroethene	7.0	2.2	1.4	3.6	1.6	1.09	1.02	1.4	<1.6	1.7
trans-1,2-Dichloroethene	100	1.1	0.31	0.77	0.90	0.96	0.68	1.1	<1.2	2.7
Ethylbenzene	700	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.28	<2.6	<0.68
Tetrachloroethene	5.0	**9.2**	**8.0**	**20**	**9.1**	**6.55**	3.94	4.5	3.8	4.1
1,1,1-Trichloroethane	200	95	65	120	44	27.8	26.6	28	24	26
Trichloroethene	5.0	**26**	**28**	**98**	**58**	**32.6**	**23.9**	**17**	**13**	**13**
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	< 0.95	<3.6	<0.97

NOTES: ***General Notes on self titled table page.***

GDW-6B (IEPA Well No. A06S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-03 Dx12.5'	Oct-03	Apr-04	Oct-04 Dx4	Apr-05 Dx3.33	Nov-05	May-06 Dx2	Nov-06	May-07
VOCs (µg/L)	**Class I Groundwater Quality Standard**									
1,1-Dichloroethane	700	24	15	9.3	6.4	10	13.6	5.4	5.8	3.4
1,1-Dichloroethene	7.0	2.7	1.7	1.5 J	1.3	<1.0	<2.0	0.81	0.70	0.40
trans-1,2-Dichloroethene	100	3.3	2.1	1.7	1.1	0.83	2.57	0.70	0.60	0.27
Ethylbenzene	700	<6.4	<0.51	<3.4	<2.0	<1.7	<2.0	<1.0	<0.51	<0.51
Tetrachloroethene	5.0	4.0	3.8	3.4	2.9	2.7	<2.0	1.5	2.0	1.6
1,1,1-Trichloroethane	200	24 J	22	17	<8.0	14	18.6	7.9	12	6.3
Trichloroethene	5.0	16 J	1.1	6.3 J	5.3 J	3.9 J	4.5	2.0	2.7	1.8
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<9.1	<0.73	<4.9	<2.9	<2.4	<6.0	<1.5	<0.73	<0.73

NOTES: ***General Notes on self titled table page.***
12.5' = Dilution factor of 12.5, except for reanalysis of 1,1-DCE run outside of holding time at a dilution of 1

GDW-6B (IEPA Well No. A06S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE (1)	SAMPLING DATE								
		Oct-07	Apr-08	Nov-08	Apr-09	Oct-09	Apr-10	Oct-10	Apr-11	Nov-11
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	3.5	2.8	4.5	6.5	8.1	4.7	6.4	3.5	4.8
1,1-Dichloroethene	7.0	0.62	0.46	1.5	0.92 J	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	100	0.28	0.22 J	0.45	1.2	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	700	<0.51	<0.51	<0.51	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	5.0	2.0	1.1	1.3	1.9	1.0	1.5	1.8	1.1	1.1
1,1,1-Trichloroethane	200	9.0	6.0	11	14.8	9.9	8.5	13.6	6.1	8.7
Trichloroethene	5.0	2.4	1.7	2.8	3.6	3.3	2.8	3.9	2.8	2.9
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<0.73	<0.73	<0.73	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES: ***General Notes on self titled table page.***

GDW-6B (IEPA Well No. A06S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-12	Oct-12	Apr-13	Oct-13					
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	5.0	4.0	3.1	2.3					
1,1-Dichloroethene	7.0	1.3	<1.0	3.0	0.99 J					
trans-1,2-Dichloroethene	100	<1.0	<1.0	<1.0	<1.0					
Ethylbenzene	700	<1.0	<1.0	<1.0	<1.0					
Tetrachloroethene	5.0	1.0	<1.0	2.6	1.3					
1,1,1-Trichloroethane	200	5.7	7.6	7.2	3.2					
Trichloroethene	5.0	3.8	2.2	3.6	2.4					
Vinyl Chloride	2.0	<1.0	<1.0	<1.0	<1.0					
Xylenes (Total)	10,000	<1.0	<1.0	<1.0	<1.0					

NOTES: ***General Notes on self titled table page.***

GDW-7 (IEPA Well No. G07S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Jan-95	Apr-95	Jul-95	Nov-95	Apr-96	Oct-96	Apr-97	Oct-97	Apr-98
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	18	14	23	25	28	33	15
1,1-Dichloroethene	7.0	NA	NA	**9.8**	<0.2	**9.7**	**9.2**	**12**	**8.3**	<0.2
trans-1,2-Dichloroethene	100	NA	NA	1.6	<0.2	5.1	4.0	3.7	4.9	0.92
Ethylbenzene	700	NA	NA	<1.0	<0.2	<0.2	<0.2	<0.2	<2.0	<0.2
Tetrachloroethene	5.0	NA	NA	**5.3**	3.7	**5.8**	**11**	**7.8**	**6.4**	**5.8**
1,1,1-Trichloroethane	200	NA	NA	**250**	200	150	180	140	100	110
Trichloroethene	5.0	NA	NA	**110**	**83**	**69**	**64**	**80**	**130**	**62**
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	<1.0	<0.2	<0.2	<0.2	<0.2	<2.0	<0.2

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-7 (IEPA Well No. G07S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-98	May-99	Oct-99	Apr-00	Oct-00 Dx5'	Apr-01 Dx10'	Dec-01	Apr-02	Dec-02 Dx5
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	8.5	7.0	16	9.2	9.37	16.3	7.7	9.2	15
1,1-Dichloroethene	7.0	2.0	1.5	2.9	1.8	1.97	2.27	1.8	1.8	<1.6
trans-1,2-Dichloroethene	100	0.96	0.20	1.2	0.85	0.85	1.68	0.37	<1.0	<1.2
Ethylbenzene	700	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.28	<2.0	<2.6
Tetrachloroethene	5.0	5.7	3.9	7.0	4.9	3.31	2.16	2.3	2.0	2.7
1,1,1-Trichloroethane	200	47	36	90	48	37.7	55.2	26	24	30
Trichloroethene	5.0	61	35	260	95	53.8	31.6	31	24	23
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	0.83 B	<0.2	<0.2	<0.2	<0.2	<0.6	< 0.95	<2.9	<3.6

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)
5' = Dilution Factor of 5 for Trichloroethene
10' = Dilution Factor of 10 for 1,1,1-Trichloroethane

GDW-7 (IEPA Well No. G07S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-03	Oct-03	Apr-04	Oct-04 Dx6.66	Apr-05 Dx2.66	Nov-05	May-06 Dx5	Nov-06	May-07 Dx2
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	10	19	8.9	24.1	11	17	9.1
1,1-Dichloroethene	7.0	NA	NA	<2.1	3.3	<0.82	3.58	1.9	5.9	2.6
trans-1,2-Dichloroethene	100	NA	NA	1.2 J	2.8	<0.66	3.02	1.4	1.0	0.40 J
Ethylbenzene	700	NA	NA	<3.4	<3.4	<1.4	<2.0	<2.6	<0.51	<1.0
Tetrachloroethene	5.0	NA	NA	2.0	<1.8	1.5	<2.0	1.2 J	2.1	1.1
1,1,1-Trichloroethane	200	NA	NA	19	31	19	34.9	24	43	26
Trichloroethene	5.0	NA	NA	9.8 J	9.8 J	8.4	11.6	4.6	14	5.3
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	<4.9	<4.9	<1.9	<6.0	<3.6	<0.73	<1.5

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-7 (IEPA Well No. G07S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-07 Dx4	May-08	Nov-08	Apr-09	Oct-09	Apr-10	Oct-10	Apr-11	Oct-11
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	14	6.3	11	6.0	15.4	11.1	3.8	7.6	8.8
1,1-Dichloroethene	7.0	4.2	2.8	4.9	0.92 J	<1.0	2.0	<1.0	1.1	1.3
trans-1,2-Dichloroethene	100	<1.0	0.24 J	0.45	1.3	<1.0	1.5	<1.0	2.2	1.2
Ethylbenzene	700	<2.0	<0.51	<0.51	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	5.0	2.4	1.1	1.7	1.4	1.7	2.3	1.2	0.90	1.8
1,1,1-Trichloroethane	200	62	22	37	20.9	59.1	36.1	11.5	19.5	18.4
Trichloroethene	5.0	**12**	4.1	**8.8**	3.4	**8.6**	**8.7**	**8.6**	3.5	**7.8**
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<2.9	<0.73	<0.73	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES: ***General Notes on self titled table page.***

GDW-7 (IEPA Well No. G07S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-12	Oct-12	Apr-13	Oct-13					
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	3.5	NA	4.9	3.6					
1,1-Dichloroethene	7.0	<1.0	NA	3.2	1.6					
trans-1,2-Dichloroethene	100	<1.0	NA	<1.0	0.61 J					
Ethylbenzene	700	<1.0	NA	<1.0	<1.0					
Tetrachloroethene	5.0	<1.0	NA	2.2	0.80 J					
1,1,1-Trichloroethane	200	1.6	NA	9.8	4.6					
Trichloroethene	5.0	6.7	NA	6.2	4.7					
Vinyl Chloride	2.0	<1.0	NA	<1.0	<1.0					
Xylenes (Total)	10,000	<1.0	NA	<1.0	<1.0					

NOTES: ***General Notes on self titled table page.***

GDW-8A (IEPA Well No. R08S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Jan-95	Apr-95	Jul-95	Nov-95	Apr-96	Oct-96	Apr-97	Oct-97	Apr-98
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	12	NA	NA	15
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	**7.6**	NA	NA	**7.2**
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	2.0	NA	NA	0.71
Ethylbenzene	700	NA	NA	NA	NA	NA	<0.2	NA	NA	<0.20
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	3.5	NA	NA	**5.1**
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	130	NA	NA	170
Trichloroethene	5.0	NA	NA	NA	NA	NA	**80**	NA	NA	**92**
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	<0.2	NA	NA	<0.20

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-8A (IEPA Well No. R08S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-98	May-99	Oct-99	Apr-00	Oct-00	Apr-01	Dec-01	Apr-02	Dec-02
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	8.7	10	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	3.9	4.5	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	0.49	0.20	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	<0.2	<0.20	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	3.7	4.4	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	68	95	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	[redacted]55	[redacted]55	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	0.66 B	<0.20	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-8A (IEPA Well No. R08S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-03	Oct-03	Apr-04	Oct-04	Apr-05	Nov-05	May-06 Dx6.66	Nov-06	May-07 Dx2
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	18	NA	14
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	1.9 J	NA	4.1
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	1.5 J	NA	0.45 J
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	<3.4	NA	<1.0
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	1.7 J	NA	1.3
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	35	NA	35
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	7.1	NA	6.6
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	<4.9	NA	<1.5

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-8A (IEPA Well No. R08S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-07 Dx2	Apr-08	Nov-08	Apr-09	Oct-09	Apr-10	Oct-10	Apr-11	Oct-11
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	21	15	NA	10.1	23.0	11.6	NA	6.7	11.4
1,1-Dichloroethene	7.0	6.6	4.7	NA	1.8	0.80 J	2.5	NA	1.4	1.8
trans-1,2-Dichloroethene	100	0.64	0.63	NA	3.3	<1.0	2.0	NA	2.2	4.1
Ethylbenzene	700	<1.0	<0.51	NA	<1.0	<1.0	<1.0	NA	<1.0	<1.0
Tetrachloroethene	5.0	2.6	2.0	NA	1.9	2.0	1.4	NA	1.3	1.2
1,1,1-Trichloroethane	200	77	36	NA	30.6	86.3	40.2	NA	28.2	32.6
Trichloroethene	5.0	13	8.7	NA	7.0	6.4	4.8	NA	3.4	4.4
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<1.5	<0.73	NA	<1.0	<1.0	<1.0	NA	<1.0	<1.0

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-8A (IEPA Well No. R08S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-12	Oct-12	Apr-13	Oct-13					
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA					
1,1-Dichloroethene	7.0	NA	NA	NA	NA					
trans-1,2-Dichloroethene	100	NA	NA	NA	NA					
Ethylbenzene	700	NA	NA	NA	NA					
Tetrachloroethene	5.0	NA	NA	NA	NA					
1,1,1-Trichloroethane	200	NA	NA	NA	NA					
Trichloroethene	5.0	NA	NA	NA	NA					
Vinyl Chloride	2.0	NA	NA	NA	NA					
Xylenes (Total)	10,000	NA	NA	NA	NA					

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-11* (IEPA Well No. G11S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Jan-95	Apr-95	Jul-95	Nov-95	Apr-96	Oct-96	Apr-97	Oct-97	Apr-98
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	<0.2
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	<0.2
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	<0.2
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	<0.2
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	<0.2
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	<0.2
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	<0.2
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	<0.2

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-11* (IEPA Well No. G11S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-98	May-99	Oct-99	April-00	Oct-00	April-01	Dec-01	April-02	Dec-02
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-11* (IEPA Well No. G11S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		April-03	Oct-03	April-04	Oct-04	April-05	Nov-05	May-06	Nov-06	May-07
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-11* (IEPA Well No. G11S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-07	April-08	Nov-08	April-09	Oct-09	Apr-10	Oct-10	Apr-11	Oct-11
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	<0.29	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	<0.31	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	<0.25	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	<0.51	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	<0.27	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	<0.30	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	<0.24	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	<0.73	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-11* (IEPA Well No. G11S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-12	Oct-12	Apr-13	Oct-13					
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	<1.0	NA					
1,1-Dichloroethene	7.0	NA	NA	<1.0	NA					
trans-1,2-Dichloroethene	100	NA	NA	<1.0	NA					
Ethylbenzene	700	NA	NA	<1.0	NA					
Tetrachloroethene	5.0	NA	NA	<1.0	NA					
1,1,1-Trichloroethane	200	NA	NA	<1.0	NA					
Trichloroethene	5.0	NA	NA	<1.0	NA					
Vinyl Chloride	2.0	NA	NA	<1.0	NA					
Xylenes (Total)	10,000	NA	NA	<1.0	NA					

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-12* (IEPA Well No. G12S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Jan-95	Apr-95	Jul-95	Nov-95	Apr-96	Oct-96	Apr-97	Oct-97	Apr-98
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-12* (IEPA Well No. G12S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE (1)	SAMPLING DATE								
		Oct-98	May-99	Oct-99	April-00	Oct-00	April-01	Dec-01	April-02	Dec-02
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-12* (IEPA Well No. G12S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		April-03	Oct-03	April-04	Oct-04	April-05	Nov-05	May-06	Nov-06	May-07
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-12* (IEPA Well No. G12S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-07	April-08	Nov-08	April-09	Oct-09	Apr-10	Oct-10	Apr-11	Oct-11
VOCs (µg/L)	**Class I Groundwater Quality Standard**									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

GDW-12* (IEPA Well No. G12S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-12	Oct-12	Apr-13	Oct-13					
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA					
1,1-Dichloroethene	7.0	NA	NA	NA	NA					
trans-1,2-Dichloroethene	100	NA	NA	NA	NA					
Ethylbenzene	700	NA	NA	NA	NA					
Tetrachloroethene	5.0	NA	NA	NA	NA					
1,1,1-Trichloroethane	200	NA	NA	NA	NA					
Trichloroethene	5.0	NA	NA	NA	NA					
Vinyl Chloride	2.0	NA	NA	NA	NA					
Xylenes (Total)	10,000	NA	NA	NA	NA					

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

MW-1000C (IEPA Well No. G33S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Jan-95	Apr-95	Jul-95	Nov-95	Apr-96	Sep-96	Apr-97	Oct-97	Apr-98
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	7.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	700	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	200	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES: ***General Notes on self titled table page.***

MW-1000C (IEPA Well No. G33S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-98	May-99	Oct-99	Apr-00	Oct-00	Apr-01	Dec-01	Apr-02	Dec-02
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	<0.2	<0.2	<0.2	<0.2	0.53	0.21	<0.20	0.58	<0.29
1,1-Dichloroethene	7.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.31	<0.31
trans-1,2-Dichloroethene	100	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.27	<0.25	<0.25
Ethylbenzene	700	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.28	<0.51	<0.51
Tetrachloroethene	5.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.36	<0.27	<0.27
1,1,1-Trichloroethane	200	<0.2	<0.2	<0.2	<0.2	0.49	0.24	<0.26	0.65	<0.32
Trichloroethene	5.0	<0.2	<0.2	<0.2	<0.2	0.75	0.41	<0.22	2.1	0.39
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<0.2	<0.2	<0.2	<0.2	<0.2	<0.60	<0.95	<2.0	<0.73

NOTES: ***General Notes on self titled table page.***

MW-1000C (IEPA Well No. G33S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE (1)	SAMPLING DATE								
		Apr-03	Oct-03	Apr-04	Oct-04	Apr-05	Nov-05	May-06	Nov-06	May-07
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	<0.29	<0.29	<0.29	<0.29	0.47	<2.0	0.52	0.49	0.23 J
1,1-Dichloroethene	7.0	<0.31	<0.31	<0.31	<0.31	<0.31	<2.0	<0.31	<0.31	<0.31
trans-1,2-Dichloroethene	100	<0.25	<0.25	<0.25	<0.25	<0.25	<2.0	<0.25	<0.25	<0.25
Ethylbenzene	700	<0.51	<0.51	<0.51	<0.51	<0.51	<2.0	<0.51	<0.51	<0.51
Tetrachloroethene	5.0	<0.27	<0.27	<0.27	<0.27	<0.27	<2.0	<0.27	<0.27	<0.27
1,1,1-Trichloroethane	200	<2.0	<2.0	<2.0	<2.0	0.39 J	<2.0	0.64	0.37	0.22 J
Trichloroethene	5.0	<2.0	0.35 J	<2.0	<2.0	0.72 J	2.78	0.87	0.48	0.28
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<0.73	<0.73	<0.73	<0.73	<0.73	<6.0	<0.73	<0.73	<0.73

NOTES: ***General Notes on self titled table page.***

MW-1000C (IEPA Well No. G33S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-07	Apr-08	Nov-08	Apr-09	Oct-09	Apr-10	Oct-10	Apr-11	Oct-11
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	0.31	0.41	0.33	<0.50	<0.50	0.95	<1.0	<0.70	0.63 J
1,1-Dichloroethene	7.0	<0.31	<0.31	<0.31	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	100	<0.25	<0.25	<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	700	<0.51	<0.51	<0.51	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	5.0	<0.27	<0.27	<0.27	<0.25	<0.25	<0.30	<1.0	<0.39	<0.30
1,1,1-Trichloroethane	200	0.31	0.30	<0.30	<0.25	<0.25	1.3	<1.0	<0.35	2.1
Trichloroethene	5.0	0.31	0.30	<0.24	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<0.73	<0.73	<0.73	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES: ***General Notes on self titled table page.***

MW-1000C (IEPA Well No. G33S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-12	Oct-12	Apr-13	Oct-13					
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	<1.0	<1.0	<1.0	<1.0					
1,1-Dichloroethene	7.0	<1.0	<1.0	<1.0	<1.0					
trans-1,2-Dichloroethene	100	<1.0	<1.0	<1.0	<1.0					
Ethylbenzene	700	<1.0	<1.0	<1.0	<1.0					
Tetrachloroethene	5.0	<1.0	<1.0	<1.0	<1.0					
1,1,1-Trichloroethane	200	<1.0	<1.0	<1.0	<1.0					
Trichloroethene	5.0	<1.0	<1.0	<1.0	<1.0					
Vinyl Chloride	2.0	<1.0	<1.0	<1.0	<1.0					
Xylenes (Total)	10,000	<1.0	<1.0	<1.0	<1.0					

NOTES: ***General Notes on self titled table page.***

PC-1* (IEPA Well No. G21S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE (1)	SAMPLING DATE								
		Jan-95	Apr-95	Jul-95	Nov-95	Apr-96	Oct-96	Apr-97	Oct-97	Apr-98
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	6.0	10	7.1	1.6	3.4	9.6	0.85	<1.0	0.58
1,1-Dichloroethene	7.0	<1.0	<1.0	<1.0	<1.0	0.47	1.2	0.36	<1.0	<0.2
trans-1,2-Dichloroethene	100	<1.0	2.1	<1.0	<1.0	0.23	2.0	<0.2	<1.0	<0.2
Ethylbenzene	700	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<0.2	<1.0	<0.2
Tetrachloroethene	5.0	3.0	2.6	2.7	<1.0	1.3	2.5	1.4	1.1	0.89
1,1,1-Trichloroethane	200	18	13	31	19	5.2	11	3.5	<1.0	0.60
Trichloroethene	5.0	140	110	150	16	25	62	9.5	6.1	4.0
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<0.2	<1.0	<0.2

NOTES: ***General Notes on self titled table page.***

PC-1* (IEPA Well No. G21S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-98	May-99	Oct-99	Apr-00	Oct-00	Apr-01	Dec-01	Apr-02	Dec-02
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	0.44	0.68	1.4	0.70	1.23	1.44	1.4	1.6	2.5
1,1-Dichloroethene	7.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.20	<0.31	<0.31
trans-1,2-Dichloroethene	100	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.27	<0.25	<0.25
Ethylbenzene	700	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.28	<0.51	<0.51
Tetrachloroethene	5.0	0.63	0.55	1.2	0.61	0.62	0.47	0.48	0.28	0.62
1,1,1-Trichloroethane	200	<0.2	<0.2	0.23	<0.2	<0.2	<2.0	< 0.29	<2.0	<0.32
Trichloroethene	5.0	1.2	1.5	2.9	1.2	1.62	6.75	5.4	3.7	6.5
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	0.83 B	<0.2	<0.2	<0.2	<0.2	<0.6	<0.95	<0.73	<0.73

NOTES: ***General Notes on self titled table page.***

PC-1* (IEPA Well No. G21S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-03	Oct-03	Apr-04	Oct-04	Apr-05	Nov-05	May-06	Nov-06	May-07
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	<0.29	1.4	<0.29	4.8	5.2	<2.0	<0.29	1.9	1.6
1,1-Dichloroethene	7.0	<0.31	<0.31	<0.31	0.53	<0.31	<2.0	<0.31	<0.31	<0.31
trans-1,2-Dichloroethene	100	<0.25	<0.25	<0.25	<0.25	<0.25	<2.0	<0.25	<0.25	<0.25
Ethylbenzene	700	<0.51	<0.51	<0.51	<0.51	<0.51	<2.0	<0.51	<0.51	<0.51
Tetrachloroethene	5.0	<0.27	<0.27	<0.27	0.37	0.43	<2.0	<0.27	0.25 J	0.35
1,1,1-Trichloroethane	200	<2.0	0.82	<2.0	<0.32	6.3	<2.0	<0.30	<0.30	<0.30
Trichloroethene	5.0	<2.0	2.6	<2.0	6!0	4.0	<2.0	<0.24	1.4	1.1
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<0.73	<0.73	<0.73	<0.73	<0.73	<6.0	<0.73	<0.73	<0.73

NOTES: ***General Notes on self titled table page.***

PC-1* (IEPA Well No. G21S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002–Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE (1)	SAMPLING DATE								
		Oct-07	May-08	Nov-08	Apr-09	Oct-09	Apr-10	Oct-10	Apr-10	Oct-11
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	1.2	0.26 J	1.2	<0.50	1.4	<0.70	<1.0	0.77	1.3
1,1-Dichloroethene	7.0	<0.31	<0.31	<0.31	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	100	<0.25	<0.25	<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	700	<0.51	<0.51	<0.51	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	5.0	0.25 J	<0.27	<0.27	<0.25	<0.25	<0.30	<1.0	<0.39	<0.30
1,1,1-Trichloroethane	200	<0.30	<0.30	<0.30	<0.25	<0.25	<0.30	<1.0	<0.35	2
Trichloroethene	5.0	0.56	<0.24	0.51	0.38 J	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<0.73	<0.73	<0.73	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES: ***General Notes on self titled table page.***

PC-1* (IEPA Well No. G21S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-12	Oct-12	Apr-13	Oct-13					
VOCs (µg/L)	**Class I Groundwater Quality Standard**									
1,1-Dichloroethane	700	3.9	1.3	0.96 J	1.2					
1,1-Dichloroethene	7.0	<1.0	<1.0	<1.0	<1.0					
trans-1,2-Dichloroethene	100	<1.0	<1.0	<1.0	<1.0					
Ethylbenzene	700	<1.0	<1.0	<1.0	<1.0					
Tetrachloroethene	5.0	<1.0	<1.0	<1.0	<1.0					
1,1,1-Trichloroethane	200	<1.0	<1.0	<1.0	<1.0					
Trichloroethene	5.0	<1.0	<1.0	<1.0	<1.0					
Vinyl Chloride	2.0	<1.0	<1.0	<1.0	<1.0					
Xylenes (Total)	10,000	<1.0	<1.0	<1.0	<1.0					

NOTES: ***General Notes on self titled table page.***

PC-2* (IEPA Well No. G22S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Jan-95	Apr-95	Jul-95	Nov-95	Apr-96	Oct-96	Apr-97	Oct-97	Apr-98
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	6.3	NA	0.98
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	0.65	NA	<0.2
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	<0.2	NA	<0.2
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	<0.2	NA	<0.2
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	**7.6**	NA	**9.3**
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	11	NA	4.6
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	**160**	NA	**94**
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	<0.2	NA	<0.2

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

PC-2* (IEPA Well No. G22S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-98	May-99	Oct-99	Apr-00	Oct-00	Apr-01	Dec-01	Apr-02	Dec-02
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	4.1	1.4	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	0.61	<0.2	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	0.79	<0.2	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	<0.2	<0.2	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	<0.2	10	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	11	4.4	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	180	100	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	0.71 B	<0.2	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

PC-2* (IEPA Well No. G22S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-03	Oct-03	Apr-04	Oct-04	Apr-05	Nov-05	May-06	Nov-06	May-07
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

PC-2* (IEPA Well No. G22S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-07	May-08	Nov-08	Apr-09	Oct-09	Apr-10	Oct-10	Apr-11	Nov-11
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	<0.29	NA	<0.50	NA	NA	NA	<0.70	<0.70
1,1-Dichloroethene	7.0	NA	<0.31	NA	<1.0	NA	NA	NA	<1.0	<1.0
trans-1,2-Dichloroethene	100	NA	<0.25	NA	<1.0	NA	NA	NA	<1.0	<1.0
Ethylbenzene	700	NA	<0.51	NA	<1.0	NA	NA	NA	<1.0	<1.0
Tetrachloroethene	5.0	NA	0.45	NA	0.66	NA	NA	NA	<0.39	<0.30
1,1,1-Trichloroethane	200	NA	<0.30	NA	<0.25	NA	NA	NA	<0.35	<0.30
Trichloroethene	5.0	NA	0.62	NA	0.44 J	NA	NA	NA	<1.0	<1.0
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	<0.73	NA	<1.0	NA	NA	NA	<1.0	<1.0

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

PC-2* (IEPA Well No. G22S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-12	Oct-12	Apr-13	Oct-13					
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA					
1,1-Dichloroethene	7.0	NA	NA	NA	NA					
trans-1,2-Dichloroethene	100	NA	NA	NA	NA					
Ethylbenzene	700	NA	NA	NA	NA					
Tetrachloroethene	5.0	NA	NA	NA	NA					
1,1,1-Trichloroethane	200	NA	NA	NA	NA					
Trichloroethene	5.0	NA	NA	NA	NA					
Vinyl Chloride	2.0	NA	NA	NA	NA					
Xylenes (Total)	10,000	NA	NA	NA	NA					

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

PC-3A* (IEPA Well No. R23S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Jan-95	Apr-95	Jul-95	Nov-95	Apr-96	Oct-96	Apr-97	Oct-97	Apr-98
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	0.34
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	<0.2
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	<0.2
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	<0.2
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	0.33
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	5.4
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	**129**
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	<0.2

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

PC-3A* (IEPA Well No. R23S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE (1)	SAMPLING DATE								
		Oct-98	May-99	Oct-99	Apr-00	Oct-00	Apr-01	Dec-01	Apr-02	Dec-02
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	<0.2	0.57	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	<0.2	<0.2	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	<0.2	<0.2	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	<0.2	<0.2	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	0.44	0.25	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	2.9	3.1	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	[redacted]20	[redacted]20	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	0.66 B	<0.2	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

PC-3A* (IEPA Well No. R23S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-03	Oct-03	Apr-04	Oct-04	Apr-05	Nov-05	May-06	Nov-06	May-07
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

PC-3A* (IEPA Well No. R23S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE (1)	SAMPLING DATE								
		Oct-07	May-08	Nov-08	Apr-09	Oct-09	Apr-10	Oct-10	Apr-11	Nov-11
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	<0.29	NA	<0.50	NA	NA	NA	<0.70	<0.70
1,1-Dichloroethene	7.0	NA	<0.31	NA	<1.0	NA	NA	NA	<1.0	<1.0
trans-1,2-Dichloroethene	100	NA	<0.25	NA	<1.0	NA	NA	NA	<1.0	<1.0
Ethylbenzene	700	NA	<0.51	NA	<1.0	NA	NA	NA	<1.0	<1.0
Tetrachloroethene	5.0	NA	<0.27	NA	<0.25	NA	NA	NA	<0.39	<0.30
1,1,1-Trichloroethane	200	NA	<0.30	NA	<0.25	NA	NA	NA	<0.35	2.1
Trichloroethene	5.0	NA	0.60	NA	0.82 J	NA	NA	NA	0.78 J	<1.0
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	<0.73	NA	<1.0	NA	NA	NA	<1.0	<1.0

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

PC-3A* (IEPA Well No. R23S)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-12	Oct-12	Apr-13	Oct-13					
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NA	NA	NA	NA					
1,1-Dichloroethene	7.0	NA	NA	NA	NA					
trans-1,2-Dichloroethene	100	NA	NA	NA	NA					
Ethylbenzene	700	NA	NA	NA	NA					
Tetrachloroethene	5.0	NA	NA	NA	NA					
1,1,1-Trichloroethane	200	NA	NA	NA	NA					
Trichloroethene	5.0	NA	NA	NA	NA					
Vinyl Chloride	2.0	NA	NA	NA	NA					
Xylenes (Total)	10,000	NA	NA	NA	NA					

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

APPENDIX C-2

BEDROCK WELLS

DW-1*	(IEPA Well No. G01M)
DW-3*	(IEPA Well No. G03M)
DW-5[GMZ]	(IEPA Well No. G05M)
DW-8	(IEPA Well No. G08M)
DW-10*,[GMZ]	(IEPA Well No. G10M)
DW-11[GMZ]	(IEPA Well No. G11M)
DW-12 [GMZ]	(IEPA Well No. G12M)
MW-1000A [GMZ]	(IEPA Well No. G31M)
SP-1 [GMZ]	(IEPA Well No. G01D)

DW-1* (IEPA Well No. G01M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Jan-95	Apr-95	Jul-95	Nov-95	Apr-96	Oct-96	Apr-97	Oct-97	Apr-98
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	8.0	6.9	<1.0	11	16	2.2	29	<50	3.9
1,1-Dichloroethene	7.0	15	10	2.4	7.2	7.7	<1.0	1.1	<50	0.87
trans-1,2-Dichloroethene	100	4.0	4.9	<1.0	8.3	7.8	<1.0	8.0	<50	0.86
Ethylbenzene	700	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<0.2	<50	<0.2
Tetrachloroethene	5.0	<1.0	<1.0	<1.0	3.2	2.7	<1.0	4.2	<50	0.35
1,1,1-Trichloroethane	200	120	100	45	66	100	9.4	93	68	20
Trichloroethene	5.0	22	16	6.6	18	18	<1.0	20	<50	0.70
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<0.2	<50	<0.2

NOTES: ***General Notes on self titled table page.***

DW-1* (IEPA Well No. G01M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-98	May-99	Oct-99	Apr-00	Oct-00 Dx5'	Apr-01	Dec-01	Apr-02	Dec-02
VOCs (µg/L)	**Class I Groundwater Quality Standard**									
1,1-Dichloroethane	700	4.6	2.0	11	26	5.49	0.38	14	0.66	6.7
1,1-Dichloroethene	7.0	1.3	0.44	3.6	6.2	3.9	<0.2	4.8	<0.31	2.2
trans-1,2-Dichloroethene	100	1.4	0.43	2.4	9.5	1.87	<0.2	3.6	<0.25	2.1
Ethylbenzene	700	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.56	<0.51	<0.51
Tetrachloroethene	5.0	0.32	<0.2	1.3	1.7	1.42	<0.2	1.7	<0.27	0.91
1,1,1-Trichloroethane	200	19	9.0	62	85	57.8	2.08	63	3.8	28
Trichloroethene	5.0	0.59	0.22	5.4	8.4	3.41	<2.0	6.4	0.27 J	3.1
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	<1.9	<0.73	<0.73

NOTES: ***General Notes on self titled table page.***
5' = Dilution Factor of 5 for 1,1,1-Trichloroethane

DW-1* (IEPA Well No. G01M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-03	Oct-03	Apr-04	Oct-04 Dx2	Apr-05	Nov-05	May-06 Dx5	Nov-06	May-07
VOCs (µg/L)	**Class I Groundwater Quality Standard**									
1,1-Dichloroethane	700	NA	NA	7.1	3.9	2.0	8.92	4.5	8.7	0.87
1,1-Dichloroethene	7.0	NA	NA	2.6	1.6	1.1	2.36	2.2	3.5	0.46
trans-1,2-Dichloroethene	100	NA	NA	2.0	1.5	0.82	2.93	1.7	3.1	0.33
Ethylbenzene	700	NA	NA	<3.4	<1.0	<0.51	<2.0	<2.6	<0.51	<0.51
Tetrachloroethene	5.0	NA	NA	<1.8	0.89	0.47	<2.0	<1.4	1.7	0.21 J
1,1,1-Trichloroethane	200	NA	NA	35	19	12	26.4	22	31	4.7
Trichloroethene	5.0	NA	NA	3.2 J	1.9 J	1.0 J	2.73	1.5	3.0	0.25
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NA	NA	<4.9	<1.5	<0.73	<6.0	<3.6	<0.73	<0.73

NOTES: ***General Notes on self titled table page.***
NA = Not Available (bailer lodged in well casing)

DW-1* (IEPA Well No. G01M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-07	May-08	Nov-08	Apr-09	Oct-09	Apr-10	Oct-10	Apr-11	Oct-11
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	1.1	0.67	0.69	<0.50	<0.50	<0.70	<1.0	<0.70	2.3
1,1-Dichloroethene	7.0	<0.31	0.52	0.71	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	100	0.35	<0.25	<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	700	<0.51	<0.51	<0.51	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	5.0	0.26 J	<0.27	<0.27	<0.25	<0.25	<0.30	<1.0	<0.39	0.53
1,1,1-Trichloroethane	200	5.2	3.3	5.2	<0.25	<0.25	1.6	<1.0	1.0	9.6
Trichloroethene	5.0	0.38	<0.24	0.34	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<0.73	<0.73	<0.73	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES: ***General Notes on self titled table page.***

DW-1* (IEPA Well No. G01M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-12	Oct-12	Apr-13	Oct-13					
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	4.2	10.2	13.6	2.0					
1,1-Dichloroethene	7.0	2.7	1.9	3.7	1.4					
trans-1,2-Dichloroethene	100	1.5	2.5	3.0	0.68 J					
Ethylbenzene	700	<1.0	<1.0	<1.0	<1.0					
Tetrachloroethene	5.0	<1.0	<1.0	2.2	<1.0					
1,1,1-Trichloroethane	200	12.2	14.0	19.1	3.6					
Trichloroethene	5.0	<1.0	<1.0	0.80 J	<1.0					
Vinyl Chloride	2.0	<1.0	<1.0	<1.0	<1.0					
Xylenes (Total)	10,000	<1.0	<1.0	<1.0	<1.0					

NOTES: ***General Notes on self titled table page.***

DW-3* (IEPA Well No. G03M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Jan-95	Apr-95	Jul-95	Nov-95	Apr-96	Oct-96	Apr-97	Oct-97	Apr-98
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	6.0	4.9	5.3	6.4	8.9	24	27	18.0	32
1,1-Dichloroethene	7.0	8.0	5.3	<1.0	<1.0	5	9.2	11	6.0	8.6
trans-1,2-Dichloroethene	100	<1.0	<1.0	<1.0	<1.0	1.7	5.7	5.3	<5.0	6.6
Ethylbenzene	700	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<0.2	<5.0	<0.2
Tetrachloroethene	5.0	<1.0	<1.0	<1.0	<1.0	0.58	<1.0	0.84	<5.0	0.84
1,1,1-Trichloroethane	200	50	41	61	59	44	61	46	44	81
Trichloroethene	5.0	210	150	190	180	210	320 L	210	220	290
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<0.2	<5.0	<0.2

NOTES: ***General Notes on self titled table page.***

DW-3* (IEPA Well No. G03M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-98	May-99	Oct-99	Apr-00	Oct-00 Dx5',x50'	Apr-01 Dx25	Dec-01 Dx33.33	Apr-02	Dec-02 Dx4
VOCs (µg/L)	**Class I Groundwater Quality Standard**									
1,1-Dichloroethane	700	78	53	160	62	75.5	68.0	62	48.0	38
1,1-Dichloroethene	7.0	**16**	**16**	**26**	**14**	**10.2**	**12.2**	**13**	**8.1**	5.9
trans-1,2-Dichloroethene	100	20	18	33	17	16.6	23.1	19	12	9.8
Ethylbenzene	700	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 9.3	<5.1	<2.0
Tetrachloroethene	5.0	2.0	2.3	3.6	2.1	1.87	1.47	< 12	<2.7	2.3
1,1,1-Trichloroethane	200	110	90	200	110	74.4	56.0	61	56	44
Trichloroethene	5.0	**540**	**400**	**1000**	**460**	**397**	**271**	**330**	**290**	**240**
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	0.93 B	1.2	1.2	1.6	0.91	0.66	< 32	<7.3	<2.9

NOTES: ***General Notes on self titled table page.***
5',50' = Dilution Factor of 5 for 1,1,1-Trichloroethane and 50 for Trichloroethene

DW-3* (IEPA Well No. G03M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-03 Dx10	Oct-03 Dx4'	Apr-04	Oct-04 Dx10	Apr-05 Dx4	Nov-05	May-06 Dx5	Nov-06 Dx4'	May-07 Dx10
VOCs (µg/L)	**Class I Groundwater Quality Standard**									
1,1-Dichloroethane	700	25	21	27.0	25	22	26.8	26	23	27
1,1-Dichloroethene	7.0	5.8	4.0	4.9	4.8	2.0	4.29	2.7	3.1	3.4
trans-1,2-Dichloroethene	100	7.0	4.7	6.0	7.2	5.5	7.37	4.7	4.9	7.6
Ethylbenzene	700	<5.1	<0.51	<3.9	<5.1	<2.0	<2.0	<2.6	<0.51	<5.1
Tetrachloroethene	5.0	<2.7	1.5	<2.1	<2.7	1.8	3.59 B	1.8	1.3	<2.7
1,1,1-Trichloroethane	200	30	24	31	24	23	24	17	12	12
Trichloroethene	5.0	**190**	**130**	**170**	**200**	**170**	**214**	**150**	**130**	**170**
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<7.3	0.57 J	<5.6	<7.3	<2.9	<6.0	<3.6	<0.73	<7.3

NOTES: ***General Notes on self titled table page.***
4' = Dilution Factor of 4 for Trichloroethene

DW-3* (IEPA Well No. G03M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-07 Dx10'	May-08 Dx10'	Nov-08 Dx20'	Apr-09	Oct-09 Dx5'	Apr-10 Dx5'	Oct-10 Dx5'	Apr-11 Dx5'	Oct-11 Dx5'
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	31	34	23	34.5	39.2	32.1	34.3	32.9	24.4
1,1-Dichloroethene	7.0	5.1	4.4	3.8	4.5	3.1	4.7	5.0	4.2	4.0
trans-1,2-Dichloroethene	100	10	10	7.9	12.2	8.8	11.4	16.7	10.6	9.7
Ethylbenzene	700	<0.51	<0.51	<0.51	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	5.0	2.5	1.7	1.5	2.6	1.8	2.9	2.4	1.6	2.6
1,1,1-Trichloroethane	200	20	14	11	10.7	18.6	15.6	14.7	13.3	14.8
Trichloroethene	5.0	310	310	320	397	398	505	404	327	473
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<0.73	<0.73	<0.73	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES: ***General Notes on self titled table page.***
20' = Dilution Factor of 20 for Trichloroethene
5' = Dilution Factor of 5 for Trichloroethene

DW-3* (IEPA Well No. G03M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-12 Dx5'	Oct-12	Apr-13 Dx2	Oct-13 Dx20'					
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	23.0	26.9	30.9	28.6					
1,1-Dichloroethene	7.0	4.1	3.1	7.5	3.5					
trans-1,2-Dichloroethene	100	7.6	6.8	7.9	9.9					
Ethylbenzene	700	<1.0	<1.0	<2.0	<1.0					
Tetrachloroethene	5.0	1.4	1.3	3.6	1.5					
1,1,1-Trichloroethane	200	10.5	8.4	12.4	7.3					
Trichloroethene	5.0	356	390	494	457					
Vinyl Chloride	2.0	<1.0	<1.0	2.3	1.0					
Xylenes (Total)	10,000	<1.0	<1.0	<2.0	<1.0					

NOTES: ***General Notes on self titled table page.***
5' = Dilution Factor of 5 for Trichloroethene
20' = Dilution Factor of 20 for Trichloroethene

DW-5[GMZ] (IEPA Well No. G05M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Jan-95	Apr-95	Jul-95	Nov-95	Apr-96	Oct-96	Apr-97	Oct-97	Apr-98
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,1-Dichloroethene	7.0	NS	NS	NS	NS	NS	NS	NS	NS	NS
trans-1,2-Dichloroethene	100	NS	NS	NS	NS	NS	NS	NS	NS	NS
Ethylbenzene	700	NS	NS	NS	NS	NS	NS	NS	NS	NS
Tetrachloroethene	5.0	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,1,1-Trichloroethane	200	NS	NS	NS	NS	NS	NS	NS	NS	NS
Trichloroethene	5.0	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NS	NS	NS	NS	NS	NS	NS	NS	NS

NOTES: ***General Notes on self titled table page.***
NS = Not Sampled (well was not included in the Groundwater Monitoring System)

DW-5[GMZ] (IEPA Well No. G05M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-98	May-99	Oct-99	Apr-00	Oct-00	Apr-01	Dec-01	Apr-02	Dec-02
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,1-Dichloroethene	7.0	NS	NS	NS	NS	NS	NS	NS	NS	NS
trans-1,2-Dichloroethene	100	NS	NS	NS	NS	NS	NS	NS	NS	NS
Ethylbenzene	700	NS	NS	NS	NS	NS	NS	NS	NS	NS
Tetrachloroethene	5.0	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,1,1-Trichloroethane	200	NS	NS	NS	NS	NS	NS	NS	NS	NS
Trichloroethene	5.0	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NS	NS	NS	NS	NS	NS	NS	NS	NS

NOTES: ***General Notes on self titled table page.***
NS = Not Sampled (well was not included in the Groundwater Monitoring System)

DW-5[GMZ] (IEPA Well No. G05M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-03	Oct-03	Apr-04	Oct-04	Apr-05	Nov-05	May-06	Nov-06	May-07
VOCs (µg/L)	**Class I Groundwater Quality Standard**									
1,1-Dichloroethane	700	NS	NS	NS	NS	NS	NS	NS	NS	<0.29
1,1-Dichloroethene	7.0	NS	NS	NS	NS	NS	NS	NS	NS	<0.31
trans-1,2-Dichloroethene	100	NS	NS	NS	NS	NS	NS	NS	NS	<0.25
Ethylbenzene	700	NS	NS	NS	NS	NS	NS	NS	NS	<0.51
Tetrachloroethene	5.0	NS	NS	NS	NS	NS	NS	NS	NS	<0.27
1,1,1-Trichloroethane	200	NS	NS	NS	NS	NS	NS	NS	NS	<0.30
Trichloroethene	5.0	NS	NS	NS	NS	NS	NS	NS	NS	<0.24
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NS	NS	NS	NS	NS	NS	NS	NS	<0.73

NOTES: ***General Notes on self titled table page.***
NS = Not Sampled (well was not included in the Groundwater Monitoring System)

DW-5[GMZ] (IEPA Well No. G05M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-07	May-08	Nov-08	Apr-09	Oct-09	Apr-10	Oct-10	Apr-11	Oct-11
VOCs (µg/L)	**Class I Groundwater Quality Standard**									
1,1-Dichloroethane	700	<0.29	<0.29	<0.29	<0.50	<0.50	<0.70	<1.0	<0.70	<0.70
1,1-Dichloroethene	7.0	<0.31	<0.31	<0.31	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	100	<0.25	<0.25	<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	700	<0.51	<0.51	<0.51	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	5.0	<0.27	<0.27	<0.27	<0.25	<0.25	<0.30	<1.0	<0.39	<0.30
1,1,1-Trichloroethane	200	<0.30	<0.30	<0.30	<0.25	<0.25	<0.30	<1.0	<0.35	<0.30
Trichloroethene	5.0	<0.24	<0.24	<0.24	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<0.73	<0.73	<0.73	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES: ***General Notes on self titled table page.***

DW-5[GMZ] (IEPA Well No. G05M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-12	Oct-12	Apr-13	Oct-13					
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	<1.0	<1.0	<1.0	<1.0					
1,1-Dichloroethene	7.0	<1.0	<1.0	<1.0	<1.0					
trans-1,2-Dichloroethene	100	<1.0	<1.0	<1.0	<1.0					
Ethylbenzene	700	<1.0	<1.0	<1.0	<1.0					
Tetrachloroethene	5.0	<1.0	<1.0	<1.0	<1.0					
1,1,1-Trichloroethane	200	<1.0	<1.0	<1.0	<1.0					
Trichloroethene	5.0	<1.0	<1.0	<1.0	<1.0					
Vinyl Chloride	2.0	<1.0	<1.0	<1.0	<1.0					
Xylenes (Total)	10,000	<1.0	<1.0	<1.0	<1.0					

NOTES: ***General Notes on self titled table page.***

DW-8 (IEPA Well No. G08M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Jan-95	Apr-95	Jul-95	Nov-95	Apr-96	Oct-96	Apr-97	Oct-97	Apr-98
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	13	8.0	11	NA	23	15	32	22	27
1,1-Dichloroethene	7.0	**8.0**	4.0	3.1	NA	5.8	3.5	**7.9**	5.6	5.7
trans-1,2-Dichloroethene	100	2.0	1.9	2.5	NA	7.6	5.6	9.7	8.8	8.5
Ethylbenzene	700	<1.0	<1.0	<1.0	NA	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	5.0	<1.0	<1.0	<1.0	NA	1.6	1.3	1.6	1.4	1.8
1,1,1-Trichloroethane	200	48	30	44	NA	53	36	42	42	63
Trichloroethene	5.0	**92**	**50**	**38**	NA	**74**	**19**	**30**	**15**	**17**
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<1.0	<1.0	<1.0	NA	<0.2	<0.2	<0.2	<0.2	<0.2

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well dry or insufficient water volume)

DW-8 (IEPA Well No. G08M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-98	May-99	Oct-99	Apr-00	Oct-00	Apr-01	Dec-01	Apr-02	Dec-02 Dx5
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	19	19	34	25	8.92	13.6	19	14	15
1,1-Dichloroethene	7.0	4.4	3.5	6.6	4.3	1.87	1.97	2.5	<3.1	<1.6
trans-1,2-Dichloroethene	100	9.4	5.4	7.9	5.2	2.16	1.84	1.8	<2.5	<1.2
Ethylbenzene	700	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.28	<5.1	<2.6
Tetrachloroethene	5.0	1.2	0.97	1.8	1.2	0.64	0.48	0.70	<2.7	<1.4
1,1,1-Trichloroethane	200	36	42	36	40	17.7	21.1	19	18 J	13
Trichloroethene	5.0	17	18	26	32	12.7	16.9	31	20 J	19
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	0.69 B	<0.2	<0.2	<0.2	<0.2	<0.6	< 0.95	<7.3	<3.6

NOTES: ***General Notes on self titled table page.***

DW-8 (IEPA Well No. G08M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-03 Dx6.66	Oct-03	Apr-04	Oct-04 Dx4	Apr-05 Dx3.33	Nov-05	May-06 Dx5	Nov-06	May-07 Dx10
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	20	20	14	9.3	9.8	<2.0	25	22	9.1
1,1-Dichloroethene	7.0	2.7	2.6	1.9 J	1.2	<1.0	<2.0	1.3 J	1.6	<3.1
trans-1,2-Dichloroethene	100	2.2	1.8	<1.9	1.1	<0.83	<2.0	1.8	1.6	<2.5
Ethylbenzene	700	<3.4	<0.51	<3.9	<2.0	<1.7	<2.0	<2.6	<0.51	<5.1
Tetrachloroethene	5.0	<1.8	0.93	<2.1	<1.1	<0.90	<2.0	<1.4	0.69	<2.7
1,1,1-Trichloroethane	200	14	17	16	8.7	9.4	9.71	12	6.7	5.2
Trichloroethene	5.0	51	44	22	11	13	50.9	37	31	3.4
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<4.9	<0.73	<5.6	<2.9	<2.4	<6.0	<3.6	<0.73	<7.3

NOTES: ***General Notes on self titled table page.***

DW-8 (IEPA Well No. G08M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE (1)	SAMPLING DATE								
		Oct-07 Dx4	May-08	Nov-08	Apr-09	Oct-09	Apr-10	Oct-10	Apr-11	Oct-11
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	14	8.9	9.6	10.5	11.8	10.0	7.2	11.5	11.9
1,1-Dichloroethene	7.0	<1.2	0.81	0.85	0.84 J	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	100	1.6	1.7	1.5	2.7	<1.0	1.5	1.1	1.3	1.3
Ethylbenzene	700	<2.0	<0.51	<0.51	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	5.0	<1.1	0.47	0.29	0.80	<0.25	<0.30	<1.0	<0.39	0.57
1,1,1-Trichloroethane	200	9.4	6.0	5.8	5.5	2.4	6.5	4.1	6.1	6.2
Trichloroethene	5.0	8.3	3.8	5.3	3.0	3.1	3.5	3.0	3.5	5.5
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<2.9	<0.73	<0.73	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES: ***General Notes on self titled table page.***

DW-8 (IEPA Well No. G08M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-12	Oct-12	Apr-13	Oct-13					
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	8.2	18.6	13.7	7.2					
1,1-Dichloroethene	7.0	<1.0	<1.0	<1.0	<1.0					
trans-1,2-Dichloroethene	100	1.0	1.8	1.1	0.70 J					
Ethylbenzene	700	<1.0	<1.0	<1.0	<1.0					
Tetrachloroethene	5.0	<1.0	<1.0	1.7	<1.0					
1,1,1-Trichloroethane	200	<1.0	5.0	7.0	1.9					
Trichloroethene	5.0	4.5	25.3	7.3	3.2					
Vinyl Chloride	2.0	<1.0	<1.0	<1.0	<1.0					
Xylenes (Total)	10,000	<1.0	<1.0	<1.0	<1.0					

NOTES: ***General Notes on self titled table page.***

DW-10*,GMZ (IEPA Well No. G10M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002–Winnebago County–ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE (1)	SAMPLING DATE								
		Jan-95	Apr-95	Jul-95	Nov-95	Apr-96	Sep-96	Apr-97	Oct-97	Apr-98
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<0.2	1.2	0.52
1,1-Dichloroethene	7.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<0.2	<1.0	<0.2
trans-1,2-Dichloroethene	100	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	0.2	<1.0	<0.2
Ethylbenzene	700	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<0.2	<1.0	<0.2
Tetrachloroethene	5.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<0.2	<1.0	<0.2
1,1,1-Trichloroethane	200	<1.0	2.2	<1.0	<1.0	1.6	<1.0	<0.2	4.1	1.3
Trichloroethene	5.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<0.2	<1.0	<0.2
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	0.57	<1.0	<0.2

NOTES: ***General Notes on self titled table page.***

DW-10*,GMZ (IEPA Well No. G10M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002–Winnebago County–ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE (1)	SAMPLING DATE								
		Oct-98	May-99	Oct-99	Apr-00	Oct-00	Apr-01	Dec-01	Apr-02	Dec-02
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	1.9	0.52	0.5	0.49	<0.2	<0.2	< 0.20	<0.29	<0.29
1,1-Dichloroethene	7.0	0.24	<0.2	<0.2	0.44	<0.2	<0.2	< 0.20	<0.31	<0.31
trans-1,2-Dichloroethene	100	0.53	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.27	<0.25	<0.25
Ethylbenzene	700	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.28	<0.51	<0.51
Tetrachloroethene	5.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.36	<0.27	<0.27
1,1,1-Trichloroethane	200	3.7	2.6	2.8	1.8	0.6	<2.0	0.27	0.33 J	<0.32
Trichloroethene	5.0	<0.2	<0.2	0.26	<0.2	<0.2	<2.0	< 0.22	<2.0	<0.24
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	< 0.95	<0.73	<0.73

NOTES: ***General Notes on self titled table page.***

DW-10*,GMZ (IEPA Well No. G10M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE (1)	SAMPLING DATE								
		Apr-03	Oct-03	Apr-04	Oct-04	Apr-05	Nov-05	May-06	Nov-06	May-07
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	<0.29	0.26 J	0.27 J	<0.29	<0.29	<2.0	<0.29	<0.29	<0.29
1,1-Dichloroethene	7.0	<0.31	<0.31	<0.31	<0.31	<0.31	<2.0	<0.31	<0.31	<0.31
trans-1,2-Dichloroethene	100	<0.25	<0.25	<0.25	<0.25	<0.25	<2.0	<0.25	<0.25	<0.25
Ethylbenzene	700	<0.51	<0.51	<0.51	<0.51	<0.51	<2.0	<0.51	<0.51	<0.51
Tetrachloroethene	5.0	<0.27	<0.27	<0.27	<0.27	<0.27	<2.0	<0.27	<0.27	<0.27
1,1,1-Trichloroethane	200	0.96 J	3.1	4.3	<0.32	1.4 J	<2.0	1.7	0.85	<0.30
Trichloroethene	5.0	<2.0	0.38	0.54 J	<0.24	<2.0	<2.0	<0.24	<0.24	<0.24
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<0.73	<0.73	<0.73	<0.73	<0.73	<6.0	<0.73	<0.73	<0.73

NOTES: ***General Notes on self titled table page.***

DW-10*,GMZ (IEPA Well No. G10M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE (1)	SAMPLING DATE								
		Oct-07	Apr-08	Nov-08	Apr-09	Oct-09	Apr-10	Oct-10	Apr-11	Oct-11
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	<0.29	<0.29	<0.29	<0.50	<0.50	<0.70	<1.0	<0.70	<0.70
1,1-Dichloroethene	7.0	<0.31	<0.31	<0.31	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	100	<0.25	<0.25	<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	700	<0.51	<0.51	<0.51	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	5.0	<0.27	<0.27	<0.27	<0.25	<0.25	<0.30	<1.0	<0.39	<0.30
1,1,1-Trichloroethane	200	0.24 J	<0.30	<0.30	<0.25	<0.25	<0.30	<1.0	<0.35	<0.30
Trichloroethene	5.0	<0.24	<0.24	<0.24	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<0.73	<0.73	<0.73	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES: ***General Notes on self titled table page.***

DW-10*,GMZ (IEPA Well No. G10M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002–Winnebago County–ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE (1)	SAMPLING DATE								
		Apr-12	Oct-12	Apr-13	Nov-13					
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	<1.0	<1.0	<1.0	1.3					
1,1-Dichloroethene	7.0	<1.0	<1.0	<1.0	<1.0					
trans-1,2-Dichloroethene	100	<1.0	<1.0	<1.0	<1.0					
Ethylbenzene	700	<1.0	<1.0	<1.0	<1.0					
Tetrachloroethene	5.0	<1.0	<1.0	<1.0	<1.0					
1,1,1-Trichloroethane	200	<1.0	<1.0	3.7	<1.0					
Trichloroethene	5.0	<1.0	<1.0	<1.0	<1.0					
Vinyl Chloride	2.0	<1.0	<1.0	<1.0	<1.0					
Xylenes (Total)	10,000	<1.0	<1.0	<1.0	<1.0					

NOTES: ***General Notes on self titled table page.***

DW-11[GMZ] (IEPA Well No. G11M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Jan-95	Apr-95	Jul-95	Nov-95	Apr-96	Sep-96	Apr-97	Oct-97	Apr-98
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	3.0	2.4	3.2	3.0	1.5	3.0	3.9	3.0	3.8
1,1-Dichloroethene	7.0	2.0	<1.0	1.1	<0.2	0.41	0.72	0.89	0.79	0.58
trans-1,2-Dichloroethene	100	<1.0	<1.0	<1.0	<0.2	0.53	1.0	1.1	1.2	1.0
Ethylbenzene	700	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20
Tetrachloroethene	5.0	<1.0	<1.0	<1.0	<0.2	<0.2	0.27	0.21	0.21	<0.20
1,1,1-Trichloroethane	200	13	11	19	15	5.0	7.8	8.3	6.2	8.7
Trichloroethene	5.0	25	20	20	16	7.1	6.8	7.7	5.3	5.2
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.2	0.20	<0.2

NOTES: ***General Notes on self titled table page.***

DW-11[GMZ] (IEPA Well No. G11M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE (1)	SAMPLING DATE								
		Oct-98	May-99	Oct-99	Apr-00	Oct-00	Apr-01	Dec-01	Apr-02	Dec-02
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	4.7	4.1	13	7.5	4.25	4.45	5.5	4.8	3.4
1,1-Dichloroethene	7.0	0.87	0.66	2.4	1.3	0.76	0.67	0.73	0.92	0.49
trans-1,2-Dichloroethene	100	1.5	1.0	3.0	2.1	0.95	0.80	0.69	0.51	0.4
Ethylbenzene	700	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.28	<1.0	<0.51
Tetrachloroethene	5.0	<0.2	0.23	0.63	0.41	0.22	<0.2	< 0.36	<0.54	<0.27
1,1,1-Trichloroethane	200	8.4	9.8	23	13	7.8	7.99	6.2	6.5	3.9
Trichloroethene	5.0	4.4	5.8	19	13	6.56	6.70	9.4	11	6.8
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	< 0.95	<1.5	<0.73

NOTES: ***General Notes on self titled table page.***

DW-11[GMZ] (IEPA Well No. G11M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-03 Dx2	Oct-03 Dx2	Apr-04	Oct-04	Apr-05	Nov-05	May-06	Nov-06	May-07
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	4.3	4.5	3.8	2.4	3.1	2.74	2.0	1.5	2.4
1,1-Dichloroethene	7.0	0.70	<0.62	<0.62	0.26 J	<0.31	<2.0	<0.31	<0.31	0.19 J
trans-1,2-Dichloroethene	100	0.56	0.41 J	0.40 J	0.25	<0.25	<2.0	0.19 J	0.27	0.28
Ethylbenzene	700	<1.0	<1.0	<1.0	<0.51	<0.51	<2.0	<0.51	<0.51	<0.51
Tetrachloroethene	5.0	<0.54	<0.54	<0.54	<0.27	0.20 J	<2.0	<0.27	<0.27	<0.27
1,1,1-Trichloroethane	200	3.9 J	3.5 J	4.4	3.3	3.2	2.79	2.4	1.8	2.1
Trichloroethene	5.0	9.1	8.2	8.4	4.1	5.7	5.68	2.8	3.2	2.7
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<1.5	<1.5	<1.5	<0.73	<0.73	<6.0	<0.73	<0.73	<0.73

NOTES: ***General Notes on self titled table page.***

DW-11[GMZ] (IEPA Well No. G11M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE (1)	SAMPLING DATE								
		Oct-07	Apr-08	Nov-08	Apr-09	Oct-09	Apr-10	Oct-10	Apr-11	Oct-11
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	2.1	1.1	2.8	1.9	4.3	2.1	1.9	2.4	3.3
1,1-Dichloroethene	7.0	<0.31	<0.31	0.38	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	100	0.31	0.20 J	0.43	0.94 J	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	700	<0.51	<0.51	<0.51	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	5.0	<0.27	<0.27	<0.27	<0.25	<0.25	<0.30	<1.0	<0.39	<0.30
1,1,1-Trichloroethane	200	2.2	0.95	1.9	0.38	2.3	2.1	1.5	1.5	3.3
Trichloroethene	5.0	2.8	1.3	2.5	2.1	2.1	1.3	1.5	1.7	2.8
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<0.73	<0.73	<0.73	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES: ***General Notes on self titled table page.***

DW-11[GMZ] (IEPA Well No. G11M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-12	Oct-12	Apr-13	Oct-13					
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	2.0	2.4	3.3	2.1					
1,1-Dichloroethene	7.0	<1.0	<1.0	<1.0	<1.0					
trans-1,2-Dichloroethene	100	<1.0	<1.0	<1.0	<1.0					
Ethylbenzene	700	<1.0	<1.0	<1.0	<1.0					
Tetrachloroethene	5.0	<1.0	<1.0	1.4	<1.0					
1,1,1-Trichloroethane	200	<1.0	<1.0	4.2	<1.0					
Trichloroethene	5.0	2.0	<1.0	2.9	2.1					
Vinyl Chloride	2.0	<1.0	<1.0	<1.0	<1.0					
Xylenes (Total)	10,000	<1.0	<1.0	<1.0	<1.0					

NOTES: ***General Notes on self titled table page.***

DW-12[GMZ] (IEPA Well No. G12M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Jan-95	Apr-95	Jul-95	Nov-95	Apr-96	Oct-96	Apr-97	Oct-97	Apr-98
VOCs (µg/L)	**Class I Groundwater Quality Standard**									
1,1-Dichloroethane	700	NI	NI	NI	NI	NI	NI	NI	NI	NI
1,1-Dichloroethene	7.0	NI	NI	NI	NI	NI	NI	NI	NI	NI
trans-1,2-Dichloroethene	100	NI	NI	NI	NI	NI	NI	NI	NI	NI
Ethylbenzene	700	NI	NI	NI	NI	NI	NI	NI	NI	NI
Tetrachloroethene	5.0	NI	NI	NI	NI	NI	NI	NI	NI	NI
1,1,1-Trichloroethane	200	NI	NI	NI	NI	NI	NI	NI	NI	NI
Trichloroethene	5.0	NI	NI	NI	NI	NI	NI	NI	NI	NI
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NI	NI	NI	NI	NI	NI	NI	NI	NI

NOTES: ***General Notes on self titled table page.***
NI = Not Installed (well was not required)

DW-12[GMZ] (IEPA Well No. G12M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-98	May-99	Oct-99	Apr-00	Oct-00	Apr-01	Dec-01	Apr-02	Dec-02
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NI	NI	NI	NI	NI	NI	NI	NI	NI
1,1-Dichloroethene	7.0	NI	NI	NI	NI	NI	NI	NI	NI	NI
trans-1,2-Dichloroethene	100	NI	NI	NI	NI	NI	NI	NI	NI	NI
Ethylbenzene	700	NI	NI	NI	NI	NI	NI	NI	NI	NI
Tetrachloroethene	5.0	NI	NI	NI	NI	NI	NI	NI	NI	NI
1,1,1-Trichloroethane	200	NI	NI	NI	NI	NI	NI	NI	NI	NI
Trichloroethene	5.0	NI	NI	NI	NI	NI	NI	NI	NI	NI
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NI	NI	NI	NI	NI	NI	NI	NI	NI

NOTES: ***General Notes on self titled table page.***
NI = Not Installed (well was not required)

DW-12[GMZ] (IEPA Well No. G12M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-03	Oct-03	Apr-04	Oct-04	Apr-05	Nov-05	May-06	Nov-06	May-07
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	NI	NI	NI	NI	NI	NI	NI	1.8	8.5
1,1-Dichloroethene	7.0	NI	NI	NI	NI	NI	NI	NI	<1.0	0.66
trans-1,2-Dichloroethene	100	NI	NI	NI	NI	NI	NI	NI	<1.0	0.81
Ethylbenzene	700	NI	NI	NI	NI	NI	NI	NI	<1.0	<0.51
Tetrachloroethene	5.0	NI	NI	NI	NI	NI	NI	NI	<1.0	0.35
1,1,1-Trichloroethane	200	NI	NI	NI	NI	NI	NI	NI	<1.0	6.2
Trichloroethene	5.0	NI	NI	NI	NI	NI	NI	NI	4.3	1.1
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	NI	NI	NI	NI	NI	NI	NI	<1.0	<0.73

NOTES: ***General Notes on self titled table page.***
NI = Not Installed (well was not required)

DW-12[GMZ] (IEPA Well No. G12M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-07 Dx4	Apr-08	Jan-09 Dx2	Apr-09	Oct-09	Apr-10	Oct-10	Apr-11	Oct-11
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	11	9.0	6.4	10.4	12.4	12.7	10.4	11.4	11
1,1-Dichloroethene	7.0	1.0 J	0.43	<0.62	0.64 J	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	100	1.2	1.1	0.91	2.3	<1.0	1.8	1.5	1.1	<1.0
Ethylbenzene	700	<2.0	<0.51	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	5.0	<1.1	0.46	<0.54	0.85	<0.25	0.67	<1.0	<0.39	0.67
1,1,1-Trichloroethane	200	8.3	5.0	3.8	5.3	2.2	8.0	5.7	5.0	6.1
Trichloroethene	5.0	**15**	**7.1**	**5.8**	**7.0**	**6.5**	**7.2**	**6.6**	**7.6**	**9.9**
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<2.9	<0.73	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES: ***General Notes on self titled table page.***

DW-12[GMZ] (IEPA Well No. G12M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-12	Oct-12	Apr-13	Oct-13					
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	6.6	4.0	3.8	5.5					
1,1-Dichloroethene	7.0	<1.0	<1.0	<1.0	<1.0					
trans-1,2-Dichloroethene	100	<1.0	<1.0	<1.0	0.79 J					
Ethylbenzene	700	<1.0	<1.0	<1.0	<1.0					
Tetrachloroethene	5.0	<1.0	<1.0	1.5	<1.0					
1,1,1-Trichloroethane	200	<1.0	3.5	4.8	1.7					
Trichloroethene	5.0	8.2	4.1	5.3	6.5					
Vinyl Chloride	2.0	<1.0	<1.0	<1.0	<1.0					
Xylenes (Total)	10,000	<1.0	<1.0	<1.0	<1.0					

NOTES: ***General Notes on self titled table page.***

MW-1000A[GMZ] (IEPA Well No. G31M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Jan-95	Apr-95	Jul-95	Nov-95	Apr-96	Sep-96	Apr-97	Oct-97	Apr-98
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	7.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	700	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	200	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES: ***General Notes on self titled table page.***

MW-1000A[GMZ] (IEPA Well No. G31M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Oct-98	May-99	Oct-99	Apr-00	Oct-00	Apr-01	Dec-01	Apr-02	Dec-02
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	<0.2	<0.2	<0.2	1.0	1.19	0.86	0.28	0.34	<0.29
1,1-Dichloroethene	7.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	< 0.20	<0.31	<0.31
trans-1,2-Dichloroethene	100	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	< 0.27	<0.25	<0.25
Ethylbenzene	700	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	< 0.28	<0.51	<0.51
Tetrachloroethene	5.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	< 0.36	<0.27	<0.27
1,1,1-Trichloroethane	200	<0.2	<0.2	<0.2	0.63	0.39	0.54	< 0.26	<0.32	<0.32
Trichloroethene	5.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	< 0.22	<0.24	<0.24
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<0.2	<0.2	<0.2	<0.2	<0.2	<0.60	< 0.95	<2.0	<0.73

NOTES: ***General Notes on self titled table page.***

MW-1000A[GMZ] (IEPA Well No. G31M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE (1)	SAMPLING DATE								
		Apr-03	Oct-03	Apr-04	Oct-04	Apr-05	Nov-05	May-06	Nov-06	May-07
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	<0.29	<0.29	<0.29	<0.29	<0.29	<2.0	0.94	0.97	0.56
1,1-Dichloroethene	7.0	<0.31	<0.31	<0.31	<0.31	<0.31	<2.0	<0.31	<0.31	<0.31
trans-1,2-Dichloroethene	100	<0.25	<0.25	<0.25	<0.25	<0.25	<2.0	<0.25	<0.25	<0.25
Ethylbenzene	700	<0.51	<0.51	<0.51	<0.51	<0.51	<2.0	<0.51	<0.51	<0.51
Tetrachloroethene	5.0	<0.27	<0.27	<0.27	<0.27	<0.27	<2.0	<0.27	<0.27	<0.27
1,1,1-Trichloroethane	200	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	0.21 J	0.19 J	<0.30
Trichloroethene	5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<0.24	0.21 J	0.33
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<0.73	0.59 J	<0.73	<0.73	<0.73	<6.0	<0.73	<0.73	<0.73

NOTES: ***General Notes on self titled table page.***

MW-1000A[GMZ] (IEPA Well No. G31M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE (1)	SAMPLING DATE								
		Oct-07	Apr-08	Nov-08	Apr-09	Oct-09	Apr-10	Oct-10	Apr-11	Oct-11
VOCs (µg/L)	**Class I Groundwater Quality Standard**									
1,1-Dichloroethane	700	0.79	0.38	<0.29	<0.5	0.52	0.43 J	2.1	<0.70	0.57 J
1,1-Dichloroethene	7.0	<0.31	<0.31	<0.31	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	100	<0.25	<0.25	<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	700	<0.51	<0.51	<0.51	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	5.0	<0.27	<0.27	<0.27	<0.25	<0.25	<0.30	<1.0	<0.39	<0.30
1,1,1-Trichloroethane	200	0.26 J	<0.30	<0.30	<0.25	<0.25	<0.30	<1.0	<0.35	1.9
Trichloroethene	5.0	0.70	0.29	<0.24	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<0.73	<0.73	<0.73	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES: ***General Notes on self titled table page.***

MW-1000A[GMZ] (IEPA Well No. G31M)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-12	Oct-12	Apr-13	Oct-13					
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	<1.0	4.2	2.8	4.6					
1,1-Dichloroethene	7.0	<1.0	<1.0	<1.0	<1.0					
trans-1,2-Dichloroethene	100	<1.0	<1.0	<1.0	<1.0					
Ethylbenzene	700	<1.0	<1.0	<1.0	<1.0					
Tetrachloroethene	5.0	<1.0	<1.0	<1.0	<1.0					
1,1,1-Trichloroethane	200	<1.0	<1.0	3.4	<1.0					
Trichloroethene	5.0	<1.0	<1.0	<1.0	0.50 J					
Vinyl Chloride	2.0	<1.0	<1.0	<1.0	<1.0					
Xylenes (Total)	10,000	<1.0	<1.0	<1.0	<1.0					

NOTES: ***General Notes on self titled table page.***

SP-1[GMZ] (IEPA Well No. G01D)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Jan-95	Apr-95	Jul-95	Nov-95	Apr-96	Oct-96	Apr-97	Oct-97	Apr-98
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	7.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	100	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Ethylbenzene	700	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene	5.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	200	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	5.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<1.0	<1.0	1.9	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

NOTES: ***General Notes on self titled table page.***

SP-1[GMZ] (IEPA Well No. G01D)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE (1)	SAMPLING DATE								
		Oct-98	May-99	Oct-99	Apr-00	Oct-00	Apr-01	Dec-01	Apr-02	Dec-02
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.20	<0.29	<0.29
1,1-Dichloroethene	7.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.20	<0.31	<0.31
trans-1,2-Dichloroethene	100	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.27	<0.25	<0.25
Ethylbenzene	700	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.28	<0.51	<0.51
Tetrachloroethene	5.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.36	<0.27	<0.27
1,1,1-Trichloroethane	200	<0.2	<0.2	<0.2	<0.2	<0.2	<2.0	< 2.0	<2.0	<2.0
Trichloroethene	5.0	<0.2	<0.2	<0.2	<0.2	<0.2	<2.0	< 2.0	<2.0	<2.0
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<0.2	<0.2	<0.2	<0.2	<0.2	<0.6	< 0.95	<0.73	<0.73

NOTES: ***General Notes on self titled table page.***

SP-1[GMZ] (IEPA Well No. G01D)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-03	Oct-03	Apr-04	Oct-04	Apr-05	Nov-05	May-06	Nov-06	May-07
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	<0.29	<0.29	NA	<0.29	<0.29	<2.0	<0.29	<0.29	<0.29
1,1-Dichloroethene	7.0	<0.31	<0.31	NA	<0.31	<0.31	<2.0	<0.31	<0.31	<0.31
trans-1,2-Dichloroethene	100	<0.25	<0.25	NA	<0.25	<0.25	<2.0	<0.25	<0.25	<0.25
Ethylbenzene	700	<0.51	<0.51	NA	<0.51	<0.51	<2.0	<0.51	<0.51	<0.51
Tetrachloroethene	5.0	<0.27	<0.27	NA	<0.27	<0.27	<2.0	<0.27	<0.27	<0.27
1,1,1-Trichloroethane	200	<2.0	<2.0	NA	<2.0	<2.0	<2.0	<0.30	<0.30	<0.30
Trichloroethene	5.0	<2.0	<2.0	NA	<2.0	<2.0	<2.0	<0.24	<0.24	<0.24
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<0.73	<0.73	NA	<0.73	<0.73	<6.0	<0.73	<0.73	<0.73

NOTES: ***General Notes on self titled table page.***
NA = Not Available (monitoring well could not be sampled due to impaired insitu equipment)

SP-1[GMZ] (IEPA Well No. G01D)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE (1)	SAMPLING DATE								
		Oct-07	Apr-08	Nov-08	Apr-09	Oct-09	Apr-10	Oct-10	Apr-11	Oct-11
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	<0.29	<0.29	<0.29	<0.5	<0.50	<0.70	<1.0	<0.70	<0.70
1,1-Dichloroethene	7.0	<0.31	<0.31	<0.31	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	100	<0.25	<0.25	<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	700	<0.51	<0.51	<0.51	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	5.0	<0.27	<0.27	<0.27	<0.25	<0.25	<0.30	<1.0	<0.39	<0.30
1,1,1-Trichloroethane	200	<0.30	<0.30	<0.30	<0.25	<0.25	<0.30	<1.0	<0.35	<0.30
Trichloroethene	5.0	<0.24	<0.24	<0.24	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	2.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylenes (Total)	10,000	<0.73	<0.73	<0.73	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES: ***General Notes on self titled table page.***

SP-1[GMZ] (IEPA Well No. G01D)

SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE								
		Apr-12	Oct-12	Apr-13	Oct-13					
VOCs (µg/L)	Class I Groundwater Quality Standard									
1,1-Dichloroethane	700	<0.70	<1.0	<1.0	<1.0					
1,1-Dichloroethene	7.0	<1.0	<1.0	<1.0	<1.0					
trans-1,2-Dichloroethene	100	<1.0	<1.0	<1.0	<1.0					
Ethylbenzene	700	<1.0	<1.0	<1.0	<1.0					
Tetrachloroethene	5.0	<1.0	<1.0	<1.0	<1.0					
1,1,1-Trichloroethane	200	<1.0	<1.0	<1.0	<1.0					
Trichloroethene	5.0	<1.0	<1.0	<1.0	<1.0					
Vinyl Chloride	2.0	<1.0	<1.0	<1.0	<1.0					
Xylenes (Total)	10,000	<1.0	<1.0	<1.0	<1.0					

NOTES: ***General Notes on self titled table page.***

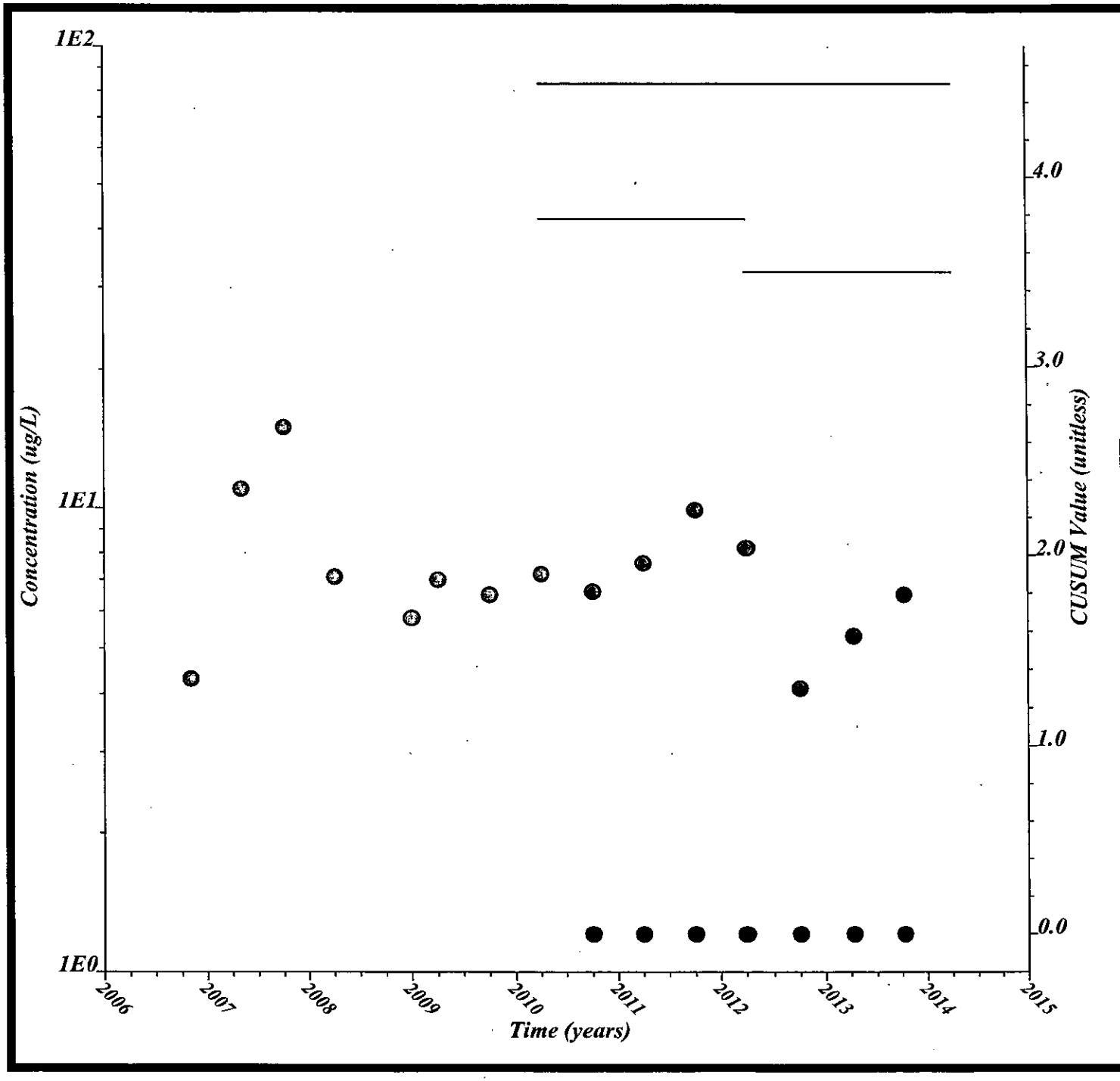
APPENDIX D

STATISTICAL ANALYSIS TABLE, FIGURES, AND REFERENCES

Fourth Quarter 2013
Summary Statistics for Trichloroethene at DW-12^{GMZ}
Clean Harbors-Pecatonica, IL

Statistical Measure	Baseline Data DW-12^{GMZ} Trichloroethene Value	Compliance Data DW-12^{GMZ} Trichloroethene Value
Groundwater Quality Standard (ug/L)	5.0	5.0
Arithmetic Mean (ug/L)	8.0	5.3
Variance ((ug/L)^2)	7.9	1.4
Standard Deviation (ug/L)	2.8	1.2
Coefficient of Skewness (unitless)	1.293	0.000
Coefficient of Excess (unitless)	1.275	-1.500
Minimum (ug/L)	4.3	4.1
Maximum (ug/L)	15.0	6.5
Range (ug/L)	10.7	2.4
Coefficient of Variation (unitless)	0.351	0.226
Number Of Samples	12	3
Students T Upper 95.0% Confidence Interval In the Mean (ug/L)	9.8	8.3
Lands Upper 95.0% Confidence Interval In the Mean (ug/L)	9.4	9.2
Percent Detects	100.0%	100.0%
Median (ug/L)	7.1	5.3
Distribution	Natural Log Normal	N/A
Shewhart Limit (ug/L)	N/A	32.3
Cusum Limit (Unitless)	4.5	4.5

Notes:
N/A = Not Applicable
ug/L = Micrograms per Liter



Legend

- CUSUM Value
- CUSUM Value Non Detect
- Shewhart Value
- Shewhart Value Non Detect
- Background Value
- Background Value Non Detect
- CUSUM Limit
- Shewhart Limit

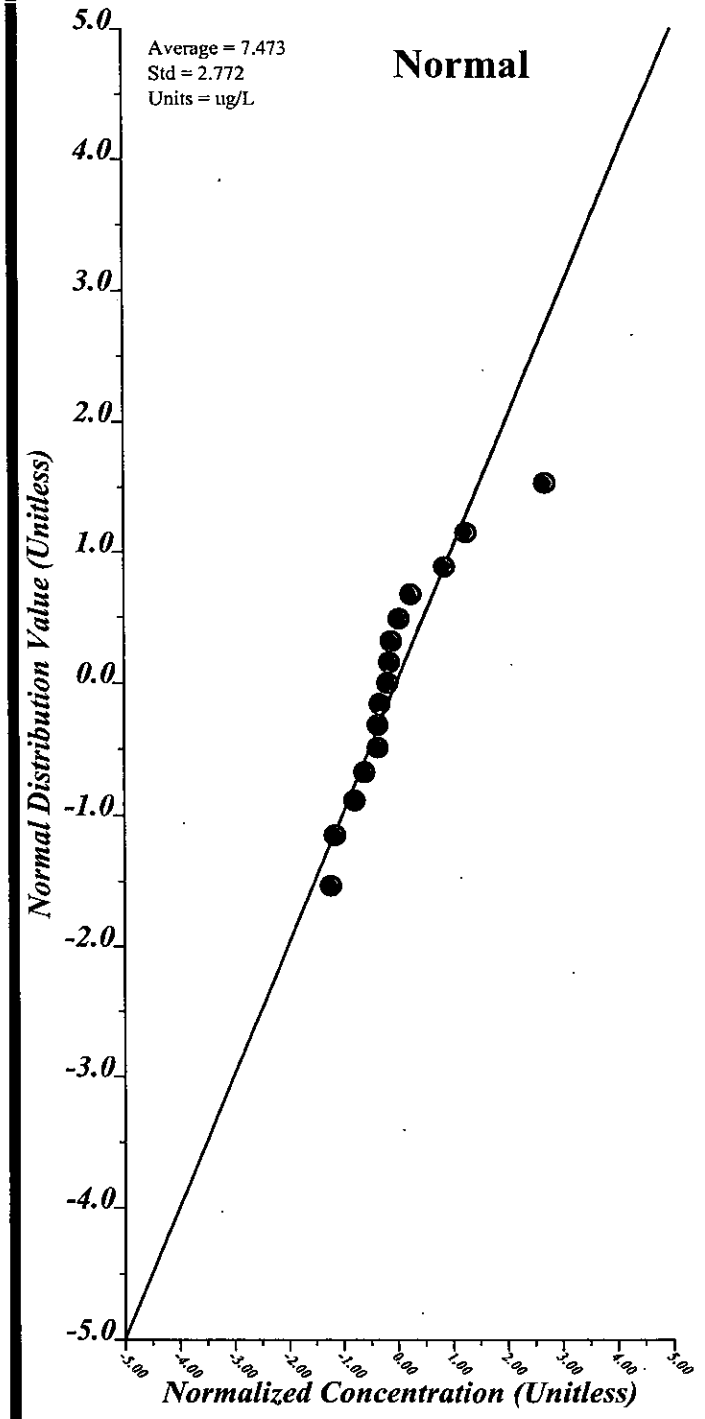
ug/L= micrograms per liter

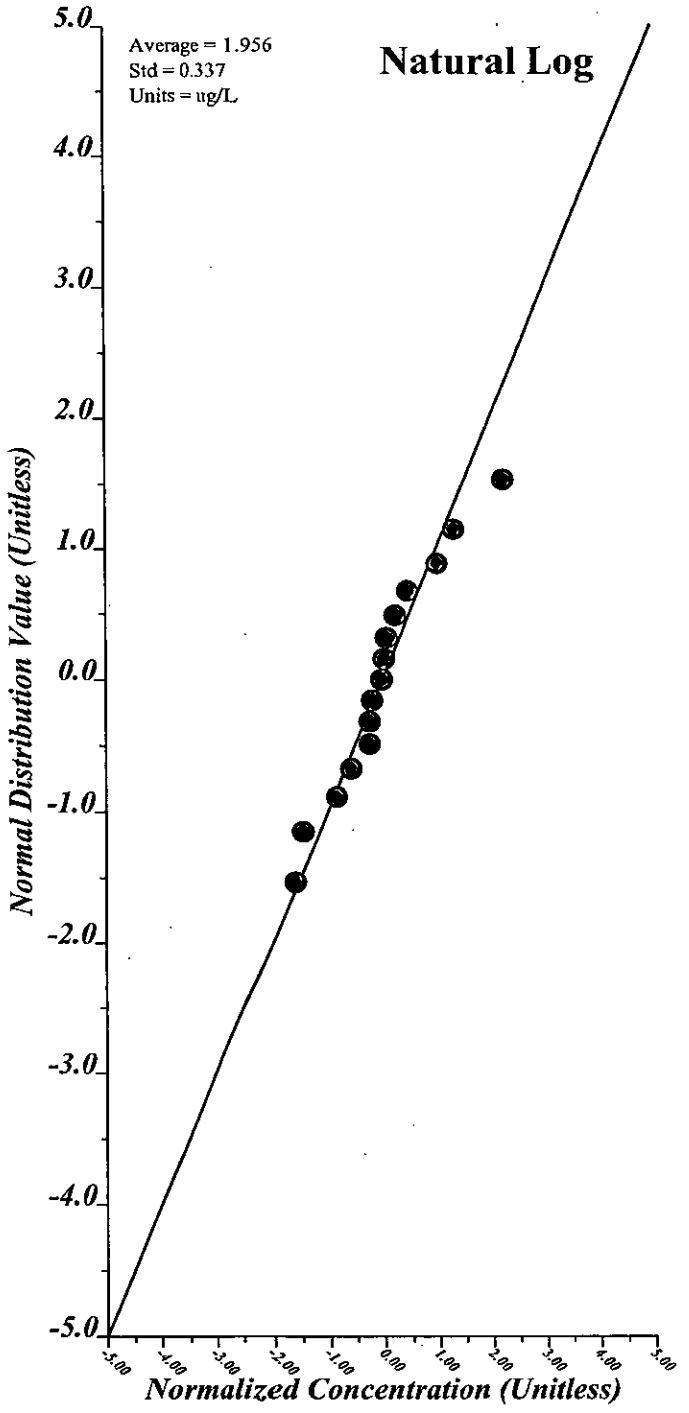
Clean Harbors-Pecatonica, IL

Fourth Quarter 2013 Control Chart for Trichloroethene at DW-12

Drawn by LAWebCC Version 1.3.1 01/13/2014

Leppert Associates





Legend

- Detection
- Non-Detection
- Line of Perfect Normality

Clean Harbors Pecatonica, IL

Fourth Quarter 2013 QQ Plot for Trichloroethene at DW-12

Drawn by LAWebCC Version 1.3.1 01/13/2014

Leppert Associates

References for Statistical Analyses

Gibbons, R.D., 1994. *Statistical Methods for Groundwater Monitoring*. John Wiley & Sons, New York. Pgs 63-67.

Lucas, J.M., 1982. *Combined Shewhart-CUSUM Quality Control Schemes*. Journal of Quality Technology. Vol. 14. Pp.51-59.

USEPA, 2009, *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities Unified Guidance,* Office of Resource Conservation and Recovery, Program Implementation and Information Division, March 2009

SM&A
ST. JOHN - MITTELHAUSER & ASSOCIATES

APPENDIX E

HYDRASLEEVE™ PILOT TEST

APPENDIX E-1

COMPARISON OF GROUNDWATER ANALYTICAL RESULTS FOR BAILER AND HYDRASLEEVE™

O:\'10 Projects\15-10011 Clean Harbors, Pecatonica, IL\
Reports\Semi-Annual\4Q2013 TOC and Cover Pages\
01/15/2014 \MMW

GENERAL NOTES

COMPARISON OF SEMI-ANNUAL GROUNDWATER ANALTICAL RESULTS, BAILER AND HYDRASLEEVE™

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

Nine (9) site-specific Volatile Organic Compound (VOC) constituents were analyzed using USEPA SW846 Method 8260B

General Notes: Analytical parameters and protection objectives per RCRA Part B Permit Condition V.F.3. (12/6/2011)

- (1) = Groundwater protection objective is the Class I Groundwater Quality Standard (35 IAC 620.410)
- * = Agency designated Compliance Point well
- GMZ = Groundwater Management Zone well
- µg/L = micrograms per liter = ppb (parts per billion)
- Dx5 = Dilution factor of 5
- **5** = Bolded and shaded analytical result is above the Groundwater Protection Objective

Sample specific notes on respective sample table

DW-3* (IEPA Well No. G03M)

COMPARISON OF SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS, BAILER AND HYDRASLEEVE™

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE							
		Apr-12		Oct-12		Apr-13		Oct-13	
		Bailer	Sleeve	Bailer	Sleeve	Bailer Dx2	Sleeve	Bailer Dx20'	Sleeve
VOCs (µg/L)	Class I Groundwater Quality Standard								
1,1-Dichloroethane	700	23.0	22.8	26.9	25.5	30.9	16.5	28.6	23.6
1,1-Dichloroethene	7.0	4.1	4.2	3.1	4.3	7.5	1.6	3.5	3.7
trans-1,2-Dichloroethene	100	7.6	10.2	6.8	8.2	7.9	5.1	9.9	8.0
Ethylbenzene	700	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
Tetrachloroethene	5.0	1.4	<1.0	1.3	<1.0	3.6	<1.0	1.5	<1.0
1,1,1-Trichloroethane	200	10.5	8.3	8.4	12.5	12.4	3.5	7.3	9.1
Trichloroethene	5.0	356	308	390	336	494	125	457	279
Vinyl Chloride	2.0	<1.0	<1.0	<1.0	5.0	2.3	2.1	1.0	2.4
Xylenes (Total)	10,000	<1.0	<1.0	<1.0	<1.0	<2.0		<1.0	<1.0

NOTES: ***General Notes on self titled table page.***
5' = Dilution Factor of 5 for Trichloroethene
20' = Dilution Factor of 20 for Trichloroethene

DW-11[GMZ] (IEPA Well No. G11M)

COMPARISON OF SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS, BAILER AND HYDRASLEEVE™

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE							
		Apr-12		Oct-12		Apr-13		Oct-13	
		Bailer	Sleeve	Bailer	Sleeve	Bailer	Sleeve	Bailer	Sleeve
VOCs (µg/L)	Class I Groundwater Quality Standard								
1,1-Dichloroethane	700	2.0	2.1	2.4	2.6	3.3	3.0	2.1	2.3
1,1-Dichloroethene	7.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	700	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	5.0	<1.0	<1.0	<1.0	<1.0	1.4	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	200	<1.0	<1.0	<1.0	<1.0	4.2	<1.0	<1.0	<1.0
Trichloroethene	5.0	2.0	3.3	<1.0	3.3	2.9	1.8	2.1	3.0
Vinyl Chloride	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (Total)	10,000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES: *General Notes on self titled table page.*

DW-12[GMZ] (IEPA Well No. G12M)

COMPARISON OF SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS, BAILER AND HYDRASLEEVE™

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE							
		Apr-12		Oct-12		Apr-13		Oct-13	
		Bailer	Sleeve	Bailer	Sleeve	Bailer	Sleeve	Bailer	Sleeve
VOCs (µg/L)	Class I Groundwater Quality Standard								
1,1-Dichloroethane	700	6.6	<1.0	4.0	<1.0	3.8	<1.0	5.5	<1.0
1,1-Dichloroethene	7.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.79 J	<1.0
Ethylbenzene	700	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	5.0	<1.0	<1.0	<1.0	<1.0	1.5	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	200	<1.0	<1.0	3.5	<1.0	4.8	<1.0	1.7	<1.0
Trichloroethene	5.0	8.2	<1.0	4.1	<1.0	5.3	<1.0	6.5	<1.0
Vinyl Chloride	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (Total)	10,000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES: ***General Notes on self titled table page.***

GDW-3* (IEPA Well No. G03S)

COMPARISON OF SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS, BAILER AND HYDRASLEEVE™

2018000002--Winnebago County–IDL980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE							
		Apr-12		Oct-12		Apr-13		Oct-13	
		Bailer	Sleeve	Bailer	Sleeve	Bailer	Sleeve	Bailer	Sleeve
VOCs (µg/L)	Class I Groundwater Quality Standard								
1,1-Dichloroethane	700	3.9	3.7	6.0	5.3	4.2	4.2	6.8	15.0
1,1-Dichloroethene	7.0	1.1	<1.0	<1.0	<1.0	2.9	<1.0	1.6	3.0
trans-1,2-Dichloroethene	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.70 J
Ethylbenzene	700	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	5.0	2.7	<1.0	1.4	0.79 J	2.8	<1.0	2.3	<1.0
1,1,1-Trichloroethane	200	2.4	<1.0	10.2	3.1	6.8	<1.0	6.4	3.3
Trichloroethene	5.0	3.6	1.8	1.2	<1.0	2.1	<1.0	2.1	0.53 J
Vinyl Chloride	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (Total)	10,000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES: *General Notes on self titled table page.*

GDW-5 (IEPA Well No. G05S)

COMPARISON OF SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS, BAILER AND HYDRASLEEVE™

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE (1)	SAMPLING DATE							
		Apr-12		Oct-12		Apr-13		Oct-13	
		Bailer	Sleeve	Bailer	Sleeve	Bailer Dx2	Sleeve Dx2	Bailer	Sleeve
VOCs (µg/L)	Class I Groundwater Quality Standard								
1,1-Dichloroethane	700	9.1	9.5	8.7	9.2	8.1	7.1	4.2	3.6
1,1-Dichloroethene	7.0	3.6	3.9	3.8	3.8	6.0	<2.0	2.9	2.6
trans-1,2-Dichloroethene	100	4.1	3.7	3.5	3.2	2.6	6.9	3.2	1.7
Ethylbenzene	700	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<1.0	<1.0
Tetrachloroethene	5.0	<1.0	<1.0	<1.0	<1.0	3.0	<2.0	<1.0	0.70 J
1,1,1-Trichloroethane	200	36.1	39.6	27.7	28.1	26.8	10.6	15.9	15.2
Trichloroethene	5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<1.0	<1.0
Vinyl Chloride	2.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<1.0	<1.0
Xylenes (Total)	10,000	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<1.0	<1.0

NOTES: ***General Notes on self titled table page.***

GDW-7 (IEPA Well No. G07S)

COMPARISON OF SEMI-ANNUAL GROUNDWATER ANALYTICAL RESULTS, BAILER AND HYDRASLEEVE™

2018000002--Winnebago County--ILD980502744
Clean Harbors Environmental Services, Inc. / Pecatonica, Illinois

SITE-SPECIFIC PARAMETER	GROUNDWATER PROTECTION OBJECTIVE [1]	SAMPLING DATE							
		Apr-12		Oct-12		Apr-13		Oct-13	
		Bailer	Sleeve	Bailer	Sleeve	Bailer	Sleeve	Bailer	Sleeve
VOCs (µg/L)	Class I Groundwater Quality Standard								
1,1-Dichloroethane	700	3.5	4.4	NA	NA	4.9	3.8	3.6	4.2
1,1-Dichloroethene	7.0	<1.0	1.3	NA	NA	3.2	<1.0	1.6	1.6
trans-1,2-Dichloroethene	100	<1.0	<1.0	NA	NA	<1.0	<1.0	0.61 J	<1.0
Ethylbenzene	700	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	5.0	<1.0	<1.0	NA	NA	2.2	<1.0	0.80 J	1.1
1,1,1-Trichloroethane	200	1.6	4.7	NA	NA	9.8	3.8	4.6	6.0
Trichloroethene	5.0	6.7	9.6	NA	NA	6.2	2.3	4.7	5.6
Vinyl Chloride	2.0	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0
Xylenes (Total)	10,000	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0

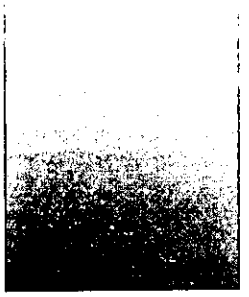
NOTES: ***General Notes on self titled table page.***

APPENDIX E-2

LABORATORY ANALYTICAL REPORT

New England
ACCUTEST
LABORATORIES

10/18/13



Technical Report for

Clean Harbors Environmental

Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL

PE5025672-003

Accutest Job Number: MC25234

Sampling Dates: 10/09/13 - 10/10/13

Report to:

St. John - Mittelhauser & Associates
1401 Branding Avenue Suite 315
Downers Grove, IL 60515
michellew@st-ma.com

ATTN: Michelle Wagner

Total number of pages in report: **21**

Accredited in accordance with nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Reza Pand
Lab Director

Client Service contact: Justin Boucher 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) ISO 17025:2005 (L2235)

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Test results relate only to samples analyzed.

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Sample Summary

Clean Harbors Environmental

Job No: MC25234

Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL
Project No: PE5025672-003

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
MC25234-1	10/09/13	08:53 JTTN	10/11/13	AQ	Ground Water	LES-1310-G03MH
MC25234-2	10/09/13	13:01 JTTN	10/11/13	AQ	Ground Water	LES-1310-G11MH
MC25234-3	10/09/13	14:15 JTTN	10/11/13	AQ	Ground Water	LES-1310-G12MH
MC25234-4	10/10/13	09:28 JTTN	10/11/13	AQ	Ground Water	LES-1310-G05SH
MC25234-5	10/10/13	11:11 JTTN	10/11/13	AQ	Ground Water	LES-1310-G07SH
MC25234-6	10/10/13	13:55 JTTN	10/11/13	AQ	Ground Water	LES-1310-G03SH

ACCUTEST LABORATORIES

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SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Clean Harbors Environmental	**Job No**	MC25234
Site:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL	**Report Date**	10/18/2013 9:20:19 AM

6 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on between 10/09/2013 and 10/10/2013 and were received at Accutest on 10/11/2013 properly preserved, at 1.2 Deg. C and intact. These Samples received an Accutest job number of MC25234. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ	**Batch ID:** MSN3043

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC25236-1MS, MC25236-1MSD were used as the QC samples indicated.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC25234).

Summary of Hits

Job Number: MC25234
Account: Clean Harbors Environmental
Project: Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL
Collected: 10/09/13 thru 10/10/13

3

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC25234-1	LES-1310-G03MH					
1,1-Dichloroethane		23.6	1.0	0.37	ug/l	SW846 8260B
1,1-Dichloroethene		3.7	1.0	0.67	ug/l	SW846 8260B
cis-1,2-Dichloroethene		237	1.0	0.54	ug/l	SW846 8260B
trans-1,2-Dichloroethene		8.0	1.0	0.54	ug/l	SW846 8260B
1,1,1-Trichloroethane		9.1	1.0	0.94	ug/l	SW846 8260B
Trichloroethene		279	1.0	0.45	ug/l	SW846 8260B
Vinyl chloride		2.4	1.0	0.61	ug/l	SW846 8260B
MC25234-2	LES-1310-G11MH					
1,1-Dichloroethane		2.3	1.0	0.37	ug/l	SW846 8260B
cis-1,2-Dichloroethene		14.3	1.0	0.54	ug/l	SW846 8260B
Trichloroethene		3.0	1.0	0.45	ug/l	SW846 8260B
MC25234-3	LES-1310-G12MH					
cis-1,2-Dichloroethene		1.4	1.0	0.54	ug/l	SW846 8260B
MC25234-4	LES-1310-G05SH					
1,1-Dichloroethane		3.6	1.0	0.37	ug/l	SW846 8260B
1,1-Dichloroethene		2.6	1.0	0.67	ug/l	SW846 8260B
cis-1,2-Dichloroethene		192	1.0	0.54	ug/l	SW846 8260B
trans-1,2-Dichloroethene		1.7	1.0	0.54	ug/l	SW846 8260B
Tetrachloroethene		0.70 J	1.0	0.61	ug/l	SW846 8260B
1,1,1-Trichloroethane		15.2	1.0	0.94	ug/l	SW846 8260B
MC25234-5	LES-1310-G07SH					
1,1-Dichloroethane		4.2	1.0	0.37	ug/l	SW846 8260B
1,1-Dichloroethene		1.6	1.0	0.67	ug/l	SW846 8260B
cis-1,2-Dichloroethene		45.4	1.0	0.54	ug/l	SW846 8260B
Tetrachloroethene		1.1	1.0	0.61	ug/l	SW846 8260B
1,1,1-Trichloroethane		6.0	1.0	0.94	ug/l	SW846 8260B
Trichloroethene		5.6	1.0	0.45	ug/l	SW846 8260B
MC25234-6	LES-1310-G03SH					
1,1-Dichloroethane		15.0	1.0	0.37	ug/l	SW846 8260B
1,1-Dichloroethene		3.0	1.0	0.67	ug/l	SW846 8260B
cis-1,2-Dichloroethene		45.8	1.0	0.54	ug/l	SW846 8260B
trans-1,2-Dichloroethene		0.70 J	1.0	0.54	ug/l	SW846 8260B
1,1,1-Trichloroethane		3.3	1.0	0.94	ug/l	SW846 8260B

Summary of Hits

Job Number: MC25234
Account: Clean Harbors Environmental
Project: Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL
Collected: 10/09/13 thru 10/10/13

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Trichloroethene		0.53 J	1.0	0.45	ug/l	SW846 8260B

New England ACCUTEST LABORATORIES

4

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	LES-1310-G03MH		
Lab Sample ID:	MC25234-1	Date Sampled:	10/09/13
Matrix:	AQ - Ground Water	Date Received:	10/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N81482.D	1	10/16/13	AMY	n/a	n/a	MSN3043
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	23.6	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	3.7	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	237	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	8.0	1.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	9.1	1.0	0.94	ug/l	
79-01-6	Trichloroethene	279	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	2.4	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	101%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	LES-1310-G11MH		
Lab Sample ID:	MC25234-2	Date Sampled:	10/09/13
Matrix:	AQ - Ground Water	Date Received:	10/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N81483.D	1	10/16/13	AMY	n/a	n/a	MSN3043
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	2.3	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	14.3	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-01-6	Trichloroethene	3.0	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	85%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	102%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

4.3 4

Client Sample ID:	LES-1310-G12MH		
Lab Sample ID:	MC25234-3	Date Sampled:	10/09/13
Matrix:	AQ - Ground Water	Date Received:	10/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N81484.D	1	10/16/13	AMY	n/a	n/a	MSN3043
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.4	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	102%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	LES-1310-G05SH		
Lab Sample ID:	MC25234-4	Date Sampled:	10/10/13
Matrix:	AQ - Ground Water	Date Received:	10/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N81485.D	1	10/16/13	AMY	n/a	n/a	MSN3043
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	3.6	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	2.6	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	192	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	1.7	1.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	0.70	1.0	0.61	ug/l	J
71-55-6	1,1,1-Trichloroethane	15.2	1.0	0.94	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	102%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

4.5 4

Client Sample ID:	LES-1310-G07SH		
Lab Sample ID:	MC25234-5	Date Sampled:	10/10/13
Matrix:	AQ - Ground Water	Date Received:	10/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N81486.D	1	10/16/13	AMY	n/a	n/a	MSN3043
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	4.2	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	1.6	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	45.4	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	1.1	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	6.0	1.0	0.94	ug/l	
79-01-6	Trichloroethene	5.6	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	101%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

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Client Sample ID:	LES-1310-G03SH		
Lab Sample ID:	MC25234-6	Date Sampled:	10/10/13
Matrix:	AQ - Ground Water	Date Received:	10/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N81487.D	1	10/16/13	AMY	n/a	n/a	MSN3043
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	15.0	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	3.0	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	45.8	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.70	1.0	0.54	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	3.3	1.0	0.94	ug/l	
79-01-6	Trichloroethene	0.53	1.0	0.45	ug/l	J
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	97%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL 508-481-6200 FAX: 508-481-7753
www.accutest.com

PAGE 1 OF 1

FED-EX Tracking #: | Bottle Order Control #:
Accutest Quote #: | Accutest Job #: MC25234

Client / Reporting Information

Company Name: Clean Harbors
Street Address: 42 Longwater Drive
City: Norwell State: MA Zip: 02061
Project Contact: M. Wagner E-mail: michelewost-m.com
Phone #: 847-561-8717 Fax #:
Sampler(s) Name(s): John Tulley Phone #: 781-247-3986

Project Information

Project Name: Pecatonica - Fall 2013
Street: 6125 Pecatonica Rd
City: Pecatonica State: IL Zip:
Project #: PE 5035672-003
Client PO#:
Project Manager: Michelle Wagner

Billing Information (If different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention: PO#:

Requested Analysis (see TEST CODE sheet): VOCs (8260B) Site Specific

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED - Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB - Field Blank; EB - Equipment Blank; RB - Rinse Blank; TB - Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Bottle	VOCs (8260B) Site Specific	LAB USE ONLY
-1	LES-1310-G03MH		10/9/13	0853	JT/TN	GW	3	3									X	
-2	LES-1310-G11MH		10/9/13	1301	JT/TN	GW	3	3									X	
-3	LES-1310-G12MH		10/9/13	1415	JT/TN	GW	3	3									X	
-4	LES-1310-G05SH		10/10/13	0928	JT/TN	GW	3	3									X	
-5	LES-1310-G07SH		10/10/13	1111	JT/TN	GW	3	3									X	
-6	LES-1310-G03SH		10/10/13	1355	JT/TN	GW	3	3									X	
																		4E1,

Turnaround Time (Business days)
- ☐ Std. 10 Business Days
- ☒ Std. 5 Business Days (By Contract only)
- ☐ 5 Day RUSH
- ☐ 3 Day EMERGENCY
- ☐ 2 Day EMERGENCY
- ☐ 1 Day EMERGENCY

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information
- ☐ Commercial "A" (Level 1)
- ☐ Commercial "B" (Level 2)
- ☐ FULLT1 (Level 3+4)
- ☐ CT RCP
- ☐ MA MCP
- ☐ NYASP Category A
- ☐ NYASP Category B
- ☐ State Forms
- ☐ EDD Format
- ☒ Other Contract M. Wagner

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

Comments / Special Instructions
Issue report as a standard report
Cooler @ 4°C
Low detection limits required - see attached table

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 John Tulley	10/10/13 @ 1800	1 FX	2 FX	10-11-13 7:20	2 [illegible]
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # 001 ☐ Intact ☐ Not Intact	Preserved where applicable ☐	On Ice ☒ Cooler Temp. 4.2°C

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MC25234: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC25234 **Client:** CLEAN HARBORS **Immediate Client Services Action Required:** No

Date / Time Received: 10/11/2013 **Delivery Method:** **Client Service Action Required at Login:** No

Project: PECATONICA **No. Coolers:** 1 **Airbill #'s:**

Cooler Security	Y	or N		Y	or N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	or N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	Infared gun	
3. Cooler media:	Ice (bag)	

Quality Control .Preservation	Y	or N	N/A
1. Trip Blank present / cooler:	☐	☐	☑
2. Trip Blank listed on COC:	☐	☐	☑
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☑	☐	☐

Sample Integrity - Documentation	Y	or N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	or N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	or N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Accutest Laboratories
V:508.481.6200

495 Technology Center West, Bldg One
F: 508.481.7753

Marlborough, MA
www.accutest.com

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MC25234: Chain of Custody
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New England ACCUTEST LABORATORIES

GC/MS Volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC25234
Account: CLNHMAN Clean Harbors Environmental
Project: Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3043-MB	N81481.D	1	10/16/13	AMY	n/a	n/a	MSN3043

The QC reported here applies to the following samples: Method: SW846 8260B

MC25234-1, MC25234-2, MC25234-3, MC25234-4, MC25234-5, MC25234-6

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	86%	70-130%
2037-26-5	Toluene-D8	92%	70-130%
460-00-4	4-Bromofluorobenzene	100%	70-130%

Blank Spike Summary

Job Number: MC25234
Account: CLNHMAN Clean Harbors Environmental
Project: Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3043-BS	N81478.D	1	10/16/13	AMY	n/a	n/a	MSN3043

The QC reported here applies to the following samples: Method: SW846 8260B

MC25234-1, MC25234-2, MC25234-3, MC25234-4, MC25234-5, MC25234-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-34-3	1,1-Dichloroethane	50	48.3	97	70-130
75-35-4	1,1-Dichloroethene	50	44.2	88	70-130
156-59-2	cis-1,2-Dichloroethene	50	44.9	90	70-130
156-60-5	trans-1,2-Dichloroethene	50	46.5	93	70-130
100-41-4	Ethylbenzene	50	46.7	93	70-130
127-18-4	Tetrachloroethene	50	49.6	99	70-130
71-55-6	1,1,1-Trichloroethane	50	50.1	100	70-130
79-01-6	Trichloroethene	50	47.1	94	70-130
75-01-4	Vinyl chloride	50	44.1	88	70-130
1330-20-7	Xylene (total)	150	141	94	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	86%	70-130%
2037-26-5	Toluene-D8	90%	70-130%
460-00-4	4-Bromofluorobenzene	89%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC25234
Account: CLNHMAN Clean Harbors Environmental
Project: Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC25236-1MS	N81489.D	1	10/16/13	AMY	n/a	n/a	MSN3043
MC25236-1MSD	N81490.D	1	10/16/13	AMY	n/a	n/a	MSN3043
MC25236-1	N81488.D	1	10/16/13	AMY	n/a	n/a	MSN3043

The QC reported here applies to the following samples: Method: SW846 8260B

MC25234-1, MC25234-2, MC25234-3, MC25234-4, MC25234-5, MC25234-6

CAS No.	Compound	MC25236-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
75-34-3	1,1-Dichloroethane	ND		50	44.9	90	46.0	92	2	70-130/30
75-35-4	1,1-Dichloroethene	ND		50	40.6	81	41.9	84	3	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		50	42.5	85	43.4	87	2	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		50	42.9	86	44.2	88	3	70-130/30
100-41-4	Ethylbenzene	ND		50	45.9	92	46.9	94	2	70-130/30
127-18-4	Tetrachloroethene	ND		50	48.0	96	48.3	97	1	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		50	47.4	95	48.3	97	2	70-130/30
79-01-6	Trichloroethene	ND		50	44.1	88	45.6	91	3	70-130/30
75-01-4	Vinyl chloride	ND		50	38.8	78	40.3	81	4	70-130/30
1330-20-7	Xylene (total)	ND		150	140	93	141	94	1	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	MC25236-1	Limits
1868-53-7	Dibromofluoromethane	87%	88%	86%	70-130%
2037-26-5	Toluene-D8	93%	92%	92%	70-130%
460-00-4	4-Bromofluorobenzene	90%	89%	100%	70-130%

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC25234
Account: CLNHMAN Clean Harbors Environmental
Project: Pecatonica Fall 2013, 6125 North Pecatonica Road, Pecatonica, IL

Method: SW846 8260B Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC25234-1	N81482.D	87.0	93.0	101.0
MC25234-2	N81483.D	85.0	92.0	102.0
MC25234-3	N81484.D	86.0	91.0	102.0
MC25234-4	N81485.D	86.0	93.0	102.0
MC25234-5	N81486.D	86.0	92.0	101.0
MC25234-6	N81487.D	86.0	92.0	97.0
MC25236-1MS	N81489.D	87.0	93.0	90.0
MC25236-1MSD	N81490.D	88.0	92.0	89.0
MSN3043-BS	N81478.D	86.0	90.0	89.0
MSN3043-MB	N81481.D	86.0	92.0	100.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

6.4.1

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