



East Plant Area TSCA Vault Annual Report Calendar Year 2018

GM GPS Bedford Facility
105 GM Drive
Bedford, Indiana
EPA ID# IND006036099

General Motors, LLC

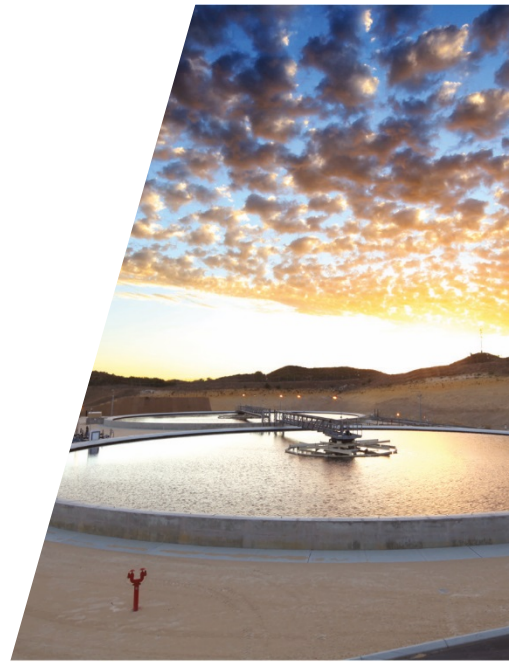




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Terms and Acronyms

| | |
|-------------|---|
| AFOS | above the floor of sump |
| AMSL | above mean sea level |
| Approval(s) | U.S. EPA and IDEM PCB Risk-Based Disposal Approvals |
| CA | Corrective Action |
| CFR | Code of Federal Regulations |
| EI | Environmental Indicator |
| EQ tank | equalization tank |
| Facility | GM GPS Bedford Facility in Bedford, Indiana |
| ft | foot/feet |
| GHD | formerly Conestoga-Rovers & Associates, Inc. |
| GM | General Motors LLC |
| gpm | gallons per minute |
| GSP | Global Propulsion Systems |
| GUS | gravel underdrain system |
| GWTP | Ground Water Treatment Plant |
| HASP | Health and Safety Plan |
| IDEM | Indiana Department of Environmental Management |
| IM | Interim Measure |
| LAR | Leakage Action Rate |
| LCS | leachate collection system |
| LDS | leak detection system |
| mg/L | milligram-per-liter |
| NPDES | National Pollutant Discharge Elimination System |
| PCB | Polychlorinated biphenyl |
| PCP | Post-Closure Plan |
| RA | Removal Action |
| RCRA | Resource Conservation and Recovery Act |
| Report | East Plant Area Vault Annual Monitoring Report Covering the Calendar Year of 2018 |
| SSC | Site Source Control |
| SSC WTP | the on-Facility 300 gallon per minute design capacity water treatment plant |
| TSCA | Toxic Substance Control Act |
| U.S. EPA | United States Environmental Protection Agency |
| Vault | East Plant Area TSCA landfill vault |
| VOCs | volatile organic compounds |
| µg/L | microgram-per-liter |



1. Introduction

This Annual Monitoring Report (Report) summarizes data from calendar year 2018 for post-closure monitoring activities for the Toxic Substances Control Act (TSCA) landfill vault (Vault), located in the East Plant Area of the General Motors LLC (GM) Bedford Global Propulsion Systems (GPS) Facility (Facility), in Lawrence County, Bedford, Indiana. This Report has been prepared by GHD on behalf of GM in accordance with the Resource Conservation and Recovery Act (RCRA) Administrative Order on Consent effective August 14, 2014 (U.S. EPA Docket No. RCRA-05-2014-0011), and the East Plant Area Vault Post-Closure Plan (PCP) (GHD, February 3, 2012; as amended by Revision 1, August 25, 2016). The Vault is a part of the RCRA Corrective Action (CA) activities being conducted at the Facility under the East Plant Area Interim Measure (IM) concurrent with other IMs at the Facility. The agency Approvals for the Vault were effective October 18, 2006, and were issued pursuant to 40 Code of Federal Regulations (CFR) § 761.61 (c) for the risk-based approval for the disposal of PCB contaminated waste in the Vault. The Vault was constructed as a component of the East Plant Area IM during RCRA CA activities initiated under the Performance-Based CA Agreement (effective March 20, 2001, and amended October 1, 2002, March 29, 2007, and May 9, 2008) for the Facility. A RCRA Order between U.S. EPA and GM LLC was executed on August 4, 2014 (Administrative Order on Consent (AOC) EPA Docket No. RCRA-05-2014-0011) and replaces the Performance-Based CA Agreement, which has been terminated.

Final closure of the Vault occurred on March 27, 2012. A Post-Closure Plan (PCP) was submitted to U.S. EPA on February 3, 2012, which stated that the post-closure monitoring of the Vault would continue to include the quantity of liquid collected from the leachate collection system (LCS), leak detection system (LDS), and gravel underdrain system (GUS), the water elevations in these systems, analytical results from samples collected from these systems, and effluent quantity/quality from the on-Site water treatment plant (WTP). The PCP prescribes a reduced frequency of record keeping procedures to, at a minimum, once per month; however, monitoring was generally completed on a weekly basis in 2018, with daily records recorded electronically by the automated systems (LCS and GUS only). Monitoring results and issues encountered are also discussed in this Report for each collection system, and have been previously disclosed in project Quarterly Progress Reports. Additional post-closure monitoring required by the PCP includes semi-annual inspections of the Vault cover system, recorded in a maintenance log, for the first two years following closure and annually thereafter. Consistent with the PCP and the RCRA AOC, the next annual report covering post-closure monitoring data for the 2019 calendar year will be submitted to U.S. EPA on or before July 15, 2020.

1.1 Purpose and Organization of Report

This Report presents the requirements for current annual reporting for the Vault in compliance with the monitoring and reporting requirements set out in the PCP and the Approvals by U.S. EPA and IDEM.



This Report is organized as follows:

Section 2.0 – Summary of Record Keeping Log

This section provides a summary of the quantity of liquid collected in 2018 from the LCS, LDS, and the GUS sumps and quantity discharged from these systems to the Groundwater Treatment Plant (GWTP) for treatment; along with water elevations in the GUS, over the primary liner (LCS), and over the secondary liner (LDS); and the Vault inspection log.

Section 3.0 – Analytical Results

This section provides analytical results for 2018 from the monitoring of the LCS, LDS, GUS, and combined effluent from the GWTP, and groundwater monitoring wells near the Vault.

Section 4.0 – Leachate and Leak Detection Water Disposal

This section provides details related to the volume, PCB concentration, and disposal for leachate and leak detection water with a PCB concentration equal to or greater than (\geq) 1 part per million (ppm), if any.

Section 5.0 – Summary and Review of Water Elevations

This section provides a summary and review of the water elevations and depth over the primary liner (LCS), the secondary liner (LDS), and in the GUS.

Section 6.0 – Issues Encountered and Rectification Actions

This section identifies issues and/or problems encountered related to the Vault (i.e., performance of monitoring systems, analytical results, physical characteristics, etc.) and actions taken to rectify them.

Section 7.0 – Spill Cleanup Reports

This section identifies any PCB spill cleanups as established in accordance with the Site Health and Safety Plan (HASp).

Section 8.0 – Financial Assurance

This section discusses financial assurance for the Vault.

Section 9.0 – References

This section presents references cited in this Report.

2. Summary of Record Keeping Log

The following information was recorded, as required by the PCP:

1. The quantity of liquid collected from the LCS
2. The quantity of liquid collected from the LDS
3. The quantity of liquid collected from the GUS



4. The elevation of liquid over the primary liner, the secondary liner and in the GUS
5. The amount of water (liquid) discharged from the LCS, LDS, and GUS to the GWTP, and the respective PCB concentration
6. The Vault inspection logs and maintenance activities

2.1 Summary of LCS, LDS, and GUS Sump Monitoring Logs

In 2018, the water level in the GUS system was recorded on a daily basis by the automated system, with values being manually recorded onto the field log form on a weekly basis. During 2018, water level in the LDS and LCS systems were manually measured and recorded on a monthly basis in accordance with the PCP. Additional readings were collected by field staff to augment the monthly readings. Summaries of the sump monitoring logs for the LCS, LDS, and GUS are presented in Tables 2.1, 2.2, and 2.3, respectively. Field logs are presented in Appendices A.1, A.2, and A.3, respectively. The quantity of liquid pumped from each of the Vault collection systems is also presented in Tables 2.1 through 2.3. In accordance with the Approvals, water pumped from the LCS, LDS, and GUS is treated and managed in compliance with the National Pollutant Discharge Elimination System (NPDES) permit (NPDES Permit No. IN0064424) for the Site. It should also be noted that Tables 2.1 through 2.3 incorporate corrections, calculations, and additional annotations over the field logs found in Appendix A.

Table 2.4 presents a summary of the water elevation in each of the sumps to allow for direct comparison between the various layers of the Vault liner system (listed in order from top to bottom: LCS, lowest point of the primary liner system, LDS, lowest point of the secondary liner system, and GUS). Table 2.5 presents a summary of the monthly maximum water elevation in each of the sumps. Note that the groundwater elevation at the GUS sump remained stable during 2018, however, the static elevation is above the operational level of 667.5 ft. AMSL, as highlighted in the table, due to failure of the original GUS pump and subsequent temporary pumps. Copies of the field logs for manual measurements for the LCS, LDS, and GUS sumps, as well as recorded values from the automated pumping system are provided in Appendix A.

2.2 Summary of Water Treated in the SSC Water Treatment Plant

Water removed from the Vault sumps is directed to the GWTP, which treats PCB-impacted water removed from the Vault Sumps and the SSC wet wells (including Wet Wells #1 through #4). There was no water removed from the vault sumps during 2018 and only a minimal volume of water removed in 2017. The GWTP discharge at Outfall 004 is sampled monthly under the NPDES permit (NPDES Permit No. IN0064424). Data collected during the 2018 calendar year were reported in accordance with the NPDES permit.

The volume of water discharged from the GWTP is recorded daily. A summary of the total monthly volume and daily average of treated water in the GWTP for 2018 is provided in Table 2.6.



2.3 Summary of the Vault Inspection Log and Maintenance Activities

Maintenance and inspection activities were performed at the Vault during the 2018 calendar year.

GHD completed inspections of the Vault Cover System on a quarterly basis and transitioned into semi-annual basis during 2018, concurrent with inspection of the West Plant Area and East Plant Area Cover Systems. These inspections were completed on: March 26, 2018, June 5, 2018 and October 29, 2018. The findings of these inspections were previously reported in the 1st, 2nd and 4th Quarterly Progress Reports for 2018 (submitted to U.S. EPA on April 13, July 12 and January 12, 2019, respectively). A summary of the findings related to the Vault Cover System in 2018 is as follows:

- Some weed and clover growth is present at most transects in the East Plant Area, which is also typically accompanied by some bare patches. There were no significant findings (i.e. no issues that pose a risk to the integrity of the cover) for the Vault Cover System. Copies of the Cover System inspection forms can be found in Appendix B – Cover System Inspection.

Details of the maintenance issues encountered with the LCS, LDS and GUS pumps, are discussed in Section 6.

The magnetic flow meter (mag meter), identified as FIT-Vault (serial number F1095B16000), measured the combined volume of water being pumped from the Vault sump systems (LCS, LDS, and GUS) via the permanent forcemain to the EQ tank, before being treated in the GWTP. The annual mag meter calibration was inadvertently not conducted in 2018 and will be scheduled for 2019.

3. Analytical Results

Sampling methods and analytical procedures were performed in compliance with 40 CFR Part 136, as amended in 41 FR 52779 on December 1, 1976.

3.1 Groundwater Monitoring Analytical Results

In accordance with the September 18, 2014 responses to U.S. EPA March 18, 2014 comments on the PCP, sampling of the GUS sump and coreholes 9-4, and CH-20 are monitored with the bi-annual Environmental Indicator (EI) CA750 monitoring program. EI CA750 groundwater samples were collected for the Facility, including samples downgradient from the Vault (e.g. 9-4). The recharge rate of the LDS did not significantly change or approach the TSCA theoretical Leakage Action Rate and there is no evidence of a release from the Vault to the groundwater table based on changes in elevations in the LCS, LDS, and GUS sumps (Table 2.4). During the semi-annual sampling events in 2018, the GUS was not sampled. Refer to Section 3.5 and Section 6 for further discussion. Groundwater monitoring (static water levels and/or sampling) locations under the EI CA750 in the vicinity of the Vault are shown on Figure 3.1. The closest well in proximity of the vault is well 9-4.

Static groundwater levels are measured quarterly, and sampling is collected along with the groundwater levels during the second and fourth quarters. The first EI CA750 groundwater sampling



event of 2018, was completed on May 22, 23 and 24, 2018, and the second semi-annual sampling event of 2018 was completed on November 27, 28, and 29, 2018.

Groundwater samples are collected at the perimeter of the Facility on a semi-annual basis under the EI CA750 monitoring program. EI CA750 groundwater monitoring results for the 2018 events were previously reported under separate cover and are summarized in Tables 3.1 and 3.2. Figures 3.2 and 3.3 present databoxes, which summarize the groundwater and surface water analytical results for the PCBs sampling locations in the EI CA750 monitoring program for the first and second semi-annual sampling event of 2018, respectively.

Locations 9-4 and CH-20 are downgradient of the Vault and were non-detect for PCBs during the first EI CA750 monitoring event. Both locations have been non-detect for PCBs since sampling began in 2014 at location 9-4 and in 2015 at location CH-20. PCB were detected at other wells within the Facility boundary related to historical sources and not hydraulically connected (drown gradient of) to the Vault (i.e. wells near Area of Interest [AOI 8]).

Sample Quality

The analytical data collected during both the first and second half of 2018 EI CA750 sampling events were within the acceptable qualifications, as noted in the Memorandum regarding Full Validation of the Analytical Results previously submitted with the EI CA750 results (Memos 312 and 324).

3.2 Leachate and Leak Detection Water Monitoring Analytical Results

The PCP requires water from the LCS and LDS be sampled at least on quarterly basis for PCBs. GHD attempted to collected samples from both the LCS and LDS on a monthly basis during 2018. Insufficient water volume was present he LCS and LDS sumps to collect samples during 2018. The last occurrence where sufficient water was present to collect samples from the LCS and LDS was in October 2017.

3.3 GUS Analytical Results

The GUS sump sampling has been conducted with the bi-annual EI CA750 monitoring program since 2015, pursuant to U.S. EPA request, to assess ongoing conditions. It is noted that, due to upgradient contamination still present in the groundwater, that analytical detections of PCBs in the water from the GUS sump do not directly provide a suitable surrogate for leachate release or changed conditions in the Vault. With respect to monitoring potential environmental impacts, maintaining sampling at the perimeter of the Vault (currently being conducted under the EI CA750) is the best way to monitor for downgradient changes to groundwater quality.

There was no sampling completed for the GUS for 2018. The temporary pump placed at the GUS did not have a sample port and sampling with a bailer was not possible due to space restrictions within the sump and pump casings preventing a bailer from being lowered to the GUS water level. This issue is further discussed in Section 6.



3.4 Water Treatment Facility Analytical Results

Water removed from the LCS, LDS and GUS is directed via permanent forcemain to the GWTP's equalization tank. The Vault water is combined with groundwater from the Site Source Control (SSC) Wet Wells #1 through #3 and the Pilot Perimeter Groundwater Collection Trench Wet Well #4 prior to treatment and discharge under NPDES Permit No. IN0064424.

The GWTP was sampled monthly in accordance with the NPDES permit. Effluent results were non-detect during the reporting year. Analytical results for 2018 monthly Outfall 004 and the GWTP operational samples are presented in Table 3.3.

4. Leachate and Leak Detection Water Disposal

Pursuant to U.S. EPA's Risk-Based Approval to Dispose of PCBs dated October 18, 2006; Conditions of Approval; Leachate and Leak Detection System Water Monitoring and Disposal, Section 10.b. – *"Leachate and leak detection water with PCB concentrations from 1 ppm to, but not including, 50 ppm is TSCA reportable material that must be managed in compliance with the U.S. EPA CERCLA Order or an NPDES Permit."* There were no water samples collected from the LCS or LDS during the 2018 calendar year due to the lack of volume to collect a sample. There was no evidence of a hydraulic connection between the layers.

5. Summary and Review of Water Elevations

The water level above the primary liner (i.e., in the LCS), the secondary liner (i.e., in the LDS) and GUS continued to be generally measured on a weekly basis throughout 2018. Maximum daily water levels recorded at the GUS and LCS sumps within the 24-hour day are automatically stored at the PLC in the WTP and retrieved by the operator once per week (the PLC stores 7 days of data).

Flow meter results were not available for the LCS during January to October 2018 due to damage to the riser pipe. A temporary pump was connected to the LDS inlet pipe which bypasses the LCS flowmeter. A new pump was installed in the LCS in October 2018 and flow meter results resumed recording for November to December 2018. Tables 2.1, 2.2, and 2.3 show no water was removed from the LSC, LDS and GUS during the reporting period. Refer to Sections 5.1, 5.2, and 5.3 for further discussion regarding water levels in the LCS, LDS, and GUS, respectively. Table 2.4 presents a summary of the water elevations in each of the sumps. Summaries of the maximum monthly water elevations in each of the systems are presented in Table 2.5. Copies of the field logs with PLC records and manual measurements collected from the LCS, LDS, and GUS sumps are provided in Appendix A. A summary of the average monthly volume of water removed from the LCS and the LDS since initial operation of the systems is presented on Figure 5.1 (volume presented is from both the calculation method as used up to 2014 and based on flow meter readings for the LDS to allow for direct comparison between calculation methods and historical monitoring data).

5.1 Leachate Collection System

Manual water level measurements were generally collected on a weekly basis (in excess of the monthly monitoring required by the PCP) in 2018. The automated system records the maximum



level and total pumped quantities on a daily basis. Issues with the pumps and riser pipe in the LCS carried over into January to October 2018. A new pump was installed in October 2018 and was operational through November to December 2018, but no water accumulated which required removal.

The water elevation in the LCS was maintained within the operating limits set out in the PCP. Through the year, there were no apparent increases in the rate of the water level rises. During 2018, the depth of water in the LCS was maintained between 1 ft and 3 ft AFOS (bottom of sump at 671.00 ft AMSL), with the maximum depth of 672.88 ft AFOS (equivalent water surface elevation of 67.95 ft) measured on December 31, 2018.

There was no pumping in the LCS required in 2018 as there was not a sufficient amount of water accumulation throughout 2018.

The total amount of water removed from the LCS in 2018 was estimated to be 0 gallons, which is less than the estimated 308 gallons pumped in 2017.

5.2 Leak Detection System

Pumping at the LDS, via a portable pump discharging through overland hose that is connected to the hard piping within the LCS manhole (for direct discharge to the EQ tank via forcemain), did not occur for the duration of 2018 due to the water level being too shallow for the pump intake.

The total amount of water removed from the LDS during the 2018 calendar year was estimated to be 0 gallons based on flow meter readings, which is less than the estimated amount pumped in 2017 (173 gallons based on flow meter readings). Manual volume calculations were used historically prior to the use of flow meters. Figure 5.1 presents the summary of average monthly volume of water removed from the LDS as compared to the historical data.

During 2018, the depth of water in the LDS was maintained between 0 ft and 4.3 ft AFOS (bottom of sump at 668.49 ft AMSL or 72.65 ft below the top of the sump), with the maximum depth of 0.93 ft AFOS (equivalent water surface elevation of 669.42 ft) measured on December 31, 2018.

The average daily flow rate was determined using the portable flow meter readings, and calculated as the volume removed, divided by the numbers of days since the previous pumping, divided by the Vault footprint (7 acres). Since no pumping occurred in 2018 in the LDS, an average daily flow rate could not be calculated for 2018. The TSCA theoretical sustained Leakage Action Rate (LAR) was calculated in the PCP as 32,000 gallons/acre/day. Therefore no leaks are suspected in the primary liner or secondary liner, based on the monitoring data collected in 2018.

5.3 Gravel Underdrain System

The GUS was installed as part of the overall TSCA Vault construction in order to maintain the stability of the liner system during active operations (e.g. construction and filling of the Vault) by mitigating excessive water pressure action on the bottom liner.

The automated system for the GUS is designed to operate between water depths of 2.5 ft and 4.33 ft AFOS (bottom of sump at 662.18 ft AMSL). At the maximum end of the range, the water level is one foot lower than the lowest point (667.5 ft AMSL) of the secondary liner.



Water level measurements were collected by the PLC on a daily basis. Since November 2016, there was a continued issue that resulted in no manual measurement of the water level for the duration of 2018. The water level tape previously used became lodged in the sump could not be retrieved. Additional water level tapes, including small diameter tapes were attempted, but could not penetrate beyond the previously lodged tapes.

Through October 2017, a temporary pump, operated manually, was used to maintain the GUS system water levels. During October 2017, the temporary pump failed and became lodged in the sump when replacement was attempted. Continued pumping of the GUS throughout 2018 could not be sustained, resulting in the water levels exceeding the operation levels of 667.5 ft AMSL, or 5.32 ft of water depth in the sump due to the continued issues at the sump since 2017. Complete details of the problems with the GUS sump systems are presented in Section 6.

Although there were periods when peak levels reached elevations consistent with the lowest point of the secondary liner level, no impacts to the LDS levels were observed.

Based on the volume recorded by the local flow meter at the GWTP and the portable flow meter connected to the discharge line from the LDS sump, and the estimated volume removed at the LCS sump, there was no volume removed from the GUS sump in 2018. During routine maintenance on February 28, 2018, the flow meter was reprogrammed and in the process, the reading of the flow meter spiked 5 gallons which is a negligible amount reported in Table 2.3.

6. Issues Encountered and Remedial Actions

The following are the issues encountered in Vault operation during the 2018 calendar year and actions taken to rectify the issues:

- Issue with the pumps in the Leachate Collection System (LCS) sump described in the 2016 Annual Vault Report continued through January to September 2018. Please refer to the East Plant Area TSCA Vault Annual Report Calendar Year 2016, (GHD, 2016) for a detailed description of the background on this issue. In summary, the pumps in the LCS failed and replacement pumps were installed. When the replacement pumps failed to transmit water, personnel entered the sump chamber and found the riser pipe had become corroded and pitted. A temporary replacement pump was installed to allow pumping as needed based on manual measurements. Replacement pump installation was completed in October 2018.
- The following resolutions for the issues within the LCS occurred during October 2018:
 - Existing pumps were removed by pulling up along existing guide rails.
 - A new, larger capacity replacement pump was installed in the LCS and hard pipe it to the bottom (i.e., not using existing guide rails), with pipe being stainless steel piping connecting to the HDPE forcemain exiting the LCS chamber.
- In August 2016, the original submersible pump in the GUS stopped working. Smaller submersible pumps were lowered into the HDPE sump (between the inner steel well casing and the HDPE sump) to continue to removing water, but each of these pumps subsequently failed. The GUS has not been pumped since October 2017. The GUS sump outer casing has a kink in the casing about 30 ft from the bottom of the GUS. There are 3 temporary pumps stuck in the



void between the inner and outer casings. Efforts have been made to pull the pumps have been unsuccessful. The crowded void prevents additional pumps, tubing and or bailers from reaching the water level.

- During a call on November 17, 2016, the necessity of the GUS sump pumping was revisited from a technical basis. GHD provided an engineering memorandum to U.S. EPA requesting the cessation of pumping from the GUS sump. At this time, a U.S. EPA decision on the GUS sump pumping cessation is on hold pending review of the Pilot Trench monitoring plan. The need to schedule the installation of a permanent replacement pump is currently on hold pending U.S. EPA's decision on whether additional pumping of the GUS is required.

7. Spill Cleanup Reports

There were no on-Facility PCB spills that occurred in 2018. There were no spills on public roads.

8. Financial Assurance

As required by the August 2014 RCRA AOC, a surety bond was obtained by GM in 2014 to provide financial assurance for the remaining Corrective Action tasks, including operation and maintenance related to the Vault, until the approval of the Corrective Measures Proposal (CMP); at which time costs to complete Corrective Action will be re-evaluated based on the requirements of the CMP. As required under the AOC, the financial assurance cost estimate is updated, at a minimum, annually. GM submitted the revised financial assurance cost estimate to U.S. EPA on November 16, 2017, which was approved by U.S. EPA on January 9, 2018, GM submitted the financial assurance demonstration to U.S. EPA on March 28, 2018. The surety bond in the amount of the approved financial assurance cost estimate remains in effect. GM submitted the proposed 2019 financial assurance amount for the Vault on December 4, 2018.

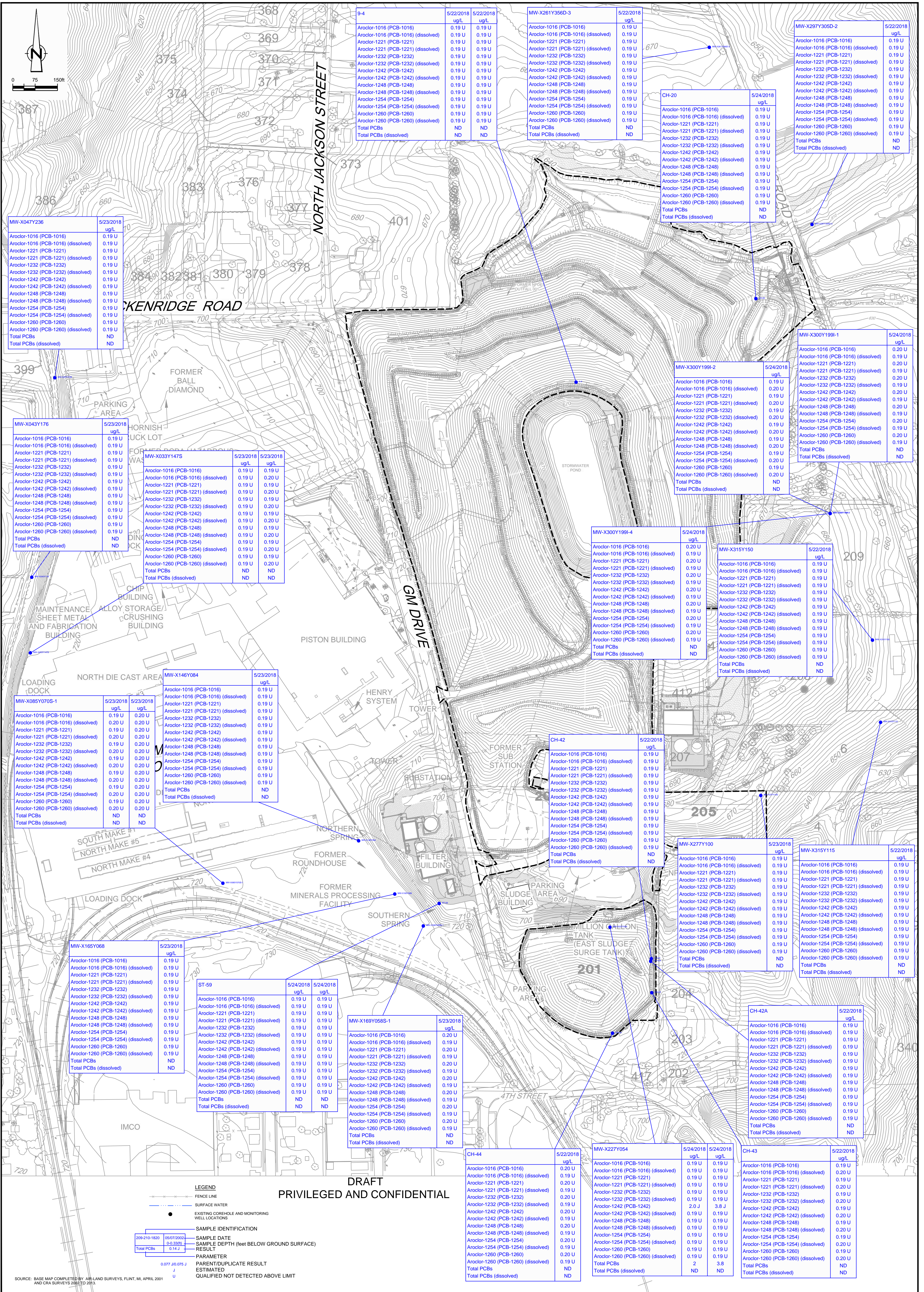
9. References

GHD, GM Bedford Site Specific Project Health and Safety Plan (HASP), May 2016.

CRA, Post-Closure Plan (PCP) Bedford Plant Vault, February 3, 2012.

CRA, Post-Closure Plan (PCP) Bedford Plant Vault – Revision 1, August 25, 2016.

CRA, Response to United States Environmental Protection Agency March 18, 2014 Comments GM Bedford 2012 Annual Compliance Report, 2012 Post-Closure Plan and 2014 Construction Certification Report East Plant Area Vault, September 18, 2014.



DRAFT
PRIVILEGED AND CONFIDENTIAL

LEGEND

- FENCE LINE
- SURFACE WATER
- EXISTING COREHOLE AND MONITORING WELL LOCATIONS
- SAMPLE IDENTIFICATION
- SAMPLE DATE
- SAMPLE DEPTH (feet BELOW GROUND SURFACE)
- RESULT
- PARENT/DUPLICATE RESULT
- ESTIMATED
- QUALIFIED NOT DETECTED ABOVE LIMIT

| Nº | Revision | Date | Initial |
|----|----------|------|---------|
| | | | |
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| | | | |

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

Approved: _____

**GM GPS BEDFORD FACILITY
BEDFORD, INDIANA**

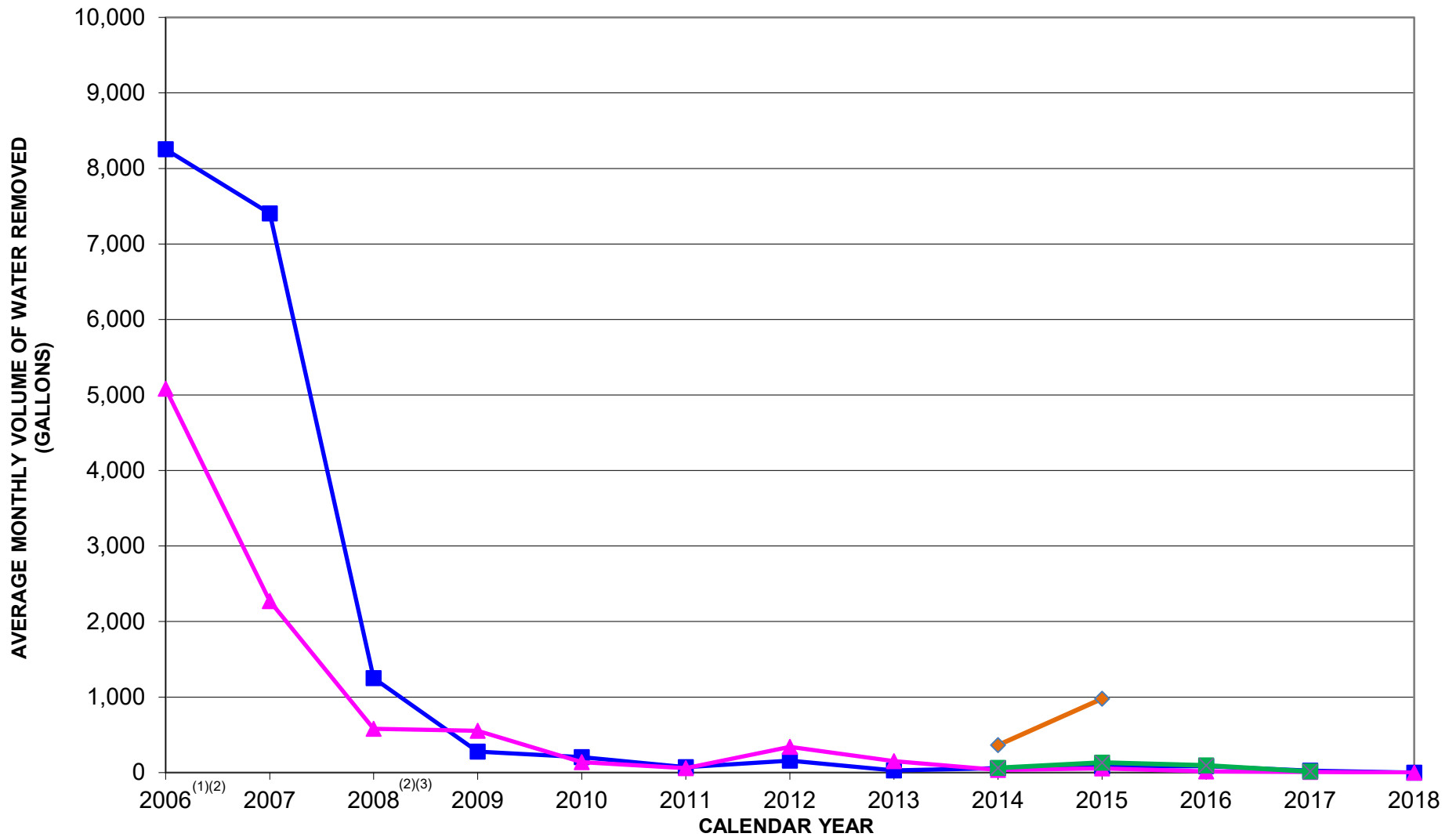
2018 EAST PLANT AREA VAULT ANNUAL MONITORING REPORT
FIRST HALF 2018 CA750 MONITORING RESULTS

PCBS ANALYTICAL RESULT

GHD

Source Reference:

| | | |
|------------------|--------------|-------------|
| Project Manager: | Reviewed By: | Date: |
| 13968-00 | J. LUZZWICK | 04/17/2019 |
| Scale: | Project Nº: | Report Nº: |
| 1" = 150' | 13968-00 | 426 |
| | | Drawing Nº: |
| | | figure 3.2 |



LEGEND

- LCS Calculated
- ▲ LDS Calculated
- ◆ LCS Flow Meter
- LDS Flow Meter

NOTES

- ⁽¹⁾ Operation of the LCS and LDS commenced on Aug. 30, 2006.
- ⁽²⁾ Water from the underdrain system entered the LDS on September 8 and 13, 2006. Leachate was able to enter the LDS through leaky joints between manhole risers until January 18, 2007 when all leaks were repaired.
- ⁽³⁾ Rehabilitation activities were conducted on the LDS (flushing) on Jan. 23 - June 5, 2007.
- ⁽⁴⁾ 2016 - 2018 LCS flow meter readings have been excluded due to the flow meter being by-passed while temporary pump in place.

figure 5.1

SUMMARY OF AVERAGE MONTHLY VOLUME OF WATER REMOVED FROM LCS AND LDS
 EAST PLANT AREA TSCA VAULT ANNUAL REPORT, CALENDAR YEAR 2018
 GM CET BEDFORD FACILITY
 Bedford, Indiana



Table 2.1
 2018 Summary of Daily Leachate Collection System Log
 East Plant Area TSCA Vault Annual Report, Calendar Year 2018
 GM CETC Bedford Facility
 Bedford, Indiana

| LEACHATE COLLECTION SYSTEM | | | | | | | | | | | | | |
|----------------------------|--------------------------------|---|--|-------------------------------|--|--|---|--|---|---|--|--|----------|
| DATE | TIME OF MEASUREMENT (hh:mm) | MANUAL DEPTH TO WATER LEVEL (feet below top of sump) | MANUAL WATER LEVEL CONVERTED TO ELEVATION (ft AMSL) | WATER DEPTH REMOVED (feet) | VOLUME REMOVED ^(e) (gallons) | WATER LEVEL @ PLC ^(d) (inches) | PLC WATER LEVEL CONVERTED TO ELEVATION (d) (ft AMSL) | EQUIVALENT DEPTH OF WATER OVER PRIMARY LINER (inches) | QUANTITY PUMPED @ PLC ^(f) (gallons removed) | LOCAL FLOW METER READING (c) (gallons) | TOTAL VOLUME PUMPED BETWEEN FLOW METER READINGS (gallons) | ELAPSED TIME BETWEEN FLOW METER READINGS (days) | COMMENTS |
| 12/31/17 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 628 | |
| 1/1/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 629 | |
| 1/2/18 | 9:30 | 69.1 | 671.73 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 630 | |
| 1/3/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 631 | |
| 1/4/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 632 | |
| 1/5/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 633 | |
| 1/6/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 634 | |
| 1/7/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 635 | |
| 1/8/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 636 | |
| 1/9/18 | 8:15 | 69.05 | 671.78 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 637 | |
| 1/10/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 638 | |
| 1/11/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 639 | |
| 1/12/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 640 | |
| 1/13/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 641 | |
| 1/14/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 642 | |
| 1/15/18 | 9:25 | 69.05 | 671.78 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 643 | |
| 1/16/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 644 | |
| 1/17/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 645 | |
| 1/18/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 646 | |
| 1/19/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 647 | |
| 1/20/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 648 | |
| 1/21/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 649 | |
| 1/22/18 | 10:05 | 69.0 | 671.83 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 650 | |
| 1/23/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 651 | |
| 1/24/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 652 | |
| 1/25/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 653 | |
| 1/26/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 654 | |
| 1/27/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 655 | |
| 1/28/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 656 | |
| 1/29/18 | 8:30 | 69.0 | 671.83 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 657 | |
| 1/30/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 658 | |
| 1/31/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 659 | |
| 2/1/18 | 8:30 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 660 | |
| 2/2/18 | 8:30 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 661 | |
| 2/3/18 | 8:45 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 662 | |
| 2/4/18 | 8:50 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 663 | |
| 2/5/18 | 8:40 | 69.0 | 671.83 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 664 | |
| 2/6/18 | 8:30 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 665 | |
| 2/7/18 | 8:30 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 666 | |
| 2/8/18 | 8:15 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 667 | |
| 2/9/18 | 8:30 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 668 | |
| 2/10/18 | 8:30 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 669 | |
| 2/11/18 | 9:00 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 670 | |
| 2/12/18 | 10:05 | 69.0 | 671.83 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 671 | |
| 2/13/18 | 8:30 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 672 | |
| 2/14/18 | 8:10 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 673 | |
| 2/15/18 | 9:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 674 | |
| 2/16/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 675 | |
| 2/17/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 676 | |
| 2/18/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 677 | |
| 2/19/18 | 8:35 | 68.9 | 671.93 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 678 | |
| 2/20/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 679 | |
| 2/21/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 680 | |
| 2/22/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 681 | |
| 2/23/18 | 6:55 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 682 | |
| 2/24/18 | 8:50 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 683 | |
| 2/25/18 | 8:25 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 684 | |
| 2/26/18 | 8:35 | 68.9 | 671.98 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 685 | |
| 2/27/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 686 | |
| 2/28/18 | 8:25 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 687 | |
| 3/1/18 | 8:34 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 688 | |
| 3/2/18 | 8:34 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 689 | |
| 3/3/18 | 8:50 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 690 | |
| 3/4/18 | 9:00 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 691 | |
| 3/5/18 | 8:45 | 68.85 | 671.98 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 692 | |
| 3/6/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 693 | |
| 3/7/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 694 | |
| 3/8/18 | 8:20 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 695 | |
| 3/9/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 696 | |
| 3/10/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 697 | |
| 3/11/18 | 9:05 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 698 | |
| 3/12/18 | 10:10 | 68.8 | 672.03 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 699 | |
| 3/13/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 700 | |
| 3/14/18 | 8:15 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 701 | |
| 3/15/18 | 9:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 702 | |
| 3/16/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 703 | |
| 3/17/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 704 | |
| 3/18/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 705 | |
| 3/19/18 | 8:40 | 68.8 | 672.03 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 706 | |
| 3/20/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 707 | |
| 3/21/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 708 | |

Table 2.1
 2018 Summary of Daily Leachate Collection System Log
 East Plant Area TSCA Vault Annual Report, Calendar Year 2018
 GM CETC Bedford Facility
 Bedford, Indiana

| LEACHATE COLLECTION SYSTEM | | | | | | | | | | | | | |
|----------------------------|--------------------------------|---|--|-------------------------------|--|--|---|--|---|---|--|--|----------|
| DATE | TIME OF MEASUREMENT (hh:mm) | MANUAL DEPTH TO WATER LEVEL (feet below top of sump) | MANUAL WATER LEVEL CONVERTED TO ELEVATION (ft AMSL) | WATER DEPTH REMOVED (feet) | VOLUME REMOVED ^(e) (gallons) | WATER LEVEL @ PLC ^(d) (inches) | PLC WATER LEVEL CONVERTED TO ELEVATION (d) (ft AMSL) | EQUIVALENT DEPTH OF WATER OVER PRIMARY LINER (inches) | QUANTITY PUMPED @ PLC ^(f) (gallons removed) | LOCAL FLOW METER READING (c) (gallons) | TOTAL VOLUME PUMPED BETWEEN FLOW METER READINGS (gallons) | ELAPSED TIME BETWEEN FLOW METER READINGS (days) | COMMENTS |
| 3/22/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 709 | |
| 3/23/18 | 7:00 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 710 | |
| 3/24/18 | 8:55 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 711 | |
| 3/25/18 | 8:30 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 712 | |
| 3/26/18 | 8:40 | 68.69 | 672.14 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 713 | |
| 3/27/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 714 | |
| 3/28/18 | 8:30 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 715 | |
| 3/29/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 716 | |
| 3/30/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 717 | |
| 3/31/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 718 | |
| 4/1/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 719 | |
| 4/2/18 | 8:35 | 68.69 | 672.14 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 720 | |
| 4/3/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 721 | |
| 4/4/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 722 | |
| 4/5/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 723 | |
| 4/6/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 724 | |
| 4/7/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 725 | |
| 4/8/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 726 | |
| 4/9/18 | 8:35 | 68.69 | 672.14 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 727 | |
| 4/10/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 728 | |
| 4/11/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 729 | |
| 4/12/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 730 | |
| 4/13/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 731 | |
| 4/14/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 732 | |
| 4/15/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 733 | |
| 4/16/18 | 8:35 | 68.65 | 672.18 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 734 | |
| 4/17/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 735 | |
| 4/18/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 736 | |
| 4/19/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 737 | |
| 4/20/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 738 | |
| 4/21/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 739 | |
| 4/22/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 740 | |
| 4/23/18 | 8:35 | 68.6 | 672.23 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 741 | |
| 4/24/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 742 | |
| 4/25/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 743 | |
| 4/26/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 744 | |
| 4/27/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 745 | |
| 4/28/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 746 | |
| 4/29/18 | 8:35 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 747 | |
| 4/30/18 | 8:35 | 68.54 | 672.29 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 748 | |
| 5/1/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 749 | |
| 5/2/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 750 | |
| 5/3/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 751 | |
| 5/4/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 752 | |
| 5/5/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 753 | |
| 5/6/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 754 | |
| 5/7/18 | 8:40 | 68.54 | 672.29 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 755 | |
| 5/8/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 756 | |
| 5/9/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 757 | |
| 5/10/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 758 | |
| 5/11/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 759 | |
| 5/12/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 760 | |
| 5/13/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 761 | |
| 5/14/18 | 8:40 | 68.52 | 672.31 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 762 | |
| 5/15/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 763 | |
| 5/16/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 764 | |
| 5/17/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 765 | |
| 5/18/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 766 | |
| 5/19/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 767 | |
| 5/20/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 768 | |
| 5/21/18 | 8:40 | 68.5 | 672.33 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 769 | |
| 5/22/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 770 | |
| 5/23/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 771 | |
| 5/24/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 772 | |
| 5/25/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 773 | |
| 5/26/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 774 | |
| 5/27/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 775 | |
| 5/28/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 776 | |
| 5/29/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 777 | |
| 5/30/18 | 8:40 | 68.47 | 672.36 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 778 | |
| 5/31/18 | 8:40 | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 779 | |
| 6/1/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 780 | |
| 6/2/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 781 | |
| 6/3/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 782 | |
| 6/4/18 | 8:15 | 68.47 | 672.36 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 783 | |
| 6/5/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 784 | |
| 6/6/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 785 | |
| 6/7/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 786 | |
| 6/8/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 787 | |
| 6/9/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 788 | |

Table 2.1
2018 Summary of Daily Leachate Collection System Log
East Plant Area TSCA Vault Annual Report, Calendar Year 2018
GM CETC Bedford Facility
Bedford, Indiana

| LEACHATE COLLECTION SYSTEM | | | | | | | | | | | | | |
|----------------------------|--------------------------------|---|--|-------------------------------|--|--|---|--|---|---|--|--|----------|
| DATE | TIME OF MEASUREMENT (hh:mm) | MANUAL DEPTH TO WATER LEVEL (feet below top of sump) | MANUAL WATER LEVEL CONVERTED TO ELEVATION (ft AMSL) | WATER DEPTH REMOVED (feet) | VOLUME REMOVED ^(e) (gallons) | WATER LEVEL @ PLC ^(d) (inches) | PLC WATER LEVEL CONVERTED TO ELEVATION (d) (ft AMSL) | EQUIVALENT DEPTH OF WATER OVER PRIMARY LINER (inches) | QUANTITY PUMPED @ PLC ^(f) (gallons removed) | LOCAL FLOW METER READING (c) (gallons) | TOTAL VOLUME PUMPED BETWEEN FLOW METER READINGS (gallons) | ELAPSED TIME BETWEEN FLOW METER READINGS (days) | COMMENTS |
| 6/10/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 789 | |
| 6/11/18 | 8:45 | 68.45 | 672.38 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 790 | |
| 6/12/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 791 | |
| 6/13/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 792 | |
| 6/14/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 793 | |
| 6/15/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 794 | |
| 6/16/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 795 | |
| 6/17/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 796 | |
| 6/18/18 | 8:15 | 68.44 | 672.39 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 797 | |
| 6/19/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 798 | |
| 6/20/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 799 | |
| 6/21/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 800 | |
| 6/22/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 801 | |
| 6/23/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 802 | |
| 6/24/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 803 | |
| 6/25/18 | 8:25 | 68.41 | 672.42 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 804 | |
| 6/26/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 805 | |
| 6/27/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 806 | |
| 6/28/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 807 | |
| 6/29/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 808 | |
| 6/30/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 809 | |
| 7/1/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 810 | |
| 7/2/18 | 9:45 | 68.38 | 672.45 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 811 | |
| 7/3/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 812 | |
| 7/4/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 813 | |
| 7/5/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 814 | |
| 7/6/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 815 | |
| 7/7/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 816 | |
| 7/8/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 817 | |
| 7/9/18 | 10:40 | 68.33 | 672.5 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 818 | |
| 7/10/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 819 | |
| 7/11/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 820 | |
| 7/12/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 821 | |
| 7/13/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 822 | |
| 7/14/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 823 | |
| 7/15/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 824 | |
| 7/16/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 825 | |
| 7/17/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 826 | |
| 7/18/18 | 14:45 | 68.31 | 672.52 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 827 | |
| 7/19/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 828 | |
| 7/20/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 829 | |
| 7/21/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 830 | |
| 7/22/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 831 | |
| 7/23/18 | 10:00 | 68.29 | 672.54 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 832 | |
| 7/24/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 833 | |
| 7/25/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 834 | |
| 7/26/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 835 | |
| 7/27/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 836 | |
| 7/28/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 837 | |
| 7/29/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 838 | |
| 7/30/18 | 9:30 | 68.26 | 672.57 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 839 | |
| 7/31/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 840 | |
| 8/1/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 841 | |
| 8/2/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 842 | |
| 8/3/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 843 | |
| 8/4/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 844 | |
| 8/5/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 845 | |
| 8/6/18 | 9:00 | 68.23 | 672.6 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 846 | |
| 8/7/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 847 | |
| 8/8/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 848 | |
| 8/9/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 849 | |
| 8/10/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 850 | |
| 8/11/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 851 | |
| 8/12/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 852 | |
| 8/13/18 | 8:20 | 68.23 | 672.6 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 853 | |
| 8/14/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 854 | |
| 8/15/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 855 | |
| 8/16/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 856 | |
| 8/17/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 857 | |
| 8/18/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 858 | |
| 8/19/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 859 | |
| 8/20/18 | 9:00 | 68.24 | 672.59 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 860 | |
| 8/21/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 861 | |
| 8/22/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 862 | |
| 8/23/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 863 | |
| 8/24/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 864 | |
| 8/25/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 865 | |
| 8/26/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 866 | |
| 8/27/18 | 8:30 | 68.24 | 672.59 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 867 | |
| 8/28/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 868 | |
| 8/29/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 869 | |

Table 2.1
2018 Summary of Daily Leachate Collection System Log
East Plant Area TSCA Vault Annual Report, Calendar Year 2018
GM CETC Bedford Facility
Bedford, Indiana

| LEACHATE COLLECTION SYSTEM | | | | | | | | | | | | | |
|----------------------------|-----------------------------|--|---|----------------------------|---|---|--|---|--|--|---|---|--|
| DATE | TIME OF MEASUREMENT (hh:mm) | MANUAL DEPTH TO WATER LEVEL (feet below top of sump) | MANUAL WATER LEVEL CONVERTED TO ELEVATION (ft AMSL) | WATER DEPTH REMOVED (feet) | VOLUME REMOVED ^(a) (gallons) | WATER LEVEL @ PLC ^(b) (inches) | PLC WATER LEVEL CONVERTED TO ELEVATION (d) (ft AMSL) | EQUIVALENT DEPTH OF WATER OVER PRIMARY LINER (inches) | QUANTITY PUMPED @ PLC ^(f) (gallons removed) | LOCAL FLOW METER READING (c) (gallons) | TOTAL VOLUME PUMPED BETWEEN FLOW METER READINGS (gallons) | ELAPSED TIME BETWEEN FLOW METER READINGS (days) | COMMENTS |
| 8/30/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 870 | |
| 8/31/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 871 | |
| 9/1/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 872 | |
| 9/2/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 873 | |
| 9/3/18 | 9:00 | 68.24 | 672.59 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 874 | |
| 9/4/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 875 | |
| 9/5/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 876 | |
| 9/6/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 877 | |
| 9/7/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 878 | |
| 9/8/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 879 | |
| 9/9/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 880 | |
| 9/10/18 | 9:00 | 68.24 | 672.59 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 881 | |
| 9/11/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 882 | |
| 9/12/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 883 | |
| 9/13/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 884 | Replaced pump |
| 9/14/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 885 | |
| 9/15/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 886 | |
| 9/16/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 887 | |
| 9/17/18 | 9:15 | 68.24 | 672.59 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 888 | |
| 9/18/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 889 | |
| 9/19/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 890 | |
| 9/20/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 891 | |
| 9/21/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 892 | |
| 9/22/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 893 | |
| 9/23/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 894 | |
| 9/24/18 | 10:30 | 68.24 | 672.59 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 895 | |
| 9/25/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 896 | |
| 9/26/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 897 | |
| 9/27/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 898 | |
| 9/28/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 899 | |
| 9/29/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 900 | |
| 9/30/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 901 | |
| 10/1/18 | 9:00 | 68.26 | 672.57 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 902 | There is a new pump installed in LCS with new riser. |
| 10/2/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 903 | |
| 10/3/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 904 | |
| 10/4/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 905 | |
| 10/5/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 906 | |
| 10/6/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 907 | |
| 10/7/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 908 | |
| 10/8/18 | 8:45 | 68.28 | 672.55 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 909 | |
| 10/9/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 910 | |
| 10/10/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 911 | |
| 10/11/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 912 | |
| 10/12/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 913 | |
| 10/13/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 914 | |
| 10/14/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 915 | |
| 10/15/18 | 8:38 | 68.28 | 672.55 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 916 | |
| 10/16/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 917 | |
| 10/17/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 918 | |
| 10/18/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 919 | |
| 10/19/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 920 | |
| 10/20/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 921 | |
| 10/21/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 922 | |
| 10/22/18 | 9:15 | 68.13 | 672.7 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 923 | |
| 10/23/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 924 | |
| 10/24/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 925 | |
| 10/25/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 926 | |
| 10/26/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 927 | |
| 10/27/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 928 | |
| 10/28/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 929 | |
| 10/29/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 930 | |
| 10/30/18 | 9:20 | 68.13 | 672.7 | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 931 | |
| 10/31/18 | -- | -- | -- | -- | -- | 0 | 671.00 | 0.037 | 0 | -- | 0 | 932 | |
| 11/1/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 933 | |
| 11/2/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 934 | |
| 11/3/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 935 | |
| 11/4/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 936 | |
| 11/5/18 | 14:32 | 68.14 | 672.69 | -- | -- | 9.2 | 671.76 | 0.090 | 0 | 1,567,410 | 0 | 937 | Flowmeter is LCS/GUS combined |
| 11/6/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 938 | |
| 11/7/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 939 | |
| 11/8/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 940 | |
| 11/9/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 941 | |
| 11/10/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 942 | |
| 11/11/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 943 | |
| 11/12/18 | 13:20 | 68.12 | 672.71 | -- | -- | 9.5 | 671.79 | 0.090 | 0 | 1,567,410 | 0 | 944 | |
| 11/13/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 945 | |
| 11/14/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 946 | |
| 11/15/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 947 | |
| 11/16/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 948 | |
| 11/17/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 949 | |
| 11/18/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 950 | |

Table 2.1
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East Plant Area TSCA Vault Annual Report, Calendar Year 2018
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Bedford, Indiana

| LEACHATE COLLECTION SYSTEM | | | | | | | | | | | | | |
|----------------------------|--------------------------------|---|--|-------------------------------|--|--|---|--|---|---|--|--|----------|
| DATE | TIME OF MEASUREMENT (hh:mm) | MANUAL DEPTH TO WATER LEVEL (feet below top of sump) | MANUAL WATER LEVEL CONVERTED TO ELEVATION (ft AMSL) | WATER DEPTH REMOVED (feet) | VOLUME REMOVED ^(e) (gallons) | WATER LEVEL @ PLC ^(d) (inches) | PLC WATER LEVEL CONVERTED TO ELEVATION (d) (ft AMSL) | EQUIVALENT DEPTH OF WATER OVER PRIMARY LINER (inches) | QUANTITY PUMPED @ PLC ^(f) (gallons removed) | LOCAL FLOW METER READING (c) (gallons) | TOTAL VOLUME PUMPED BETWEEN FLOW METER READINGS (gallons) | ELAPSED TIME BETWEEN FLOW METER READINGS (days) | COMMENTS |
| 11/19/18 | 14:25 | 68.07 | 672.76 | -- | -- | 10.1 | 671.84 | 0.090 | 0 | 1,567,410 | 0 | 951 | |
| 11/20/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 952 | |
| 11/21/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 953 | |
| 11/22/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 954 | |
| 11/23/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 955 | |
| 11/24/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 956 | |
| 11/25/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 957 | |
| 11/26/18 | 14:44 | 68.03 | 672.8 | -- | -- | 10.9 | 671.90 | 0.090 | -- | 1,567,410 | 0 | 958 | |
| 11/27/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 959 | |
| 11/28/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 960 | |
| 11/29/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 961 | |
| 11/30/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 962 | |
| 12/1/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 963 | |
| 12/2/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 964 | |
| 12/3/18 | 9:00 | 68.02 | 671.98 | -- | -- | 10.8 | 671.90 | 0.090 | -- | 1,567,410 | 0 | 965 | |
| 12/4/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 966 | |
| 12/5/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 967 | |
| 12/6/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 968 | |
| 12/7/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 969 | |
| 12/8/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 970 | |
| 12/9/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 971 | |
| 12/10/18 | 9:45 | 68.02 | 671.98 | -- | -- | 10.8 | 671.90 | 0.090 | -- | 1,567,410 | 0 | 972 | |
| 12/11/18 | 9:15 | 68.02 | 671.98 | -- | -- | 10.8 | 671.90 | 0.090 | -- | 1,567,410 | 0 | 973 | |
| 12/12/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 974 | |
| 12/13/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 975 | |
| 12/14/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 976 | |
| 12/15/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 977 | |
| 12/16/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 978 | |
| 12/17/18 | 10:15 | 68.00 | 672.83 | -- | -- | 11.2 | 671.93 | 0.090 | -- | 1,567,410 | 0 | 979 | |
| 12/18/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 980 | |
| 12/19/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 981 | |
| 12/20/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 982 | |
| 12/21/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 983 | |
| 12/22/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 984 | |
| 12/23/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 985 | |
| 12/24/18 | 9:20 | 68.00 | 672.83 | -- | -- | 11.5 | 671.95 | 0.090 | -- | 1,567,410 | 0 | 986 | |
| 12/25/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 987 | |
| 12/26/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 988 | |
| 12/27/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 989 | |
| 12/28/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 990 | |
| 12/29/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 991 | |
| 12/30/18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 992 | |
| 12/31/18 | 10:15 | 67.95 | 672.88 | -- | -- | 11.8 | 671.98 | 0.090 | -- | 1,567,410 | 0 | 993 | |
| Total | | | | | 0 | | | | 0 | | 0 | | |

Notes:

ft AMSL - feet above mean sea level
 Top of sump [top of concrete manhole] (feet AMSL): 740.83
 Bottom of sump (feet AMSL): 671
 Total depth of sump manhole (feet): 69.83
 Inside diameter of sump (feet): 6

(-) Measurements were not collected.
 (1) Pump operating level between 1 ft (672.00 ft AMSL or 68.83 ft below the top of sump) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.
 (2) Temporary LCS pump manually operated, PLC systems not functional. See report text section 6 for additional details.

a Indication of the water level in the LCS rising to 674.00 ft AMSL or higher.
 b Water level elevation is less than the previous measurement due to human error while taking the measurement.
 c Water level elevation is more than the previous measurement due to human error while taking the measurement.
 d Flow meter readings (displayed on mag meter serial number F1095C16000) are cumulative unless noted otherwise.
 e PLC records the maximum water level observed each day (midnight to midnight). Therefore, the manual water level/elevation will not match the water level/elevation recorded by the PLC.
 f Based on sump volume calculations.
 (f) Prior to November 2, 2015, the clock in the PLC at the Vault was set so that it was zeroing the data before it could get read by the main PLC across the cellular network. The fix was to set the clock at the Vault PLC so that it lags the main PLC by 30 seconds. This setting now allows the main PLC to record the total volume pumped by the automated system before it gets zeroed at the Vault PLC.

| | | |
|-------------------------------------|---------------|------------|
| | Manual | PLC |
| Minimum Elevation (ft, AMSL) | 671.73 | 671.00 |
| Maximum Elevation (ft, AMSL) | 672.88 | 671.00 |
| Mean Elevation (ft, AMSL) | 672.34 | 671.00 |

Number of Pumping Events (based on PLC events) 0

(1) **Total Volume Accumulation in LCS carried forward from 2017 (gallons) (based on local flow meter readings)** 0
 (2) **Total Volume Accumulation in LCS from last pumping event to end of 2018 (gallons) (based on local flow meter readings)**
 (3) **Total Volume Pumped from the LCS in 2018 (gallons) (based on local flow meter readings)** 0
 (4)=(3)-(1)+(2) **Total Volume Accumulation Originating in the LCS in 2018 (gallons) (based on local flow meter readings)** 0
 (5) **Total Volume Accumulation in LCS carried forward from 2017 (gallons) (based on volume removed calculations)** 0
 (6) **Total Volume Accumulation in LCS from last pumping event to end of 2018 (gallons) (based on volume removed calculations)**
 (7) **Total Volume Pumped from the LCS in 2017 (gallons) (based on volume removed calculations)** 0
 (8)=(7)-(6)-(5) **Total Volume Accumulation Originating in the LCS in 2017 (gallons) (based on volume removed calculations)** 0

Table 2.2
 2018 Summary of Daily Leak Detection System Log
 East Plant Area TSCA Vault Annual Report, Calendar Year 2018
 GM CET Bedford Facility
 Bedford, Indiana

| LEAK DETECTION SYSTEM | | | | | | | | | | | | |
|-----------------------|-----------------------------------|---|--|--|--|-----------------------------------|--|---|---|---|---|--|
| DATE | TIME OF MEASUREMENT #1 (hh:mm) | DEPTH TO WATER BEFORE PUMPING (feet below top of sump) | WATER LEVEL BEFORE PUMPING CONVERTED TO ELEVATION (ft AMSL) | FLOW METER READING ^(c) (gallons) | CALCULATED VOLUME REMOVED based on sump volume calc. (gallons) | TIME OF MEASUREMENT #2 (hh:mm) | DEPTH TO WATER AFTER PUMPING (feet below top of sump) | WATER LEVEL AFTER PUMPING CONVERTED TO ELEVATION (ft AMSL) | ELAPSED TIME BETWEEN PUMPING EVENTS (days) | TOTAL VOLUME PUMPED BETWEEN PUMPING EVENTS (gallons) | AVERAGE DAILY FLOW RATE ^{(d)€} (gallons/day/acre) | COMMENTS |
| 12/31/17 | -- | -- | -- | -- | -- | -- | -- | -- | 66 | 0.0 | 0.06 | Average daily flow rate estimated through 12/31/2017 using calculated value from last pumping event on 10/25/2017. |
| 1/1/18 | -- | -- | -- | -- | -- | -- | -- | -- | 67 | 0.0 | 0.00 | |
| 1/2/18 | 9:15 | 72.45 | 668.69 | -- | -- | -- | -- | -- | 68 | 0.0 | 0.00 | |
| 1/3/18 | -- | -- | -- | -- | -- | -- | -- | -- | 69 | 0.0 | 0.00 | |
| 1/4/18 | -- | -- | -- | -- | -- | -- | -- | -- | 70 | 0.0 | 0.00 | |
| 1/5/18 | -- | -- | -- | -- | -- | -- | -- | -- | 71 | 0.0 | 0.00 | |
| 1/6/18 | -- | -- | -- | -- | -- | -- | -- | -- | 72 | 0.0 | 0.00 | |
| 1/7/18 | -- | -- | -- | -- | -- | -- | -- | -- | 73 | 0.0 | 0.00 | |
| 1/8/18 | -- | -- | -- | -- | -- | -- | -- | -- | 74 | 0.0 | 0.00 | |
| 1/9/18 | 8:20 | 72.45 | 668.69 | -- | -- | -- | -- | -- | 75 | 0.0 | 0.00 | |
| 1/10/18 | -- | -- | -- | -- | -- | -- | -- | -- | 76 | 0.0 | 0.00 | |
| 1/11/18 | -- | -- | -- | -- | -- | -- | -- | -- | 77 | 0.0 | 0.00 | |
| 1/12/18 | -- | -- | -- | -- | -- | -- | -- | -- | 78 | 0.0 | 0.00 | |
| 1/13/18 | -- | -- | -- | -- | -- | -- | -- | -- | 79 | 0.0 | 0.00 | |
| 1/14/18 | -- | -- | -- | -- | -- | -- | -- | -- | 80 | 0.0 | 0.00 | |
| 1/15/18 | 9:20 | 72.50 | 668.64 | -- | -- | -- | -- | -- | 81 | 0.0 | 0.00 | |
| 1/16/18 | -- | -- | -- | -- | -- | -- | -- | -- | 82 | 0.0 | 0.00 | |
| 1/17/18 | -- | -- | -- | -- | -- | -- | -- | -- | 83 | 0.0 | 0.00 | |
| 1/18/18 | -- | -- | -- | -- | -- | -- | -- | -- | 84 | 0.0 | 0.00 | |
| 1/19/18 | -- | -- | -- | -- | -- | -- | -- | -- | 85 | 0.0 | 0.00 | |
| 1/20/18 | -- | -- | -- | -- | -- | -- | -- | -- | 86 | 0.0 | 0.00 | |
| 1/21/18 | -- | -- | -- | -- | -- | -- | -- | -- | 87 | 0.0 | 0.00 | |
| 1/22/18 | 10:00 | 72.55 | 668.59 | -- | -- | -- | -- | -- | 88 | 0.0 | 0.00 | |
| 1/23/18 | -- | -- | -- | -- | -- | -- | -- | -- | 89 | 0.0 | 0.00 | |
| 1/24/18 | -- | -- | -- | -- | -- | -- | -- | -- | 90 | 0.0 | 0.00 | |
| 1/25/18 | -- | -- | -- | -- | -- | -- | -- | -- | 91 | 0.0 | 0.00 | |
| 1/26/18 | -- | -- | -- | -- | -- | -- | -- | -- | 92 | 0.0 | 0.00 | |
| 1/27/18 | -- | -- | -- | -- | -- | -- | -- | -- | 93 | 0.0 | 0.00 | |
| 1/28/18 | -- | -- | -- | -- | -- | -- | -- | -- | 94 | 0.0 | 0.00 | |
| 1/29/18 | 8:20 | 72.55 | 668.59 | -- | -- | -- | -- | -- | 95 | 0.0 | 0.00 | |
| 1/30/18 | -- | -- | -- | -- | -- | -- | -- | -- | 96 | 0.0 | 0.00 | |
| 1/31/18 | -- | -- | -- | -- | -- | -- | -- | -- | 97 | 0.0 | 0.00 | |
| 2/1/18 | -- | -- | -- | -- | -- | -- | -- | -- | 98 | 0.0 | 0.00 | |
| 2/2/18 | -- | -- | -- | -- | -- | -- | -- | -- | 99 | 0.0 | 0.00 | |
| 2/3/18 | -- | -- | -- | -- | -- | -- | -- | -- | 100 | 0.0 | 0.00 | |
| 2/4/18 | -- | -- | -- | -- | -- | -- | -- | -- | 101 | 0.0 | 0.00 | |
| 2/5/18 | 8:45 | 72.50 | 668.64 | -- | -- | -- | -- | -- | 102 | 0.0 | 0.00 | |
| 2/6/18 | -- | -- | -- | -- | -- | -- | -- | -- | 103 | 0.0 | 0.00 | |
| 2/7/18 | -- | -- | -- | -- | -- | -- | -- | -- | 104 | 0.0 | 0.00 | |
| 2/8/18 | -- | -- | -- | -- | -- | -- | -- | -- | 105 | 0.0 | 0.00 | |
| 2/9/18 | -- | -- | -- | -- | -- | -- | -- | -- | 106 | 0.0 | 0.00 | |
| 2/10/18 | -- | -- | -- | -- | -- | -- | -- | -- | 107 | 0.0 | 0.00 | |
| 2/11/18 | -- | -- | -- | -- | -- | -- | -- | -- | 108 | 0.0 | 0.00 | |
| 2/12/18 | 10:10 | 72.50 | 668.64 | -- | -- | -- | -- | -- | 109 | 0.0 | 0.00 | |
| 2/13/18 | -- | -- | -- | -- | -- | -- | -- | -- | 110 | 0.0 | 0.00 | |
| 2/14/18 | -- | -- | -- | -- | -- | -- | -- | -- | 111 | 0.0 | 0.00 | |
| 2/15/18 | -- | -- | -- | -- | -- | -- | -- | -- | 112 | 0.0 | 0.00 | |
| 2/16/18 | -- | -- | -- | -- | -- | -- | -- | -- | 113 | 0.0 | 0.00 | |
| 2/17/18 | -- | -- | -- | -- | -- | -- | -- | -- | 114 | 0.0 | 0.00 | |
| 2/18/18 | 8:40 | 72.50 | 668.64 | -- | -- | -- | -- | -- | 115 | 0.0 | 0.00 | |
| 2/19/18 | -- | -- | -- | -- | -- | -- | -- | -- | 116 | 0.0 | 0.00 | |
| 2/20/18 | -- | -- | -- | -- | -- | -- | -- | -- | 117 | 0.0 | 0.00 | |
| 2/21/18 | -- | -- | -- | -- | -- | -- | -- | -- | 118 | 0.0 | 0.00 | |
| 2/22/18 | -- | -- | -- | -- | -- | -- | -- | -- | 119 | 0.0 | 0.00 | |
| 2/23/18 | -- | -- | -- | -- | -- | -- | -- | -- | 120 | 0.0 | 0.00 | |
| 2/24/18 | -- | -- | -- | -- | -- | -- | -- | -- | 121 | 0.0 | 0.00 | |
| 2/25/18 | -- | -- | -- | -- | -- | -- | -- | -- | 122 | 0.0 | 0.00 | |
| 2/26/18 | 8:30 | 72.45 | 668.69 | -- | -- | -- | -- | -- | 123 | 0.0 | 0.00 | |
| 2/27/18 | -- | -- | -- | -- | -- | -- | -- | -- | 124 | 0.0 | 0.00 | |
| 2/28/18 | -- | -- | -- | -- | -- | -- | -- | -- | 125 | 0.0 | 0.00 | |
| 3/1/18 | -- | -- | -- | -- | -- | -- | -- | -- | 126 | 0.0 | 0.00 | |
| 3/2/18 | -- | -- | -- | -- | -- | -- | -- | -- | 127 | 0.0 | 0.00 | |
| 3/3/18 | -- | -- | -- | -- | -- | -- | -- | -- | 128 | 0.0 | 0.00 | |

Table 2.2
2018 Summary of Daily Leak Detection System Log
East Plant Area TSCA Vault Annual Report, Calendar Year 2018
GM CET Bedford Facility
Bedford, Indiana

| LEAK DETECTION SYSTEM | | | | | | | | | | | | |
|-----------------------|------------------------|-------------------------------|---|-----------------------------------|--|------------------------|------------------------------|--|-------------------------------------|--|---|----------|
| DATE | TIME OF MEASUREMENT #1 | DEPTH TO WATER BEFORE PUMPING | WATER LEVEL BEFORE PUMPING CONVERTED TO ELEVATION | FLOW METER READING ^(c) | CALCULATED VOLUME REMOVED <i>based on sump volume calc.</i> | TIME OF MEASUREMENT #2 | DEPTH TO WATER AFTER PUMPING | WATER LEVEL AFTER PUMPING CONVERTED TO ELEVATION | ELAPSED TIME BETWEEN PUMPING EVENTS | TOTAL VOLUME PUMPED BETWEEN PUMPING EVENTS | AVERAGE DAILY FLOW RATE ^{(d)€} | COMMENTS |
| | (hh:mm) | (feet below top of sump) | (ft AMSL) | (gallons) | (gallons) | (hh:mm) | (feet below top of sump) | (ft AMSL) | (days) | (gallons) | (gallons/day/acre) | |
| 3/4/18 | -- | -- | -- | -- | -- | -- | -- | -- | 129 | 0.0 | 0.00 | |
| 3/5/18 | 8:50 | 72.45 | 668.69 | -- | -- | -- | -- | -- | 130 | 0.0 | 0.00 | |
| 3/6/18 | -- | -- | -- | -- | -- | -- | -- | -- | 131 | 0.0 | 0.00 | |
| 3/7/18 | -- | -- | -- | -- | -- | -- | -- | -- | 132 | 0.0 | 0.00 | |
| 3/8/18 | -- | -- | -- | -- | -- | -- | -- | -- | 133 | 0.0 | 0.00 | |
| 3/9/18 | -- | -- | -- | -- | -- | -- | -- | -- | 134 | 0.0 | 0.00 | |
| 3/10/18 | -- | -- | -- | -- | -- | -- | -- | -- | 135 | 0.0 | 0.00 | |
| 3/11/18 | -- | -- | -- | -- | -- | -- | -- | -- | 136 | 0.0 | 0.00 | |
| 3/12/18 | 10:15 | 72.45 | 668.69 | -- | -- | -- | -- | -- | 137 | 0.0 | 0.00 | |
| 3/13/18 | -- | -- | -- | -- | -- | -- | -- | -- | 138 | 0.0 | 0.00 | |
| 3/14/18 | -- | -- | -- | -- | -- | -- | -- | -- | 139 | 0.0 | 0.00 | |
| 3/15/18 | -- | -- | -- | -- | -- | -- | -- | -- | 140 | 0.0 | 0.00 | |
| 3/16/18 | -- | -- | -- | -- | -- | -- | -- | -- | 141 | 0.0 | 0.00 | |
| 3/17/18 | -- | -- | -- | -- | -- | -- | -- | -- | 142 | 0.0 | 0.00 | |
| 3/18/18 | -- | -- | -- | -- | -- | -- | -- | -- | 143 | 0.0 | 0.00 | |
| 3/19/18 | 8:45 | 72.45 | 668.69 | -- | -- | -- | -- | -- | 144 | 0.0 | 0.00 | |
| 3/20/18 | -- | -- | -- | -- | -- | -- | -- | -- | 145 | 0.0 | 0.00 | |
| 3/21/18 | -- | -- | -- | -- | -- | -- | -- | -- | 146 | 0.0 | 0.00 | |
| 3/22/18 | -- | -- | -- | -- | -- | -- | -- | -- | 147 | 0.0 | 0.00 | |
| 3/23/18 | -- | -- | -- | -- | -- | -- | -- | -- | 148 | 0.0 | 0.00 | |
| 3/24/18 | -- | -- | -- | -- | -- | -- | -- | -- | 149 | 0.0 | 0.00 | |
| 3/25/18 | -- | -- | -- | -- | -- | -- | -- | -- | 150 | 0.0 | 0.00 | |
| 3/26/18 | -- | -- | -- | -- | -- | -- | -- | -- | 151 | 0.0 | 0.00 | |
| 3/27/18 | 8:45 | 72.45 | 668.69 | -- | -- | -- | -- | -- | 152 | 0.0 | 0.00 | |
| 3/28/18 | -- | -- | -- | -- | -- | -- | -- | -- | 153 | 0.0 | 0.00 | |
| 3/29/18 | -- | -- | -- | -- | -- | -- | -- | -- | 154 | 0.0 | 0.00 | |
| 3/30/18 | -- | -- | -- | -- | -- | -- | -- | -- | 155 | 0.0 | 0.00 | |
| 3/31/18 | -- | -- | -- | -- | -- | -- | -- | -- | 156 | 0.0 | 0.00 | |
| 4/1/18 | -- | -- | -- | -- | -- | -- | -- | -- | 157 | 0.0 | 0.00 | |
| 4/2/18 | 8:40 | 72.45 | 668.69 | -- | -- | -- | -- | -- | 158 | 0.0 | 0.00 | |
| 4/3/18 | -- | -- | -- | -- | -- | -- | -- | -- | 159 | 0.0 | 0.00 | |
| 4/4/18 | -- | -- | -- | -- | -- | -- | -- | -- | 160 | 0.0 | 0.00 | |
| 4/5/18 | -- | -- | -- | -- | -- | -- | -- | -- | 161 | 0.0 | 0.00 | |
| 4/6/18 | -- | -- | -- | -- | -- | -- | -- | -- | 162 | 0.0 | 0.00 | |
| 4/7/18 | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 0.0 | 0.00 | |
| 4/8/18 | -- | -- | -- | -- | -- | -- | -- | -- | 164 | 0.0 | 0.00 | |
| 4/9/18 | 8:40 | 72.45 | 668.69 | -- | -- | -- | -- | -- | 165 | 0.0 | 0.00 | |
| 4/10/18 | -- | -- | -- | -- | -- | -- | -- | -- | 166 | 0.0 | 0.00 | |
| 4/11/18 | -- | -- | -- | -- | -- | -- | -- | -- | 167 | 0.0 | 0.00 | |
| 4/12/18 | -- | -- | -- | -- | -- | -- | -- | -- | 168 | 0.0 | 0.00 | |
| 4/13/18 | -- | -- | -- | -- | -- | -- | -- | -- | 169 | 0.0 | 0.00 | |
| 4/14/18 | -- | -- | -- | -- | -- | -- | -- | -- | 170 | 0.0 | 0.00 | |
| 4/15/18 | -- | -- | -- | -- | -- | -- | -- | -- | 171 | 0.0 | 0.00 | |
| 4/16/18 | 8:40 | 72.44 | 668.7 | -- | -- | -- | -- | -- | 172 | 0.0 | 0.00 | |
| 4/17/18 | -- | -- | -- | -- | -- | -- | -- | -- | 173 | 0.0 | 0.00 | |
| 4/18/18 | -- | -- | -- | -- | -- | -- | -- | -- | 174 | 0.0 | 0.00 | |
| 4/19/18 | -- | -- | -- | -- | -- | -- | -- | -- | 175 | 0.0 | 0.00 | |
| 4/20/18 | -- | -- | -- | -- | -- | -- | -- | -- | 176 | 0.0 | 0.00 | |
| 4/21/18 | -- | -- | -- | -- | -- | -- | -- | -- | 177 | 0.0 | 0.00 | |
| 4/22/18 | -- | -- | -- | -- | -- | -- | -- | -- | 178 | 0.0 | 0.00 | |
| 4/23/18 | 8:40 | 72.44 | 668.7 | -- | -- | -- | -- | -- | 179 | 0.0 | 0.00 | |
| 4/24/18 | -- | -- | -- | -- | -- | -- | -- | -- | 180 | 0.0 | 0.00 | |
| 4/25/18 | -- | -- | -- | -- | -- | -- | -- | -- | 181 | 0.0 | 0.00 | |
| 4/26/18 | -- | -- | -- | -- | -- | -- | -- | -- | 182 | 0.0 | 0.00 | |
| 4/27/18 | -- | -- | -- | -- | -- | -- | -- | -- | 183 | 0.0 | 0.00 | |
| 4/28/18 | -- | -- | -- | -- | -- | -- | -- | -- | 184 | 0.0 | 0.00 | |
| 4/29/18 | -- | -- | -- | -- | -- | -- | -- | -- | 185 | 0.0 | 0.00 | |
| 4/30/18 | 8:40 | 72.42 | 668.72 | -- | -- | -- | -- | -- | 186 | 0.0 | 0.00 | |
| 5/1/18 | -- | -- | -- | -- | -- | -- | -- | -- | 187 | 0.0 | 0.00 | |
| 5/2/18 | -- | -- | -- | -- | -- | -- | -- | -- | 188 | 0.0 | 0.00 | |
| 5/3/18 | -- | -- | -- | -- | -- | -- | -- | -- | 189 | 0.0 | 0.00 | |
| 5/4/18 | -- | -- | -- | -- | -- | -- | -- | -- | 190 | 0.0 | 0.00 | |
| 5/5/18 | -- | -- | -- | -- | -- | -- | -- | -- | 191 | 0.0 | 0.00 | |
| 5/6/18 | -- | -- | -- | -- | -- | -- | -- | -- | 192 | 0.0 | 0.00 | |
| 5/7/18 | 8:45 | 72.42 | 668.72 | -- | -- | -- | -- | -- | 193 | 0.0 | 0.00 | |

Table 2.2
 2018 Summary of Daily Leak Detection System Log
 East Plant Area TSCA Vault Annual Report, Calendar Year 2018
 GM CET Bedford Facility
 Bedford, Indiana

| LEAK DETECTION SYSTEM | | | | | | | | | | | | |
|-----------------------|-----------------------------------|---|--|--|--|-----------------------------------|--|---|---|---|---|----------|
| DATE | TIME OF MEASUREMENT #1 (hh:mm) | DEPTH TO WATER BEFORE PUMPING (feet below top of sump) | WATER LEVEL BEFORE PUMPING CONVERTED TO ELEVATION (ft AMSL) | FLOW METER READING ^(c) (gallons) | CALCULATED VOLUME REMOVED based on sump volume calc. (gallons) | TIME OF MEASUREMENT #2 (hh:mm) | DEPTH TO WATER AFTER PUMPING (feet below top of sump) | WATER LEVEL AFTER PUMPING CONVERTED TO ELEVATION (ft AMSL) | ELAPSED TIME BETWEEN PUMPING EVENTS (days) | TOTAL VOLUME PUMPED BETWEEN PUMPING EVENTS (gallons) | AVERAGE DAILY FLOW RATE ^{(d)E} (gallons/day/acre) | COMMENTS |
| 5/8/18 | -- | -- | -- | -- | -- | -- | -- | -- | 194 | 0.0 | 0.00 | |
| 5/9/18 | -- | -- | -- | -- | -- | -- | -- | -- | 195 | 0.0 | 0.00 | |
| 5/10/18 | -- | -- | -- | -- | -- | -- | -- | -- | 196 | 0.0 | 0.00 | |
| 5/11/18 | -- | -- | -- | -- | -- | -- | -- | -- | 197 | 0.0 | 0.00 | |
| 5/12/18 | -- | -- | -- | -- | -- | -- | -- | -- | 198 | 0.0 | 0.00 | |
| 5/13/18 | -- | -- | -- | -- | -- | -- | -- | -- | 199 | 0.0 | 0.00 | |
| 5/14/18 | 8:45 | 72.40 | 668.74 | -- | -- | -- | -- | -- | 200 | 0.0 | 0.00 | |
| 5/15/18 | -- | -- | -- | -- | -- | -- | -- | -- | 201 | 0.0 | 0.00 | |
| 5/16/18 | -- | -- | -- | -- | -- | -- | -- | -- | 202 | 0.0 | 0.00 | |
| 5/17/18 | -- | -- | -- | -- | -- | -- | -- | -- | 203 | 0.0 | 0.00 | |
| 5/18/18 | -- | -- | -- | -- | -- | -- | -- | -- | 204 | 0.0 | 0.00 | |
| 5/19/18 | -- | -- | -- | -- | -- | -- | -- | -- | 205 | 0.0 | 0.00 | |
| 5/20/18 | -- | -- | -- | -- | -- | -- | -- | -- | 206 | 0.0 | 0.00 | |
| 5/21/18 | 8:50 | 72.42 | 668.72 | -- | -- | -- | -- | -- | 207 | 0.0 | 0.00 | |
| 5/22/18 | -- | -- | -- | -- | -- | -- | -- | -- | 208 | 0.0 | 0.00 | |
| 5/23/18 | -- | -- | -- | -- | -- | -- | -- | -- | 209 | 0.0 | 0.00 | |
| 5/24/18 | -- | -- | -- | -- | -- | -- | -- | -- | 210 | 0.0 | 0.00 | |
| 5/25/18 | -- | -- | -- | -- | -- | -- | -- | -- | 211 | 0.0 | 0.00 | |
| 5/26/18 | -- | -- | -- | -- | -- | -- | -- | -- | 212 | 0.0 | 0.00 | |
| 5/27/18 | -- | -- | -- | -- | -- | -- | -- | -- | 213 | 0.0 | 0.00 | |
| 5/28/18 | -- | -- | -- | -- | -- | -- | -- | -- | 214 | 0.0 | 0.00 | |
| 5/29/18 | 8:45 | 72.42 | 668.72 | -- | -- | -- | -- | -- | 215 | 0.0 | 0.00 | |
| 5/30/18 | -- | -- | -- | -- | -- | -- | -- | -- | 216 | 0.0 | 0.00 | |
| 5/31/18 | -- | -- | -- | -- | -- | -- | -- | -- | 217 | 0.0 | 0.00 | |
| 6/1/18 | -- | -- | -- | -- | -- | -- | -- | -- | 218 | 0.0 | 0.00 | |
| 6/2/18 | -- | -- | -- | -- | -- | -- | -- | -- | 219 | 0.0 | 0.00 | |
| 6/3/18 | -- | -- | -- | -- | -- | -- | -- | -- | 220 | 0.0 | 0.00 | |
| 6/4/18 | 8:10 | 72.42 | 668.72 | -- | -- | -- | -- | -- | 221 | 0.0 | 0.00 | |
| 6/5/18 | -- | -- | -- | -- | -- | -- | -- | -- | 222 | 0.0 | 0.00 | |
| 6/6/18 | -- | -- | -- | -- | -- | -- | -- | -- | 223 | 0.0 | 0.00 | |
| 6/7/18 | -- | -- | -- | -- | -- | -- | -- | -- | 224 | 0.0 | 0.00 | |
| 6/8/18 | -- | -- | -- | -- | -- | -- | -- | -- | 225 | 0.0 | 0.00 | |
| 6/9/18 | -- | -- | -- | -- | -- | -- | -- | -- | 226 | 0.0 | 0.00 | |
| 6/10/18 | -- | -- | -- | -- | -- | -- | -- | -- | 227 | 0.0 | 0.00 | |
| 6/11/18 | 8:35 | 72.43 | 668.71 | -- | -- | -- | -- | -- | 228 | 0.0 | 0.00 | |
| 6/12/18 | -- | -- | -- | -- | -- | -- | -- | -- | 229 | 0.0 | 0.00 | |
| 6/13/18 | -- | -- | -- | -- | -- | -- | -- | -- | 230 | 0.0 | 0.00 | |
| 6/14/18 | -- | -- | -- | -- | -- | -- | -- | -- | 231 | 0.0 | 0.00 | |
| 6/15/18 | -- | -- | -- | -- | -- | -- | -- | -- | 232 | 0.0 | 0.00 | |
| 6/16/18 | -- | -- | -- | -- | -- | -- | -- | -- | 233 | 0.0 | 0.00 | |
| 6/17/18 | -- | -- | -- | -- | -- | -- | -- | -- | 234 | 0.0 | 0.00 | |
| 6/18/18 | 8:00 | 72.43 | 668.71 | -- | -- | -- | -- | -- | 235 | 0.0 | 0.00 | |
| 6/19/18 | -- | -- | -- | -- | -- | -- | -- | -- | 236 | 0.0 | 0.00 | |
| 6/20/18 | -- | -- | -- | -- | -- | -- | -- | -- | 237 | 0.0 | 0.00 | |
| 6/21/18 | -- | -- | -- | -- | -- | -- | -- | -- | 238 | 0.0 | 0.00 | |
| 6/22/18 | -- | -- | -- | -- | -- | -- | -- | -- | 239 | 0.0 | 0.00 | |
| 6/23/18 | -- | -- | -- | -- | -- | -- | -- | -- | 240 | 0.0 | 0.00 | |
| 6/24/18 | -- | -- | -- | -- | -- | -- | -- | -- | 241 | 0.0 | 0.00 | |
| 6/25/18 | 8:35 | 72.43 | 668.71 | -- | -- | -- | -- | -- | 242 | 0.0 | 0.00 | |
| 6/26/18 | -- | -- | -- | -- | -- | -- | -- | -- | 243 | 0.0 | 0.00 | |
| 6/27/18 | -- | -- | -- | -- | -- | -- | -- | -- | 244 | 0.0 | 0.00 | |
| 6/28/18 | -- | -- | -- | -- | -- | -- | -- | -- | 245 | 0.0 | 0.00 | |
| 6/29/18 | -- | -- | -- | -- | -- | -- | -- | -- | 246 | 0.0 | 0.00 | |
| 6/30/18 | -- | -- | -- | -- | -- | -- | -- | -- | 247 | 0.0 | 0.00 | |
| 7/1/18 | -- | -- | -- | -- | -- | -- | -- | -- | 248 | 0.0 | 0.00 | |
| 7/2/18 | 10:00 | 72.38 | 668.76 | -- | -- | -- | -- | -- | 249 | 0.0 | 0.00 | |
| 7/3/18 | -- | -- | -- | -- | -- | -- | -- | -- | 250 | 0.0 | 0.00 | |
| 7/4/18 | -- | -- | -- | -- | -- | -- | -- | -- | 251 | 0.0 | 0.00 | |
| 7/5/18 | -- | -- | -- | -- | -- | -- | -- | -- | 252 | 0.0 | 0.00 | |
| 7/6/18 | -- | -- | -- | -- | -- | -- | -- | -- | 253 | 0.0 | 0.00 | |
| 7/7/18 | -- | -- | -- | -- | -- | -- | -- | -- | 254 | 0.0 | 0.00 | |
| 7/8/18 | -- | -- | -- | -- | -- | -- | -- | -- | 255 | 0.0 | 0.00 | |
| 7/9/18 | 10:15 | 72.38 | 668.76 | -- | -- | -- | -- | -- | 256 | 0.0 | 0.00 | |
| 7/10/18 | -- | -- | -- | -- | -- | -- | -- | -- | 257 | 0.0 | 0.00 | |

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 GM CET Bedford Facility
 Bedford, Indiana

| LEAK DETECTION SYSTEM | | | | | | | | | | | | |
|-----------------------|-----------------------------------|---|--|--|--|-----------------------------------|--|---|---|---|---|----------|
| DATE | TIME OF MEASUREMENT #1 (hh:mm) | DEPTH TO WATER BEFORE PUMPING (feet below top of sump) | WATER LEVEL BEFORE PUMPING CONVERTED TO ELEVATION (ft AMSL) | FLOW METER READING ^(c) (gallons) | CALCULATED VOLUME REMOVED based on sump volume calc. (gallons) | TIME OF MEASUREMENT #2 (hh:mm) | DEPTH TO WATER AFTER PUMPING (feet below top of sump) | WATER LEVEL AFTER PUMPING CONVERTED TO ELEVATION (ft AMSL) | ELAPSED TIME BETWEEN PUMPING EVENTS (days) | TOTAL VOLUME PUMPED BETWEEN PUMPING EVENTS (gallons) | AVERAGE DAILY FLOW RATE ^{(d)E} (gallons/day/acre) | COMMENTS |
| 7/11/18 | -- | -- | -- | -- | -- | -- | -- | -- | 258 | 0.0 | 0.00 | |
| 7/12/18 | -- | -- | -- | -- | -- | -- | -- | -- | 259 | 0.0 | 0.00 | |
| 7/13/18 | -- | -- | -- | -- | -- | -- | -- | -- | 260 | 0.0 | 0.00 | |
| 7/14/18 | -- | -- | -- | -- | -- | -- | -- | -- | 261 | 0.0 | 0.00 | |
| 7/15/18 | -- | -- | -- | -- | -- | -- | -- | -- | 262 | 0.0 | 0.00 | |
| 7/16/18 | -- | -- | -- | -- | -- | -- | -- | -- | 263 | 0.0 | 0.00 | |
| 7/17/18 | -- | -- | -- | -- | -- | -- | -- | -- | 264 | 0.0 | 0.00 | |
| 7/18/18 | -- | -- | -- | -- | -- | -- | -- | -- | 265 | 0.0 | 0.00 | |
| 7/19/18 | 14:50 | 72.37 | 668.77 | -- | -- | -- | -- | -- | 266 | 0.0 | 0.00 | |
| 7/20/18 | -- | -- | -- | -- | -- | -- | -- | -- | 267 | 0.0 | 0.00 | |
| 7/21/18 | -- | -- | -- | -- | -- | -- | -- | -- | 268 | 0.0 | 0.00 | |
| 7/22/18 | -- | -- | -- | -- | -- | -- | -- | -- | 269 | 0.0 | 0.00 | |
| 7/23/18 | 10:15 | 72.39 | 668.75 | -- | -- | -- | -- | -- | 270 | 0.0 | 0.00 | |
| 7/24/18 | -- | -- | -- | -- | -- | -- | -- | -- | 271 | 0.0 | 0.00 | |
| 7/25/18 | -- | -- | -- | -- | -- | -- | -- | -- | 272 | 0.0 | 0.00 | |
| 7/26/18 | -- | -- | -- | -- | -- | -- | -- | -- | 273 | 0.0 | 0.00 | |
| 7/27/18 | -- | -- | -- | -- | -- | -- | -- | -- | 274 | 0.0 | 0.00 | |
| 7/28/18 | -- | -- | -- | -- | -- | -- | -- | -- | 275 | 0.0 | 0.00 | |
| 7/29/18 | -- | -- | -- | -- | -- | -- | -- | -- | 276 | 0.0 | 0.00 | |
| 7/30/18 | 9:45 | 72.39 | 668.75 | -- | -- | -- | -- | -- | 277 | 0.0 | 0.00 | |
| 7/31/18 | -- | -- | -- | -- | -- | -- | -- | -- | 278 | 0.0 | 0.00 | |
| 8/1/18 | -- | -- | -- | -- | -- | -- | -- | -- | 279 | 0.0 | 0.00 | |
| 8/2/18 | -- | -- | -- | -- | -- | -- | -- | -- | 280 | 0.0 | 0.00 | |
| 8/3/18 | -- | -- | -- | -- | -- | -- | -- | -- | 281 | 0.0 | 0.00 | |
| 8/4/18 | -- | -- | -- | -- | -- | -- | -- | -- | 282 | 0.0 | 0.00 | |
| 8/5/18 | 8:45 | 72.37 | 668.77 | -- | -- | -- | -- | -- | 283 | 0.0 | 0.00 | |
| 8/6/18 | -- | -- | -- | -- | -- | -- | -- | -- | 284 | 0.0 | 0.00 | |
| 8/7/18 | -- | -- | -- | -- | -- | -- | -- | -- | 285 | 0.0 | 0.00 | |
| 8/8/18 | -- | -- | -- | -- | -- | -- | -- | -- | 286 | 0.0 | 0.00 | |
| 8/9/18 | -- | -- | -- | -- | -- | -- | -- | -- | 287 | 0.0 | 0.00 | |
| 8/10/18 | -- | -- | -- | -- | -- | -- | -- | -- | 288 | 0.0 | 0.00 | |
| 8/11/18 | -- | -- | -- | -- | -- | -- | -- | -- | 289 | 0.0 | 0.00 | |
| 8/12/18 | -- | -- | -- | -- | -- | -- | -- | -- | 290 | 0.0 | 0.00 | |
| 8/13/18 | 8:15 | 72.38 | 668.76 | -- | -- | -- | -- | -- | 291 | 0.0 | 0.00 | |
| 8/14/18 | -- | -- | -- | -- | -- | -- | -- | -- | 292 | 0.0 | 0.00 | |
| 8/15/18 | -- | -- | -- | -- | -- | -- | -- | -- | 293 | 0.0 | 0.00 | |
| 8/16/18 | -- | -- | -- | -- | -- | -- | -- | -- | 294 | 0.0 | 0.00 | |
| 8/17/18 | -- | -- | -- | -- | -- | -- | -- | -- | 295 | 0.0 | 0.00 | |
| 8/18/18 | -- | -- | -- | -- | -- | -- | -- | -- | 296 | 0.0 | 0.00 | |
| 8/19/18 | -- | -- | -- | -- | -- | -- | -- | -- | 297 | 0.0 | 0.00 | |
| 8/20/18 | 8:45 | 72.39 | 668.75 | -- | -- | -- | -- | -- | 298 | 0.0 | 0.00 | |
| 8/21/18 | -- | -- | -- | -- | -- | -- | -- | -- | 299 | 0.0 | 0.00 | |
| 8/22/18 | -- | -- | -- | -- | -- | -- | -- | -- | 300 | 0.0 | 0.00 | |
| 8/23/18 | -- | -- | -- | -- | -- | -- | -- | -- | 301 | 0.0 | 0.00 | |
| 8/24/18 | -- | -- | -- | -- | -- | -- | -- | -- | 302 | 0.0 | 0.00 | |
| 8/25/18 | -- | -- | -- | -- | -- | -- | -- | -- | 303 | 0.0 | 0.00 | |
| 8/26/18 | -- | -- | -- | -- | -- | -- | -- | -- | 304 | 0.0 | 0.00 | |
| 8/27/18 | 8:15 | 72.39 | 668.75 | -- | -- | -- | -- | -- | 305 | 0.0 | 0.00 | |
| 8/28/18 | -- | -- | -- | -- | -- | -- | -- | -- | 306 | 0.0 | 0.00 | |
| 8/29/18 | -- | -- | -- | -- | -- | -- | -- | -- | 307 | 0.0 | 0.00 | |
| 8/30/18 | -- | -- | -- | -- | -- | -- | -- | -- | 308 | 0.0 | 0.00 | |
| 8/31/18 | -- | -- | -- | -- | -- | -- | -- | -- | 309 | 0.0 | 0.00 | |
| 9/1/18 | -- | -- | -- | -- | -- | -- | -- | -- | 310 | 0.0 | 0.00 | |
| 9/2/18 | -- | -- | -- | -- | -- | -- | -- | -- | 311 | 0.0 | 0.00 | |
| 9/3/18 | 9:15 | 72.39 | 668.75 | -- | -- | -- | -- | -- | 312 | 0.0 | 0.00 | |
| 9/4/18 | -- | -- | -- | -- | -- | -- | -- | -- | 313 | 0.0 | 0.00 | |
| 9/5/18 | -- | -- | -- | -- | -- | -- | -- | -- | 314 | 0.0 | 0.00 | |
| 9/6/18 | -- | -- | -- | -- | -- | -- | -- | -- | 315 | 0.0 | 0.00 | |
| 9/7/18 | -- | -- | -- | -- | -- | -- | -- | -- | 316 | 0.0 | 0.00 | |
| 9/8/18 | -- | -- | -- | -- | -- | -- | -- | -- | 317 | 0.0 | 0.00 | |
| 9/9/18 | -- | -- | -- | -- | -- | -- | -- | -- | 318 | 0.0 | 0.00 | |
| 9/10/18 | 10:10 | 72.26 | 668.88 | -- | -- | -- | -- | -- | 319 | 0.0 | 0.00 | |
| 9/11/18 | -- | -- | -- | -- | -- | -- | -- | -- | 320 | 0.0 | 0.00 | |
| 9/12/18 | -- | -- | -- | -- | -- | -- | -- | -- | 321 | 0.0 | 0.00 | |
| 9/13/18 | -- | -- | -- | -- | -- | -- | -- | -- | 322 | 0.0 | 0.00 | |
| 9/14/18 | -- | -- | -- | -- | -- | -- | -- | -- | 323 | 0.0 | 0.00 | |
| 9/15/18 | -- | -- | -- | -- | -- | -- | -- | -- | 324 | 0.0 | 0.00 | |
| 9/16/18 | -- | -- | -- | -- | -- | -- | -- | -- | 325 | 0.0 | 0.00 | |
| 9/17/18 | 10:15 | 72.20 | 668.94 | -- | -- | -- | -- | -- | 326 | 0.0 | 0.00 | |
| 9/18/18 | -- | -- | -- | -- | -- | -- | -- | -- | 327 | 0.0 | 0.00 | |

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|-----------------------|-----------------------------------|---|--|--|--|-----------------------------------|--|---|---|---|---|----------|
| DATE | TIME OF MEASUREMENT #1 (hh:mm) | DEPTH TO WATER BEFORE PUMPING (feet below top of sump) | WATER LEVEL BEFORE PUMPING CONVERTED TO ELEVATION (ft AMSL) | FLOW METER READING ^(c) (gallons) | CALCULATED VOLUME REMOVED based on sump volume calc. (gallons) | TIME OF MEASUREMENT #2 (hh:mm) | DEPTH TO WATER AFTER PUMPING (feet below top of sump) | WATER LEVEL AFTER PUMPING CONVERTED TO ELEVATION (ft AMSL) | ELAPSED TIME BETWEEN PUMPING EVENTS (days) | TOTAL VOLUME PUMPED BETWEEN PUMPING EVENTS (gallons) | AVERAGE DAILY FLOW RATE ^{(d)E} (gallons/day/acre) | COMMENTS |
| 9/19/18 | -- | -- | -- | -- | -- | -- | -- | -- | 328 | 0.0 | 0.00 | |
| 9/20/18 | -- | -- | -- | -- | -- | -- | -- | -- | 329 | 0.0 | 0.00 | |
| 9/21/18 | -- | -- | -- | -- | -- | -- | -- | -- | 330 | 0.0 | 0.00 | |
| 9/22/18 | -- | -- | -- | -- | -- | -- | -- | -- | 331 | 0.0 | 0.00 | |
| 9/23/18 | -- | -- | -- | -- | -- | -- | -- | -- | 332 | 0.0 | 0.00 | |
| 9/24/18 | 11:15 | 72.18 | 668.96 | -- | -- | -- | -- | -- | 333 | 0.0 | 0.00 | |
| 9/25/18 | -- | -- | -- | -- | -- | -- | -- | -- | 334 | 0.0 | 0.00 | |
| 9/26/18 | -- | -- | -- | -- | -- | -- | -- | -- | 335 | 0.0 | 0.00 | |
| 9/27/18 | -- | -- | -- | -- | -- | -- | -- | -- | 336 | 0.0 | 0.00 | |
| 9/28/18 | -- | -- | -- | -- | -- | -- | -- | -- | 337 | 0.0 | 0.00 | |
| 9/29/18 | -- | -- | -- | -- | -- | -- | -- | -- | 338 | 0.0 | 0.00 | |
| 9/30/18 | -- | -- | -- | -- | -- | -- | -- | -- | 339 | 0.0 | 0.00 | |
| 10/1/18 | 9:40 | 72.24 | 668.9 | -- | -- | -- | -- | -- | 340 | 0.0 | 0.00 | |
| 10/2/18 | -- | -- | -- | -- | -- | -- | -- | -- | 341 | 0.0 | 0.00 | |
| 10/3/18 | -- | -- | -- | -- | -- | -- | -- | -- | 342 | 0.0 | 0.00 | |
| 10/4/18 | -- | -- | -- | -- | -- | -- | -- | -- | 343 | 0.0 | 0.00 | |
| 10/5/18 | -- | -- | -- | -- | -- | -- | -- | -- | 344 | 0.0 | 0.00 | |
| 10/6/18 | -- | -- | -- | -- | -- | -- | -- | -- | 345 | 0.0 | 0.00 | |
| 10/7/18 | -- | -- | -- | -- | -- | -- | -- | -- | 346 | 0.0 | 0.00 | |
| 10/8/18 | 8:50 | 72.24 | 668.9 | -- | -- | -- | -- | -- | 347 | 0.0 | 0.00 | |
| 10/9/18 | -- | -- | -- | -- | -- | -- | -- | -- | 348 | 0.0 | 0.00 | |
| 10/10/18 | -- | -- | -- | -- | -- | -- | -- | -- | 349 | 0.0 | 0.00 | |
| 10/11/18 | -- | -- | -- | -- | -- | -- | -- | -- | 350 | 0.0 | 0.00 | |
| 10/12/18 | -- | -- | -- | -- | -- | -- | -- | -- | 351 | 0.0 | 0.00 | |
| 10/13/18 | -- | -- | -- | -- | -- | -- | -- | -- | 352 | 0.0 | 0.00 | |
| 10/14/18 | -- | -- | -- | -- | -- | -- | -- | -- | 353 | 0.0 | 0.00 | |
| 10/15/18 | 8:34 | 72.24 | 668.9 | -- | -- | -- | -- | -- | 354 | 0.0 | 0.00 | |
| 10/16/18 | -- | -- | -- | -- | -- | -- | -- | -- | 355 | 0.0 | 0.00 | |
| 10/17/18 | -- | -- | -- | -- | -- | -- | -- | -- | 356 | 0.0 | 0.00 | |
| 10/18/18 | -- | -- | -- | -- | -- | -- | -- | -- | 357 | 0.0 | 0.00 | |
| 10/19/18 | -- | -- | -- | -- | -- | -- | -- | -- | 358 | 0.0 | 0.00 | |
| 10/20/18 | -- | -- | -- | -- | -- | -- | -- | -- | 359 | 0.0 | 0.00 | |
| 10/21/18 | -- | -- | -- | -- | -- | -- | -- | -- | 360 | 0.0 | 0.00 | |
| 10/22/18 | 9:10 | 72.18 | 668.96 | -- | -- | -- | -- | -- | 361 | 0.0 | 0.00 | |
| 10/23/18 | -- | -- | -- | -- | -- | -- | -- | -- | 362 | 0.0 | 0.00 | |
| 10/24/18 | -- | -- | -- | -- | -- | -- | -- | -- | 363 | 0.0 | 0.00 | |
| 10/25/18 | -- | -- | -- | -- | -- | -- | -- | -- | 364 | 0.0 | 0.00 | |
| 10/26/18 | -- | -- | -- | -- | -- | -- | -- | -- | 365 | 0.0 | 0.00 | |
| 10/27/18 | -- | -- | -- | -- | -- | -- | -- | -- | 366 | 0.0 | 0.00 | |
| 10/28/18 | -- | -- | -- | -- | -- | -- | -- | -- | 367 | 0.0 | 0.00 | |
| 10/29/18 | -- | -- | -- | -- | -- | -- | -- | -- | 368 | 0.0 | 0.00 | |
| 10/30/18 | 9:30 | 72.18 | 668.96 | -- | -- | -- | -- | -- | 369 | 0.0 | 0.00 | |
| 10/31/18 | -- | -- | -- | -- | -- | -- | -- | -- | 370 | 0.0 | 0.00 | |
| 11/1/18 | -- | -- | -- | -- | -- | -- | -- | -- | 371 | 0.0 | 0.00 | |
| 11/2/18 | -- | -- | -- | -- | -- | -- | -- | -- | 372 | 0.0 | 0.00 | |
| 11/3/18 | -- | -- | -- | -- | -- | -- | -- | -- | 373 | 0.0 | 0.00 | |
| 11/4/18 | -- | -- | -- | -- | -- | -- | -- | -- | 374 | 0.0 | 0.00 | |
| 11/5/18 | 14:25 | 72.10 | 669.04 | -- | -- | -- | -- | -- | 375 | 0.0 | 0.00 | |
| 11/6/18 | -- | -- | -- | -- | -- | -- | -- | -- | 376 | 0.0 | 0.00 | |
| 11/7/18 | -- | -- | -- | -- | -- | -- | -- | -- | 377 | 0.0 | 0.00 | |
| 11/8/18 | -- | -- | -- | -- | -- | -- | -- | -- | 378 | 0.0 | 0.00 | |
| 11/9/18 | -- | -- | -- | -- | -- | -- | -- | -- | 379 | 0.0 | 0.00 | |
| 11/10/18 | -- | -- | -- | -- | -- | -- | -- | -- | 380 | 0.0 | 0.00 | |
| 11/11/18 | -- | -- | -- | -- | -- | -- | -- | -- | 381 | 0.0 | 0.00 | |
| 11/12/18 | 13:10 | 72.00 | 669.14 | -- | -- | -- | -- | -- | 382 | 0.0 | 0.00 | |
| 11/13/18 | -- | -- | -- | -- | -- | -- | -- | -- | 383 | 0.0 | 0.00 | |
| 11/14/18 | -- | -- | -- | -- | -- | -- | -- | -- | 384 | 0.0 | 0.00 | |
| 11/15/18 | -- | -- | -- | -- | -- | -- | -- | -- | 385 | 0.0 | 0.00 | |
| 11/16/18 | -- | -- | -- | -- | -- | -- | -- | -- | 386 | 0.0 | 0.00 | |
| 11/17/18 | -- | -- | -- | -- | -- | -- | -- | -- | 387 | 0.0 | 0.00 | |
| 11/18/18 | -- | -- | -- | -- | -- | -- | -- | -- | 388 | 0.0 | 0.00 | |
| 11/19/18 | 14:15 | 71.90 | 669.24 | -- | -- | -- | -- | -- | 389 | 0.0 | 0.00 | |
| 11/20/18 | -- | -- | -- | -- | -- | -- | -- | -- | 390 | 0.0 | 0.00 | |
| 11/21/18 | -- | -- | -- | -- | -- | -- | -- | -- | 391 | 0.0 | 0.00 | |
| 11/22/18 | -- | -- | -- | -- | -- | -- | -- | -- | 392 | 0.0 | 0.00 | |
| 11/23/18 | -- | -- | -- | -- | -- | -- | -- | -- | 393 | 0.0 | 0.00 | |
| 11/24/18 | -- | -- | -- | -- | -- | -- | -- | -- | 394 | 0.0 | 0.00 | |
| 11/25/18 | -- | -- | -- | -- | -- | -- | -- | -- | 395 | 0.0 | 0.00 | |
| 11/26/18 | 14:36 | 71.80 | 669.34 | -- | -- | -- | -- | -- | 396 | 0.0 | 0.00 | |
| 11/27/18 | -- | -- | -- | -- | -- | -- | -- | -- | 397 | 0.0 | 0.00 | |
| 11/28/18 | -- | -- | -- | -- | -- | -- | -- | -- | 398 | 0.0 | 0.00 | |
| 11/29/18 | -- | -- | -- | -- | -- | -- | -- | -- | 399 | 0.0 | 0.00 | |
| 11/30/18 | -- | -- | -- | -- | -- | -- | -- | -- | 400 | 0.0 | 0.00 | |
| 12/1/18 | -- | -- | -- | -- | -- | -- | -- | -- | 401 | 0.0 | 0.00 | |
| 12/2/18 | -- | -- | -- | -- | -- | -- | -- | -- | 402 | 0.0 | 0.00 | |
| 12/3/18 | 9:10 | 71.78 | 669.36 | -- | -- | -- | -- | -- | 403 | 0.0 | 0.00 | |

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| LEAK DETECTION SYSTEM | | | | | | | | | | | | |
|-----------------------|-----------------------------------|---|--|--|--|-----------------------------------|--|---|---|---|---|----------|
| DATE | TIME OF MEASUREMENT #1 (hh:mm) | DEPTH TO WATER BEFORE PUMPING (feet below top of sump) | WATER LEVEL BEFORE PUMPING CONVERTED TO ELEVATION (ft AMSL) | FLOW METER READING ^(c) (gallons) | CALCULATED VOLUME REMOVED based on sump volume calc. (gallons) | TIME OF MEASUREMENT #2 (hh:mm) | DEPTH TO WATER AFTER PUMPING (feet below top of sump) | WATER LEVEL AFTER PUMPING CONVERTED TO ELEVATION (ft AMSL) | ELAPSED TIME BETWEEN PUMPING EVENTS (days) | TOTAL VOLUME PUMPED BETWEEN PUMPING EVENTS (gallons) | AVERAGE DAILY FLOW RATE ^{(d)€} (gallons/day/acre) | COMMENTS |
| 12/4/18 | -- | -- | -- | -- | -- | -- | -- | -- | 404 | 0.0 | 0.00 | |
| 12/5/18 | -- | -- | -- | -- | -- | -- | -- | -- | 405 | 0.0 | 0.00 | |
| 12/6/18 | -- | -- | -- | -- | -- | -- | -- | -- | 406 | 0.0 | 0.00 | |
| 12/7/18 | -- | -- | -- | -- | -- | -- | -- | -- | 407 | 0.0 | 0.00 | |
| 12/8/18 | -- | -- | -- | -- | -- | -- | -- | -- | 408 | 0.0 | 0.00 | |
| 12/9/18 | -- | -- | -- | -- | -- | -- | -- | -- | 409 | 0.0 | 0.00 | |
| 12/10/18 | 10:00 | 71.78 | 669.36 | -- | -- | -- | -- | -- | 410 | 0.0 | 0.00 | |
| 12/11/18 | -- | -- | -- | -- | -- | -- | -- | -- | 411 | 0.0 | 0.00 | |
| 12/12/18 | -- | -- | -- | -- | -- | -- | -- | -- | 412 | 0.0 | 0.00 | |
| 12/13/18 | -- | -- | -- | -- | -- | -- | -- | -- | 413 | 0.0 | 0.00 | |
| 12/14/18 | -- | -- | -- | -- | -- | -- | -- | -- | 414 | 0.0 | 0.00 | |
| 12/15/18 | -- | -- | -- | -- | -- | -- | -- | -- | 415 | 0.0 | 0.00 | |
| 12/16/18 | -- | -- | -- | -- | -- | -- | -- | -- | 416 | 0.0 | 0.00 | |
| 12/17/18 | 10:20 | 71.76 | 669.38 | -- | -- | -- | -- | -- | 417 | 0.0 | 0.00 | |
| 12/18/18 | -- | -- | -- | -- | -- | -- | -- | -- | 418 | 0.0 | 0.00 | |
| 12/19/18 | -- | -- | -- | -- | -- | -- | -- | -- | 419 | 0.0 | 0.00 | |
| 12/20/18 | -- | -- | -- | -- | -- | -- | -- | -- | 420 | 0.0 | 0.00 | |
| 12/21/18 | -- | -- | -- | -- | -- | -- | -- | -- | 421 | 0.0 | 0.00 | |
| 12/22/18 | -- | -- | -- | -- | -- | -- | -- | -- | 422 | 0.0 | 0.00 | |
| 12/23/18 | -- | -- | -- | -- | -- | -- | -- | -- | 423 | 0.0 | 0.00 | |
| 12/24/18 | 9:25 | 71.74 | 669.4 | -- | -- | -- | -- | -- | 424 | 0.0 | 0.00 | |
| 12/25/18 | -- | -- | -- | -- | -- | -- | -- | -- | 425 | 0.0 | 0.00 | |
| 12/26/18 | -- | -- | -- | -- | -- | -- | -- | -- | 426 | 0.0 | 0.00 | |
| 12/27/18 | -- | -- | -- | -- | -- | -- | -- | -- | 427 | 0.0 | 0.00 | |
| 12/28/18 | -- | -- | -- | -- | -- | -- | -- | -- | 428 | 0.0 | 0.00 | |
| 12/29/18 | -- | -- | -- | -- | -- | -- | -- | -- | 429 | 0.0 | 0.00 | |
| 12/30/18 | -- | -- | -- | -- | -- | -- | -- | -- | 430 | 0.0 | 0.00 | |
| 12/31/18 | 10:22 | 71.72 | 669.42 | -- | -- | -- | -- | -- | 431 | 0.0 | 0.00 | |
| Total | | | | | 0.0 | | | | | 0.0 | | |

Notes:

ft AMSL - feet above mean sea level
 Top of sump [top of concrete manhole] (feet AMSL): 741.14
 Bottom of sump (feet AMSL): 668.5
 Total depth of sump manhole (feet): 72.64
 Inside diameter of sump (feet): 6
 (--) Measurements were not collected.
 (---) Water was not removed from the sump.

(1) Water level in LDS not to rise above the primary liner system (670.0 ft AMSL) (or more than 18 inches of water depth or 71.14 ft from top of sump). Pumping must be initiated if water elevation is not within the appropriate limits. All corresponding information to be recorded on this form.

(a) Indication of water level in LDS rising to 670.0 ft AMSL or higher

(b) Water level elevation is less than the previous measurement due to human error while taking the measurement.

(c) Water level elevation is more than the previous measurement due to human error while taking the measurement.

(d) Flow meter readings are cumulative unless noted otherwise.

(e) Average daily flow rate calculated by dividing removed volume pumped since the last pumping event by the elapsed time from the prior pumping event in days and the area of the Vault footprint (7 acres).

(f) Since no pumping occurred in 2018 in the LDS, an average daily flow rate could not be calculated for 2018.

Minimum water elevation (ft AMSL) 668.59
 Maximum water elevation (ft AMSL) 669.42
 Mean water elevation (ft AMSL) 668.75

Number of Pumping Events 0

(1) Total Volume Accumulation carried forward from 2017 (gallons) (based on flow meter readings) 0

(2) Total Volume Accumulation in LDS from last pumping event to end of 2018 (gallons) (based on flow meter readings)

(3) Total Volume Pumped from the LDS in 2018 (gallons) (based on flow meter readings) 0

(4)=(3)-(1)+(2) Net 2018 LDS Accumulation Volume (gallons) (based on flow meter readings) 0

(5) Total Volume Accumulation carried forward from 2017 (gallons) (based on volume removed calculations) 0.0

(6) Total Volume Accumulation from last pumping event to end of 2018 (gallons) (based on volume removed calculations)

(7) Total Volume Pumped from the LDS in 2018 (gallons) (based on volume removed calculations) 0.0

(8)=(7)+(6)-(5) Net 2018 LDS Accumulation Volume (gallons) (based on volume removed calculations) 0.0

Note: (2) and (6) not evaluated since pumping of 2019 has not been completed to date.

Table 2.3
2018 Summary of Daily Gravel Underdrain System Log
East Plant Area TSCA Vault Annual Report, Calendar Year 2018
GM CET Bedford Facility
Bedford, Indiana

| GRAVEL UNDERDRAIN SYSTEM | | | | | | | | | | | | |
|--------------------------|--------------------------------|---|--|--|--|--|--|---|---|--|--|----------|
| DATE | TIME OF MEASUREMENT (hh:mm) | MANUAL DEPTH TO WATER LEVEL (feet below top of sump) | MANUAL WATER LEVEL CONVERTED TO ELEVATION (ft AMSL) | WATER LEVEL @ PLC ^(b) (inches) | PLC WATER LEVEL CONVERTED TO ELEVATION ^(b) (ft AMSL) | QUANTITY PUMPED @ PLC (gallons removed) | QUANTITY PUMPED @ PLC (100 gallons) | LOCAL FLOW METER (WWTP) READING (a) (GUS + LCS TOTAL + LDS TOTAL) (gallons) | TOTAL VOLUME REMOVED BY LOCAL FLOW METER (WWTP) (GUS + LCS TOTAL + LDS TOTAL) (gallons) | VOLUME REMOVED FROM GUS ONLY = WWTP - LOCAL LCS METER LDS PORTABLE METER 01/1/18 through 12/31/18 (gallons) | ELAPSED TIME BETWEEN FLOW METER READINGS (days) | COMMENTS |
| 12/31/17 | 9:00 | (4) | -- | 81.9 | 669.00 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/1/18 | 11:00 | (4) | -- | 81.9 | 669.00 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/2/18 | 10:30 | (4) | -- | 81.9 | 669.00 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/3/18 | 12:30 | (4) | -- | 81.5 | 668.97 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/4/18 | 10:15 | (4) | -- | 81.7 | 668.98 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/5/18 | 10:30 | (4) | -- | 81.5 | 668.97 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/6/18 | 9:30 | (4) | -- | 81.7 | 668.98 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/7/18 | 10:25 | (4) | -- | 81.7 | 668.98 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/8/18 | 10:30 | (4) | -- | 81.5 | 668.97 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/9/18 | 8:30 | (4) | -- | 81.2 | 668.94 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/10/18 | 9:00 | (4) | -- | 81.4 | 668.96 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/11/18 | 11:45 | (4) | -- | 81.5 | 668.97 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/12/18 | 11:00 | (4) | -- | 81.6 | 668.98 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/13/18 | 22:35 | (4) | -- | 81.5 | 668.97 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/14/18 | 0:50 | (4) | -- | 81.6 | 668.98 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/15/18 | 7:50 | (4) | -- | 81.7 | 668.98 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/16/18 | 10:10 | (4) | -- | 81.5 | 668.97 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/17/18 | 8:30 | (4) | -- | 81.7 | 668.98 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/18/18 | 10:50 | (4) | -- | 81.7 | 668.98 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/19/18 | 8:30 | (4) | -- | 81.8 | 668.98 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/20/18 | 16:00 | (4) | -- | 81.4 | 668.96 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/21/18 | 8:00 | (4) | -- | 81.5 | 668.97 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/22/18 | 8:30 | (4) | -- | 81.5 | 668.97 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/23/18 | 9:30 | (4) | -- | 81.8 | 668.99 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/24/18 | 10:50 | (4) | -- | 81.6 | 668.98 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/25/18 | 8:30 | (4) | -- | 81.5 | 668.97 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/26/18 | 9:00 | (4) | -- | 81.5 | 668.97 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/27/18 | 12:00 | (4) | -- | 81.9 | 669.00 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/28/18 | 20:20 | (4) | -- | 81.9 | 669.00 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/29/18 | 8:30 | (4) | -- | 82.0 | 669.01 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/30/18 | 9:50 | (4) | -- | 82.0 | 669.01 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 1/31/18 | 8:30 | (4) | -- | 82.1 | 669.02 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/1/18 | 8:30 | (4) | -- | 82.4 | 669.04 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/2/18 | 8:30 | (4) | -- | 82.3 | 669.03 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/3/18 | 15:00 | (4) | -- | 82.4 | 669.04 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/4/18 | 8:30 | (4) | -- | 82.4 | 669.04 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/5/18 | 10:45 | (4) | -- | 82.5 | 669.05 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/6/18 | 8:30 | (4) | -- | 82.6 | 669.06 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/7/18 | 8:50 | (4) | -- | 82.6 | 669.06 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/8/18 | 9:30 | (4) | -- | 82.5 | 669.05 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/9/18 | 8:15 | (4) | -- | 82.9 | 669.08 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/10/18 | 8:30 | (4) | -- | 83.0 | 669.09 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/11/18 | 12:30 | (4) | -- | 83.3 | 669.12 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/12/18 | 8:10 | (4) | -- | 82.5 | 669.05 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/13/18 | 13:55 | (4) | -- | 82.5 | 669.05 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/14/18 | 8:06 | (4) | -- | 82.8 | 669.08 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/15/18 | 9:30 | (4) | -- | 82.8 | 669.08 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/16/18 | 9:25 | (4) | -- | 82.5 | 669.05 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/17/18 | 8:30 | (4) | -- | 82.6 | 669.06 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/18/18 | 8:30 | (4) | -- | 82.6 | 669.06 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/19/18 | 8:30 | (4) | -- | 82.8 | 669.08 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/20/18 | 8:30 | (4) | -- | 82.8 | 669.08 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/21/18 | 8:30 | (4) | -- | 83.2 | 669.11 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/22/18 | 8:30 | (4) | -- | 83.4 | 669.13 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/23/18 | 6:50 | (4) | -- | 83.4 | 669.13 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/24/18 | 8:45 | (4) | -- | 83.7 | 669.15 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/25/18 | 9:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/26/18 | 8:20 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/27/18 | 8:30 | (4) | -- | 84.2 | 669.19 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 2/28/18 | 8:15 | (4) | -- | 84.5 | 669.22 | 0 | 0 | 1,567,405 | 0 | 0 | -- | |
| 3/1/18 | 8:30 | (4) | -- | 84.5 | 669.22 | 0 | 0 | 1,567,410 | 5 | 5 | -- | |
| 3/2/18 | 8:30 | (4) | -- | 84.6 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/3/18 | 7:25 | (4) | -- | 84.6 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/4/18 | 8:30 | (4) | -- | 84.8 | 669.24 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/5/18 | 8:30 | (4) | -- | 85.0 | 669.26 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/6/18 | 8:30 | (4) | -- | 84.9 | 669.25 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/7/18 | 8:30 | (4) | -- | 84.7 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/8/18 | 8:30 | (4) | -- | 84.9 | 669.25 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/9/18 | 8:30 | (4) | -- | 84.9 | 669.25 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/10/18 | 8:30 | (4) | -- | 84.8 | 669.24 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/11/18 | 8:30 | (4) | -- | 84.8 | 669.24 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/12/18 | 8:30 | (4) | -- | 85.0 | 669.26 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/13/18 | 8:30 | (4) | -- | 85.0 | 669.26 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/14/18 | 8:10 | (4) | -- | 85.1 | 669.27 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/15/18 | 8:30 | (4) | -- | 85.4 | 669.29 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/16/18 | 8:00 | (4) | -- | 84.7 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/17/18 | 8:30 | (4) | -- | 84.8 | 669.24 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/18/18 | 8:30 | (4) | -- | 84.8 | 669.24 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/19/18 | 8:30 | (4) | -- | 84.8 | 669.24 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/20/18 | 7:00 | (4) | -- | 84.9 | 669.25 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/21/18 | 7:00 | (4) | -- | 84.8 | 669.24 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/22/18 | 8:00 | (4) | -- | 84.5 | 669.22 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/23/18 | 8:30 | (4) | -- | 84.6 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/24/18 | 8:30 | (4) | -- | 84.6 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/25/18 | 8:30 | (4) | -- | 84.8 | 669.24 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/26/18 | 8:30 | (4) | -- | 84.6 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/27/18 | 8:30 | (4) | -- | 84.6 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/28/18 | 8:30 | (4) | -- | 84.6 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/29/18 | 8:30 | (4) | -- | 84.6 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 3/30/18 | 8:30 | (4) | -- | 84.6 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |

Table 2.3
 2018 Summary of Daily Gravel Underdrain System Log
 East Plant Area TSCA Vault Annual Report, Calendar Year 2018
 GM CET Bedford Facility
 Bedford, Indiana

| GRAVEL UNDERDRAIN SYSTEM | | | | | | | | | | | | |
|--------------------------|--------------------------------|---|--|--|--|--|--|---|---|---|--|----------|
| DATE | TIME OF MEASUREMENT (hh:mm) | MANUAL DEPTH TO WATER LEVEL (feet below top of sump) | MANUAL WATER LEVEL CONVERTED TO ELEVATION (ft AMSL) | WATER LEVEL @ PLC ^(b) (inches) | PLC WATER LEVEL CONVERTED TO ELEVATION ^(b) (ft AMSL) | QUANTITY PUMPED @ PLC (gallons removed) | QUANTITY PUMPED @ PLC (100 gallons) | LOCAL FLOW METER (WWTP) READING (a) (GUS + LCS TOTAL + LDS TOTAL) (gallons) | TOTAL VOLUME REMOVED BY LOCAL FLOW METER (WWTP) (GUS + LCS TOTAL + LDS TOTAL) (gallons) | VOLUME REMOVED FROM GUS ONLY = WWTP - LOCAL LCS METER LDS PORTABLE METER0 01/1/18 through 12/31/18 (gallons) | ELAPSED TIME BETWEEN FLOW METER READINGS (days) | COMMENTS |
| 3/31/18 | 8:00 | (4) | -- | 84.8 | 669.24 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/1/18 | 8:30 | (4) | -- | 84.9 | 669.25 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/2/18 | 8:30 | (4) | -- | 85.2 | 669.28 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/3/18 | 8:30 | (4) | -- | 85.5 | 669.30 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/4/18 | 8:30 | (4) | -- | 85.0 | 669.26 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/5/18 | 8:30 | (4) | -- | 85.2 | 669.28 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/6/18 | 8:30 | (4) | -- | 85.2 | 669.28 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/7/18 | 8:30 | (4) | -- | 85.3 | 669.28 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/8/18 | 8:30 | (4) | -- | 85.3 | 669.28 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/9/18 | 8:30 | (4) | -- | 85.3 | 669.28 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/10/18 | 9:45 | (4) | -- | 85.2 | 669.28 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/11/18 | 8:30 | (4) | -- | 85.5 | 669.30 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/12/18 | 8:30 | (4) | -- | 85.5 | 669.30 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/13/18 | 8:30 | (4) | -- | 85.4 | 669.29 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/14/18 | 8:30 | (4) | -- | 85.4 | 669.29 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/15/18 | 8:30 | (4) | -- | 85.3 | 669.28 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/16/18 | 8:30 | (4) | -- | 85.5 | 669.30 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/17/18 | 8:30 | (4) | -- | 85.5 | 669.30 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/18/18 | 8:30 | (4) | -- | 85.4 | 669.29 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/19/18 | 8:30 | (4) | -- | 85.4 | 669.29 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/20/18 | 8:30 | (4) | -- | 85.3 | 669.28 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/21/18 | 8:30 | (4) | -- | 85.3 | 669.28 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/22/18 | 8:30 | (4) | -- | 85.4 | 669.29 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/23/18 | 8:30 | (4) | -- | 85.4 | 669.29 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/24/18 | 8:30 | (4) | -- | 85.1 | 669.27 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/25/18 | 8:30 | (4) | -- | 85.5 | 669.30 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/26/18 | 8:30 | (4) | -- | 85.5 | 669.30 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/27/18 | 9:00 | (4) | -- | 85.1 | 669.27 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/28/18 | 8:30 | (4) | -- | 85.3 | 669.28 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/29/18 | 9:00 | (4) | -- | 85.1 | 669.27 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 4/30/18 | 9:00 | (4) | -- | 85.2 | 669.28 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/1/18 | 8:30 | (4) | -- | 85.1 | 669.27 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/2/18 | 8:30 | (4) | -- | 85.1 | 669.27 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/3/18 | 8:30 | (4) | -- | 84.9 | 669.25 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/4/18 | 8:30 | (4) | -- | 85.1 | 669.27 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/5/18 | 8:30 | (4) | -- | 85.1 | 669.27 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/6/18 | 8:30 | (4) | -- | 84.9 | 669.25 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/7/18 | 8:30 | (4) | -- | 84.9 | 669.25 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/8/18 | 8:00 | (4) | -- | 85.1 | 669.27 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/9/18 | 8:30 | (4) | -- | 84.9 | 669.25 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/10/18 | 8:30 | (4) | -- | 84.7 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/11/18 | 8:30 | (4) | -- | 85.1 | 669.27 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/12/18 | 8:30 | (4) | -- | 85.1 | 669.27 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/13/18 | 8:30 | (4) | -- | 84.9 | 669.25 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/14/18 | 8:30 | (4) | -- | 84.8 | 669.24 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/15/18 | 8:30 | (4) | -- | 84.9 | 669.25 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/16/18 | 8:30 | (4) | -- | 85.0 | 669.26 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/17/18 | 10:30 | (4) | -- | 84.8 | 669.24 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/18/18 | 8:30 | (4) | -- | 84.9 | 669.25 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/19/18 | 8:30 | (4) | -- | 84.7 | 669.25 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/20/18 | 8:30 | (4) | -- | 84.5 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/21/18 | 8:30 | (4) | -- | 84.5 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/22/18 | 8:30 | (4) | -- | 84.5 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/23/18 | 8:30 | (4) | -- | 84.7 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/24/18 | 8:30 | (4) | -- | 84.7 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/25/18 | 8:30 | (4) | -- | 84.6 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/26/18 | 8:30 | (4) | -- | 84.6 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/27/18 | 8:30 | (4) | -- | 84.4 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/28/18 | 8:30 | (4) | -- | 84.3 | 669.20 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/29/18 | 8:30 | (4) | -- | 84.5 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/30/18 | 8:30 | (4) | -- | 84.7 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 5/31/18 | 7:30 | (4) | -- | 84.7 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/1/18 | 8:30 | (4) | -- | 84.5 | 669.22 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/2/18 | 8:30 | (4) | -- | 84.5 | 669.22 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/3/18 | 8:30 | (4) | -- | 84.4 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/4/18 | 8:30 | (4) | -- | 84.4 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/5/18 | 7:30 | (4) | -- | 84.4 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/6/18 | 8:30 | (4) | -- | 84.6 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/7/18 | 8:30 | (4) | -- | 84.5 | 669.22 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/8/18 | 8:30 | (4) | -- | 84.5 | 669.22 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/9/18 | 8:00 | (4) | -- | 84.6 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/10/18 | 8:00 | (4) | -- | 84.5 | 669.22 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/11/18 | 8:15 | (4) | -- | 84.6 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/12/18 | 8:00 | (4) | -- | 84.7 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/13/18 | 8:00 | (4) | -- | 84.3 | 669.20 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/14/18 | 8:00 | (4) | -- | 84.4 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/15/18 | 8:00 | (4) | -- | 84.4 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/16/18 | 8:30 | (4) | -- | 84.4 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/17/18 | 8:00 | (4) | -- | 84.5 | 669.22 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/18/18 | 8:00 | (4) | -- | 84.5 | 669.22 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/19/18 | 8:00 | (4) | -- | 84.4 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/20/18 | 8:00 | (4) | -- | 84.4 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/21/18 | 7:30 | (4) | -- | 84.3 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/22/18 | 7:00 | (4) | -- | 84.5 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/23/18 | 8:00 | (4) | -- | 84.5 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/24/18 | 8:00 | (4) | -- | 84.4 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/25/18 | 8:00 | (4) | -- | 84.3 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/26/18 | 8:30 | (4) | -- | 84.5 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/27/18 | 8:00 | (4) | -- | 84.5 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/28/18 | 8:00 | (4) | -- | 84.4 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |

Table 2.3
 2018 Summary of Daily Gravel Underdrain System Log
 East Plant Area TSCA Vault Annual Report, Calendar Year 2018
 GM CET Bedford Facility
 Bedford, Indiana

| GRAVEL UNDERDRAIN SYSTEM | | | | | | | | | | | | |
|--------------------------|--------------------------------|---|--|--|--|--|--|---|---|---|--|----------|
| DATE | TIME OF MEASUREMENT (hh:mm) | MANUAL DEPTH TO WATER LEVEL (feet below top of sump) | MANUAL WATER LEVEL CONVERTED TO ELEVATION (ft AMSL) | WATER LEVEL @ PLC ^(b) (inches) | PLC WATER LEVEL CONVERTED TO ELEVATION ^(b) (ft AMSL) | QUANTITY PUMPED @ PLC (gallons removed) | QUANTITY PUMPED @ PLC (100 gallons) | LOCAL FLOW METER (WWTP) READING (a) (GUS + LCS TOTAL + LDS TOTAL) (gallons) | TOTAL VOLUME REMOVED BY LOCAL FLOW METER (WWTP) (GUS + LCS TOTAL + LDS TOTAL) (gallons) | VOLUME REMOVED FROM GUS ONLY = WWTP - LOCAL LCS METER LDS PORTABLE METER0 01/1/18 through 12/31/18 (gallons) | ELAPSED TIME BETWEEN FLOW METER READINGS (days) | COMMENTS |
| 6/29/18 | 8:00 | (4) | -- | 84.4 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 6/30/18 | 8:00 | (4) | -- | 84.5 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/1/18 | 8:00 | (4) | -- | 84.5 | 669.22 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/2/18 | 8:00 | (4) | -- | 84.6 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/3/18 | 8:00 | (4) | -- | 84.6 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/4/18 | 10:00 | (4) | -- | 84.6 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/5/18 | 8:00 | (4) | -- | 84.7 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/6/18 | 8:00 | (4) | -- | 84.4 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/7/18 | 8:00 | (4) | -- | 84.5 | 669.22 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/8/18 | 9:00 | (4) | -- | 84.6 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/9/18 | 8:00 | (4) | -- | 84.7 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/10/18 | 8:00 | (4) | -- | 84.5 | 669.22 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/11/18 | 8:00 | (4) | -- | 84.4 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/12/18 | 8:00 | (4) | -- | 84.4 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/13/18 | 8:00 | (4) | -- | 84.6 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/14/18 | 8:50 | (4) | -- | 84.5 | 669.22 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/15/18 | 9:00 | (4) | -- | 84.4 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/16/18 | 8:00 | (4) | -- | 84.6 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/17/18 | 7:30 | (4) | -- | 84.4 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/18/18 | 7:30 | (4) | -- | 84.4 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/19/18 | 7:00 | (4) | -- | 84.6 | 669.23 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/20/18 | 8:00 | (4) | -- | 84.5 | 669.22 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/21/18 | 8:00 | (4) | -- | 84.5 | 669.22 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/22/18 | 8:00 | (4) | -- | 84.4 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/23/18 | 7:30 | (4) | -- | 84.4 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/24/18 | 8:00 | (4) | -- | 84.4 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/25/18 | 8:00 | (4) | -- | 84.5 | 669.22 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/26/18 | 8:00 | (4) | -- | 84.4 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/27/18 | 8:00 | (4) | -- | 84.4 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/28/18 | 9:00 | (4) | -- | 84.5 | 669.22 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/29/18 | 9:00 | (4) | -- | 84.5 | 669.22 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/30/18 | 8:00 | (4) | -- | 84.4 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 7/31/18 | 8:00 | (4) | -- | 84.4 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/1/18 | 8:00 | (4) | -- | 84.4 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/2/18 | 8:10 | (4) | -- | 84.5 | 669.22 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/3/18 | 8:15 | (4) | -- | 84.4 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/4/18 | 8:00 | (4) | -- | 84.5 | 669.22 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/5/18 | 8:00 | (4) | -- | 84.4 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/6/18 | 8:00 | (4) | -- | 84.4 | 669.21 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/7/18 | 8:00 | (4) | -- | 83.9 | 669.17 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/8/18 | 8:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/9/18 | 8:00 | (4) | -- | 83.9 | 669.17 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/10/18 | 8:00 | (4) | -- | 83.8 | 669.16 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/11/18 | 8:00 | (4) | -- | 83.8 | 669.16 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/12/18 | 8:00 | (4) | -- | 83.9 | 669.17 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/13/18 | 8:00 | (4) | -- | 83.9 | 669.17 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/14/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/15/18 | 8:00 | (4) | -- | 83.9 | 669.16 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/16/18 | 8:00 | (4) | -- | 83.9 | 669.17 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/17/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/18/18 | 8:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/19/18 | 8:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/20/18 | 8:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/21/18 | 8:00 | (4) | -- | 83.8 | 669.16 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/22/18 | 8:00 | (4) | -- | 83.8 | 669.16 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/23/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/24/18 | 8:00 | (4) | -- | 83.8 | 669.18 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/25/18 | 9:00 | (4) | -- | 83.9 | 669.16 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/26/18 | 9:00 | (4) | -- | 83.8 | 669.17 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/27/18 | 8:00 | (4) | -- | 83.9 | 669.16 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/28/18 | 8:00 | (4) | -- | 83.9 | 669.17 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/29/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/30/18 | 8:00 | (4) | -- | 83.9 | 669.19 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 8/31/18 | 8:00 | (4) | -- | 83.8 | 669.16 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 9/1/18 | 8:00 | (4) | -- | 83.8 | 669.16 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 9/2/18 | 8:30 | (4) | -- | 83.9 | 669.17 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 9/3/18 | 8:30 | (4) | -- | 83.9 | 669.17 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 9/4/18 | 8:45 | (4) | -- | 83.8 | 669.16 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 9/5/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 9/6/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 9/7/18 | 9:00 | (4) | -- | 83.8 | 669.16 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 9/8/18 | 9:00 | (4) | -- | 83.9 | 669.17 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 9/9/18 | 8:00 | (4) | -- | 83.9 | 669.17 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 9/10/18 | 9:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 9/11/18 | 7:00 | (4) | -- | 83.8 | 669.16 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 9/12/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 9/13/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 9/14/18 | 8:00 | (4) | -- | 84.2 | 669.19 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 9/15/18 | 8:30 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 9/16/18 | 9:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 9/17/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 9/18/18 | 8:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 9/19/18 | 8:00 | (4) | -- | 84.2 | 669.19 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 9/20/18 | 8:00 | (4) | -- | 84.2 | 669.19 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 9/21/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 9/22/18 | 9:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 9/23/18 | 9:00 | (4) | -- | 84.2 | 669.19 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 9/24/18 | 8:00 | (4) | -- | 84.2 | 669.19 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 9/25/18 | 8:00 | (4) | -- | 84.2 | 669.19 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 9/26/18 | 8:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |

Table 2.3
 2018 Summary of Daily Gravel Underdrain System Log
 East Plant Area TSCA Vault Annual Report, Calendar Year 2018
 GM CET Bedford Facility
 Bedford, Indiana

| GRAVEL UNDERDRAIN SYSTEM | | | | | | | | | | | | |
|--------------------------|--------------------------------|---|--|--|--|--|--|---|---|--|--|----------|
| DATE | TIME OF MEASUREMENT (hh:mm) | MANUAL DEPTH TO WATER LEVEL (feet below top of sump) | MANUAL WATER LEVEL CONVERTED TO ELEVATION (ft AMSL) | WATER LEVEL @ PLC ^(b) (inches) | PLC WATER LEVEL CONVERTED TO ELEVATION ^(b) (ft AMSL) | QUANTITY PUMPED @ PLC (gallons removed) | QUANTITY PUMPED @ PLC (100 gallons) | LOCAL FLOW METER (WWTP) READING (a) (GUS + LCS TOTAL + LDS TOTAL) (gallons) | TOTAL VOLUME REMOVED BY LOCAL FLOW METER (WWTP) (GUS + LCS TOTAL + LDS TOTAL) (gallons) | VOLUME REMOVED FROM GUS ONLY = WWTP - LOCAL LCS METER LDS PORTABLE METER 0 01/1/18 through 12/31/18 (gallons) | ELAPSED TIME BETWEEN FLOW METER READINGS (days) | COMMENTS |
| 9/27/18 | 8:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 9/28/18 | 8:00 | (4) | -- | 84.2 | 669.19 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 9/29/18 | 8:00 | (4) | -- | 84.2 | 669.19 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 9/30/18 | 8:00 | (4) | -- | 84.2 | 669.19 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/1/18 | 8:00 | (4) | -- | 84.2 | 669.19 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/2/18 | 8:00 | (4) | -- | 84.2 | 669.19 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/3/18 | 8:00 | (4) | -- | 84.2 | 669.19 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/4/18 | 8:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/5/18 | 8:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/6/18 | 8:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/7/18 | 8:00 | (4) | -- | 84.2 | 669.19 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/8/18 | 8:00 | (4) | -- | 84.2 | 669.19 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/9/18 | 8:00 | (4) | -- | 84.2 | 669.19 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/10/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/11/18 | 8:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/12/18 | 8:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/13/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/14/18 | 9:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/15/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/16/18 | 8:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/17/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/18/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/19/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/20/18 | 9:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/21/18 | 9:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/22/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/23/18 | 8:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/24/18 | 8:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/25/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/26/18 | 8:00 | (4) | -- | 84.2 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/27/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/28/18 | 9:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/29/18 | 8:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/30/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 10/31/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/1/18 | 8:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/2/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/3/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/4/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/5/18 | 8:00 | (4) | -- | 84.9 | 669.17 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/6/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/7/18 | 8:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/8/18 | 8:00 | (4) | -- | 84.3 | 669.20 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/9/18 | 8:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/10/18 | 8:00 | (4) | -- | 84.2 | 669.20 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/11/18 | 8:00 | (4) | -- | 84.2 | 669.20 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/12/18 | 8:00 | (4) | -- | 84.3 | 669.20 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/13/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/14/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/15/18 | 8:00 | (4) | -- | 84.3 | 669.20 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/16/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/17/18 | 9:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/18/18 | 9:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/19/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/20/18 | 8:00 | (4) | -- | 83.9 | 669.17 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/21/18 | 8:00 | (4) | -- | 83.9 | 669.17 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/22/18 | 8:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/23/18 | 9:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/24/18 | 9:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/25/18 | 9:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/26/18 | 9:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/27/18 | 9:00 | (4) | -- | 84.3 | 669.20 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/28/18 | 8:00 | (4) | -- | 84.3 | 669.20 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/29/18 | 8:00 | (4) | -- | 84.3 | 669.20 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 11/30/18 | 8:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 12/1/18 | 9:00 | (4) | -- | 84.0 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 12/2/18 | 9:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 12/3/18 | 8:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 12/4/18 | 8:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 12/5/18 | 8:00 | (4) | -- | 83.9 | 669.17 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 12/6/18 | 8:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 12/7/18 | 8:00 | (4) | -- | 83.9 | 669.17 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 12/8/18 | 8:00 | (4) | -- | 84.1 | 669.17 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 12/9/18 | 8:00 | (4) | -- | 84.1 | 669.16 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 12/10/18 | 8:00 | (4) | -- | 84.1 | 669.16 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 12/11/18 | 8:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 12/12/18 | 8:00 | (4) | -- | 84.1 | 669.17 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 12/13/18 | 8:00 | (4) | -- | 84.1 | 669.17 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 12/14/18 | 8:00 | (4) | -- | 84.1 | 669.17 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 12/15/18 | 8:00 | (4) | -- | 84.1 | 669.16 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 12/16/18 | 8:00 | (4) | -- | 84.1 | 669.17 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 12/17/18 | 8:00 | (4) | -- | 84.1 | 669.16 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 12/18/18 | 8:00 | (4) | -- | 84.1 | 669.17 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 12/19/18 | 8:00 | (4) | -- | 84.1 | 669.16 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 12/20/18 | 8:00 | (4) | -- | 84.1 | 669.16 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 12/21/18 | 8:00 | (4) | -- | 84.1 | 669.16 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 12/22/18 | 8:00 | (4) | -- | 84.1 | 669.17 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 12/23/18 | 9:00 | (4) | -- | 84.1 | 669.17 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 12/24/18 | 9:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |
| 12/25/18 | 9:00 | (4) | -- | 84.1 | 669.16 | 0 | 0 | 1,567.410 | 0 | 0 | -- | |

Table 2.3
2018 Summary of Daily Gravel Underdrain System Log
East Plant Area TSCA Vault Annual Report, Calendar Year 2018
GM CET Bedford Facility
Bedford, Indiana

| GRAVEL UNDERDRAIN SYSTEM | | | | | | | | | | | | |
|--------------------------|--------------------------------|---|--|--|--|--|--|---|--|--|--|----------|
| DATE | TIME OF MEASUREMENT (hh:mm) | MANUAL DEPTH TO WATER LEVEL (feet below top of sump) | MANUAL WATER LEVEL CONVERTED TO ELEVATION (ft AMSL) | WATER LEVEL @ PLC ^(b) (inches) | PLC WATER LEVEL CONVERTED TO ELEVATION ^(b) (ft AMSL) | QUANTITY PUMPED @ PLC (gallons removed) | QUANTITY PUMPED @ PLC (100 gallons) | LOCAL FLOW METER (WWTP) READING (a) (GUS + LCS TOTAL + LDS TOTAL) (gallons) | TOTAL VOLUME REMOVED BY LOCAL FLOW METER (WWTP) (GUS + LCS TOTAL + LDS TOTAL) 1/1/18 through 12/31/18 (gallons) | VOLUME REMOVED FROM GUS GUS ONLY = WWTP - LOCAL LCS METER LDS PORTABLE METER0 01/1/18 through 12/31/18 (gallons) | ELAPSED TIME BETWEEN FLOW METER READINGS (days) | COMMENTS |
| 12/26/18 | 9:00 | (4) | -- | 84.1 | 669.17 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 12/27/18 | 9:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 12/28/18 | 9:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 12/29/18 | 9:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 12/30/18 | 9:00 | (4) | -- | 84.1 | 669.18 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| 12/31/18 | 8:00 | (4) | -- | 84.1 | 669.19 | 0 | 0 | 1,567,410 | 0 | 0 | -- | |
| Total | | | | | | 0 | 0 | | 0 | 5 | | |

Notes:

ft AMSL - feet above mean sea level
 NR - Not Recorded
 Top of sump [top of concrete manhole] (feet AMSL): 739.49
 Bottom of sump (feet AMSL): 662.18
 Total depth of sump manhole (feet): 77.31
 Inside diameter of sump (feet): 3

- (1) Pump operating level between 2.5 ft (664.68 ft AMSL or 75.31 ft below the top of sump) and 4.33 ft (666.5 ft AMSL or 72.99 ft below the top of sump) of water in the GUS manhole.
- (2) Water level in the GUS not to rise above the secondary liner system (667.50 ft AMSL) (equates to more than 63.84 inches of water depth or a water level of 71.99 ft below the top of sump).
 Indication of the water level in the GUS rising to 667.50 ft AMSL or higher.
- (3) False readings on the PLC. The site source water may have been pushing backwards through the flow meter.
- (4) Tape malfunction - tape stuck in the sump and not retrievable
- (--)
 Measurements were not collected.
- (a) Flow meter readings (displayed on mag meter serial number F1095B16000) are cumulative unless noted otherwise.
- (b) PLC records the maximum water level observed each day (midnight to midnight). Therefore, the manual water level/elevation will not match the water level/elevation recorded by the PLC.

| | Manual | PLC |
|------------------------------|--------|--------|
| Minimum Elevation (ft, AMSL) | 0 | 668.9 |
| Maximum Elevation (ft, AMSL) | 0 | 669.30 |
| Mean Elevation (ft, AMSL) | 0 | 669.18 |

Number of Pumping Events (days) 0

| | | |
|-------------|--|----------|
| (1) | Total Volume Accumulation in GUS carried forward from 2017 (gallons) (based on flow meter readings) | 0 |
| (2) | Total Volume Accumulation in GUS from last pumping event to end of 2018 (gallons) (based on flow meter readings) | |
| (3) | Total Volume Pumped from the GUS in 2018 (gallons) (based on flow meter readings) | 5 |
| (3)-(1)+(2) | Total Volume Accumulation Originating in the GUS in 2018 (gallons) (based on flow meter readings) | 5 |

Table 2.4

**Summary of 2018 Water Elevations
East Plant Area TSCA Vault Annual Report, Calendar Year 2018
GM CET Bedford Facility
Bedford, Indiana**

| | | | | | |
|--|------------|--|------------|--|------------|
| Sump | LCS | | LDS | | GUS |
| Top of (concrete) sump (feet AMSL) | 740.83 | | 741.14 | | 738.99 |
| Bottom of sump (ft AMSL) | 671.00 | | 668.50 | | 662.18 |
| Bottom of sump (feet below top of sump [BTOS]) | 69.83 | | 72.64 | | 76.81 |
| Diameter of sump (feet) | 6 | | 6 | | 3 |

| Date (mm/dd/yy) | LCS Water Elevation (Manual) (feet AMSL) | LCS Water Elevation (PLC) (feet AMSL) | Lowest Elevation of Primary Liner (feet AMSL) | LDS Water Elevation (feet AMSL) | Lowest Elevation of Secondary Liner (feet AMSL) | GUS Water Elevation (Manual) (feet AMSL) | GUS Water Elevation (PLC) (feet AMSL) |
|--------------------|--|---|---|---------------------------------------|---|--|---|
| 1/1/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 1/2/18 | 671.73 | 671.00 | 669.5 | 668.7 | 667.5 | -- | 669.0 |
| 1/3/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 1/4/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 1/5/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 1/6/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 1/7/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 1/8/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 1/9/18 | 671.78 | 671.00 | 669.5 | 668.7 | 667.5 | -- | 668.9 |
| 1/10/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 1/11/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 1/12/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 1/13/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 1/14/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 1/15/18 | 671.78 | 671.00 | 669.5 | 668.6 | 667.5 | -- | 669.0 |
| 1/16/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 1/17/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 1/18/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 1/19/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 1/20/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 1/21/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 1/22/18 | 671.83 | 671.00 | 669.5 | 668.6 | 667.5 | -- | 669.0 |
| 1/23/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 1/24/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 1/25/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 1/26/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 1/27/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 1/28/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 1/29/18 | 671.83 | 671.00 | 669.5 | 668.6 | 667.5 | -- | 669.0 |
| 1/30/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 1/31/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 2/1/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 2/2/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 2/3/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 2/4/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.0 |
| 2/5/18 | 671.83 | 671.00 | 669.5 | 668.6 | 667.5 | -- | 669.1 |
| 2/6/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.1 |
| 2/7/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.1 |

Table 2.4

**Summary of 2018 Water Elevations
East Plant Area TSCA Vault Annual Report, Calendar Year 2018
GM CET Bedford Facility
Bedford, Indiana**

| | | | | | |
|--|------------|--|------------|--|------------|
| Sump | LCS | | LDS | | GUS |
| Top of (concrete) sump (feet AMSL) | 740.83 | | 741.14 | | 738.99 |
| Bottom of sump (ft AMSL) | 671.00 | | 668.50 | | 662.18 |
| Bottom of sump (feet below top of sump [BTOS]) | 69.83 | | 72.64 | | 76.81 |
| Diameter of sump (feet) | 6 | | 6 | | 3 |

| Date (mm/dd/yy) | LCS Water Elevation (Manual) (feet AMSL) | LCS Water Elevation (PLC) (feet AMSL) | Lowest Elevation of Primary Liner (feet AMSL) | LDS Water Elevation (feet AMSL) | Lowest Elevation of Secondary Liner (feet AMSL) | GUS Water Elevation (Manual) (feet AMSL) | GUS Water Elevation (PLC) (feet AMSL) |
|--------------------|--|---|---|---------------------------------------|---|--|---|
| 2/8/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.1 |
| 2/9/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.1 |
| 2/10/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.1 |
| 2/11/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.1 |
| 2/12/18 | 671.83 | 671.00 | 669.5 | 668.6 | 667.5 | -- | 669.1 |
| 2/13/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.1 |
| 2/14/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.1 |
| 2/15/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.1 |
| 2/16/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.1 |
| 2/17/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.1 |
| 2/18/18 | -- | 671.00 | 669.5 | 668.6 | 667.5 | -- | 669.1 |
| 2/19/18 | 671.93 | 671.00 | 669.5 | -- | 667.5 | -- | 669.1 |
| 2/20/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.1 |
| 2/21/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.1 |
| 2/22/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.1 |
| 2/23/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.1 |
| 2/24/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 2/25/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 2/26/18 | 671.98 | 671.00 | 669.5 | 668.7 | 667.5 | -- | 669.2 |
| 2/27/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 2/28/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 3/1/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 3/2/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 3/3/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 3/4/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 3/5/18 | 671.98 | 671.00 | 669.5 | 668.7 | 667.5 | -- | 669.3 |
| 3/6/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 3/7/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 3/8/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 3/9/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 3/10/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 3/11/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 3/12/18 | 672.03 | 671.00 | 669.5 | 668.7 | 667.5 | -- | 669.3 |
| 3/13/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 3/14/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 3/15/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 3/16/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 3/17/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |

Table 2.4

**Summary of 2018 Water Elevations
East Plant Area TSCA Vault Annual Report, Calendar Year 2018
GM CET Bedford Facility
Bedford, Indiana**

| | | | | | |
|--|------------|--|------------|--|------------|
| Sump | LCS | | LDS | | GUS |
| Top of (concrete) sump (feet AMSL) | 740.83 | | 741.14 | | 738.99 |
| Bottom of sump (ft AMSL) | 671.00 | | 668.50 | | 662.18 |
| Bottom of sump (feet below top of sump [BTOS]) | 69.83 | | 72.64 | | 76.81 |
| Diameter of sump (feet) | 6 | | 6 | | 3 |

| Date (mm/dd/yy) | LCS Water Elevation (Manual) (feet AMSL) | LCS Water Elevation (PLC) (feet AMSL) | Lowest Elevation of Primary Liner (feet AMSL) | LDS Water Elevation (feet AMSL) | Lowest Elevation of Secondary Liner (feet AMSL) | GUS Water Elevation (Manual) (feet AMSL) | GUS Water Elevation (PLC) (feet AMSL) |
|--------------------|--|---|---|---------------------------------------|---|--|---|
| 3/18/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 3/19/18 | 672.03 | 671.00 | 669.5 | 668.7 | 667.5 | -- | 669.2 |
| 3/20/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 3/21/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 3/22/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 3/23/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 3/24/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 3/25/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 3/26/18 | 672.14 | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 3/27/18 | -- | 671.00 | 669.5 | 668.7 | 667.5 | -- | 669.2 |
| 3/28/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 3/29/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 3/30/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 3/31/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 4/1/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 4/2/18 | 672.14 | 671.00 | 669.5 | 668.7 | 667.5 | -- | 669.3 |
| 4/3/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 4/4/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 4/5/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 4/6/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 4/7/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 4/8/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 4/9/18 | 672.14 | 671.00 | 669.5 | 668.7 | 667.5 | -- | 669.3 |
| 4/10/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 4/11/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 4/12/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 4/13/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 4/14/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 4/15/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 4/16/18 | 672.18 | 671.00 | 669.5 | 668.7 | 667.5 | -- | 669.3 |
| 4/17/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 4/18/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 4/19/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 4/20/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 4/21/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 4/22/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 4/23/18 | 672.23 | 671.00 | 669.5 | 668.7 | 667.5 | -- | 669.3 |
| 4/24/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |

Table 2.4

**Summary of 2018 Water Elevations
East Plant Area TSCA Vault Annual Report, Calendar Year 2018
GM CET Bedford Facility
Bedford, Indiana**

| | | | | | |
|--|------------|--|------------|--|------------|
| Sump | LCS | | LDS | | GUS |
| Top of (concrete) sump (feet AMSL) | 740.83 | | 741.14 | | 738.99 |
| Bottom of sump (ft AMSL) | 671.00 | | 668.50 | | 662.18 |
| Bottom of sump (feet below top of sump [BTOS]) | 69.83 | | 72.64 | | 76.81 |
| Diameter of sump (feet) | 6 | | 6 | | 3 |

| Date (mm/dd/yy) | LCS Water Elevation (Manual) (feet AMSL) | LCS Water Elevation (PLC) (feet AMSL) | Lowest Elevation of Primary Liner (feet AMSL) | LDS Water Elevation (feet AMSL) | Lowest Elevation of Secondary Liner (feet AMSL) | GUS Water Elevation (Manual) (feet AMSL) | GUS Water Elevation (PLC) (feet AMSL) |
|--------------------|--|---|---|---------------------------------------|---|--|---|
| 4/25/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 4/26/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 4/27/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 4/28/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 4/29/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 4/30/18 | 672.29 | 671.00 | 669.5 | 668.7 | 667.5 | -- | 669.3 |
| 5/1/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 5/2/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 5/3/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 5/4/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 5/5/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 5/6/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 5/7/18 | 672.29 | 671.00 | 669.5 | 668.7 | 667.5 | -- | 669.3 |
| 5/8/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 5/9/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 5/10/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 5/11/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 5/12/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 5/13/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 5/14/18 | 672.31 | 671.00 | 669.5 | 668.7 | 667.5 | -- | 669.2 |
| 5/15/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 5/16/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 5/17/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 5/18/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 5/19/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.3 |
| 5/20/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 5/21/18 | 672.33 | 671.00 | 669.5 | 668.7 | 667.5 | -- | 669.2 |
| 5/22/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 5/23/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 5/24/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 5/25/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 5/26/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 5/27/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 5/28/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 5/29/18 | -- | 671.00 | 669.5 | 668.7 | 667.5 | -- | 669.2 |
| 5/30/18 | 672.36 | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 5/31/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 6/1/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |

Table 2.4

**Summary of 2018 Water Elevations
East Plant Area TSCA Vault Annual Report, Calendar Year 2018
GM CET Bedford Facility
Bedford, Indiana**

| | | | | | |
|--|------------|--|------------|--|------------|
| Sump | LCS | | LDS | | GUS |
| Top of (concrete) sump (feet AMSL) | 740.83 | | 741.14 | | 738.99 |
| Bottom of sump (ft AMSL) | 671.00 | | 668.50 | | 662.18 |
| Bottom of sump (feet below top of sump [BTOS]) | 69.83 | | 72.64 | | 76.81 |
| Diameter of sump (feet) | 6 | | 6 | | 3 |

| Date (mm/dd/yy) | LCS Water Elevation (Manual) (feet AMSL) | LCS Water Elevation (PLC) (feet AMSL) | Lowest Elevation of Primary Liner (feet AMSL) | LDS Water Elevation (feet AMSL) | Lowest Elevation of Secondary Liner (feet AMSL) | GUS Water Elevation (Manual) (feet AMSL) | GUS Water Elevation (PLC) (feet AMSL) |
|--------------------|--|---|---|---------------------------------------|---|--|---|
| 6/2/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 6/3/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 6/4/18 | 672.36 | 671.00 | 669.5 | 668.7 | 667.5 | -- | 669.2 |
| 6/5/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 6/6/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 6/7/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 6/8/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 6/9/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 6/10/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 6/11/18 | 672.38 | 671.00 | 669.5 | 668.7 | 667.5 | -- | 669.2 |
| 6/12/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 6/13/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 6/14/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 6/15/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 6/16/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 6/17/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 6/18/18 | 672.39 | 671.00 | 669.5 | 668.7 | 667.5 | -- | 669.2 |
| 6/19/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 6/20/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 6/21/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 6/22/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 6/23/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 6/24/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 6/25/18 | 672.42 | 671.00 | 669.5 | 668.7 | 667.5 | -- | 669.2 |
| 6/26/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 6/27/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 6/28/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 6/29/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 6/30/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 7/1/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 7/2/18 | 672.45 | 671.00 | 669.5 | 668.8 | 667.5 | -- | 669.2 |
| 7/3/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 7/4/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 7/5/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 7/6/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 7/7/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 7/8/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 7/9/18 | 672.5 | 671.00 | 669.5 | 668.8 | 667.5 | -- | 669.2 |

Table 2.4

**Summary of 2018 Water Elevations
East Plant Area TSCA Vault Annual Report, Calendar Year 2018
GM CET Bedford Facility
Bedford, Indiana**

| | | | | | |
|--|------------|--|------------|--|------------|
| Sump | LCS | | LDS | | GUS |
| Top of (concrete) sump (feet AMSL) | 740.83 | | 741.14 | | 738.99 |
| Bottom of sump (ft AMSL) | 671.00 | | 668.50 | | 662.18 |
| Bottom of sump (feet below top of sump [BTOS]) | 69.83 | | 72.64 | | 76.81 |
| Diameter of sump (feet) | 6 | | 6 | | 3 |

| Date (mm/dd/yy) | LCS Water Elevation (Manual) (feet AMSL) | LCS Water Elevation (PLC) (feet AMSL) | Lowest Elevation of Primary Liner (feet AMSL) | LDS Water Elevation (feet AMSL) | Lowest Elevation of Secondary Liner (feet AMSL) | GUS Water Elevation (Manual) (feet AMSL) | GUS Water Elevation (PLC) (feet AMSL) |
|--------------------|--|---|---|---------------------------------------|---|--|---|
| 7/10/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 7/11/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 7/12/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 7/13/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 7/14/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 7/15/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 7/16/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 7/17/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 7/18/18 | 672.52 | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 7/19/18 | -- | 671.00 | 669.5 | 668.8 | 667.5 | -- | 669.2 |
| 7/20/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 7/21/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 7/22/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 7/23/18 | 672.54 | 671.00 | 669.5 | 668.8 | 667.5 | -- | 669.2 |
| 7/24/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 7/25/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 7/26/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 7/27/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 7/28/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 7/29/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 7/30/18 | 672.57 | 671.00 | 669.5 | 668.8 | 667.5 | -- | 669.2 |
| 7/31/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 8/1/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 8/2/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 8/3/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 8/4/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 8/5/18 | -- | 671.00 | 669.5 | 668.77 | 667.5 | -- | 669.2 |
| 8/6/18 | 672.6 | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 8/7/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 8/8/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 8/9/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 8/10/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 8/11/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 8/12/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 8/13/18 | 672.6 | 671.00 | 669.5 | 668.76 | 667.5 | -- | 669.2 |
| 8/14/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 8/15/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 8/16/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |

Table 2.4

**Summary of 2018 Water Elevations
East Plant Area TSCA Vault Annual Report, Calendar Year 2018
GM CET Bedford Facility
Bedford, Indiana**

| | | | | | |
|--|------------|--|------------|--|------------|
| Sump | LCS | | LDS | | GUS |
| Top of (concrete) sump (feet AMSL) | 740.83 | | 741.14 | | 738.99 |
| Bottom of sump (ft AMSL) | 671.00 | | 668.50 | | 662.18 |
| Bottom of sump (feet below top of sump [BTOS]) | 69.83 | | 72.64 | | 76.81 |
| Diameter of sump (feet) | 6 | | 6 | | 3 |

| Date (mm/dd/yy) | LCS Water Elevation (Manual) (feet AMSL) | LCS Water Elevation (PLC) (feet AMSL) | Lowest Elevation of Primary Liner (feet AMSL) | LDS Water Elevation (feet AMSL) | Lowest Elevation of Secondary Liner (feet AMSL) | GUS Water Elevation (Manual) (feet AMSL) | GUS Water Elevation (PLC) (feet AMSL) |
|--------------------|--|---|---|---------------------------------------|---|--|---|
| 8/17/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 8/18/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 8/19/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 8/20/18 | 672.59 | 671.00 | 669.5 | 668.75 | 667.5 | -- | 669.2 |
| 8/21/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 8/22/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 8/23/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 8/24/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 8/25/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 8/26/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 8/27/18 | 672.59 | 671.00 | 669.5 | 668.75 | 667.5 | -- | 669.2 |
| 8/28/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 8/29/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 8/30/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 8/31/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 9/1/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 9/2/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 9/3/18 | 672.59 | 671.00 | 669.5 | 668.75 | 667.5 | -- | 669.2 |
| 9/4/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 9/5/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 9/6/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 9/7/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 9/8/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 9/9/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 9/10/18 | 672.59 | 671.00 | 669.5 | 668.88 | 667.5 | -- | 669.2 |
| 9/11/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 9/12/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 9/13/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 9/14/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 9/15/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 9/16/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 9/17/18 | 672.59 | 671.00 | 669.5 | 668.94 | 667.5 | -- | 669.2 |
| 9/18/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 9/19/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 9/20/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 9/21/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 9/22/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 9/23/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |

Table 2.4

**Summary of 2018 Water Elevations
East Plant Area TSCA Vault Annual Report, Calendar Year 2018
GM CET Bedford Facility
Bedford, Indiana**

| | | | | | |
|--|------------|--|------------|--|------------|
| Sump | LCS | | LDS | | GUS |
| Top of (concrete) sump (feet AMSL) | 740.83 | | 741.14 | | 738.99 |
| Bottom of sump (ft AMSL) | 671.00 | | 668.50 | | 662.18 |
| Bottom of sump (feet below top of sump [BTOS]) | 69.83 | | 72.64 | | 76.81 |
| Diameter of sump (feet) | 6 | | 6 | | 3 |

| Date (mm/dd/yy) | LCS Water Elevation (Manual) (feet AMSL) | LCS Water Elevation (PLC) (feet AMSL) | Lowest Elevation of Primary Liner (feet AMSL) | LDS Water Elevation (feet AMSL) | Lowest Elevation of Secondary Liner (feet AMSL) | GUS Water Elevation (Manual) (feet AMSL) | GUS Water Elevation (PLC) (feet AMSL) |
|--------------------|--|---|---|---------------------------------------|---|--|---|
| 9/24/18 | 672.59 | 671.00 | 669.5 | 668.96 | 667.5 | -- | 669.2 |
| 9/25/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 9/26/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 9/27/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 9/28/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 9/29/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 9/30/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 10/1/18 | 672.57 | 671.00 | 669.5 | 668.90 | 667.5 | -- | 669.2 |
| 10/2/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 10/3/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 10/4/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 10/5/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 10/6/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 10/7/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 10/8/18 | 672.55 | 671.00 | 669.5 | 668.90 | 667.5 | -- | 669.2 |
| 10/9/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 10/10/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 10/11/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 10/12/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 10/13/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 10/14/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 10/15/18 | 672.55 | 671.00 | 669.5 | 668.90 | 667.5 | -- | 669.2 |
| 10/16/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 10/17/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 10/18/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 10/19/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 10/20/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 10/21/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 10/22/18 | 672.7 | 671.00 | 669.5 | 668.96 | 667.5 | -- | 669.2 |
| 10/23/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 10/24/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 10/25/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 10/26/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 10/27/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 10/28/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 10/29/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |
| 10/30/18 | 672.7 | 671.00 | 669.5 | 668.96 | 667.5 | -- | 669.2 |
| 10/31/18 | -- | 671.00 | 669.5 | -- | 667.5 | -- | 669.2 |

Table 2.4

**Summary of 2018 Water Elevations
East Plant Area TSCA Vault Annual Report, Calendar Year 2018
GM CET Bedford Facility
Bedford, Indiana**

| | | | | | |
|--|------------|--|------------|--|------------|
| Sump | LCS | | LDS | | GUS |
| Top of (concrete) sump (feet AMSL) | 740.83 | | 741.14 | | 738.99 |
| Bottom of sump (ft AMSL) | 671.00 | | 668.50 | | 662.18 |
| Bottom of sump (feet below top of sump [BTOS]) | 69.83 | | 72.64 | | 76.81 |
| Diameter of sump (feet) | 6 | | 6 | | 3 |

| Date (mm/dd/yy) | LCS Water Elevation (Manual) (feet AMSL) | LCS Water Elevation (PLC) (feet AMSL) | Lowest Elevation of Primary Liner (feet AMSL) | LDS Water Elevation (feet AMSL) | Lowest Elevation of Secondary Liner (feet AMSL) | GUS Water Elevation (Manual) (feet AMSL) | GUS Water Elevation (PLC) (feet AMSL) |
|--------------------|--|---|---|---------------------------------------|---|--|---|
| 11/1/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 11/2/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 11/3/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 11/4/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 11/5/18 | 672.69 | 671.76 | 669.5 | 669.04 | 667.5 | -- | 669.2 |
| 11/6/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 11/7/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 11/8/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 11/9/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 11/10/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 11/11/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 11/12/18 | 672.71 | 671.79 | 669.5 | 669.14 | 667.5 | -- | 669.2 |
| 11/13/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 11/14/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 11/15/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 11/16/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 11/17/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 11/18/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 11/19/18 | 672.76 | 671.84 | 669.5 | 669.24 | 667.5 | -- | 669.2 |
| 11/20/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 11/21/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 11/22/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 11/23/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 11/24/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 11/25/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 11/26/18 | 672.8 | 671.90 | 669.5 | 669.34 | 667.5 | -- | 669.2 |
| 11/27/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 11/28/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 11/29/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 11/30/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 12/1/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 12/2/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 12/3/18 | 671.98 | 671.90 | 669.5 | 669.36 | 667.5 | -- | 669.2 |
| 12/4/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 12/5/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 12/6/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 12/7/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 12/8/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |

Table 2.4

**Summary of 2018 Water Elevations
East Plant Area TSCA Vault Annual Report, Calendar Year 2018
GM CET Bedford Facility
Bedford, Indiana**

| | | | | | |
|--|------------|--|------------|--|------------|
| Sump | LCS | | LDS | | GUS |
| Top of (concrete) sump (feet AMSL) | 740.83 | | 741.14 | | 738.99 |
| Bottom of sump (ft AMSL) | 671.00 | | 668.50 | | 662.18 |
| Bottom of sump (feet below top of sump [BTOS]) | 69.83 | | 72.64 | | 76.81 |
| Diameter of sump (feet) | 6 | | 6 | | 3 |

| Date (mm/dd/yy) | LCS Water Elevation (Manual) (feet AMSL) | LCS Water Elevation (PLC) (feet AMSL) | Lowest Elevation of Primary Liner (feet AMSL) | LDS Water Elevation (feet AMSL) | Lowest Elevation of Secondary Liner (feet AMSL) | GUS Water Elevation (Manual) (feet AMSL) | GUS Water Elevation (PLC) (feet AMSL) |
|--------------------|--|---|---|---------------------------------------|---|--|---|
| 12/9/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 12/10/18 | 671.98 | 671.90 | 669.5 | 669.36 | 667.5 | -- | 669.2 |
| 12/11/18 | 671.98 | 671.90 | 669.5 | -- | 667.5 | -- | 669.2 |
| 12/12/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 12/13/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 12/14/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 12/15/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 12/16/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 12/17/18 | 672.83 | 671.93 | 669.5 | 669.38 | 667.5 | -- | 669.2 |
| 12/18/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 12/19/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 12/20/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 12/21/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 12/22/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 12/23/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 12/24/18 | 672.83 | 671.95 | 669.5 | 669.40 | 667.5 | -- | 669.2 |
| 12/25/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 12/26/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 12/27/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 12/28/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 12/29/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 12/30/18 | -- | -- | 669.5 | -- | 667.5 | -- | 669.2 |
| 12/31/18 | 672.88 | 671.98 | 669.5 | 669.42 | 667.5 | -- | 669.2 |

Table 2.5

**2018 LCS, LDS, and GUS Maximum Water Elevation Summary
East Plant Area TSCA Vault Annual Report, Calendar Year 2018
GM CET Bedford Facility
Bedford, Indiana**

Maximum Water Level (based on manual measurements), measured in feet

| Date | LCS ¹ | | LCS ¹ | | LDS ² | | GUS ³ | | GUS ³ | | Remarks |
|--------|-------------------------------------|--|----------------------|-----------------------------------|-------------------------------------|--|-------------------------------------|--|----------------------|-----------------------------------|---------|
| | Manual Measurement Water Depth (ft) | Manual Measurement Water Surface Elev. (ft AMSL) | PLC Water Depth (ft) | PLC Water Surface Elev. (ft AMSL) | Manual Measurement Water Depth (ft) | Manual Measurement Water Surface Elev. (ft AMSL) | Manual Measurement Water Depth (ft) | Manual Measurement Water Surface Elev. (ft AMSL) | PLC Water Depth (ft) | PLC Water Surface Elev. (ft AMSL) | |
| Jan-18 | 0.8 | 671.8 | 0.0 | 671.0 | 0.2 | 668.7 | -- | -- | 6.8 | 669.0 | |
| Feb-18 | 1.0 | 672.0 | 0.0 | 671.0 | 0.2 | 668.7 | -- | -- | 7.0 | 669.2 | |
| Mar-18 | 1.1 | 672.1 | 0.0 | 671.0 | 0.2 | 668.7 | -- | -- | 7.1 | 669.3 | |
| Apr-18 | 1.3 | 672.3 | 0.0 | 671.0 | 0.2 | 668.7 | -- | -- | 7.1 | 669.3 | |
| May-18 | 1.4 | 672.4 | 0.0 | 671.0 | 0.2 | 668.7 | -- | -- | 7.1 | 669.3 | |
| Jun-18 | 1.4 | 672.4 | 0.0 | 671.0 | 0.2 | 668.7 | -- | -- | 7.1 | 669.2 | |
| Jul-18 | 1.6 | 672.6 | 0.0 | 671.0 | 0.3 | 668.8 | -- | -- | 7.1 | 669.2 | |
| Aug-18 | 1.6 | 672.6 | 0.0 | 671.0 | 0.3 | 668.8 | -- | -- | 7.0 | 669.2 | |
| Sep-18 | 1.6 | 672.6 | 0.0 | 671.0 | 0.5 | 669.0 | -- | -- | 7.0 | 669.2 | |
| Oct-18 | 1.7 | 672.7 | 0.0 | 671.0 | 0.5 | 669.0 | -- | -- | 7.0 | 669.2 | |
| Nov-18 | 1.8 | 672.8 | 0.9 | 671.9 | 0.8 | 669.3 | -- | -- | 7.0 | 669.2 | |
| Dec-18 | 1.9 | 672.9 | 1.0 | 672.0 | 0.9 | 669.4 | -- | -- | 7.0 | 669.2 | |

Notes:

AMSL - Above mean sea level

ft - feet

Diameter of LCS and LDS sumps = 6 feet

Diameter of Underdrain sump = 3 feet

¹ LCS: Top of sump [top of concrete manhole] (feet AMSL): 740.83, Bottom of sump (feet AMSL): 671.00, Total depth of sump manhole (feet): 69.83. Automated pump turns on at 674 ft AMSL and off at 672 ft AMSL.

² LDS: Top of sump [top of concrete manhole] (feet AMSL): 741.14, Bottom of sump (feet AMSL): 668.5, Total depth of sump manhole (feet): 72.64

³ GUS: Top of sump [top of concrete] (feet AMSL): 738.99, Bottom of sump (feet AMSL): 662.18, Total depth of sump manhole (feet): 76.81. Automated pump turns on at 666.5 ft AMSL and off at 664.68 ft AMSL.

Indication of water level reaching or exceeding the operational limit.

Table 2.6

**2018 Summary of Monthly Total Volume of Water Treated
East Plant Area TSCA Vault Annual Report, Calendar Year 2018
GM CET Bedford Facility
Bedford, Indiana**

| Month | Groundwater Treatment Plant (GWTP) Number of Operational Days | Volume of Water Treated/Discharged at the GWTP (gallons x 106) | Daily Average Water Treated/Discharged at the GWTP (gpm) |
|----------------------|--|---|---|
| Jan-18 | 31 | 3.121 | 70 |
| Feb-18 | 28 | 4.426 | 110 |
| Mar-18 | 31 | 3.849 | 86 |
| Apr-18 | 30 | 4.000 | 93 |
| May-18 | 31 | 1.442 | 32 |
| Jun-18 | 30 | 1.945 | 45 |
| Jul-18 | 31 | 1.029 | 23 |
| Aug-18 | 31 | 1.205 | 27 |
| Sep-18 | 30 | 2.765 | 64 |
| Oct-18 | 31 | 1.240 | 28 |
| Nov-18 | 30 | 3.806 | 88 |
| Dec-18 | 31 | 4.227 | 95 |
| Total | 365 | 33.055 | |
| Month Average | - | 2.755 | |
| Daily Average | - | 0.091 | |

Table 3.1

**Summary of Total PCBs Analytical Results for EI CA750 2018 1st Semi-Annual GW Samples
East Plant Area TSCA Vault Annual Report, Calendar Year 2018
GM CET Bedford Facility
Bedford, Indiana**

| Area | | EastPlantArea | EastPlantArea | A007_EastPlantArea | EastPlantArea | EastPlantArea | EastPlantArea | EastPlantArea | MonitoringWell_RFIBoundary_WestPlantArea | MonitoringWell_RFIBoundary_WestPlantArea | Plant_property |
|--|-------|-----------------|-----------------|--------------------|-----------------|-----------------|-----------------|-----------------|--|--|-----------------|
| Sample Location: | | 9-4 | 9-4 | CH-20 | CH-42 | CH-42A | CH-43 | CH-44 | MW-X033Y147S | MW-X033Y147S | MW-X043Y176 |
| Sample Identification: | | GW-052218-MC-09 | GW-052218-MC-11 | GW-052418-MC-21 | GW-052218-MC-01 | GW-052218-MC-03 | GW-052218-KC-02 | GW-052218-KC-04 | GW-052318-MC-13 | GW-052318-MC-13~Split | GW-052318-MC-17 |
| Sample Date: | | 5/22/2018 | 5/22/2018 | 5/24/2018 | 5/22/2018 | 5/22/2018 | 5/22/2018 | 5/22/2018 | 5/23/2018 | 5/23/2018 | 5/23/2018 |
| Sample Type: | | | Duplicate | | | | | | | Replicate | |
| | Units | | | | | | | | | | |
| PCBs | | | | | | | | | | | |
| Aroclor-1016 (PCB-1016) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1221 (PCB-1221) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1232 (PCB-1232) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1242 (PCB-1242) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1248 (PCB-1248) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1254 (PCB-1254) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1260 (PCB-1260) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Total PCBs | ug/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Aroclor-1016 (PCB-1016) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U |
| Aroclor-1221 (PCB-1221) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U |
| Aroclor-1232 (PCB-1232) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U |
| Aroclor-1242 (PCB-1242) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U |
| Aroclor-1248 (PCB-1248) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U |
| Aroclor-1254 (PCB-1254) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U |
| Aroclor-1260 (PCB-1260) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U |
| Total PCBs (dissolved) | ug/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Semi-Volatile Organic Compounds (SVOCs) | | | | | | | | | | | |
| 2,2'-Oxybis(1-chloropropane) (bis(2- | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4,5-Trichlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4,6-Trichlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dichlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dinitrophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dinitrotoluene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,6-Dinitrotoluene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Chloronaphthalene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Chlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Methylnaphthalene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Methylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Nitroaniline | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Nitrophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 3&4-Methylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 3,3'-Dichlorobenzidine | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 3-Nitroaniline | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,6-Dinitro-2-methylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Bromophenyl phenyl ether | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Chloro-3-methylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Chloroaniline | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Chlorophenyl phenyl ether | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Nitroaniline | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Nitrophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Acetophenone | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Atrazine | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzaldehyde | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(b)fluoranthene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(k)fluoranthene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Biphenyl (1,1-Biphenyl) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Chloroethoxy)methane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Chloroethyl)ether | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate (DEHP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Butyl benzylphthalate (BBP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Caprolactam | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

Summary of Total PCBs Analytical Results for EI CA750 2018 1st Semi-Annual GW Samples
 East Plant Area TSCA Vault Annual Report, Calendar Year 2018
 GM CET Bedford Facility
 Bedford, Indiana

| Area | | EastPlantArea | EastPlantArea | A007_EastPlantArea | EastPlantArea | EastPlantArea | EastPlantArea | EastPlantArea | MonitoringWell_RFIBoundary_WestPlantArea | MonitoringWell_RFIBoundary_WestPlantArea | Plant_property |
|--|-------|-----------------|-----------------|--------------------|-----------------|-----------------|-----------------|-----------------|--|--|-----------------|
| Sample Location: | | 9-4 | 9-4 | CH-20 | CH-42 | CH-42A | CH-43 | CH-44 | MW-X033Y147S | MW-X033Y147S | MW-X043Y176 |
| Sample Identification: | | GW-052218-MC-09 | GW-052218-MC-11 | GW-052418-MC-21 | GW-052218-MC-01 | GW-052218-MC-03 | GW-052218-KC-02 | GW-052218-KC-04 | GW-052318-MC-13 | GW-052318-MC-13~Split | GW-052318-MC-17 |
| Sample Date: | | 5/22/2018 | 5/22/2018 | 5/24/2018 | 5/22/2018 | 5/22/2018 | 5/22/2018 | 5/22/2018 | 5/23/2018 | 5/23/2018 | 5/23/2018 |
| Sample Type: | | | Duplicate | | | | | | | Replicate | |
| | Units | | | | | | | | | | |
| PCBs | | | | | | | | | | | |
| Carbazole | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dibenz(a,h)anthracene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Di-n-butylphthalate (DBP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate (DnOP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Fluorene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorocyclopentadiene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-cd)pyrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Isophorone | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Nitrobenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| N-Nitrosodi-n-propylamine | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| N-Nitrosodiphenylamine | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Phenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Volatile Organic Compounds (VOCs) | | | | | | | | | | | |
| 1,1,1-Trichloroethane | ug/L | 1.0 U | 1.0 U | 1.0 UJ | -- | -- | -- | -- | -- | -- | -- |
| 1,1,2,2-Tetrachloroethane | ug/L | 1.0 U | 1.0 U | 1.0 UJ | -- | -- | -- | -- | -- | -- | -- |
| 1,1,2-Trichloroethane | ug/L | 1.0 U | 1.0 U | 1.0 UJ | -- | -- | -- | -- | -- | -- | -- |
| 1,1-Dichloroethane | ug/L | 1.0 U | 1.0 U | 1.0 UJ | -- | -- | -- | -- | -- | -- | -- |
| 1,1-Dichloroethene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- |
| 1,2,4-Trichlorobenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dibromo-3-chloropropane (DBCP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dibromoethane (Ethylene dibromide) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichloroethane | ug/L | 1.0 U | 1.0 U | 1.0 UJ | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichloropropane | ug/L | 1.0 U | 1.0 U | 1.0 UJ | -- | -- | -- | -- | -- | -- | -- |
| 1,3-Dichlorobenzene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- |
| 2-Butanone (Methyl ethyl ketone) (MEK) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Chloroethyl vinyl ether | ug/L | 10 U | 10 U | 10 U | -- | -- | -- | -- | -- | -- | -- |
| 2-Hexanone | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Acetone | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzene | ug/L | 1.0 U | 1.0 U | 1.0 UJ | -- | -- | -- | -- | -- | -- | -- |
| Bromodichloromethane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- |
| Bromoform | ug/L | 1.0 UJ | 1.0 UJ | 1.0 U | -- | -- | -- | -- | -- | -- | -- |
| Bromomethane (Methyl bromide) | ug/L | 1.0 UJ | 1.0 UJ | 1.0 UJ | -- | -- | -- | -- | -- | -- | -- |
| Carbon disulfide | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Carbon tetrachloride | ug/L | 1.0 U | 1.0 U | 1.0 UJ | -- | -- | -- | -- | -- | -- | -- |
| Chlorobenzene | ug/L | 1.0 U | 1.0 U | 0.36 J | -- | -- | -- | -- | -- | -- | -- |
| Chloroethane | ug/L | 1.0 U | 1.0 U | 1.0 UJ | -- | -- | -- | -- | -- | -- | -- |
| Chloroform (Trichloromethane) | ug/L | 1.0 U | 1.0 U | 1.0 UJ | -- | -- | -- | -- | -- | -- | -- |
| Chloromethane (Methyl chloride) | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- |
| cis-1,2-Dichloroethene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| cis-1,3-Dichloropropene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- |
| Cyclohexane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dibromochloromethane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- |
| Dichlorodifluoromethane (CFC-12) | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- |
| Ethylbenzene | ug/L | 1.0 U | 1.0 U | 0.12 J | -- | -- | -- | -- | -- | -- | -- |

Table 3.1

Summary of Total PCBs Analytical Results for EI CA750 2018 1st Semi-Annual GW Samples
 East Plant Area TSCA Vault Annual Report, Calendar Year 2018
 GM CET Bedford Facility
 Bedford, Indiana

| Area | | EastPlantArea | EastPlantArea | A007_EastPlantArea | EastPlantArea | EastPlantArea | EastPlantArea | EastPlantArea | MonitoringWell_RFIBoundary_WestPlantArea | MonitoringWell_RFIBoundary_WestPlantArea | Plant_property |
|---|-------|-----------------|-----------------|--------------------|-----------------|-----------------|-----------------|-----------------|--|--|-----------------|
| Sample Location: | | 9-4 | 9-4 | CH-20 | CH-42 | CH-42A | CH-43 | CH-44 | MW-X033Y147S | MW-X033Y147S | MW-X043Y176 |
| Sample Identification: | | GW-052218-MC-09 | GW-052218-MC-11 | GW-052418-MC-21 | GW-052218-MC-01 | GW-052218-MC-03 | GW-052218-KC-02 | GW-052218-KC-04 | GW-052318-MC-13 | GW-052318-MC-13~Split | GW-052318-MC-17 |
| Sample Date: | | 5/22/2018 | 5/22/2018 | 5/24/2018 | 5/22/2018 | 5/22/2018 | 5/22/2018 | 5/22/2018 | 5/23/2018 | 5/23/2018 | 5/23/2018 |
| Sample Type: | | | Duplicate | | | | | | | Replicate | |
| | Units | | | | | | | | | | |
| PCBs | | | | | | | | | | | |
| Isopropyl benzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Methyl acetate | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Methyl cyclohexane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Methyl tert butyl ether (MTBE) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Methylene chloride | ug/L | 5.0 U | 5.0 U | 5.0 U | -- | -- | -- | -- | -- | -- | -- |
| Styrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Tetrachloroethene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- |
| Toluene | ug/L | 1.0 U | 1.0 U | 0.25 J | -- | -- | -- | -- | -- | -- | -- |
| trans-1,2-Dichloroethene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- |
| trans-1,3-Dichloropropene | ug/L | 1.0 U | 1.0 U | 1.0 UJ | -- | -- | -- | -- | -- | -- | -- |
| Trichloroethene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Trichlorofluoromethane (CFC-11) | ug/L | 1.0 U | 1.0 U | 1.0 UJ | -- | -- | -- | -- | -- | -- | -- |
| Trifluorotrichloroethane (CFC-113) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Vinyl chloride | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- |
| Xylenes (total) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| General Chemistry | | | | | | | | | | | |
| Chloride | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Field Parameters | | | | | | | | | | | |
| Conductivity, field | mS/cm | 0.755 | -- | 836 | 0.877 | 0.684 | 0.972 | 0.957 | 2120 | -- | 1890 |
| Dissolved oxygen (DO), field | ug/L | 1600 | -- | 8300 U | 17000 | 8000 | 920 | 3310 | 150 | -- | 140 |
| Oxidation reduction potential (ORP), millivolts | | -62.7 | -- | -233.4 | -52.8 | -8.9 | -118.9 | -75.1 | -50.3 | -- | -150.5 |
| pH, field | s.u. | 7.8 | -- | 11.23 U | 6.83 | 7.38 | 7.02 | 7.14 | 6.63 | -- | 7.07 |
| Temperature, field | Deg C | 17.29 | -- | 14.62 | 16.83 | 15.61 | 19.04 | 9.33 | 16.68 | -- | 15.26 |
| Turbidity, field | NTU | 0.8 | -- | 3.13 | 2.57 | 0.32 | 2.14 | 1.54 | 0.99 | -- | 18.2 |

Notes:
 U - Not detected at the associated reporting limit.
 J - Estimated concentration.
 UJ - Not detected; associated reporting limit is estimated.

Table 3.1

Summary of Total PCBs Analytical Results for EI CA750 2018 1st Semi-Annual GW Samples
 East Plant Area TSCA Vault Annual Report, Calendar Year 2018
 GM CET Bedford Facility
 Bedford, Indiana

| Area | Plant_property | A001MonitoringWell_WestPlantArea | A001MonitoringWell_WestPlantArea | A001 | A001 | A001MonitoringWell_WestPlantArea | EastPlantArea | EastPlantArea | RFIBoundary_P216West | P205 |
|--|-----------------|----------------------------------|----------------------------------|-----------------|-----------------|----------------------------------|-----------------|-----------------|----------------------|-----------------|
| Sample Location: | MW-X047Y236 | MW-X085Y070S-1 | MW-X085Y070S-1 | MW-X146Y084 | MW-X165Y068 | MW-X169Y058S-1 | MW-X227Y054 | MW-X227Y054 | MW-X261Y356D-3 | MW-X277Y100 |
| Sample Identification: | GW-052318-MC-19 | GW-052318-KC-10 | GW-052318-KC-10~Split | GW-052318-MC-15 | GW-052318-KC-14 | GW-052318-KC-12 | GW-052418-MC-23 | GW-052418-MC-25 | GW-052218-KC-06 | GW-052318-KC-16 |
| Sample Date: | 5/23/2018 | 5/23/2018 | 5/23/2018 | 5/23/2018 | 5/23/2018 | 5/23/2018 | 5/24/2018 | 5/24/2018 | 5/22/2018 | 5/23/2018 |
| Sample Type: | | | Replicate | | | | | Duplicate | | |
| | Units | | | | | | | | | |
| PCBs | | | | | | | | | | |
| Aroclor-1016 (PCB-1016) | ug/L | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1221 (PCB-1221) | ug/L | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1232 (PCB-1232) | ug/L | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1242 (PCB-1242) | ug/L | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.20 U | 2.0 J | 3.8 J | 0.19 U |
| Aroclor-1248 (PCB-1248) | ug/L | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1254 (PCB-1254) | ug/L | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1260 (PCB-1260) | ug/L | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Total PCBs | ug/L | ND | ND | ND | ND | ND | 2 | 3.8 | ND | ND |
| Aroclor-1016 (PCB-1016) (dissolved) | ug/L | 0.19 U | 0.20 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1221 (PCB-1221) (dissolved) | ug/L | 0.19 U | 0.20 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1232 (PCB-1232) (dissolved) | ug/L | 0.19 U | 0.20 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1242 (PCB-1242) (dissolved) | ug/L | 0.19 U | 0.20 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1248 (PCB-1248) (dissolved) | ug/L | 0.19 U | 0.20 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1254 (PCB-1254) (dissolved) | ug/L | 0.19 U | 0.20 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1260 (PCB-1260) (dissolved) | ug/L | 0.19 U | 0.20 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U |
| Total PCBs (dissolved) | ug/L | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Semi-Volatile Organic Compounds (SVOCs) | | | | | | | | | | |
| 2,2'-Oxybis(1-chloropropane) (bis(2- | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| 2,4,5-Trichlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| 2,4,6-Trichlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| 2,4-Dichlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| 2,4-Dimethylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| 2,4-Dinitrophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 54 U |
| 2,4-Dinitrotoluene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| 2,6-Dinitrotoluene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| 2-Chloronaphthalene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| 2-Chlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| 2-Methylnaphthalene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| 2-Methylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| 2-Nitroaniline | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 54 U |
| 2-Nitrophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| 3&4-Methylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| 3,3'-Dichlorobenzidine | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 54 U |
| 3-Nitroaniline | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 54 U |
| 4,6-Dinitro-2-methylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 54 U |
| 4-Bromophenyl phenyl ether | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| 4-Chloro-3-methylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| 4-Chloroaniline | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| 4-Chlorophenyl phenyl ether | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| 4-Nitroaniline | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 54 U |
| 4-Nitrophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 54 U |
| Acenaphthene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Acenaphthylene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Acetophenone | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Anthracene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Atrazine | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Benzaldehyde | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Benzo(a)anthracene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Benzo(a)pyrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Benzo(b)fluoranthene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Benzo(g,h,i)perylene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Benzo(k)fluoranthene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Biphenyl (1,1-Biphenyl) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| bis(2-Chloroethoxy)methane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| bis(2-Chloroethyl)ether | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| bis(2-Ethylhexyl)phthalate (DEHP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Butyl benzylphthalate (BBP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Caprolactam | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 0.27 J |

Table 3.1

Summary of Total PCBs Analytical Results for EI CA750 2018 1st Semi-Annual GW Samples
 East Plant Area TSCA Vault Annual Report, Calendar Year 2018
 GM CET Bedford Facility
 Bedford, Indiana

| Area | Plant_property | A001MonitoringWell_WestPlantArea | A001MonitoringWell_WestPlantArea | A001 | A001 | A001MonitoringWell_WestPlantArea | EastPlantArea | EastPlantArea | RFIBoundary_P216West | P205 |
|--|-----------------|----------------------------------|----------------------------------|-----------------|-----------------|----------------------------------|-----------------|-----------------|----------------------|-----------------|
| Sample Location: | MW-X047Y236 | MW-X085Y070S-1 | MW-X085Y070S-1 | MW-X146Y084 | MW-X165Y068 | MW-X169Y058S-1 | MW-X227Y054 | MW-X227Y054 | MW-X261Y356D-3 | MW-X277Y100 |
| Sample Identification: | GW-052318-MC-19 | GW-052318-KC-10 | GW-052318-KC-10~Split | GW-052318-MC-15 | GW-052318-KC-14 | GW-052318-KC-12 | GW-052418-MC-23 | GW-052418-MC-25 | GW-052218-KC-06 | GW-052318-KC-16 |
| Sample Date: | 5/23/2018 | 5/23/2018 | 5/23/2018 | 5/23/2018 | 5/23/2018 | 5/23/2018 | 5/24/2018 | 5/24/2018 | 5/22/2018 | 5/23/2018 |
| Sample Type: | | | Replicate | | | | | Duplicate | | |
| | Units | | | | | | | | | |
| PCBs | | | | | | | | | | |
| Carbazole | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Chrysene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Dibenz(a,h)anthracene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Dibenzofuran | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Diethyl phthalate | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Dimethyl phthalate | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Di-n-butylphthalate (DBP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Di-n-octyl phthalate (DnOP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Fluoranthene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Fluorene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Hexachlorobenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Hexachlorobutadiene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Hexachlorocyclopentadiene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 54 U |
| Hexachloroethane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Indeno(1,2,3-cd)pyrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Isophorone | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Naphthalene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Nitrobenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| N-Nitrosodi-n-propylamine | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| N-Nitrosodiphenylamine | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Pentachlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Phenanthrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Phenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Pyrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 11 U |
| Volatile Organic Compounds (VOCs) | | | | | | | | | | |
| 1,1,1-Trichloroethane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| 1,1,2,2-Tetrachloroethane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| 1,1,2-Trichloroethane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| 1,1-Dichloroethane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| 1,1-Dichloroethene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| 1,2,4-Trichlorobenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 UJ |
| 1,2-Dibromo-3-chloropropane (DBCP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 2.0 UJ |
| 1,2-Dibromoethane (Ethylene dibromide) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| 1,2-Dichlorobenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| 1,2-Dichloroethane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| 1,2-Dichloropropane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| 1,3-Dichlorobenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| 1,4-Dichlorobenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| 2-Butanone (Methyl ethyl ketone) (MEK) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 10 U |
| 2-Chloroethyl vinyl ether | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Hexanone | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 10 U |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 10 U |
| Acetone | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 10 U |
| Benzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| Bromodichloromethane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| Bromoform | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| Bromomethane (Methyl bromide) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 UJ |
| Carbon disulfide | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| Carbon tetrachloride | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| Chlorobenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| Chloroethane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| Chloroform (Trichloromethane) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| Chloromethane (Methyl chloride) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| cis-1,2-Dichloroethene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| cis-1,3-Dichloropropene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| Cyclohexane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| Dibromochloromethane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| Dichlorodifluoromethane (CFC-12) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| Ethylbenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |

Table 3.1

Summary of Total PCBs Analytical Results for EI CA750 2018 1st Semi-Annual GW Samples
 East Plant Area TSCA Vault Annual Report, Calendar Year 2018
 GM CET Bedford Facility
 Bedford, Indiana

| Area | | Plant_property MW-X047Y236 GW-052318-MC-19 5/23/2018 | A001MonitoringWell_WestPlantArea MW-X085Y070S-1 GW-052318-KC-10 5/23/2018 | A001MonitoringWell_WestPlantArea MW-X085Y070S-1 GW-052318-KC-10~Split 5/23/2018 Replicate | A001 MW-X146Y084 GW-052318-MC-15 5/23/2018 | A001 MW-X165Y068 GW-052318-KC-14 5/23/2018 | A001MonitoringWell_WestPlantArea MW-X169Y058S-1 GW-052318-KC-12 5/23/2018 | EastPlantArea MW-X227Y054 GW-052418-MC-23 5/24/2018 | EastPlantArea MW-X227Y054 GW-052418-MC-25 5/24/2018 Duplicate | RFIBoundary_P216West MW-X261Y356D-3 GW-052218-KC-06 5/22/2018 | P205 MW-X277Y100 GW-052318-KC-16 5/23/2018 |
|---|--------------|---|--|---|---|---|--|--|---|--|---|
| Sample Location: | | | | | | | | | | | |
| Sample Identification: | | | | | | | | | | | |
| Sample Date: | | | | | | | | | | | |
| Sample Type: | | | | | | | | | | | |
| | Units | | | | | | | | | | |
| PCBs | | | | | | | | | | | |
| Isopropyl benzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| Methyl acetate | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10 U |
| Methyl cyclohexane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| Methyl tert butyl ether (MTBE) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| Methylene chloride | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | 5.0 U |
| Styrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| Tetrachloroethene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| Toluene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| trans-1,2-Dichloroethene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| trans-1,3-Dichloropropene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| Trichloroethene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| Trichlorofluoromethane (CFC-11) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| Trifluorotrchloroethane (CFC-113) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U |
| Vinyl chloride | ug/L | -- | -- | -- | 1.0 U | 1.0 U | 2.5 | -- | -- | -- | 1.0 U |
| Xylenes (total) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2.0 U |
| General Chemistry | | | | | | | | | | | |
| Chloride | ug/L | -- | -- | -- | 2300000 | 290000 | -- | -- | -- | -- | -- |
| Field Parameters | | | | | | | | | | | |
| Conductivity, field | mS/cm | 762 | 11.92 | -- | 6964 | 3.095 | 2.791 | 1044 | -- | 0.594 | 1.149 |
| Dissolved oxygen (DO), field | ug/L | 970 | 40 | -- | 60 | 610 | 50 | 1500 | -- | 2890 | 470 |
| Oxidation reduction potential (ORP), millivolts | | -31.1 | -353 | -- | -235.4 | -289.2 | -341.7 | -205.1 | -- | 102.8 | -343 |
| pH, field | s.u. | 7.29 | 6.99 | -- | 7.5 | 8.04 | 7.61 | 7.94 | -- | 6.98 | 7.32 |
| Temperature, field | Deg C | 15.56 | 17.07 | -- | 17.4 | 20.11 | 15.45 | 15.31 | -- | 13.86 | 15.93 |
| Turbidity, field | NTU | 1.68 | 9.72 | -- | 13.2 | 12.76 | 8.48 | 66.1 | -- | 2.66 | 1.76 |

Notes:
 U - Not detected at the associated reporting lin
 J - Estimated concentration.
 UJ - Not detected; associated reporting limit is

Table 3.1

Summary of Total PCBs Analytical Results for EI CA750 2018 1st Semi-Annual GW Samples
 East Plant Area TSCA Vault Annual Report, Calendar Year 2018
 GM CET Bedford Facility
 Bedford, Indiana

| Area | | P216GM_P216_east | P209 | P209 | P209 | P006 | P006 | A001 | A001 | NA | NA | NA | NA |
|--|-------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Sample Location: | | MW-X297Y305D-2 | MW-X300Y199I-1 | MW-X300Y199I-2 | MW-X300Y199I-4 | MW-X315Y115 | MW-X315Y150 | ST-59 | ST-59 | Trip Blank | Trip Blank | Trip Blank | Trip Blank |
| Sample Identification: | | GW-052218-KC-08 | GW-052418-KC-18 | GW-052418-KC-20 | GW-052418-KC-22 | GW-052218-MC-05 | GW-052218-MC-07 | GW-052418-MC-27 | GW-052418-MC-29 | TB-052218-MC-01 | TB-052318-KC-01 | TB-052318-MC-02 | TB-052418-MC-03 |
| Sample Date: | | 5/22/2018 | 5/24/2018 | 5/24/2018 | 5/24/2018 | 5/22/2018 | 5/22/2018 | 5/24/2018 | 5/24/2018 | 5/22/2018 | 5/23/2018 | 5/23/2018 | 5/24/2018 |
| Sample Type: | | | | | | | | | Duplicate | | | | |
| | Units | | | | | | | | | | | | |
| PCBs | | | | | | | | | | | | | |
| Aroclor-1016 (PCB-1016) | ug/L | 0.19 U | 0.20 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- | -- | -- |
| Aroclor-1221 (PCB-1221) | ug/L | 0.19 U | 0.20 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- | -- | -- |
| Aroclor-1232 (PCB-1232) | ug/L | 0.19 U | 0.20 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- | -- | -- |
| Aroclor-1242 (PCB-1242) | ug/L | 0.19 U | 0.20 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- | -- | -- |
| Aroclor-1248 (PCB-1248) | ug/L | 0.19 U | 0.20 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- | -- | -- |
| Aroclor-1254 (PCB-1254) | ug/L | 0.19 U | 0.20 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- | -- | -- |
| Aroclor-1260 (PCB-1260) | ug/L | 0.19 U | 0.20 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- | -- | -- |
| Total PCBs | ug/L | ND | ND | ND | ND | ND | ND | ND | ND | -- | -- | -- | -- |
| Aroclor-1016 (PCB-1016) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- | -- | -- |
| Aroclor-1221 (PCB-1221) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- | -- | -- |
| Aroclor-1232 (PCB-1232) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- | -- | -- |
| Aroclor-1242 (PCB-1242) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- | -- | -- |
| Aroclor-1248 (PCB-1248) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- | -- | -- |
| Aroclor-1254 (PCB-1254) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- | -- | -- |
| Aroclor-1260 (PCB-1260) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- | -- | -- |
| Total PCBs (dissolved) | ug/L | ND | ND | ND | ND | ND | ND | ND | ND | -- | -- | -- | -- |
| Semi-Volatile Organic Compounds (SVOCs) | | | | | | | | | | | | | |
| 2,2'-Oxybis(1-chloropropane) (bis(2- | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4,5-Trichlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4,6-Trichlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dichlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dinitrophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dinitrotoluene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,6-Dinitrotoluene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Chloronaphthalene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Chlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Methylnaphthalene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Methylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Nitroaniline | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Nitrophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 3&4-Methylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 3,3'-Dichlorobenzidine | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 3-Nitroaniline | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,6-Dinitro-2-methylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Bromophenyl phenyl ether | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Chloro-3-methylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Chloroaniline | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Chlorophenyl phenyl ether | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Nitroaniline | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Nitrophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Acetophenone | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Atrazine | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzaldehyde | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(b)fluoranthene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(k)fluoranthene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Biphenyl (1,1-Biphenyl) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Chloroethoxy)methane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Chloroethyl)ether | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate (DEHP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Butyl benzylphthalate (BBP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Caprolactam | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

Table 3.1

Summary of Total PCBs Analytical Results for EI CA750 2018 1st Semi-Annual GW Samples
 East Plant Area TSCA Vault Annual Report, Calendar Year 2018
 GM CET Bedford Facility
 Bedford, Indiana

| Area | P216GM_P216_east | P209 | P209 | P209 | P006 | P006 | A001 | A001 | NA | NA | NA | NA |
|--|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Sample Location: | MW-X297Y305D-2 | MW-X300Y199I-1 | MW-X300Y199I-2 | MW-X300Y199I-4 | MW-X315Y115 | MW-X315Y150 | ST-59 | ST-59 | Trip Blank | Trip Blank | Trip Blank | Trip Blank |
| Sample Identification: | GW-052218-KC-08 | GW-052418-KC-18 | GW-052418-KC-20 | GW-052418-KC-22 | GW-052218-MC-05 | GW-052218-MC-07 | GW-052418-MC-27 | GW-052418-MC-29 | TB-052218-MC-01 | TB-052318-KC-01 | TB-052318-MC-02 | TB-052418-MC-03 |
| Sample Date: | 5/22/2018 | 5/24/2018 | 5/24/2018 | 5/24/2018 | 5/22/2018 | 5/22/2018 | 5/24/2018 | 5/24/2018 | 5/22/2018 | 5/23/2018 | 5/23/2018 | 5/24/2018 |
| Sample Type: | | | | | | | | Duplicate | | | | |
| | Units | | | | | | | | | | | |
| PCBs | | | | | | | | | | | | |
| Carbazole | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dibenz(a,h)anthracene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Di-n-butylphthalate (DBP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate (DnOP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Fluorene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorocyclopentadiene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-cd)pyrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Isophorone | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Nitrobenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| N-Nitrosodi-n-propylamine | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| N-Nitrosodiphenylamine | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Phenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Volatile Organic Compounds (VOCs) | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | ug/L | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | -- | 1.0 UJ |
| 1,1,2,2-Tetrachloroethane | ug/L | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | -- | 1.0 U |
| 1,1,2-Trichloroethane | ug/L | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | -- | 1.0 U |
| 1,1-Dichloroethane | ug/L | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | -- | 1.0 U |
| 1,1-Dichloroethene | ug/L | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | -- | 1.0 U |
| 1,2,4-Trichlorobenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 UJ | -- | -- |
| 1,2-Dibromo-3-chloropropane (DBCP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 2.0 UJ | -- | -- |
| 1,2-Dibromoethane (Ethylene dibromide) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| 1,2-Dichlorobenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | -- | 1.0 U |
| 1,2-Dichloroethane | ug/L | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | -- | 1.0 U |
| 1,2-Dichloropropane | ug/L | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | -- | 1.0 U |
| 1,3-Dichlorobenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | -- | 1.0 U |
| 1,4-Dichlorobenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | -- | 1.0 U |
| 2-Butanone (Methyl ethyl ketone) (MEK) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 10 U | -- | -- |
| 2-Chloroethyl vinyl ether | ug/L | -- | -- | -- | -- | -- | -- | -- | 10 U | -- | -- | 10 U |
| 2-Hexanone | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 10 U | -- | -- |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 10 U | -- | -- |
| Acetone | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 10 U | -- | -- |
| Benzene | ug/L | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | -- | 1.0 U |
| Bromodichloromethane | ug/L | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | -- | 1.0 U |
| Bromoform | ug/L | -- | -- | -- | -- | -- | -- | -- | 1.0 UJ | 1.0 U | -- | 1.0 U |
| Bromomethane (Methyl bromide) | ug/L | -- | -- | -- | -- | -- | -- | -- | 1.0 UJ | 1.0 UJ | -- | 1.0 UJ |
| Carbon disulfide | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Carbon tetrachloride | ug/L | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | -- | 1.0 U |
| Chlorobenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | -- | 1.0 U |
| Chloroethane | ug/L | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | -- | 1.0 UJ |
| Chloroform (Trichloromethane) | ug/L | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | -- | 1.0 UJ |
| Chloromethane (Methyl chloride) | ug/L | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | -- | 1.0 U |
| cis-1,2-Dichloroethene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| cis-1,3-Dichloropropene | ug/L | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | -- | 1.0 U |
| Cyclohexane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Dibromochloromethane | ug/L | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | -- | 1.0 U |
| Dichlorodifluoromethane (CFC-12) | ug/L | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | -- | 1.0 U |
| Ethylbenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | -- | 1.0 U |

Table 3.1

**Summary of Total PCBs Analytical Results for EI CA750 2018 1st Semi-Annual GW Samples
East Plant Area TSCA Vault Annual Report, Calendar Year 2018
GM CET Bedford Facility
Bedford, Indiana**

| Area | | P216GM_P216_east | P209 | P209 | P209 | P006 | P006 | A001 | A001 | NA | NA | NA | NA |
|---|-------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Sample Location: | | MW-X297Y305D-2 | MW-X300Y199I-1 | MW-X300Y199I-2 | MW-X300Y199I-4 | MW-X315Y115 | MW-X315Y150 | ST-59 | ST-59 | Trip Blank | Trip Blank | Trip Blank | Trip Blank |
| Sample Identification: | | GW-052218-KC-08 | GW-052418-KC-18 | GW-052418-KC-20 | GW-052418-KC-22 | GW-052218-MC-05 | GW-052218-MC-07 | GW-052418-MC-27 | GW-052418-MC-29 | TB-052218-MC-01 | TB-052318-KC-01 | TB-052318-MC-02 | TB-052418-MC-03 |
| Sample Date: | | 5/22/2018 | 5/24/2018 | 5/24/2018 | 5/24/2018 | 5/22/2018 | 5/22/2018 | 5/24/2018 | 5/24/2018 | 5/22/2018 | 5/23/2018 | 5/23/2018 | 5/24/2018 |
| Sample Type: | | | | | | | | | Duplicate | | | | |
| | Units | | | | | | | | | | | | |
| PCBs | | | | | | | | | | | | | |
| Isopropyl benzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Methyl acetate | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10 U | -- | -- |
| Methyl cyclohexane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Methyl tert butyl ether (MTBE) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Methylene chloride | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 5.0 U | 5.0 U | -- | 5.0 U |
| Styrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Tetrachloroethene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | -- | 1.0 U |
| Toluene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | -- | 1.0 U |
| trans-1,2-Dichloroethene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | -- | 1.0 U |
| trans-1,3-Dichloropropene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | -- | 1.0 U |
| Trichloroethene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Trichlorofluoromethane (CFC-11) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | -- | 1.0 U |
| Trifluorotrchloroethane (CFC-113) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Vinyl chloride | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U | 1.0 U | 1.0 U |
| Xylenes (total) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2.0 U | -- | -- |
| General Chemistry | | | | | | | | | | | | | |
| Chloride | ug/L | -- | -- | -- | -- | -- | -- | 19000 | 19000 | -- | -- | -- | -- |
| Field Parameters | | | | | | | | | | | | | |
| Conductivity, field | mS/cm | 0.684 | 0.549 | 0.556 | 0.76 | 0.515 | 0.459 | 561 | -- | -- | -- | -- | -- |
| Dissolved oxygen (DO), field | ug/L | 4750 | 650 | 110 | 510 | 15800 | 2700 | 110000 | -- | -- | -- | -- | -- |
| Oxidation reduction potential (ORP), millivolts | | -101.2 | -356 | -368.7 | -361.3 | 21.9 | -152.1 | 33.8 | -- | -- | -- | -- | -- |
| pH, field | s.u. | 7.35 | 7.13 | 7.49 | 7.5 | 7.35 | 7.2 | 7.96 | -- | -- | -- | -- | -- |
| Temperature, field | Deg C | 9.7 | 14.89 | 15.93 | 15.29 | 15.42 | 15.85 | 14.14 | -- | -- | -- | -- | -- |
| Turbidity, field | NTU | 0.26 | 1.62 | 1.15 | 1.32 | 6.76 | 2.27 | 1.31 | -- | -- | -- | -- | -- |

Notes:
 U - Not detected at the associated reporting lin
 J - Estimated concentration.
 UJ - Not detected; associated reporting limit is

Table 3.2

Summary of Total PCBs Analytical Results for El CA750 2018 2nd Semi-Annual GW Samples
 East Plant Area TSCA Vault Annual Report, Calendar Year 2018
 GM CET Bedford Facility
 Bedford, Indiana

| Area: | EastPlantArea | EastPlantArea | A007_EastPlantArea | EastPlantArea | EastPlantArea | EastPlantArea | EastPlantArea | EastPlantArea | Well_RFIBoundary_WngWell_RFIBoundary_Westf | Plant_property | Plant_property | Plant_property | MonitoringWell_WestPI1 | MonitoringWell_WestPlant | MonitoringWell_WestPI |
|--|-----------------|-----------------|--------------------|-----------------|----------------|----------------|-----------------|-----------------|--|-----------------|----------------|----------------|------------------------|--------------------------|-----------------------|
| Sample Location: | 9-4 | 9-4 | CH-20 | CH-42 | CH-42A | CH-43 | CH-44 | MW-X033Y147S | MW-X033Y147S | MW-X043Y176 | MW-X047Y236 | MW-X047Y236 | MW-X085Y070S-1 | MW-X085Y070S-1 | MW-X085Y070S-2 |
| Sample Identification: | GW-112818-MC-18 | GW-112818-MC-20 | GW-112818-MC-16 | GW-112718-EM-03 | GW-112718-MC-4 | GW-112718-MC-2 | GW-112718-EM-01 | GW-112918-MC-22 | GW-112918-MC-22-Split | GW-112718-MC-10 | GW-112718-MC-6 | GW-112718-MC-8 | GW-112918-EM-13 | GW-112918-EM-13-Split | GW-112918-EM-15 |
| Sample Date: | 11/28/2018 | 11/28/2018 | 11/28/2018 | 11/27/2018 | 11/27/2018 | 11/27/2018 | 11/27/2018 | 11/29/2018 | 11/29/2018 | 11/27/2018 | 11/27/2018 | 11/27/2018 | 11/29/2018 | 11/29/2018 | 11/29/2018 |
| Sample Type: | | Duplicate | | | | | | Replicate | Replicate | | | Duplicate | Replicate | Replicate | |
| Units | | | | | | | | | | | | | | | |
| PCBs | | | | | | | | | | | | | | | |
| Aroclor-1016 (PCB-1016) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U |
| Aroclor-1221 (PCB-1221) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U |
| Aroclor-1232 (PCB-1232) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U |
| Aroclor-1242 (PCB-1242) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U |
| Aroclor-1248 (PCB-1248) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U |
| Aroclor-1254 (PCB-1254) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U |
| Aroclor-1260 (PCB-1260) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U |
| Total PCBs | ug/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Aroclor-1016 (PCB-1016) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1221 (PCB-1221) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1232 (PCB-1232) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1242 (PCB-1242) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1248 (PCB-1248) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1254 (PCB-1254) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1260 (PCB-1260) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U |
| Total PCBs (dissolved) | ug/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Volatile Organic Compounds (VOCs) | | | | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,1,2,2-Tetrachloroethane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,1,2-Trichloroethane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,1-Dichloroethane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,1-Dichloroethene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,4-Trichlorobenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dibromo-3-chloropropane (DBCP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dibromoethane (Ethylene dibromide) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichloroethane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichloropropane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,3-Dichlorobenzene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Butanone (Methyl ethyl ketone) (MEK) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Chloroethyl vinyl ether | ug/L | 10 U | 10 U | 10 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Hexanone | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Acetone | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Bromodichloromethane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Bromoform | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Bromomethane (Methyl bromide) | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Carbon disulfide | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Carbon tetrachloride | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Chlorobenzene | ug/L | 1.0 U | 1.0 U | 0.45 J | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Chloroethane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Chloroform (Trichloromethane) | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Chloromethane (Methyl chloride) | ug/L | 1.0 UJ | 1.0 UJ | 1.0 UJ | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| cis-1,2-Dichloroethene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| cis-1,3-Dichloropropene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Cyclohexane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dibromochloromethane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dichlorodifluoromethane (CFC-12) | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Ethylbenzene | ug/L | 1.0 U | 1.0 U | 0.23 J | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Isopropyl benzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Methyl acetate | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Methyl cyclohexane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Methyl tert butyl ether (MTBE) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Methylene chloride | ug/L | 5.0 U | 5.0 U | 5.0 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Styrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Tetrachloroethene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Toluene | ug/L | 1.0 U | 1.0 U | 0.26 J | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| trans-1,2-Dichloroethene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| trans-1,3-Dichloropropene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Trichloroethene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Trichlorofluoromethane (CFC-11) | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Trifluorotrchloroethane (CFC-113) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Vinyl chloride | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Xylenes (total) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Semi-Volatile Organic Compounds (SVOCs) | | | | | | | | | | | | | | | |
| 2,2'-Oxybis(1-chloropropane) (bis(2-Chlor | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

Table 3.2

Summary of Total PCBs Analytical Results for El CA750 2018 2nd Semi-Annual GW Samples
 East Plant Area TSCA Vault Annual Report, Calendar Year 2018
 GM CET Bedford Facility
 Bedford, Indiana

| Area: | EastPlantArea | EastPlantArea | A007_EastPlantArea | EastPlantArea | EastPlantArea | EastPlantArea | EastPlantArea | Well_RFIBoundary_WngWell_RFIBoundary_Westf | Plant_property | Plant_property | Plant_property | MonitoringWell_WestPI | MonitoringWell_WestPlant | MonitoringWell_WestPI | |
|-----------------------------------|-----------------|-----------------|--------------------|-----------------|----------------|----------------|-----------------|--|-----------------------|-----------------|----------------|-----------------------|--------------------------|-----------------------|-----------------|
| Sample Location: | 9-4 | 9-4 | CH-20 | CH-42 | CH-42A | CH-43 | CH-44 | MW-X033Y147S | MW-X033Y147S | MW-X043Y176 | MW-X047Y236 | MW-X085Y070S-1 | MW-X085Y070S-1 | MW-X085Y070S-2 | |
| Sample Identification: | GW-112818-MC-18 | GW-112818-MC-20 | GW-112818-MC-16 | GW-112718-EM-03 | GW-112718-MC-4 | GW-112718-MC-2 | GW-112718-EM-01 | GW-112918-MC-22 | GW-112918-MC-22-Split | GW-112718-MC-10 | GW-112718-MC-6 | GW-112718-MC-8 | GW-112918-EM-13 | GW-112918-EM-13-Split | GW-112918-EM-15 |
| Sample Date: | 11/28/2018 | 11/28/2018 | 11/28/2018 | 11/27/2018 | 11/27/2018 | 11/27/2018 | 11/27/2018 | 11/29/2018 | 11/29/2018 | 11/27/2018 | 11/27/2018 | 11/27/2018 | 11/29/2018 | 11/29/2018 | 11/29/2018 |
| Sample Type: | | Duplicate | | | | | | Replicate | Replicate | | | Duplicate | | Replicate | |
| PCBs | Units | | | | | | | | | | | | | | |
| Aroclor-1016 (PCB-1016) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U |
| Aroclor-1221 (PCB-1221) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U |
| Aroclor-1232 (PCB-1232) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U |
| Aroclor-1242 (PCB-1242) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U |
| Aroclor-1248 (PCB-1248) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U |
| Aroclor-1254 (PCB-1254) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U |
| 2,4,5-Trichlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4,6-Trichlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dichlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dinitrophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dinitrotoluene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,6-Dinitrotoluene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Chloronaphthalene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Chlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Methylnaphthalene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Methylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Nitroaniline | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Nitrophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 3&4-Methylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 3,3'-Dichlorobenzidine | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 3-Nitroaniline | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,6-Dinitro-2-methylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Bromophenyl phenyl ether | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Chloro-3-methylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Chloroaniline | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Chlorophenyl phenyl ether | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Nitroaniline | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Nitrophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Acetophenone | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Atrazine | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzaldehyde | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(b)fluoranthene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(k)fluoranthene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Biphenyl (1,1-Biphenyl) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Chloroethoxy)methane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Chloroethyl)ether | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate (DEHP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Butyl benzylphthalate (BBP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Caprolactam | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Carbazole | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dibenz(a,h)anthracene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Di-n-butylphthalate (DBP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate (DnOP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Fluorene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorocyclopentadiene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-cd)pyrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Isophorone | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Nitrobenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| N-Nitrosodi-n-propylamine | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| N-Nitrosodiphenylamine | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Phenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

General Chemistry

Table 3.2

Summary of Total PCBs Analytical Results for EI CA750 2018 2nd Semi-Annual GW Samples
 East Plant Area TSCA Vault Annual Report, Calendar Year 2018
 GM CET Bedford Facility
 Bedford, Indiana

| Area: | EastPlantArea | EastPlantArea | A007_EastPlantArea | EastPlantArea | EastPlantArea | EastPlantArea | EastPlantArea | Well_RFIBoundary_Wng | Well_RFIBoundary_Westf | Plant_property | Plant_property | Plant_property | MonitoringWell_WestPI1 | MonitoringWell_WestPlant | MonitoringWell_WestPI | |
|--|-----------------|-----------------|--------------------|-----------------|----------------|----------------|-----------------|----------------------|------------------------|-----------------|----------------|----------------|------------------------|--------------------------|-----------------------|--------|
| Sample Location: | 9-4 | 9-4 | CH-20 | CH-42 | CH-42A | CH-43 | CH-44 | MW-X033Y147S | MW-X033Y147S | MW-X043Y176 | MW-X047Y236 | MW-X047Y236 | MW-X085Y070S-1 | MW-X085Y070S-1 | MW-X085Y070S-2 | |
| Sample Identification: | GW-112818-MC-18 | GW-112818-MC-20 | GW-112818-MC-16 | GW-112718-EM-03 | GW-112718-MC-4 | GW-112718-MC-2 | GW-112718-EM-01 | GW-112918-MC-22 | GW-112918-MC-22-Split | GW-112718-MC-10 | GW-112718-MC-6 | GW-112718-MC-8 | GW-112918-EM-13 | GW-112918-EM-13-Split | GW-112918-EM-15 | |
| Sample Date: | 11/28/2018 | 11/28/2018 | 11/28/2018 | 11/27/2018 | 11/27/2018 | 11/27/2018 | 11/27/2018 | 11/29/2018 | 11/29/2018 | 11/27/2018 | 11/27/2018 | 11/27/2018 | 11/29/2018 | 11/29/2018 | 11/29/2018 | |
| Sample Type: | | Duplicate | | | | | | | Replicate | | | Duplicate | | Replicate | | |
| Units | | | | | | | | | | | | | | | | |
| PCBs | | | | | | | | | | | | | | | | |
| Aroclor-1016 (PCB-1016) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U |
| Aroclor-1221 (PCB-1221) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U |
| Aroclor-1232 (PCB-1232) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U |
| Aroclor-1242 (PCB-1242) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U |
| Aroclor-1248 (PCB-1248) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U |
| Aroclor-1254 (PCB-1254) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U |
| Chloride | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Field Parameters | | | | | | | | | | | | | | | | |
| Conductivity, field | mS/cm | 0.600 | -- | 1.224 | 0.920 | 0.480 | 0.913 | 0.962 | 1.750 | -- | 1.348 | 0.526 | -- | 0.946 | -- | 0.569 |
| Dissolved oxygen (DO), field | ug/L | 1700 | -- | 4000 | 5600 | 38400 | 6500 | 12600 | 3700 | -- | 10000 | 10200 | -- | 600 | -- | 4800 |
| Oxidation reduction potential (ORP), field | millivolts | -25.9 | -- | -196.6 | -45.2 | -149.5 | -162.7 | 253.9 | 38.8 | -- | -248.1 | -144.4 | -- | -183.1 | -- | -182.3 |
| pH, field | s.u. | 7.66 | -- | 12.26 | 6.72 | 7.57 | 7.02 | 6.66 | 6.66 | -- | 6.88 | 7.36 | -- | 7.14 | -- | 7.87 |
| Temperature, sample | Deg C | 12.08 | -- | 13.84 | 11.75 | 11.61 | 11.27 | 10.39 | 14.49 | -- | 11.39 | 11.43 | -- | 16.09 | -- | 15.1 |
| Turbidity, field | NTU | 9.04 | -- | 3.31 | 1.93 | -- | 3.8 | 7.26 | 0.78 | -- | -- | 1.73 | -- | 5.42 | -- | 26.9 |

Notes:
 U - Not detected at the associated reporting limit.
 J - Estimated concentration.
 UJ - Not detected; associated reporting limit is estimated.

Table 3.2

Summary of Total PCBs Analytical Results for El CA750 2018 2nd Semi-Annual GW Samples
 East Plant Area TSCA Vault Annual Report, Calendar Year 2018
 GM CET Bedford Facility
 Bedford, Indiana

| Area: | EastPlantArea | EastPlantArea | A007_EastPlantArea | EastPlantArea | EastPlantArea | 1MonitoringWell_WestPlant | A001 | A001 | A001 | MonitoringWell_WestPl | EastPlantArea | FIBoundary_P216We | P205 | P216GM_P216_east | P006 |
|---|-----------------|-----------------|--------------------|-----------------|----------------|---------------------------|-----------------|-----------------|-----------------|-----------------------|-----------------|-------------------|-----------------|------------------|-----------------|
| Sample Location: | 9-4 | 9-4 | CH-20 | CH-42 | CH-42A | MW-X085Y070S-2 | MW-X146Y084 | MW-X146Y084 | MW-X165Y068 | MW-X169Y058S-1 | MW-X227Y054 | MW-X261Y356D-3 | MW-X277Y100 | MW-X297Y305D-2 | MW-X315Y115 |
| Sample Identification: | GW-112818-MC-18 | GW-112818-MC-20 | GW-112818-MC-16 | GW-112718-EM-03 | GW-112718-MC-4 | GW-112918-EM-15-Split | GW-112918-MC-24 | GW-112918-MC-26 | GW-112918-MC-28 | GW-112918-EM-17 | GW-112818-EM-09 | GW-112718-EM-05 | GW-112818-EM-11 | GW-112718-EM-07 | GW-112818-MC-14 |
| Sample Date: | 11/28/2018 | 11/28/2018 | 11/28/2018 | 11/27/2018 | 11/27/2018 | 11/29/2018 | 11/29/2018 | 11/29/2018 | 11/29/2018 | 11/29/2018 | 11/28/2018 | 11/27/2018 | 11/28/2018 | 11/27/2018 | 11/28/2018 |
| Sample Type: | | Duplicate | | | | Replicate | | Duplicate | | | | | | | |
| PCBs | Units | | | | | | | | | | | | | | |
| Aroclor-1016 (PCB-1016) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.39 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1221 (PCB-1221) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.39 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1232 (PCB-1232) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.39 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1242 (PCB-1242) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.39 U | 0.23 | 0.29 | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1248 (PCB-1248) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.48 J | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1254 (PCB-1254) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.39 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1260 (PCB-1260) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.29 J | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Total PCBs | ug/L | ND | ND | ND | ND | ND | 0.77 J | 0.23 | 0.29 | ND | ND | 3.2 | ND | ND | ND |
| Aroclor-1016 (PCB-1016) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.21 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1221 (PCB-1221) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.21 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1232 (PCB-1232) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.21 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1242 (PCB-1242) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.21 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1248 (PCB-1248) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.21 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1254 (PCB-1254) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.21 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1260 (PCB-1260) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.21 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Total PCBs (dissolved) | ug/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Volatile Organic Compounds (VOCs) | | | | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| 1,1,2,2-Tetrachloroethane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| 1,1,2-Trichloroethane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| 1,1-Dichloroethane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| 1,1-Dichloroethene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| 1,2,4-Trichlorobenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| 1,2-Dibromo-3-chloropropane (DBCP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2.0 U | -- | -- |
| 1,2-Dibromoethane (Ethylene dibromide) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| 1,2-Dichlorobenzene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| 1,2-Dichloroethane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| 1,2-Dichloropropane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| 1,3-Dichlorobenzene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| 1,4-Dichlorobenzene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| 2-Butanone (Methyl ethyl ketone) (MEK) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10 U | -- | -- |
| 2-Chloroethyl vinyl ether | ug/L | 10 U | 10 U | 10 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Hexanone | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10 U | -- | -- |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10 U | -- | -- |
| Acetone | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10 U | -- | -- |
| Benzene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Bromodichloromethane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Bromoform | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Bromomethane (Methyl bromide) | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Carbon disulfide | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Carbon tetrachloride | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Chlorobenzene | ug/L | 1.0 U | 1.0 U | 0.45 J | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Chloroethane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Chloroform (Trichloromethane) | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Chloromethane (Methyl chloride) | ug/L | 1.0 UJ | 1.0 UJ | 1.0 UJ | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 UJ | -- | -- |
| cis-1,2-Dichloroethene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| cis-1,3-Dichloropropene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Cyclohexane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Dibromochloromethane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Dichlorodifluoromethane (CFC-12) | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Ethylbenzene | ug/L | 1.0 U | 1.0 U | 0.23 J | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Isopropyl benzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Methyl acetate | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10 U | -- | -- |
| Methyl cyclohexane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Methyl tert butyl ether (MTBE) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Methylene chloride | ug/L | 5.0 U | 5.0 U | 5.0 U | -- | -- | -- | -- | -- | -- | -- | -- | 5.0 U | -- | -- |
| Styrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Tetrachloroethene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Toluene | ug/L | 1.0 U | 1.0 U | 0.26 J | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| trans-1,2-Dichloroethene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| trans-1,3-Dichloropropene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Trichloroethene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Trichlorofluoromethane (CFC-11) | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Trifluorotrchloroethane (CFC-113) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | -- | -- |
| Vinyl chloride | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | 1.0 U | 1.0 U | 1.0 U | 2.5 | -- | 1.0 U | -- | -- |
| Xylenes (total) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2.0 U | -- | -- |
| Semi-Volatile Organic Compounds (SVOCs) | | | | | | | | | | | | | | | |
| 2,2'-Oxybis(1-chloropropane) (bis(2-Chlor | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |

Table 3.2

Summary of Total PCBs Analytical Results for El CA750 2018 2nd Semi-Annual GW Samples
 East Plant Area TSCA Vault Annual Report, Calendar Year 2018
 GM CET Bedford Facility
 Bedford, Indiana

| Area: | EastPlantArea | EastPlantArea | A007_EastPlantArea | EastPlantArea | EastPlantArea | 1MonitoringWell_WestPlant | A001 | A001 | A001 | MonitoringWell_WestPl | EastPlantArea | FIBoundary_P216We | P205 | P216GM_P216_east | P006 |
|-----------------------------------|-----------------|-----------------|--------------------|-----------------|----------------|---------------------------|-----------------|-----------------|-----------------|-----------------------|-----------------|-------------------|-----------------|------------------|-----------------|
| Sample Location: | 9-4 | 9-4 | CH-20 | CH-42 | CH-42A | MW-X085Y070S-2 | MW-X146Y084 | MW-X146Y084 | MW-X165Y068 | MW-X169Y058S-1 | MW-X227Y054 | MW-X261Y356D-3 | MW-X277Y100 | MW-X297Y305D-2 | MW-X315Y115 |
| Sample Identification: | GW-112818-MC-18 | GW-112818-MC-20 | GW-112818-MC-16 | GW-112718-EM-03 | GW-112718-MC-4 | GW-112918-EM-15-Split | GW-112918-MC-24 | GW-112918-MC-26 | GW-112918-MC-28 | GW-112918-EM-17 | GW-112818-EM-09 | GW-112718-EM-05 | GW-112818-EM-11 | GW-112718-EM-07 | GW-112818-MC-14 |
| Sample Date: | 11/28/2018 | 11/28/2018 | 11/28/2018 | 11/27/2018 | 11/27/2018 | 11/29/2018 | 11/29/2018 | 11/29/2018 | 11/29/2018 | 11/29/2018 | 11/28/2018 | 11/27/2018 | 11/28/2018 | 11/27/2018 | 11/28/2018 |
| Sample Type: | | Duplicate | | | | Replicate | | Duplicate | | | | | | | |
| PCBs | Units | | | | | | | | | | | | | | |
| Aroclor-1016 (PCB-1016) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.39 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1221 (PCB-1221) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.39 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1232 (PCB-1232) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.39 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1242 (PCB-1242) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.39 U | 0.23 | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1248 (PCB-1248) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.48 J | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| Aroclor-1254 (PCB-1254) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.39 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | 0.19 U | 0.19 U | 0.19 U |
| 2,4,5-Trichlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| 2,4,6-Trichlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| 2,4-Dichlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| 2,4-Dimethylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| 2,4-Dinitrophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 49 U | -- | -- |
| 2,4-Dinitrotoluene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| 2,6-Dinitrotoluene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| 2-Chloronaphthalene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| 2-Chlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| 2-Methylnaphthalene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| 2-Methylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| 2-Nitroaniline | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 49 U | -- | -- |
| 2-Nitrophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| 3&4-Methylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| 3,3'-Dichlorobenzidine | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 49 U | -- | -- |
| 3-Nitroaniline | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 49 U | -- | -- |
| 4,6-Dinitro-2-methylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 49 U | -- | -- |
| 4-Bromophenyl phenyl ether | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| 4-Chloro-3-methylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| 4-Chloroaniline | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| 4-Chlorophenyl phenyl ether | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| 4-Nitroaniline | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 49 U | -- | -- |
| 4-Nitrophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 49 UJ | -- | -- |
| Acenaphthene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Acenaphthylene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Acetophenone | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Anthracene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Atrazine | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Benzaldehyde | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Benzo(a)anthracene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Benzo(a)pyrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Benzo(b)fluoranthene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Benzo(g,h,i)perylene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Benzo(k)fluoranthene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Biphenyl (1,1-Biphenyl) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| bis(2-Chloroethoxy)methane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| bis(2-Chloroethyl)ether | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| bis(2-Ethylhexyl)phthalate (DEHP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Butyl benzylphthalate (BBP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 UJ | -- | -- |
| Caprolactam | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Carbazole | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Chrysene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Dibenz(a,h)anthracene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Dibenzofuran | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Diethyl phthalate | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Dimethyl phthalate | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Di-n-butylphthalate (DBP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Di-n-octyl phthalate (DnOP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Fluoranthene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Fluorene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Hexachlorobenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Hexachlorobutadiene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Hexachlorocyclopentadiene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 49 U | -- | -- |
| Hexachloroethane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Indeno(1,2,3-cd)pyrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Isophorone | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Naphthalene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Nitrobenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| N-Nitrosodi-n-propylamine | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| N-Nitrosodiphenylamine | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Pentachlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 UJ | -- | -- |
| Phenanthrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Phenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |
| Pyrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.8 U | -- | -- |

General Chemistry

Table 3.2

Summary of Total PCBs Analytical Results for El CA750 2018 2nd Semi-Annual GW Samples
 East Plant Area TSCA Vault Annual Report, Calendar Year 2018
 GM CET Bedford Facility
 Bedford, Indiana

| Area: | EastPlantArea | EastPlantArea | A007_EastPlantArea | EastPlantArea | EastPlantArea | 1MonitoringWell_WestPlant | A001 | A001 | A001 | MonitoringWell_WestPl | EastPlantArea | FIBoundary_P216We | P205 | P216GM_P216_east | P006 | |
|--|-----------------|-----------------|--------------------|-----------------|----------------|---------------------------|-----------------|-----------------|-----------------|-----------------------|-----------------|-------------------|-----------------|------------------|-----------------|-------|
| Sample Location: | 9-4 | 9-4 | CH-20 | CH-42 | CH-42A | MW-X085Y070S-2 | MW-X146Y084 | MW-X146Y084 | MW-X165Y068 | MW-X169Y058S-1 | MW-X227Y054 | MW-X261Y356D-3 | MW-X277Y100 | MW-X297Y305D-2 | MW-X315Y115 | |
| Sample Identification: | GW-112818-MC-18 | GW-112818-MC-20 | GW-112818-MC-16 | GW-112718-EM-03 | GW-112718-MC-4 | GW-112918-EM-15~Split | GW-112918-MC-24 | GW-112918-MC-26 | GW-112918-MC-28 | GW-112918-EM-17 | GW-112818-EM-09 | GW-112718-EM-05 | GW-112818-EM-11 | GW-112718-EM-07 | GW-112818-MC-14 | |
| Sample Date: | 11/28/2018 | 11/28/2018 | 11/28/2018 | 11/27/2018 | 11/27/2018 | 11/29/2018 | 11/29/2018 | 11/29/2018 | 11/29/2018 | 11/29/2018 | 11/28/2018 | 11/27/2018 | 11/28/2018 | 11/27/2018 | 11/28/2018 | |
| Sample Type: | | Duplicate | | | | Replicate | | Duplicate | | | | | | | | |
| Units | | | | | | | | | | | | | | | | |
| PCBs | | | | | | | | | | | | | | | | |
| Aroclor-1016 (PCB-1016) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.39 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | |
| Aroclor-1221 (PCB-1221) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.39 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | |
| Aroclor-1232 (PCB-1232) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.39 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | |
| Aroclor-1242 (PCB-1242) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.39 U | 0.23 | 0.29 | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | |
| Aroclor-1248 (PCB-1248) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.48 J | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | |
| Aroclor-1254 (PCB-1254) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.39 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | |
| Chloride | ug/L | -- | -- | -- | -- | -- | -- | 2400000 | 2500000 | 350000 | -- | -- | -- | -- | -- | |
| Field Parameters | | | | | | | | | | | | | | | | |
| Conductivity, field | mS/cm | 0.600 | -- | 1.224 | 0.920 | 0.480 | -- | 5.433 | -- | 2.444 | 2.607 | 0.813 | 0.619 | 0.893 | 0.765 | 0.448 |
| Dissolved oxygen (DO), field | ug/L | 1700 | -- | 4000 | 5600 | 38400 | -- | 4400 | -- | 400 | 4100 | 2400 | 500 | 19400 | 9400 | 6100 |
| Oxidation reduction potential (ORP), field | millivolts | -25.9 | -- | -196.6 | -45.2 | -149.5 | -- | -39.8 | -- | -109 | -60 | -148.1 | 160.5 | 19.8 | -57.9 | 134 |
| pH, field | s.u. | 7.66 | -- | 12.26 | 6.72 | 7.57 | -- | 7.6 | -- | 8.09 | 7.82 | 7.11 | 8.01 | 6.89 | 6.85 | 7.49 |
| Temperature, sample | Deg C | 12.08 | -- | 13.84 | 11.75 | 11.61 | -- | 12.8 | -- | 13.69 | 13 | 13.35 | 10.83 | 13.06 | 12.64 | 12.75 |
| Turbidity, field | NTU | 9.04 | -- | 3.31 | 1.93 | -- | -- | 1.04 | -- | 13.5 | 21.9 | 11 | 0.49 | 4.12 | 1.19 | 8.48 |

Notes:
 U - Not detected at the associated reporting limit.
 J - Estimated concentration.
 UJ - Not detected; associated reporting limit is estimated.

Table 3.2

Summary of Total PCBs Analytical Results for El CA750 2018 2nd Semi-Annual GW Samples
 East Plant Area TSCA Vault Annual Report, Calendar Year 2018
 GM CET Bedford Facility
 Bedford, Indiana

| Area: | | EastPlantArea | EastPlantArea | A007_EastPlantArea | EastPlantArea | EastPlantArea | P006 | A001 | P015 | Trip Blank | Trip Blank |
|--|-------|-----------------|-----------------|--------------------|-----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Sample Location: | | 9-4 | 9-4 | CH-20 | CH-42 | CH-42A | MW-X315Y150 | ST-59 | Tributary 3-3 | TB-112818-EM-01 | TB-112918-MC-02 |
| Sample Identification: | | GW-112818-MC-18 | GW-112818-MC-20 | GW-112818-MC-16 | GW-112718-EM-03 | GW-112718-MC-4 | GW-112818-MC-12 | GW-112918-EM-19 | SW-112918-JL-30 | TB-112818-EM-01 | TB-112918-MC-02 |
| Sample Date: | | 11/28/2018 | 11/28/2018 | 11/28/2018 | 11/27/2018 | 11/27/2018 | 11/28/2018 | 11/29/2018 | 11/29/2018 | 11/28/2018 | 11/29/2018 |
| Sample Type: | | | Duplicate | | | | | | | | |
| | Units | | | | | | | | | | |
| PCBs | | | | | | | | | | | |
| Aroclor-1016 (PCB-1016) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- |
| Aroclor-1221 (PCB-1221) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- |
| Aroclor-1232 (PCB-1232) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- |
| Aroclor-1242 (PCB-1242) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- |
| Aroclor-1248 (PCB-1248) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- |
| Aroclor-1254 (PCB-1254) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- |
| Aroclor-1260 (PCB-1260) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- |
| Total PCBs | ug/L | ND | ND | ND | ND | ND | ND | ND | ND | -- | -- |
| Volatil Organic Compounds (VOCs) | | | | | | | | | | | |
| Aroclor-1016 (PCB-1016) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | -- | -- |
| Aroclor-1221 (PCB-1221) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | -- | -- |
| Aroclor-1232 (PCB-1232) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | -- | -- |
| Aroclor-1242 (PCB-1242) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | -- | -- |
| Aroclor-1248 (PCB-1248) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | -- | -- |
| Aroclor-1254 (PCB-1254) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | -- | -- |
| Aroclor-1260 (PCB-1260) (dissolved) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.20 U | -- | -- |
| Total PCBs (dissolved) | ug/L | ND | ND | ND | ND | ND | ND | ND | ND | -- | -- |
| 1,1,1-Trichloroethane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| 1,1,2,2-Tetrachloroethane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| 1,1,2-Trichloroethane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| 1,1-Dichloroethane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| 1,1-Dichloroethene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| 1,2,4-Trichlorobenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| 1,2-Dibromo-3-chloropropane (DBCP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 2.0 U | 2.0 U |
| 1,2-Dibromoethane (Ethylene dibromide) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| 1,2-Dichlorobenzene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| 1,2-Dichloroethane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| 1,2-Dichloropropane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| 1,3-Dichlorobenzene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| 1,4-Dichlorobenzene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| 2-Butanone (Methyl ethyl ketone) (MEK) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 10 U | 10 U |
| 2-Chloroethyl vinyl ether | ug/L | 10 U | 10 U | 10 U | -- | -- | -- | -- | -- | -- | -- |
| 2-Hexanone | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 10 U | 10 U |
| 4-Methyl-2-pentanone (Methyl isobutyl ke | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 10 U | 10 U |
| Acetone | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 10 U | 10 U |
| Benzene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| Bromodichloromethane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| Bromoform | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| Bromomethane (Methyl bromide) | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| Carbon disulfide | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| Carbon tetrachloride | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| Chlorobenzene | ug/L | 1.0 U | 1.0 U | 0.45 J | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| Chloroethane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| Chloroform (Trichloromethane) | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| Chloromethane (Methyl chloride) | ug/L | 1.0 UJ | 1.0 UJ | 1.0 UJ | -- | -- | -- | -- | -- | 1.0 UJ | 1.0 U |
| cis-1,2-Dichloroethene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| cis-1,3-Dichloropropene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| Cyclohexane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| Dibromochloromethane | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| Dichlorodifluoromethane (CFC-12) | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| Ethylbenzene | ug/L | 1.0 U | 1.0 U | 0.23 J | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| Isopropyl benzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| Methyl acetate | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 10 U | 10 U |
| Methyl cyclohexane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| Methyl tert butyl ether (MTBE) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| Methylene chloride | ug/L | 5.0 U | 5.0 U | 5.0 U | -- | -- | -- | -- | -- | 5.0 U | 5.0 U |
| Styrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| Tetrachloroethene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| Toluene | ug/L | 1.0 U | 1.0 U | 0.26 J | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| trans-1,2-Dichloroethene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| trans-1,3-Dichloropropene | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| Trichloroethene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| Trichlorofluoromethane (CFC-11) | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| Trifluorotrchloroethane (CFC-113) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| Vinyl chloride | ug/L | 1.0 U | 1.0 U | 1.0 U | -- | -- | -- | -- | -- | 1.0 U | 1.0 U |
| Xylenes (total) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | 2.0 U | 2.0 U |
| Semi-Volatile Organic Compounds (SVOCs) | | | | | | | | | | | |
| 2,2'-Oxybis(1-chloropropane) (bis(2-Chlor | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

Table 3.2

Summary of Total PCBs Analytical Results for El CA750 2018 2nd Semi-Annual GW Samples
 East Plant Area TSCA Vault Annual Report, Calendar Year 2018
 GM CET Bedford Facility
 Bedford, Indiana

| Area: | EastPlantArea | EastPlantArea | A007_EastPlantArea | EastPlantArea | EastPlantArea | P006 | A001 | P015 | Trip Blank | Trip Blank | |
|-----------------------------------|-----------------|-----------------|--------------------|-----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----|
| Sample Location: | 9-4 | 9-4 | CH-20 | CH-42 | CH-42A | MW-X315Y150 | ST-59 | Tributary 3-3 | Trip Blank | Trip Blank | |
| Sample Identification: | GW-112818-MC-18 | GW-112818-MC-20 | GW-112818-MC-16 | GW-112718-EM-03 | GW-112718-MC-4 | GW-112818-MC-12 | GW-112918-EM-19 | SW-112918-JL-30 | TB-112818-EM-01 | TB-112918-MC-02 | |
| Sample Date: | 11/28/2018 | 11/28/2018 | 11/28/2018 | 11/27/2018 | 11/27/2018 | 11/28/2018 | 11/29/2018 | 11/29/2018 | 11/28/2018 | 11/29/2018 | |
| Sample Type: | | Duplicate | | | | | | | | | |
| PCBs | Units | | | | | | | | | | |
| Aroclor-1016 (PCB-1016) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- |
| Aroclor-1221 (PCB-1221) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- |
| Aroclor-1232 (PCB-1232) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- |
| Aroclor-1242 (PCB-1242) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- |
| Aroclor-1248 (PCB-1248) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- |
| Aroclor-1254 (PCB-1254) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- |
| 2,4,5-Trichlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4,6-Trichlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dichlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dinitrophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dinitrotoluene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,6-Dinitrotoluene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Chloronaphthalene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Chlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Methylnaphthalene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Methylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Nitroaniline | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Nitrophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 3&4-Methylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 3,3'-Dichlorobenzidine | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 3-Nitroaniline | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,6-Dinitro-2-methylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Bromophenyl phenyl ether | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Chloro-3-methylphenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Chloroaniline | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Chlorophenyl phenyl ether | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Nitroaniline | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Nitrophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Acetophenone | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Atrazine | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzaldehyde | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(b)fluoranthene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(k)fluoranthene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Biphenyl (1,1-Biphenyl) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Chloroethoxy)methane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Chloroethyl)ether | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate (DEHP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Butyl benzylphthalate (BBP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Caprolactam | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Carbazole | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dibenz(a,h)anthracene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Di-n-butylphthalate (DBP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate (DnOP) | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Fluorene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorocyclopentadiene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-cd)pyrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Isophorone | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Nitrobenzene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| N-Nitrosodi-n-propylamine | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| N-Nitrosodiphenylamine | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Phenol | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | ug/L | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

General Chemistry

Table 3.2

**Summary of Total PCBs Analytical Results for EI CA750 2018 2nd Semi-Annual GW Samples
East Plant Area TSCA Vault Annual Report, Calendar Year 2018
GM CET Bedford Facility
Bedford, Indiana**

| Area: | | EastPlantArea | EastPlantArea | A007_EastPlantArea | EastPlantArea | EastPlantArea | P006 | A001 | P015 | Trip Blank | Trip Blank |
|--|------------|-----------------|-----------------|--------------------|-----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Sample Location: | | 9-4 | 9-4 | CH-20 | CH-42 | CH-42A | MW-X315Y150 | ST-59 | Tributary 3-3 | | |
| Sample Identification: | | GW-112818-MC-18 | GW-112818-MC-20 | GW-112818-MC-16 | GW-112718-EM-03 | GW-112718-MC-4 | GW-112818-MC-12 | GW-112918-EM-19 | SW-112918-JL-30 | TB-112818-EM-01 | TB-112918-MC-02 |
| Sample Date: | | 11/28/2018 | 11/28/2018 | 11/28/2018 | 11/27/2018 | 11/27/2018 | 11/28/2018 | 11/29/2018 | 11/29/2018 | 11/28/2018 | 11/29/2018 |
| Sample Type: | | | Duplicate | | | | | | | | |
| | Units | | | | | | | | | | |
| PCBs | | | | | | | | | | | |
| Aroclor-1016 (PCB-1016) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- |
| Aroclor-1221 (PCB-1221) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- |
| Aroclor-1232 (PCB-1232) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- |
| Aroclor-1242 (PCB-1242) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- |
| Aroclor-1248 (PCB-1248) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- |
| Aroclor-1254 (PCB-1254) | ug/L | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | -- | -- |
| Chloride | ug/L | -- | -- | -- | -- | -- | -- | 15000 | -- | -- | -- |
| Field Parameters | | | | | | | | | | | |
| Conductivity, field | mS/cm | 0.600 | -- | 1.224 | 0.920 | 0.480 | 0.250 | 2.607 | 0.341 | -- | -- |
| Dissolved oxygen (DO), field | ug/L | 1700 | -- | 4000 | 5600 | 38400 | 4100 | 4100 | 11510 | -- | -- |
| Oxidation reduction potential (ORP), field | millivolts | -25.9 | -- | -196.6 | -45.2 | -149.5 | 148 | -60 | 94.1 | -- | -- |
| pH, field | s.u. | 7.66 | -- | 12.26 | 6.72 | 7.57 | 7.4 | 7.82 | 7.3 | -- | -- |
| Temperature, sample | Deg C | 12.08 | -- | 13.84 | 11.75 | 11.61 | 13.94 | 13 | 5.53 | -- | -- |
| Turbidity, field | NTU | 9.04 | -- | 3.31 | 1.93 | -- | 20.8 | 21.9 | 3.23 | -- | -- |

Notes:

U - Not detected at the associated reporting limit.

J - Estimated concentration.

UJ - Not detected; associated reporting limit is estimated.

Table 3.3

**2018 Groundwater Treatment Plant Monitoring Analytical Results
East Plant Area TSCA Vault Annual Report, Calendar Year 2018
GM CET Bedford Facility
Bedford, Indiana**

| Area | | P412 | P412 | P412 | P412 |
|------------------------------|--------------|------------------------|------------------------|------------------------|------------------------|
| Sample Location: | | HV-6021A | HV-6021A | HV-6021A | HV-6021A |
| Sample Identification: | | WW-412-010918-MC-40703 | WW-412-020618-MC-40726 | WW-412-031418-MC-40735 | WW-412-040518-MC-40745 |
| Sample Date: | | 1/9/2018 | 2/6/2018 | 3/14/2018 | 4/5/2018 |
| Sample Type: | | | | | |
| | Units | | | | |
| PCBs | | | | | |
| Aroclor-1016 (PCB-1016) | ug/L | 0.094 U | 0.095 U | 0.094 U | 0.094 U |
| Aroclor-1221 (PCB-1221) | ug/L | 0.094 U | 0.095 U | 0.094 U | 0.094 U |
| Aroclor-1232 (PCB-1232) | ug/L | 0.094 U | 0.095 U | 0.094 U | 0.094 U |
| Aroclor-1242 (PCB-1242) | ug/L | 0.094 U | 0.095 U | 0.094 U | 0.094 U |
| Aroclor-1248 (PCB-1248) | ug/L | 0.094 U | 0.095 U | 0.094 U | 0.094 U |
| Aroclor-1254 (PCB-1254) | ug/L | 0.094 U | 0.095 U | 0.094 U | 0.094 U |
| Aroclor-1260 (PCB-1260) | ug/L | 0.094 U | 0.095 U | 0.094 U | 0.094 U |
| Total PCBs | ug/L | ND | ND | ND | ND |
| General Chemistry | | | | | |
| Oil and grease (HEM), polar | ug/L | -- | -- | -- | -- |
| Oil and grease (HEM), total | ug/L | -- | -- | -- | -- |
| Total suspended solids (TSS) | ug/L | -- | -- | -- | -- |

Notes:

U - Not detected at the associated reporting limit.

Table 3.3

**2018 Groundwater Treatment Plant Monitoring Analytical Results
East Plant Area TSCA Vault Annual Report, Calendar Year 2018
GM CET Bedford Facility
Bedford, Indiana**

| Area | | P412 | P412 | P412 | P412 |
|------------------------------|--------------|------------------------|------------------------|------------------------|------------------------|
| Sample Location: | | HV-6021A | HV-6021A | HV-6021A | HV-6021A |
| Sample Identification: | | WW-412-052218-MC-40758 | WW-412-061118-MC-40768 | WW-412-071118-MC-40778 | WW-412-081418-MC-40788 |
| Sample Date: | | 5/22/2018 | 6/11/2018 | 7/11/2018 | 8/14/2018 |
| Sample Type: | | | | | |
| PCBs | | | | | |
| | Units | | | | |
| Aroclor-1016 (PCB-1016) | ug/L | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Aroclor-1221 (PCB-1221) | ug/L | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Aroclor-1232 (PCB-1232) | ug/L | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Aroclor-1242 (PCB-1242) | ug/L | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Aroclor-1248 (PCB-1248) | ug/L | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Aroclor-1254 (PCB-1254) | ug/L | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Aroclor-1260 (PCB-1260) | ug/L | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Total PCBs | ug/L | ND | ND | ND | ND |
| General Chemistry | | | | | |
| Oil and grease (HEM), polar | ug/L | -- | -- | -- | -- |
| Oil and grease (HEM), total | ug/L | -- | -- | -- | -- |
| Total suspended solids (TSS) | ug/L | -- | -- | -- | -- |

Notes:

U - Not detected at the associated reporting limit.

Table 3.3

**2018 Groundwater Treatment Plant Monitoring Analytical Results
East Plant Area TSCA Vault Annual Report, Calendar Year 2018
GM CET Bedford Facility
Bedford, Indiana**

| Area | | P412 | P412 | P412 | P412 |
|------------------------------|--------------|------------------------|------------------------|------------------------|------------------------|
| Sample Location: | | HV-6021A | HV-6021A | HV-6021A | HV-6021A |
| Sample Identification: | | WW-412-091318-MC-40798 | WW-412-101618-MC-40808 | WW-412-111518-MC-40918 | WW-412-121918-MC-40928 |
| Sample Date: | | 9/13/2018 | 10/16/2018 | 11/15/2018 | 12/19/2018 |
| Sample Type: | | | | | |
| | Units | | | | |
| PCBs | | | | | |
| Aroclor-1016 (PCB-1016) | ug/L | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Aroclor-1221 (PCB-1221) | ug/L | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Aroclor-1232 (PCB-1232) | ug/L | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Aroclor-1242 (PCB-1242) | ug/L | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Aroclor-1248 (PCB-1248) | ug/L | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Aroclor-1254 (PCB-1254) | ug/L | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Aroclor-1260 (PCB-1260) | ug/L | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Total PCBs | ug/L | ND | ND | ND | ND |
| General Chemistry | | | | | |
| Oil and grease (HEM), polar | ug/L | -- | -- | -- | -- |
| Oil and grease (HEM), total | ug/L | -- | -- | -- | -- |
| Total suspended solids (TSS) | ug/L | -- | -- | -- | -- |

Notes:

U - Not detected at the associated reporting limit.

Appendices

Appendix A
LCS Sump Field Logs, LDS Sump Field Logs,
GUS Sump Field Logs, and
Automated Pumping System Logs

YEAR: 2018 MONTH: JANUARY

GRAVEL UNDERDRAIN SYSTEM

Notes: Top of sump [top of concrete] (feet AMSL): 738.99 Bottom of sump (feet AMSL): 662.18 Inside diameter of sump (feet): 3 Total depth of sump manhole (feet): 76.81
 Pump operating level between 2.5 ft (664.68 ft AMSL or 74.31 ft below the top of sump) and 4.33 ft (666.5 ft AMSL or 72.49 ft below the top of sump) of water in the GUS manhole.

- (a) Water level not to rise above 52 inches deep (equals to a water level of 666.5 ft AMSL or 72.49 ft below top of the sump). Pumping must be initiated if the water level is above 666.5 ft AMSL. Confirm PLC water level measurement by taking a manual water level measurement. If both measurements exceed the maximum allowable level (666.5 ft AMSL), notify the PM immediately.
- (b) Depth to water level should not be less than 72.49 ft below the top of sump (equals to a water level of 666.5 ft AMSL or water depth of 52 inches). Pumping must be initiated if the water level is above 666.5 ft AMSL. Confirm manual water level measurement. If confirmed measurement exceeds the maximum allowable level (666.5 ft AMSL), notify the PM immediately.
- (c) Readout from display on magnetic flow meter (serial number F1095B18000). Readings are cumulative unless noted otherwise.

| DAY | TIME OF MANUAL MEASUREMENT (hh:mm) | (Y) WATER LEVEL DEPTH AT PLC (ft) (inches) <small>*should not be more than 52 inches*</small> | (1) CONVERT PLC WATER DEPTH TO ELEVATION (ft) AMSL = [(Y)/12] + 662.18 <small>*should not be more than 666.5 ft AMSL*</small> | QUANTITY PUMPED @ PLC (gallons removed) | (X) MANUAL DEPTH TO WATER LEVEL (ft) below top of sump <small>*should not be less than 72.49 ft*</small> | (2) CONVERT MANUAL DEPTH TO WATER LEVEL TO ELEVATION (ft) AMSL = 738.99 - (X) <small>*should not be more than 666.5 ft AMSL*</small> | LOCAL FLOW METER READING (gallons) | COMMENTS <small>Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. ** (1) and (2) should be compared and any discrepancies between measurements explained here.</small> |
|-----|------------------------------------|--|---|---|---|--|------------------------------------|---|
| 1 | 1100 | 81.9 | 669.00 | 0 | * | | 1567405 | |
| 2 | 1030 | 81.9 | 669.00 | 0 | * | | 1567405 | |
| 3 | 1230 | 81.5 | 668.97 | 0 | * | | 1567405 | |
| 4 | 1015 | 81.7 | 668.98 | 0 | * | | 1567405 | |
| 5 | 1030 | 81.5 | 668.97 | 0 | * | | 1567405 | |
| 6 | 0930 | 81.7 | 668.98 | 0 | * | | 1567405 | |
| 7 | 1025 | 81.7 | 668.98 | 0 | * | | 1567405 | |
| 8 | 1030 | 81.5 | 668.97 | 0 | * | | 1567405 | |
| 9 | 0830 | 81.2 | 668.94 | 0 | * | | 1567405 | |
| 10 | 0900 | 81.4 | 668.96 | 0 | * | | 1567405 | |
| 11 | 1145 | 81.5 | 668.97 | 0 | * | | 1567405 | |
| 12 | 1100 | 81.6 | 668.98 | 0 | * | | 1567405 | |
| 13 | 2225 | 81.5 | 668.97 | 0 | * | | 1567405 | |
| 14 | 2450 | 81.6 | 668.98 | 0 | * | | 1567405 | |
| 15 | 0750 | 81.7 | 668.98 | 0 | * | | 1567405 | |
| 16 | 1010 | 81.5 | 668.97 | 0 | * | | 1567405 | |
| 17 | 0830 | 81.7 | 668.98 | 0 | * | | 1567405 | |
| 18 | 1050 | 81.7 | 668.98 | 0 | * | | 1567405 | |
| 19 | 0830 | 81.8 | 668.98 | 0 | * | | 1567405 | |
| 20 | 1600 | 81.4 | 668.96 | 0 | * | | 1567405 | |
| 21 | 0800 | 81.5 | 668.97 | 0 | * | | 1567405 | |
| 22 | 0830 | 81.5 | 668.97 | 0 | * | | 1567405 | |
| 23 | 0930 | 81.8 | 668.99 | 0 | * | | 1567405 | |
| 24 | 1050 | 81.6 | 668.98 | 0 | * | | 1567405 | |
| 25 | 0730 | 81.5 | 668.97 | 0 | * | | 1567405 | |
| 26 | 0900 | 81.5 | 668.97 | 0 | * | | 1567405 | |
| 27 | 1200 | 81.9 | 669.00 | 0 | * | | 1567405 | |
| 28 | 2020 | 81.9 | 669.00 | 0 | * | | 1567405 | |
| 29 | 0830 | 82.0 | 669.01 | 0 | * | | 1567405 | |
| 30 | 0950 | 82.0 | 669.01 | 0 | * | | 1567405 | |
| 31 | 0830 | 82.1 | 669.02 | 0 | * | | 1567405 | |

GHD 013988 * CAN NOT TAKE MANUAL MEASUREMENT

YEAR: 2018 MONTH: JANUARY

LEACHATE COLLECTION SYSTEM

Notes: Top of sump [top of concrete manhole] (feet AMSL): 740.83 Bottom of sump (feet AMSL): 671.00 Inside diameter of sump (feet): 6 Total depth of sump manhole (feet): 69.83
 Pump operating level between 1.5 ft (672.50 ft AMSL or 68.83 ft below the top of sump) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.
 (a) Water level not to rise above 36 inches deep (equates to a water level of 674.00 ft AMSL or 66.83 ft below top of the sump). Pumping must be initiated if the water level is above 674.00 ft AMSL. Confirm PLC water level measurement by taking a manual water level measurement. If both measurements exceed the maximum allowable level (674.00 ft AMSL).
 (b) Depth to water level should not be less than 66.83 ft below the top of sump (equates to a water level of 674.00 ft AMSL or water depth of 36 inches). Pumping must be initiated if the water level is above 674.00 ft AMSL. Confirm manual water level measurement. If confirmed measurement exceeds the maximum allowable level (674.00 ft AMSL), initiate pumping.
 (c) Readout from display on magnetic flow meter (serial number F1095C16000). Readings are cumulative unless noted otherwise.

| DAY | TIME OF MANUAL MEASUREMENT (hh:mm) | (Y) WATER LEVEL DEPTH AT PLC (inches) *should not be more than 36 inches* | (1) CONVERT PLC WATER DEPTH TO ELEVATION (ft AMSL) = [(Y)/12] + 671.00 *should not be more than 674.00 ft AMSL* | QUANTITY PUMPED @ PLC (gallons removed) | (X) MANUAL DEPTH TO WATER LEVEL (ft below top of sump) *should not be less than 66.83 ft* | (2) CONVERT MANUAL DEPTH TO WATER LEVEL TO ELEVATION (ft AMSL) = 740.83 - (X) *should not be more than 674.00 ft AMSL* | LOCAL FLOW METER READING (gallons) | COMMENTS Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. ** (1) and (2) should be compared and any discrepancies between measurements explained here. |
|-----|------------------------------------|--|--|---|--|---|------------------------------------|--|
| 1 | | | | | | | | |
| 2 | 0930 | | | | | | | |
| 3 | | | | | 69.1 | 671.73 | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | 0815 | | | | 69.05 | 671.78 | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | 0925 | | | | 69.05 | 671.78 | | |
| 16 | | | | | | | | |
| 17 | | | | | | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |
| 21 | | | | | | | | |
| 22 | 1005 | | | | 69.0 | 671.83 | | |
| 23 | | | | | | | | |
| 24 | | | | | | | | |
| 25 | | | | | | | | |
| 26 | | | | | | | | |
| 27 | | | | | | | | |
| 28 | | | | | | | | |
| 29 | 0830 | | | | 69.0 | 671.83 | | |
| 30 | | | | | | | | |
| 31 | | | | | | | | |

YEAR: 2018

MONTH: JANUARY

LEAK DETECTION SYSTEM

Notes: Top of sump [top of concrete manhole] (feet AMSL): 741.14 Bottom of sump (feet AMSL): 668.50 Inside diameter of sump (feet): 6 Total depth of sump manhole (feet): 72.64
 (a) Water level not to rise above 18 inches deep (equates to a water level of 670.0 ft AMSL or 71.14 ft below top of the sump). Pumping must be initiated if the water level is above 670.00 ft AMSL.
 (b) If water level is equal to or exceeds one foot over the primary liner (equates to a water level of 671.5 ft AMSL or 69.99 ft below the top of the sump), initiate pumping and notify the PM immediately.
 (c) Compare the collection rate/average daily flow rate to the Action Leakage Rate (ALR) of 32,000 gallons/acre/day. An increase in the collection rate, or collection rate comparable to the Action Leakage Rate may indicate a leak in one of the liners. Notify the PM immediately of any significant changes in the LDS collection rate and if the collection rate exceeds the Action Leakage Rate of 32,000 gallons/acre/day.
 (d) Example average daily flow rate calculation: Vault footprint = 7 acres (this value is constant). Local flow meter reading on September 1 (X_1) = 22,000 gallons. Local flow meter reading on October 3 (X_2) = 58,000 gallons. Elapsed time between pumping events (Y) = 33 days. Volume pumped ($X_2 - X_1$) = (Z) = 58,000 - 22,000 = 36,000 gallons. Average daily flow rate (Z / Y) / 7 = (36,000 / 33) / 7 acres = 155 gallons/day/acre. Therefore, the average daily flow rate < ALR.

| DAY | TIME OF MANUAL MEASUREMENT #1 (hh:mm) | MANUAL DEPTH TO WATER LEVEL #1 (ft below top of sump) <small>*should not be less than 71.14 ft*</small> | TIME OF MANUAL MEASUREMENT #2 (hh:mm) | MANUAL DEPTH TO WATER LEVEL #2 (ft below top of sump) <small>*should not be less than 71.14 ft*</small> | (X) LOCAL FLOW METER READING (gallons) | (Y) ELAPSED TIME BETWEEN PUMPING EVENTS (days) | (Z) VOLUME PUMPED (gallons) <small>= $X_2 - X_1$</small> | AVERAGE DAILY FLOW RATE (gal/day/acre) <small>= $(Z / Y) / 7$</small> | COMMENTS <small>Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc.</small> |
|-----|---------------------------------------|--|---------------------------------------|--|---|---|---|---|---|
| 1 | | | | | | | | | |
| 2 | 0915 | 72.45 | | | | | | | |
| 3 | | | | | | | | | |
| 4 | | | | | | | | | |
| 5 | | | | | | | | | |
| 6 | | | | | | | | | |
| 7 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | 0820 | 72.45 | | | | | | | |
| 10 | | | | | | | | | |
| 11 | | | | | | | | | |
| 12 | | | | | | | | | |
| 13 | | | | | | | | | |
| 14 | | | | | | | | | |
| 15 | 0920 | 72.50 | | | | | | | |
| 16 | | | | | | | | | |
| 17 | | | | | | | | | |
| 18 | | | | | | | | | |
| 19 | | | | | | | | | |
| 20 | | | | | | | | | |
| 21 | | | | | | | | | |
| 22 | 1000 | 72.55 | | | | | | | |
| 23 | | | | | | | | | |
| 24 | | | | | | | | | |
| 25 | | | | | | | | | |
| 26 | | | | | | | | | |
| 27 | | | | | | | | | |
| 28 | | | | | | | | | |
| 29 | 0820 | 72.55 | | | | | | | |
| 30 | | | | | | | | | |
| 31 | | | | | | | | | |

YEAR: 2018

MONTH: February

LEACHATE COLLECTION SYSTEM

Notes: Top of sump [top of concrete manhole] (feet AMSL): 740.83 Bottom of sump (feet AMSL): 671.00 Inside diameter of sump (feet): 6 Total depth of sump manhole (feet): 69.83
 Pump operating level between 1.5 ft (672.60 ft AMSL or 68.83 ft below the top of sump) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.
 (a) Water level not to rise above 36 inches deep (equates to a water level of 674.00 ft AMSL or 66.83 ft below top of the sump). Pumping must be initiated if the water level is above 674.00 ft AMSL. Confirm PLC water level measurement by taking a manual water level measurement. If both measurements exceed the maximum allowable level (674.00 ft AMSL).
 (b) Depth to water level should not be less than 66.83 ft below the top of sump (equates to a water level of 674.00 ft AMSL or water depth of 36 inches). Pumping must be initiated if the water level is above 674.00 ft AMSL. Confirm manual water level measurement. If confirmed measurement exceeds the maximum allowable level (674.00 ft AMSL), initiate pumping.
 (c) Readout from display on magnetic flow meter (serial number F1095C16000). Readings are cumulative unless noted otherwise.

| DAY | TIME OF MANUAL MEASUREMENT* (hh:mm) | (Y) WATER LEVEL DEPTH AT PLC (4) (inches) *should not be more than 36 inches* | (1) CONVERT PLC WATER DEPTH TO ELEVATION (4) (ft AMSL) =[(Y)/12] + 671.00 *should not be more than 674.00 ft AMSL* | QUANTITY PUMPED @ PLC (gallons removed) | (X) MANUAL DEPTH TO WATER LEVEL (4) (ft below top of sump) *should not be less than 66.83 ft* | (2) CONVERT MANUAL DEPTH TO WATER LEVEL TO ELEVATION (4) (ft AMSL) = 740.83 - (X) *should not be more than 674.00 ft AMSL* | LOCAL FLOW METER READING (4) (gallons) | COMMENTS Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. ** (1) and (2) should be compared and any discrepancies between measurements explained here. |
|-----|-------------------------------------|--|--|---|--|--|--|--|
| 1 | 0830 | 0 | 671 | 0 | | | | |
| 2 | 0830 | 0 | 671 | 0 | | | | |
| 3 | 0845 | 0 | 671 | 0 | | | | |
| 4 | 0850 | 0 | 671 | 0 | | | | |
| 5 | 0840 | 0 | 671 | 0 | 69.0 | 671.83 | | |
| 6 | 0830 | 0 | 671 | 0 | | | | |
| 7 | 0830 | 0 | 671 | 0 | | | | |
| 8 | 0815 | 0 | 671 | 0 | | | | |
| 9 | 0830 | 0 | 671 | 0 | | | | |
| 10 | 0830 | 0 | 671 | 0 | | | | |
| 11 | 0900 | 0 | 671 | 0 | | | | |
| 12 | 1005 | 0 | 671 | 0 | 69.0 | 671.83 | | |
| 13 | 0830 | 0 | 671 | 0 | | | | |
| 14 | 0810 | 0 | 671 | 0 | | | | |
| 15 | 0835 | 0 | 671 | 0 | | | | |
| 16 | 0835 | 0 | 671 | 0 | | | | |
| 17 | 0835 | 0 | 671 | 0 | | | | |
| 18 | 0835 | 0 | 671 | 0 | | | | |
| 19 | 0835 | 0 | 671 | 0 | 68.9 | 671.93 | | |
| 20 | 0835 | 0 | 671 | 0 | | | | |
| 21 | 0835 | 0 | 671 | 0 | | | | |
| 22 | 0836 | 0 | 671 | 0 | | | | |
| 23 | 0655 | 0 | 671 | 0 | | | | |
| 24 | 0850 | 0 | 671 | 0 | | | | |
| 25 | 0825 | 0 | 671 | 0 | | | | |
| 26 | 0835 | 0 | 671 | 0 | 68.85 | 671.98 | | |
| 27 | 0835 | 0 | 671 | 0 | | | | |
| 28 | 0825 | 0 | 671 | 0 | 68.85 | | | |
| 29 | | | | | | | | |
| 30 | | | | | | | | |
| 31 | | | | | | | | |

YEAR: 2018 MONTH: February

LEAK DETECTION SYSTEM

Notes: Top of sump [top of concrete manhole] (feet AMSL): 741.14 Bottom of sump (feet AMSL): 668.50 Inside diameter of sump (feet): 6 Total depth of sump manhole (feet): 72.64
 (a) Water level not to rise above 18 inches deep (equates to a water level of 670.0 ft AMSL or 71.14 ft below top of the sump). Pumping must be initiated if the water level is above 670.00 ft AMSL.
 (b) If water level is equal to or exceeds one foot over the primary liner (equates to a water level of 671.5 ft AMSL or 69.99 ft below the top of the sump), initiate pumping and notify the PM immediately.
 (c) Compare the collection rate/average daily flow rate to the Action Leakage Rate (ALR) of 32,000 gallons/acre/day. An increase in the collection rate, or collection rate comparable to the Action Leakage Rate may indicate a leak in one of the liners. Notify the PM immediately of any significant changes in the LDS collection rate and if the collection rate exceeds the Action Leakage Rate of 32,000 gallons/acre/day.
 (d) Example average daily flow rate calculation: Vault footprint = 7 acres (this value is constant). Local flow meter reading on September 1 (X_1) = 22,000 gallons. Local flow meter reading on October 3 (X_2) = 68,000 gallons. Elapsed time between pumping events (Y) = 33 days. Volume pumped ($X_2 - X_1$) = (Z) = 68,000 - 22,000 = 46,000 gallons. Average daily flow rate (Z/Y) = (46,000 / 33) / 7 acres = 155 gallons/day/acre. Therefore, the average daily flow rate < ALR.

| DAY | TIME OF MANUAL MEASUREMENT #1 (hh:mm) | MANUAL DEPTH TO WATER LEVEL #1 (ft below top of sump) <small>*should not be less than 71.14 ft*</small> | TIME OF MANUAL MEASUREMENT #2 (hh:mm) | MANUAL DEPTH TO WATER LEVEL #2 (ft below top of sump) <small>*should not be less than 71.14 ft*</small> | (X) LOCAL FLOW METER READING (gallons) | (Y) ELAPSED TIME BETWEEN PUMPING EVENTS (days) | (Z) VOLUME PUMPED (gallons) = $X_2 - X_1$ | AVERAGE DAILY FLOW RATE (gal/day/acre) = $(Z/Y) / 7$ | COMMENTS <small>Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc.</small> |
|-----|---------------------------------------|--|---------------------------------------|--|---|---|---|---|---|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | | | | | | | | | |
| 4 | | | | | | | | | |
| 5 | 0045 | 72.5 | | | | | | | |
| 6 | | | | | | | | | |
| 7 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |
| 11 | | | | | | | | | |
| 12 | 1010 | 72.5 | | | | | | | |
| 13 | | | | | | | | | |
| 14 | | | | | | | | | |
| 15 | | | | | | | | | |
| 16 | | | | | | | | | |
| 17 | | | | | | | | | |
| 18 | 0840 | 72.5 | | | | | | | |
| 19 | | | | | | | | | |
| 20 | | | | | | | | | |
| 21 | | | | | | | | | |
| 22 | | | | | | | | | |
| 23 | | | | | | | | | |
| 24 | | | | | | | | | |
| 25 | | | | | | | | | |
| 26 | 0830 | 72.45 | | | | | | | |
| 27 | | | | | | | | | |
| 28 | | | | | | | | | |
| 29 | | | | | | | | | |
| 30 | | | | | | | | | |
| 31 | | | | | | | | | |

YEAR: 2018

MONTH: February

GRAVEL UNDERDRAIN SYSTEM

Notes: Top of sump [top of concrete] (feet AMSL): 738.99 Bottom of sump (feet AMSL): 662.18 Inside diameter of sump (feet): 3 Total depth of sump manhole (feet): 76.81
 Pump operating level between 2.5 ft (664.68 ft AMSL or 74.31 ft below the top of sump) and 4.33 ft (666.5 ft AMSL or 72.49 ft below the top of sump) of water in the GUS manhole.

- (a) Water level not to rise above 52 inches deep (equals to a water level of 666.5 ft AMSL or 72.49 ft below top of the sump). Pumping must be initiated if the water level is above 666.5 ft AMSL. Confirm PLC water level measurement by taking a manual water level measurement. If both measurements exceed the maximum allowable level (666.5 ft AMSL), notify the PM immediately.
- (b) Depth to water level should not be less than 72.49 ft below the top of sump (equals to a water level of 666.5 ft AMSL or water depth of 52 inches). Pumping must be initiated if the water level is above 666.5 ft AMSL. Confirm manual water level measurement. If confirmed measurement exceeds the maximum allowable level (666.5 ft AMSL), notify the PM immediately.
- (c) Readout from display on magnetic flow meter (serial number F1095B16000). Readings are cumulative unless noted otherwise.

| DAY | TIME OF MANUAL MEASUREMENT (hh:mm) | (Y) WATER LEVEL DEPTH AT PLC (a) (inches) *should not be more than 52 Inches* | (1) CONVERT PLC WATER DEPTH TO ELEVATION (b) (ft AMSL) = [(Y)/12] + 662.18 *should not be more than 666.5 ft AMSL* | QUANTITY PUMPED @ PLC (gallons removed) | (X) MANUAL DEPTH TO WATER LEVEL (a) (ft below top of sump) *should not be less than 72.49 ft* | (2) CONVERT MANUAL DEPTH TO WATER LEVEL TO ELEVATION (b) (ft AMSL) = 738.99 - (X) *should not be more than 666.5 ft AMSL* | LOCAL FLOW METER READING (a) (gallons) | COMMENTS Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. ** (1) and (2) should be compared and any discrepancies between measurements explained here. |
|-----|------------------------------------|--|--|---|--|---|--|--|
| 1 | 0850 | 82.4 | 669.04 | 0 | * | | 1567405 | |
| 2 | 0830 | 82.3 | 669.03 | 0 | * | | 1567406 | |
| 3 | 1500 | 82.4 | 669.04 | 0 | * | | 1567405 | |
| 4 | 0830 | 82.4 | 669.04 | 0 | * | | 1567405 | |
| 5 | 1045 | 82.5 | 669.05 | 0 | * | | 1567405 | |
| 6 | 0830 | 82.6 | 669.06 | 0 | * | | 1567405 | |
| 7 | 0850 | 82.6 | 669.06 | 0 | * | | 1567405 | |
| 8 | 0930 | 82.5 | 669.05 | 0 | * | | 1567405 | |
| 9 | 0815 | 82.9 | 669.08 | 0 | * | | 1567405 | |
| 10 | 0830 | 83.0 | 669.09 | 0 | * | | 1567405 | |
| 11 | 1230 | 83.3 | 669.12 | 0 | * | | 1567405 | |
| 12 | 0810 | 82.5 | 669.05 | 0 | * | | 1567405 | |
| 13 | 1355 | 82.5 | 669.05 | 0 | * | | 1567405 | |
| 14 | 0805 | 82.8 | 669.08 | 0 | * | | 1567405 | |
| 15 | 0930 | 82.8 | 669.08 | 0 | * | | 1567405 | |
| 16 | 0925 | 82.5 | 669.05 | 0 | * | | 1567405 | |
| 17 | 0830 | 82.6 | 669.06 | 0 | * | | 1567405 | |
| 18 | 0830 | 82.6 | 669.06 | 0 | * | | 1567405 | |
| 19 | 0870 | 82.8 | 669.08 | 0 | * | | 1567405 | |
| 20 | 0830 | 82.8 | 669.08 | 0 | * | | 1567405 | |
| 21 | 0830 | 83.2 | 669.11 | 0 | * | | 1567405 | |
| 22 | 0830 | 83.4 | 669.13 | 0 | * | | 1567405 | |
| 23 | 0650 | 83.4 | 669.13 | 0 | * | | 1567405 | |
| 24 | 0845 | 83.7 | 669.15 | 0 | * | | 1567405 | |
| 25 | 0900 | 84.0 | 669.18 | 0 | * | | 1567405 | |
| 26 | 0820 | 84.0 | 669.18 | 0 | * | | 1567405 | |
| 27 | 0830 | 84.2 | 669.19 | 0 | * | | 1567405 | |
| 28 | 0815 | 84.5 | 669.22 | 0 | * | | 1567405 | |
| 29 | | | | | | | | |
| 30 | | | | | | | | |
| 31 | | | | | | | | |

GHD 013968 * NO MANUAL MEASUREMENTS POSSIBLE

YEAR: 2018

MONTH: March

GRAVEL UNDERDRAIN SYSTEM

Notes: Top of sump [top of concrete] (feet AMSL): 738.99 Bottom of sump (feet AMSL): 662.18 Inside diameter of sump (feet): 3 Total depth of sump manhole (feet): 76.81
 Pump operating level between 2.5 ft (664.68 ft AMSL or 74.31 ft below the top of sump) and 4.33 ft (666.5 ft AMSL or 72.49 ft below the top of sump) of water in the GUS manhole.

- (a) Water level not to rise above 52 inches deep (equates to a water level of 666.5 ft AMSL or 72.49 ft below top of the sump). Pumping must be initiated if the water level is above 666.5 ft AMSL. Confirm PLC water level measurement by taking a manual water level measurement. If both measurements exceed the maximum allowable level (666.5 ft AMSL), notify the PM immediately.
- (b) Depth to water level should not be less than 72.49 ft below the top of sump (equates to a water level of 666.5 ft AMSL or water depth of 52 inches). Pumping must be initiated if the water level is above 666.5 ft AMSL. Confirm manual water level measurement. If confirmed measurement exceeds the maximum allowable level (666.5 ft AMSL), notify the PM immediately.
- (c) Readout from display on magnetic flow meter (serial number F1095B16000). Readings are cumulative unless noted otherwise.

| DAY | TIME OF MANUAL MEASUREMENT (hh:mm) | (Y) WATER LEVEL DEPTH AT PLC (a) (inches) *should not be more than 52 inches* | (1) CONVERT PLC WATER DEPTH TO ELEVATION (b) (ft AMSL) = [(Y)/12] + 662.18 *should not be more than 666.5 ft AMSL* | QUANTITY PUMPED @ PLC (gallons removed) | (X) MANUAL DEPTH TO WATER LEVEL (b) (ft below top of sump) *should not be less than 72.49 ft* | (2) CONVERT MANUAL DEPTH TO WATER LEVEL TO ELEVATION (b) (ft AMSL) = 738.99 - (X) *should not be more than 666.5 ft AMSL* | LOCAL FLOW METER READING (c) (gallons) | COMMENTS Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. ** (1) and (2) should be compared and any discrepancies between measurements explained here. |
|-----|------------------------------------|--|--|---|--|---|--|--|
| 1 | 0830 | 84.5 | 669.22 | 0 | * | | 1567410 | |
| 2 | 0830 | 84.6 | 669.23 | 0 | * | | 1567410 | |
| 3 | 0725 | 84.6 | 669.23 | 0 | * | | 1567410 | |
| 4 | 0830 | 84.8 | 669.24 | 0 | * | | 1567410 | |
| 5 | 0830 | 85.0 | 669.26 | 0 | * | | 1567410 | |
| 6 | 0830 | 84.9 | 669.25 | 0 | * | | 1567410 | |
| 7 | 0830 | 84.7 | 669.23 | 0 | * | | 1567410 | |
| 8 | 0830 | 84.9 | 669.25 | 0 | * | | 1567410 | |
| 9 | 0830 | 84.9 | 669.25 | 0 | * | | 1567410 | |
| 10 | 0830 | 84.8 | 669.24 | 0 | * | | 1567410 | |
| 11 | 0830 | 84.8 | 669.24 | 0 | * | | 1567410 | |
| 12 | 0830 | 85.0 | 669.26 | 0 | * | | 1567410 | |
| 13 | 0830 | 85.0 | 669.26 | 0 | * | | 1567410 | |
| 14 | 0810 | 85.1 | 669.27 | 0 | * | | 1567410 | |
| 15 | 0830 | 85.4 | 669.29 | 0 | * | | 1567410 | |
| 16 | 0800 | 84.7 | 669.23 | 0 | * | | 1567410 | |
| 17 | 0830 | 84.8 | 669.24 | 0 | * | | 1567410 | |
| 18 | 0830 | 84.8 | 669.24 | 0 | * | | 1567410 | |
| 19 | 0830 | 84.8 | 669.24 | 0 | * | | 1567410 | |
| 20 | 0700 | 84.9 | 669.25 | 0 | * | | 1567410 | |
| 21 | 0700 | 84.8 | 669.24 | 0 | * | | 1567410 | |
| 22 | 0800 | 84.5 | 669.22 | 0 | * | | 1567410 | |
| 23 | 0830 | 84.6 | 669.23 | 0 | * | | 1567410 | |
| 24 | 0830 | 84.6 | 669.23 | 0 | * | | 1567410 | |
| 25 | 0830 | 84.8 | 669.24 | 0 | * | | 1567410 | |
| 26 | 0830 | 84.6 | 669.23 | 0 | * | | 1567410 | |
| 27 | 0830 | 84.6 | 669.23 | 0 | * | | 1567410 | |
| 28 | 0830 | 84.6 | 669.23 | 0 | * | | 1567410 | |
| 29 | 0830 | 84.6 | 669.23 | 0 | * | | 1567410 | |
| 30 | 0830 | 84.6 | 669.23 | 0 | * | | 1567410 | |
| 31 | 0800 | 84.8 | 669.24 | 0 | * | | 1567410 | |

* NO MANUAL MEASUREMENTS POSSIBLE

YEAR: 2018

MONTH: MARCH

LEACHATE COLLECTION SYSTEM

Notes: Top of sump [top of concrete manhole] (feet AMSL): 740.83 Bottom of sump (feet AMSL): 671.00 Inside diameter of sump (feet): 6
 Pump operating level between 1.5 ft (672.50 ft AMSL or 66.83 ft below the top of sump) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole. Total depth of sump manhole (feet): 69.83

(a) Water level not to rise above 36 inches deep (equates to a water level of 674.00 ft AMSL or 66.83 ft below top of the sump). Pumping must be initiated if the water level is above 674.00 ft AMSL. Confirm PLC water level measurement by taking a manual water level measurement. If both measurements exceed the maximum allowable level (674.00 ft AMSL).

(b) Depth to water level should not be less than 66.83 ft below the top of sump (equates to a water level of 674.00 ft AMSL or water depth of 36 inches). Pumping must be initiated if the water level is above 674.00 ft AMSL. Confirm manual water level measurement. If confirmed measurement exceeds the maximum allowable level (674.00 ft AMSL), initiate pumping.

(c) Readout from display on magnetic flow meter (serial number F10B5C16000). Readings are cumulative unless noted otherwise.

| DAY | TIME OF MANUAL MEASUREMENT (hh:mm) | (Y) WATER LEVEL DEPTH AT PLC (inches) <small>*should not be more than 36 inches*</small> | (1) CONVERT PLC WATER DEPTH TO ELEVATION (ft AMSL) <small>=[(Y)/12] + 671.00</small> <small>*should not be more than 674.00 ft AMSL*</small> | QUANTITY PUMPED @ PLC (gallons removed) | (X) MANUAL DEPTH TO WATER LEVEL (ft below top of sump) <small>*should not be less than 66.83 ft*</small> | (2) CONVERT MANUAL DEPTH TO WATER LEVEL TO ELEVATION (ft AMSL) <small>= 740.83 - (X)</small> <small>*should not be more than 674.00 ft AMSL*</small> | LOCAL FLOW METER READING (gallons) | COMMENTS <small>Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc.</small> <small>** (1) and (2) should be compared and any discrepancies between measurements explained here.</small> |
|-----|------------------------------------|---|--|---|---|--|------------------------------------|--|
| 1 | 0834 | 0 | 671 | 0 | | | | |
| 2 | 0834 | 0 | 671 | 0 | | | | |
| 3 | 0850 | 0 | 671 | 0 | | | | |
| 4 | 0900 | 0 | 671 | 0 | | | | |
| 5 | 0845 | 0 | 671 | 0 | 68.85 | 671.98 | | |
| 6 | 0835 | 0 | 671 | 0 | | | | |
| 7 | 0835 | 0 | 671 | 0 | | | | |
| 8 | 0820 | 0 | 671 | 0 | | | | |
| 9 | 0835 | 0 | 671 | 0 | | | | |
| 10 | 0835 | 0 | 671 | 0 | | | | |
| 11 | 0905 | 0 | 671 | 0 | | | | |
| 12 | 1010 | 0 | 671 | 0 | 68.8 | 672.03 | | |
| 13 | 0835 | 0 | 671 | 0 | | | | |
| 14 | 0815 | 0 | 671 | 0 | | | | |
| 15 | 0940 | 0 | 671 | 0 | | | | |
| 16 | 0840 | 0 | 671 | 0 | | | | |
| 17 | 0840 | 0 | 671 | 0 | | | | |
| 18 | 0840 | 0 | 671 | 0 | | | | |
| 19 | 0840 | 0 | 671 | 0 | 68.8 | 672.03 | | |
| 20 | 0840 | 0 | 671 | 0 | | | | |
| 21 | 0840 | 0 | 671 | 0 | | | | |
| 22 | 0840 | 0 | 671 | 0 | | | | |
| 23 | 0700 | 0 | 671 | 0 | | | | |
| 24 | 0855 | 0 | 671 | 0 | | | | |
| 25 | 0830 | 0 | 671 | 0 | | | | |
| 26 | 0840 | 0 | 671 | 0 | 68.69 | 672.14 | | |
| 27 | 0840 | 0 | 671 | 0 | | | | |
| 28 | 0830 | 0 | 671 | 0 | | | | |
| 29 | 0840 | 0 | 671 | 0 | | | | |
| 30 | 0840 | 0 | 671 | 0 | | | | |
| 31 | 0840 | 0 | 671 | 0 | | | | |

YEAR: 2018

MONTH: MARCH

LEAK DETECTION SYSTEM

Notes: Top of sump (top of concrete manhole) (feet AMSL): 741.14 Bottom of sump (feet AMSL): 668.50 Inside diameter of sump (feet): 6 Total depth of sump manhole (feet): 72.64
 (a) Water level not to rise above 18 inches deep (equates to a water level of 670.0 ft AMSL or 71.14 ft below top of the sump). Pumping must be initiated if the water level is above 670.00 ft AMSL.
 (b) If water level is equal to or exceeds one foot over the primary liner (equates to a water level of 671.5 ft AMSL or 69.99 ft below the top of the sump), initiate pumping and notify the PM immediately.
 (c) Compare the collection rate/average daily flow rate to the Action Leakage Rate (ALR) of 32,000 gallons/acre/day. An increase in the collection rate, or collection rate comparable to the Action Leakage Rate may indicate a leak in one of the liners. Notify the PM immediately of any significant changes in the LDS collection rate and if the collection rate exceeds the Action Leakage Rate of 32,000 gallons/acre/day.
 (d) Example average daily flow rate calculation: Vault footprint = 7 acres (this value is constant). Local flow meter reading on September 1 (X_1) = 22,000 gallons. Local flow meter reading on October 3 (X_2) = 58,000 gallons. Elapsed time between pumping events (Y) = 33 days. Volume pumped ($X_2 - X_1$) = (Z) = 58,000 - 22,000 = 36,000 gallons. Average daily flow rate (Z / Y) / 7 = (36,000 / 33) / 7 acres = 155 gallons/day/acre. Therefore, the average daily flow rate < ALR.

| DAY | TIME OF MANUAL MEASUREMENT #1 (hh:mm) | MANUAL DEPTH TO WATER LEVEL #1 (a, b) (ft below top of sump) *should not be less than 71.14 ft* | TIME OF MANUAL MEASUREMENT #2 (hh:mm) | MANUAL DEPTH TO WATER LEVEL #2 (a, b) (ft below top of sump) *should not be less than 71.14 ft* | (X) LOCAL FLOW METER READING (c) (gallons) | (Y) ELAPSED TIME BETWEEN PUMPING EVENTS (days) | (Z) VOLUME PUMPED (gallons) = $X_2 - X_1$ | AVERAGE DAILY FLOW RATE (c, d) (gal/day/acre) = $(Z / Y) / 7$ | COMMENTS Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. |
|-----|---------------------------------------|--|---------------------------------------|--|--|--|--|--|--|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | | | | | | | | | |
| 4 | | | | | | | | | |
| 5 | 0850 | 72.45 | | | | | | | |
| 6 | | | | | | | | | |
| 7 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |
| 11 | | | | | | | | | |
| 12 | 1015 | 72.45 | | | | | | | |
| 13 | | | | | | | | | |
| 14 | | | | | | | | | |
| 15 | | | | | | | | | |
| 16 | | | | | | | | | |
| 17 | | | | | | | | | |
| 18 | | | | | | | | | |
| 19 | 0845 | 72.45 | | | | | | | |
| 20 | | | | | | | | | |
| 21 | | | | | | | | | |
| 22 | | | | | | | | | |
| 23 | | | | | | | | | |
| 24 | | | | | | | | | |
| 25 | | | | | | | | | |
| 26 | | | | | | | | | |
| 27 | 0845 | 72.45 | | | | | | | |
| 28 | | | | | | | | | |
| 29 | | | | | | | | | |
| 30 | | | | | | | | | |
| 31 | | | | | | | | | |

YEAR: 2018

MONTH: April

GRAVEL UNDERDRAIN SYSTEM

Notes: Top of sump [top of concrete] (feet AMSL): 738.99 Bottom of sump (feet AMSL): 662.18 Inside diameter of sump (feet): 3 Total depth of sump manhole (feet): 76.81
 Pump operating level between 2.5 ft (664.68 ft AMSL or 74.31 ft below the top of sump) and 4.33 ft (666.5 ft AMSL or 72.49 ft below the top of sump) of water in the GUS manhole.

- (a) Water level not to rise above 52 inches deep (equates to a water level of 666.5 ft AMSL or 72.49 ft below top of the sump). Pumping must be initiated if the water level is above 666.5 ft AMSL. Confirm PLC water level measurement by taking a manual water level measurement. If both measurements exceed the maximum allowable level (666.5 ft AMSL), notify the PM immediately.
- (b) Depth to water level should not be less than 72.49 ft below the top of sump (equates to a water level of 666.5 ft AMSL or water depth of 52 inches). Pumping must be initiated if the water level is above 666.5 ft AMSL. Confirm manual water level measurement. If confirmed measurement exceeds the maximum allowable level (666.5 ft AMSL), notify the PM immediately.
- (c) Readout from display on magnetic flow meter (serial number F1095B16000). Readings are cumulative unless noted otherwise.

| DAY | TIME OF MANUAL MEASUREMENT (hh:mm) | (Y) WATER LEVEL DEPTH AT PLC (inches) <small>*should not be more than 52 inches*</small> | (1) CONVERT PLC WATER DEPTH TO ELEVATION (ft AMSL) <small>= [(Y)/12] + 662.18 *should not be more than 666.5 ft AMSL*</small> | QUANTITY PUMPED @ PLC (gallons removed) | (X) MANUAL DEPTH TO WATER LEVEL (ft below top of sump) <small>*should not be less than 72.49 ft*</small> | (2) CONVERT MANUAL DEPTH TO WATER LEVEL TO ELEVATION (ft AMSL) <small>= 738.99 - (X) *should not be more than 666.5 ft AMSL*</small> | LOCAL FLOW METER READING (gallons) | COMMENTS Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. ** (1) and (2) should be compared and any discrepancies between measurements explained here. |
|-----|------------------------------------|---|--|---|---|---|------------------------------------|--|
| 1 | 0830 | 84.9 | 669.25 | 0 | * | | 1567410 | |
| 2 | 0830 | 85.2 | 669.28 | | | | | |
| 3 | 0830 | 85.5 | 669.30 | | | | | |
| 4 | 0830 | 85.0 | 669.26 | | | | | |
| 5 | 0830 | 85.2 | 669.28 | | | | | |
| 6 | 0830 | 85.2 | 669.28 | | | | | |
| 7 | 0830 | 85.3 | 669.28 | | | | | |
| 8 | 0830 | 85.3 | 669.28 | | | | | |
| 9 | 0830 | 85.3 | 669.28 | | | | | |
| 10 | 0830 | 85.2 | 669.28 | | | | | |
| 11 | 0830 | 85.5 | 669.30 | | | | | |
| 12 | 0830 | 85.5 | 669.30 | | | | | |
| 13 | 0830 | 85.4 | 669.29 | | | | | |
| 14 | 0830 | 85.4 | 669.29 | | | | | |
| 15 | 0830 | 85.3 | 669.28 | | | | | |
| 16 | 0830 | 85.5 | 669.30 | | | | | |
| 17 | 0830 | 85.5 | 669.30 | | | | | |
| 18 | 0830 | 85.4 | 669.29 | | | | | |
| 19 | 0830 | 85.4 | 669.29 | | | | | |
| 20 | 0830 | 85.3 | 669.28 | | | | | |
| 21 | 0830 | 85.3 | 669.28 | | | | | |
| 22 | 0830 | 85.4 | 669.29 | | | | | |
| 23 | 0830 | 85.4 | 669.29 | | | | | |
| 24 | 0830 | 85.1 | 669.27 | | | | | |
| 25 | 0830 | 85.5 | 669.30 | | | | | |
| 26 | 0830 | 85.5 | 669.30 | | | | | |
| 27 | 0900 | 85.1 | 669.27 | | | | | |
| 28 | 0830 | 85.3 | 669.28 | | | | | |
| 29 | 0900 | 85.1 | 669.27 | | | | | |
| 30 | 0900 | 85.2 | 669.28 | | | | | |
| 31 | | | | | | | | |

* NO MANUAL MEASUREMENTS POSSIBLE

YEAR: 2018

MONTH: April

LEACHATE COLLECTION SYSTEM

Notes: Top of sump [top of concrete manhole] (feet AMSL): 740.83 Bottom of sump (feet AMSL): 671.00 Inside diameter of sump (feet): 6 Total depth of sump manhole (feet): 69.83
 Pump operating level between 1.5 ft (672.50 ft AMSL or 68.83 ft below the top of sump) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.
 (a) Water level not to rise above 36 inches deep (equates to a water level of 674.00 ft AMSL or 66.83 ft below top of the sump). Pumping must be initiated if the water level is above 674.00 ft AMSL. Confirm PLC water level measurement by taking a manual water level measurement. If both measurements exceed the maximum allowable level (674.00 ft AMSL).
 (b) Depth to water level should not be less than 66.83 ft below the top of sump (equates to a water level of 674.00 ft AMSL or water depth of 36 inches). Pumping must be initiated if the water level is above 674.00 ft AMSL. Confirm manual water level measurement. If confirmed measurement exceeds the maximum allowable level (674.00 ft AMSL), initiate pumping.
 (c) Readout from display on magnetic flow meter (serial number F10B5C16000). Readings are cumulative unless noted otherwise.

| DAY | TIME OF MANUAL MEASUREMENT (h:mm) | (Y) WATER LEVEL DEPTH AT PLC (inches) <small>*should not be more than 36 inches*</small> | (1) CONVERT PLC WATER DEPTH TO ELEVATION (ft AMSL) <small>= [(Y)/12] + 671.00 *should not be more than 674.00 ft AMSL*</small> | QUANTITY PUMPED @ PLC (gallons removed) | (X) MANUAL DEPTH TO WATER LEVEL (ft below top of sump) <small>*should not be less than 66.83 ft*</small> | (2) CONVERT MANUAL DEPTH TO WATER LEVEL TO ELEVATION (ft AMSL) <small>= 740.83 - (X) *should not be more than 674.00 ft AMSL*</small> | LOCAL FLOW METER READING (gallons) | COMMENTS <small>Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. ** (1) and (2) should be compared and any discrepancies between measurements explained here.</small> |
|-----|-----------------------------------|---|---|---|---|--|------------------------------------|---|
| 1 | 0835 | 0 | 671 | 0 | | | | |
| 2 | 0835 | 0 | 671 | 0 | 68.69 | 672.14 | | |
| 3 | 0835 | 0 | 671 | 0 | | | | |
| 4 | 0835 | 0 | 671 | 0 | | | | |
| 5 | 0835 | 0 | 671 | 0 | | | | |
| 6 | 0835 | 0 | 671 | 0 | | | | |
| 7 | 0835 | 0 | 671 | 0 | | | | |
| 8 | 0835 | 0 | 671 | 0 | | | | |
| 9 | 0835 | 0 | 671 | 0 | 68.69 | 672.14 | | |
| 10 | 0835 | 0 | 671 | 0 | | | | |
| 11 | 0835 | 0 | 671 | 0 | | | | |
| 12 | 0835 | 0 | 671 | 0 | | | | |
| 13 | 0835 | 0 | 671 | 0 | | | | |
| 14 | 0835 | 0 | 671 | 0 | | | | |
| 15 | 0835 | 0 | 671 | 0 | | | | |
| 16 | 0835 | 0 | 671 | 0 | 68.65 | 672.18 | | |
| 17 | 0835 | 0 | 671 | 0 | | | | |
| 18 | 0835 | 0 | 671 | 0 | | | | |
| 19 | 0835 | 0 | 671 | 0 | | | | |
| 20 | 0835 | 0 | 671 | 0 | | | | |
| 21 | 0835 | 0 | 671 | 0 | | | | |
| 22 | 0835 | 0 | 671 | 0 | | | | |
| 23 | 0835 | 0 | 671 | 0 | 68.6 | 672.23 | | |
| 24 | 0835 | 0 | 671 | 0 | | | | |
| 25 | 0835 | 0 | 671 | 0 | | | | |
| 26 | 0835 | 0 | 671 | 0 | | | | |
| 27 | 0835 | 0 | 671 | 0 | | | | |
| 28 | 0835 | 0 | 671 | 0 | | | | |
| 29 | 0835 | 0 | 671 | 0 | | | | |
| 30 | 0835 | 0 | 671 | 0 | 68.54 | 672.29 | | |
| 31 | | | | | | | | |

YEAR: 2018 MONTH: April

LEAK DETECTION SYSTEM

Notes: Top of sump [top of concrete manhole] (feet AMSL): 741.14 Bottom of sump (feet AMSL): 668.50 Inside diameter of sump (feet): 6 Total depth of sump manhole (feet): 72.64
 (a) Water level not to rise above 18 inches deep (equates to a water level of 670.0 ft AMSL or 71.14 ft below top of the sump). Pumping must be initiated if the water level is above 670.00 ft AMSL.
 (b) If water level is equal to or exceeds one foot over the primary liner (equates to a water level of 671.5 ft AMSL or 69.98 ft below the top of the sump), initiate pumping and notify the PM immediately.
 (c) Compare the collection rate/average daily flow rate to the Action Leakage Rate (ALR) of 32,000 gallons/acre/day. An increase in the collection rate, or collection rate comparable to the Action Leakage Rate may indicate a leak in one of the liners. Notify the PM immediately of any significant changes in the LDS collection rate and if the collection rate exceeds the Action Leakage Rate of 32,000 gallons/acre/day.
 (d) Example average daily flow rate calculation: Vault footprint = 7 acres (this value is constant). Local flow meter reading on September 1 (X₁) = 22,000 gallons. Local flow meter reading on October 3 (X₂) = 58,000 gallons. Elapsed time between pumping events (Y) = 33 days. Volume pumped (X₂ - X₁) = (Z) = 58,000 - 22,000 = 36,000 gallons. Average daily flow rate (Z / Y) / 7 = (36,000 / 33) / 7 acres = 155 gallons/day/acre. Therefore, the average daily flow rate < ALR.

| DAY | TIME OF MANUAL MEASUREMENT #1 (hh:mm) | MANUAL DEPTH TO WATER LEVEL #1 (a, b) BEFORE PUMPING (ft below top of sump) *should not be less than 71.14 ft* | TIME OF MANUAL MEASUREMENT #2 (hh:mm) | MANUAL DEPTH TO WATER LEVEL #2 (a, b) AFTER PUMPING (ft below top of sump) *should not be less than 71.14 ft* | (X) LOCAL FLOW METER READING (e) (gallons) | (Y) ELAPSED TIME BETWEEN PUMPING EVENTS (days) | (Z) VOLUME PUMPED (gallons) = X ₂ - X ₁ | AVERAGE DAILY FLOW RATE (c, d) (gal/day/ac) = (Z / Y) / 7 | COMMENTS Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. |
|-----|---------------------------------------|---|---------------------------------------|--|--|--|--|--|--|
| 1 | | | | | | | | | |
| 2 | 0840 | 72.45 | | | | | | | |
| 3 | | | | | | | | | |
| 4 | | | | | | | | | |
| 5 | | | | | | | | | |
| 6 | | | | | | | | | |
| 7 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | 0840 | 72.45 | | | | | | | |
| 10 | | | | | | | | | |
| 11 | | | | | | | | | |
| 12 | | | | | | | | | |
| 13 | | | | | | | | | |
| 14 | | | | | | | | | |
| 15 | | | | | | | | | |
| 16 | 0840 | 72.44 | | | | | | | |
| 17 | | | | | | | | | |
| 18 | | | | | | | | | |
| 19 | | | | | | | | | |
| 20 | | | | | | | | | |
| 21 | | | | | | | | | |
| 22 | | | | | | | | | |
| 23 | 0840 | 72.44 | | | | | | | |
| 24 | | | | | | | | | |
| 25 | | | | | | | | | |
| 26 | | | | | | | | | |
| 27 | | | | | | | | | |
| 28 | | | | | | | | | |
| 29 | | | | | | | | | |
| 30 | 0840 | 72.42 | | | | | | | |
| 31 | | | | | | | | | |

YEAR: 2018

MONTH: MAY

GRAVEL UNDERDRAIN SYSTEM

Notes: Top of sump (top of concrete) (feet AMSL): 738.99 Bottom of sump (feet AMSL): 662.18 Inside diameter of sump (feet): 3 Total depth of sump manhole (feet): 76.81
 Pump operating level between 2.5 ft (664.68 ft AMSL or 74.31 ft below the top of sump) and 4.33 ft (666.5 ft AMSL or 72.49 ft below the top of sump) of water in the GUS manhole.

- (a) Water level not to rise above 52 inches deep (equates to a water level of 666.5 ft AMSL or 72.49 ft below top of the sump). Pumping must be initiated if the water level is above 666.5 ft AMSL. Confirm PLC water level measurement by taking a manual water level measurement. If both measurements exceed the maximum allowable level (666.5 ft AMSL), notify the PM immediately.
- (b) Depth to water level should not be less than 72.49 ft below the top of sump (equates to a water level of 666.5 ft AMSL or water depth of 52 inches). Pumping must be initiated if the water level is above 666.5 ft AMSL. Confirm manual water level measurement. If confirmed measurement exceeds the maximum allowable level (666.5 ft AMSL), notify the PM immediately.
- (c) Readout from display on magnetic flow meter (serial number F1095B18000). Readings are cumulative unless noted otherwise.

| DAY | TIME OF MANUAL MEASUREMENT (hh:mm) | (Y) WATER LEVEL DEPTH AT PLC (4) (inches) *should not be more than 52 inches* | (1) CONVERT PLC WATER DEPTH TO ELEVATION (4) (ft AMSL) =(Y)/12 + 662.18 *should not be more than 666.5 ft AMSL* | QUANTITY PUMPED @ PLC (gallons removed) | (X) MANUAL DEPTH TO WATER LEVEL (b) (ft below top of sump) *should not be less than 72.49 ft* | (2) CONVERT MANUAL DEPTH TO WATER LEVEL TO ELEVATION (b) (ft AMSL) = 738.99 - (X) *should not be more than 666.5 ft AMSL* | LOCAL FLOW METER READING (d) (gallons) | COMMENTS Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. ** (1) and (2) should be compared and any discrepancies between measurements explained here. |
|-----|---------------------------------------|--|---|--|--|---|---|--|
| 1 | 0830 | 85.1 | 669.27 | 0 | * | | 1567410 | |
| 2 | 0830 | 85.1 | 669.27 | 0 | * | | 1567410 | |
| 3 | 0830 | 84.9 | 669.25 | 0 | * | | 1567410 | |
| 4 | 0830 | 85.1 | 669.27 | 0 | * | | 1567410 | |
| 5 | 0830 | 85.1 | 669.27 | 0 | * | | 1567410 | |
| 6 | 0830 | 84.9 | 669.25 | 0 | * | | 1567410 | |
| 7 | 0830 | 84.9 | 669.25 | 0 | * | | 1567410 | |
| 8 | 0830 | 85.1 | 669.27 | 0 | * | | 1567410 | |
| 9 | 0830 | 84.9 | 669.25 | 0 | * | | 1567410 | |
| 10 | 0830 | 84.7 | 669.23 | 0 | * | | 1567410 | |
| 11 | 0830 | 85.1 | 669.27 | 0 | * | | 1567410 | |
| 12 | 0830 | 85.1 | 669.27 | 0 | * | | 1567410 | |
| 13 | 0830 | 84.9 | 669.25 | 0 | * | | 1567410 | |
| 14 | 0830 | 84.8 | 669.24 | 0 | * | | 1567410 | |
| 15 | 0830 | 84.9 | 669.25 | 0 | * | | 1567410 | |
| 16 | 0830 | 85.0 | 669.26 | 0 | * | | 1567410 | |
| 17 | 1030 | 84.8 | 669.24 | 0 | * | | 1567410 | |
| 18 | 0830 | 84.9 | 669.25 | 0 | * | | 1567410 | |
| 19 | 0830 | 84.9 | 669.25 | 0 | * | | 1567410 | |
| 20 | 0830 | 84.7 | 669.23 | 0 | * | | 1567410 | |
| 21 | 0830 | 84.5 | 669.21 | 0 | * | | 1567410 | |
| 22 | 0830 | 84.5 | 669.21 | 0 | * | | 1567410 | |
| 23 | 0830 | 84.7 | 669.23 | 0 | * | | 1567410 | |
| 24 | 0830 | 84.7 | 669.23 | 0 | * | | 1567410 | |
| 25 | 0830 | 84.6 | 669.23 | 0 | * | | 1567410 | |
| 26 | 0830 | 84.6 | 669.23 | 0 | * | | 1567410 | |
| 27 | 0830 | 84.4 | 669.21 | 0 | * | | 1567410 | |
| 28 | 0830 | 84.3 | 669.20 | 0 | * | | 1567410 | |
| 29 | 0830 | 84.5 | 669.21 | 0 | * | | 1567410 | |
| 30 | 0830 | 84.7 | 669.23 | 0 | * | | 1567410 | |
| 31 | 0730 | 84.7 | 669.23 | 0 | * | | 1567410 | |

GH0 013986 * NO manual measurements possible

YEAR: 2018

MONTH: MAY

LEACHATE COLLECTION SYSTEM

| Notes: Top of sump [top of concrete manhole] (feet AMSL): 740.83 Bottom of sump (feet AMSL): 671.00 Inside diameter of sump (feet): 6 Total depth of sump manhole (feet): 69.83 Pump operating level between 1.5 ft (672.50 ft AMSL or 68.83 ft below the top of sump) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole. | | | | | | | | |
|--|-----------------------------|---|---|---|---|--|--|--|
| (a) Water level not to rise above 36 inches deep (equates to a water level of 674.00 ft AMSL or 66.83 ft below top of the sump). Pumping must be initiated if the water level is above 674.00 ft AMSL. Confirm PLC water level measurement by taking a manual water level measurement. If both measurements exceed the maximum allowable level (674.00 ft AMSL). (b) Depth to water level should not be less than 66.83 ft below the top of sump (equates to a water level of 674.00 ft AMSL or water depth of 36 inches). Pumping must be initiated if the water level is above 674.00 ft AMSL. Confirm manual water level measurement. If confirmed measurement exceeds the maximum allowable level (674.00 ft AMSL), initiate pumping. (c) Readout from display on magnetic flow meter (serial number F1095C16000). Readings are cumulative unless noted otherwise. | | | | | | | | |
| DAY | TIME OF MEASUREMENT (hh:mm) | (Y) WATER LEVEL DEPTH AT PLC (a) (inches) <small>*should not be more than 36 inches*</small> | (1) CONVERT PLC WATER DEPTH TO ELEVATION (b) (ft AMSL) <small>= [(Y)/12] + 671.00</small> <small>*should not be more than 674.00 ft AMSL*</small> | QUANTITY PUMPED @ PLC (gallons removed) | (X) MANUAL DEPTH TO WATER LEVEL (b) (ft below top of sump) <small>*should not be less than 66.83 ft*</small> | (2) CONVERT MANUAL DEPTH TO WATER LEVEL TO ELEVATION (b) (ft AMSL) <small>= 740.83 - (X)</small> <small>*should not be more than 674.00 ft AMSL*</small> | LOCAL FLOW METER READING (c) (gallons) | COMMENTS <small>Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc.</small> <small>** (1) and (2) should be compared and any discrepancies between measurements explained here.</small> |
| 1 | 0840 | 0 | 671 | 0 | | | | |
| 2 | 0840 | 0 | 671 | 0 | | | | |
| 3 | 0840 | 0 | 671 | 0 | | | | |
| 4 | 0840 | 0 | 671 | 0 | | | | |
| 5 | 0840 | 0 | 671 | 0 | | | | |
| 6 | 0840 | 0 | 671 | 0 | | | | |
| 7 | 0840 | 0 | 671 | 0 | 68.54 | 672.29 | | |
| 8 | 0840 | 0 | 671 | 0 | | | | |
| 9 | 0840 | 0 | 671 | 0 | | | | |
| 10 | 0840 | 0 | 671 | 0 | | | | |
| 11 | 0840 | 0 | 671 | 0 | | | | |
| 12 | 0840 | 0 | 671 | 0 | | | | |
| 13 | 0840 | 0 | 671 | 0 | | | | |
| 14 | 0840 | 0 | 671 | 0 | 68.52 | 672.31 | | |
| 15 | 0840 | 0 | 671 | 0 | | | | |
| 16 | 0840 | 0 | 671 | 0 | | | | |
| 17 | 0840 | 0 | 671 | 0 | | | | |
| 18 | 0840 | 0 | 671 | 0 | | | | |
| 19 | 0840 | 0 | 671 | 0 | | | | |
| 20 | 0840 | 0 | 671 | 0 | | | | |
| 21 | 0842 | 0 | 671 | 0 | 68.5 | 672.33 | | |
| 22 | 0840 | 0 | 671 | 0 | | | | |
| 23 | 0840 | 0 | 671 | 0 | | | | |
| 24 | 0840 | 0 | 671 | 0 | | | | |
| 25 | 0840 | 0 | 671 | 0 | | | | |
| 26 | 0840 | 0 | 671 | 0 | | | | |
| 27 | 0840 | 0 | 671 | 0 | | | | |
| 28 | 0840 | 0 | 671 | 0 | | | | |
| 29 | 0840 | 0 | 671 | 0 | | | | |
| 30 | 0840 | 0 | 671 | 0 | 68.47 | 672.36 | | |
| 31 | 0840 | 0 | 671 | 0 | | | | |

YEAR: 2018

MONTH: MAY

LEAK DETECTION SYSTEM

Notes: Top of sump [top of concrete manhole] (feet AMSL): 741.14 Bottom of sump (feet AMSL): 668.50 Inside diameter of sump (feet): 6 Total depth of sump manhole (feet): 72.64
 (a) Water level not to rise above 18 inches deep (equates to a water level of 670.0 ft AMSL or 71.14 ft below top of the sump). Pumping must be initiated if the water level is above 670.00 ft AMSL.
 (b) If water level is equal to or exceeds one foot over the primary liner (equates to a water level of 671.5 ft AMSL or 69.89 ft below the top of the sump), initiate pumping and notify the PM immediately.
 (c) Compare the collection rate/average daily flow rate to the Action Leakage Rate (ALR) of 32,000 gallons/acre/day. An increase in the collection rate, or collection rate comparable to the Action Leakage Rate may indicate a leak in one of the liners. Notify the PM immediately of any significant changes in the LDS collection rate and if the collection rate exceeds the Action Leakage Rate of 32,000 gallons/acre/day.
 (d) Example average daily flow rate calculation: Vault footprint = 7 acres (this value is constant). Local flow meter reading on September 1 (X_1) = 22,000 gallons. Local flow meter reading on October 3 (X_2) = 58,000 gallons. Elapsed time between pumping events (Y) = 33 days. Volume pumped ($X_2 - X_1$) = (Z) = 58,000 - 22,000 = 36,000 gallons. Average daily flow rate (Z / Y) / 7 = (36,000 / 33) / 7 acres = 155 gallons/day/acre. Therefore, the average daily flow rate < ALR.

| DAY | TIME OF MANUAL MEASUREMENT #1 (hh:mm) | MANUAL DEPTH TO WATER LEVEL #1 (ft below top of sump) <i>*should not be less than 71.14 ft*</i> | TIME OF MANUAL MEASUREMENT #2 (hh:mm) | MANUAL DEPTH TO WATER LEVEL #2 (ft below top of sump) <i>*should not be less than 71.14 ft*</i> | (X) LOCAL FLOW METER READING (gallons) | (Y) ELAPSED TIME BETWEEN PUMPING EVENTS (days) | (Z) VOLUME PUMPED (gallons) = $X_2 - X_1$ | AVERAGE DAILY FLOW RATE (gal/day/acre) = $(Z/Y)/7$ | COMMENTS Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. |
|-----|---------------------------------------|--|---------------------------------------|--|---|---|---|---|--|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | | | | | | | | | |
| 4 | | | | | | | | | |
| 5 | | | | | | | | | |
| 6 | | | | | | | | | |
| 7 | 0845 | 72.42 | | | | | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |
| 11 | | | | | | | | | |
| 12 | | | | | | | | | |
| 13 | | | | | | | | | |
| 14 | 0845 | 72.40 | | | | | | | |
| 15 | | | | | | | | | |
| 16 | | | | | | | | | |
| 17 | | | | | | | | | |
| 18 | | | | | | | | | |
| 19 | | | | | | | | | |
| 20 | | | | | | | | | |
| 21 | 0850 | 72.42 | | | | | | | |
| 22 | | | | | | | | | |
| 23 | | | | | | | | | |
| 24 | | | | | | | | | |
| 25 | | | | | | | | | |
| 26 | | | | | | | | | |
| 27 | | | | | | | | | |
| 28 | | | | | | | | | |
| 29 | 0845 | 72.42 | | | | | | | |
| 30 | | | | | | | | | |
| 31 | | | | | | | | | |

YEAR: 2018 MONTH: JUNE

GRAVEL UNDERDRAIN SYSTEM

Notes: Top of sump [top of concrete] (feet AMSL): 738.99 Bottom of sump (feet AMSL): 662.18 Inside diameter of sump (feet): 3 Total depth of sump manhole (feet): 76.81
 Pump operating level between 2.5 ft (664.68 ft AMSL or 74.31 ft below the top of sump) and 4.33 ft (666.5 ft AMSL or 72.49 ft below the top of sump) of water in the GUS manhole.

- (a) Water level not to rise above 52 inches deep (equates to a water level of 666.5 ft AMSL or 72.49 ft below top of the sump). Pumping must be initiated if the water level is above 666.5 ft AMSL. Confirm PLC water level measurement by taking a manual water level measurement. If both measurements exceed the maximum allowable level (666.5 ft AMSL), notify the PM immediately.
- (b) Depth to water level should not be less than 72.49 ft below the top of sump (equates to a water level of 666.5 ft AMSL or water depth of 52 inches). Pumping must be initiated if the water level is above 666.5 ft AMSL. Confirm manual water level measurement. If confirmed measurement exceeds the maximum allowable level (666.5 ft AMSL), notify the PM immediately.
- (c) Readout from display on magnetic flow meter (serial number F1095B16000). Readings are cumulative unless noted otherwise.

| DAY | TIME OF MANUAL MEASUREMENT (hh:mm) | (Y) WATER LEVEL DEPTH AT PLC (a) (Inches) *should not be more than 52 inches* | (1) CONVERT PLC WATER DEPTH TO ELEVATION (a) (ft AMSL) = [(Y)/12] + 662.18 *should not be more than 666.5 ft AMSL* | QUANTITY PUMPED @ PLC (gallons removed) | (X) MANUAL DEPTH TO WATER LEVEL (b) (ft below top of sump) *should not be less than 72.49 ft* | (2) CONVERT MANUAL DEPTH TO WATER LEVEL TO ELEVATION (b) (ft AMSL) = 738.99 - (X) *should not be more than 666.5 ft AMSL* | LOCAL FLOW METER READING (c) (gallons) | COMMENTS Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. ** (1) and (2) should be compared and any discrepancies between measurements explained here. |
|-----|------------------------------------|--|--|---|--|---|--|--|
| 1 | 0830 | 84.5 | 669.23 | | * | | 1567410 | |
| 2 | 0830 | 84.5 | 669.22 | | * | | 1567410 | |
| 3 | 0830 | 84.4 | 669.21 | | * | | 1567410 | |
| 4 | 0830 | 84.4 | 669.21 | | * | | 1567410 | |
| 5 | 0730 | 84.4 | 669.21 | | * | | 1567410 | |
| 6 | 0830 | 84.6 | 669.23 | | * | | 1567410 | |
| 7 | 0830 | 84.5 | 669.22 | | * | | 1567410 | |
| 8 | 0830 | 84.5 | 669.22 | | * | | 1567410 | |
| 9 | 0800 | 84.6 | 669.23 | | * | | 1567410 | |
| 10 | 0800 | 84.5 | 669.22 | | * | | 1567410 | |
| 11 | 0815 | 84.6 | 669.23 | | * | | 1567410 | |
| 12 | 0800 | 84.7 | 669.23 | | * | | 1567410 | |
| 13 | 0800 | 84.3 | 669.20 | | * | | 1567410 | |
| 14 | 0800 | 84.4 | 669.21 | | * | | 1567410 | |
| 15 | 0800 | 84.4 | 669.21 | | * | | 1567410 | |
| 16 | 0830 | 84.4 | 669.21 | | * | | 1567410 | |
| 17 | 0800 | 84.5 | 669.22 | | * | | 1567410 | |
| 18 | 0800 | 84.5 | 669.22 | | * | | 1567410 | |
| 19 | 0800 | 84.4 | 669.21 | | * | | 1567410 | |
| 20 | 0800 | 84.4 | 669.21 | | * | | 1567410 | |
| 21 | 0730 | 84.3 | 669.20 | | * | | 1567410 | |
| 22 | 0700 | 84.5 | 669.22 | | * | | 1567410 | |
| 23 | 0800 | 84.5 | 669.22 | | * | | 1567410 | |
| 24 | 0800 | 84.4 | 669.21 | | * | | 1567410 | |
| 25 | 0800 | 84.3 | 669.20 | | * | | 1567410 | |
| 26 | 0830 | 84.5 | 669.22 | | * | | 1567410 | |
| 27 | 0800 | 84.5 | 669.22 | | * | | 1567410 | |
| 28 | 0800 | 84.4 | 669.21 | | * | | 1567410 | |
| 29 | 0800 | 84.4 | 669.21 | | * | | 1567410 | |
| 30 | 0800 | 84.5 | 669.22 | | * | | 1567410 | |
| 31 | | | | | | | | |

* NO MANUAL measurements taken - CAN NOT get tape down.

YEAR: 2018 MONTH: June

LEAK DETECTION SYSTEM

Notes: Top of sump [top of concrete manhole] (feet AMSL): 741.14 Bottom of sump (feet AMSL): 668.50 Inside diameter of sump (feet): 6 Total depth of sump manhole (feet): 72.64
 (a) Water level not to rise above 18 inches deep (equates to a water level of 670.0 ft AMSL or 71.14 ft below top of the sump). Pumping must be initiated if the water level is above 670.00 ft AMSL.
 (b) If water level is equal to or exceeds one foot over the primary liner (equates to a water level of 671.5 ft AMSL or 69.99 ft below the top of the sump), initiate pumping and notify the PM immediately.
 (c) Compare the collection rate/average daily flow rate to the Action Leakage Rate (ALR) of 32,000 gallons/acre/day. An increase in the collection rate, or collection rate comparable to the Action Leakage Rate may indicate a leak in one of the liners. Notify the PM immediately of any significant changes in the LDS collection rate and if the collection rate exceeds the Action Leakage Rate of 32,000 gallons/acre/day.
 (d) Example average daily flow rate calculation: Vault footprint = 7 acres (this value is constant). Local flow meter reading on September 1 (X_1) = 22,000 gallons. Local flow meter reading on October 3 (X_2) = 58,000 gallons. Elapsed time between pumping events (Y) = 33 days. Volume pumped ($X_2 - X_1$) = (Z) = 36,000 - 22,000 = 36,000 gallons. Average daily flow rate (Z / Y) / 7 = (36,000 / 33) / 7 acres = 155 gallons/day/acre. Therefore, the average daily flow rate < ALR.

| DAY | TIME OF MANUAL MEASUREMENT #1 (hh:mm) | MANUAL DEPTH TO WATER LEVEL #1 (ft below top of sump) <small>*should not be less than 71.14 ft*</small> | TIME OF MANUAL MEASUREMENT #2 (hh:mm) | MANUAL DEPTH TO WATER LEVEL #2 (ft below top of sump) <small>*should not be less than 71.14 ft*</small> | (X) LOCAL FLOW METER READING (gallons) | (Y) ELAPSED TIME BETWEEN PUMPING EVENTS (days) | (Z) VOLUME PUMPED (gallons) = $X_2 - X_1$ | AVERAGE DAILY FLOW RATE (gal/day/acre) = $(Z / Y) / 7$ | COMMENTS Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. |
|-----|---------------------------------------|--|---------------------------------------|--|---|---|---|---|--|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | | | | | | | | | |
| 4 | 0810 | 72.42 | | | | | | | |
| 5 | | | | | | | | | |
| 6 | | | | | | | | | |
| 7 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |
| 11 | 0835 | 72.43 | | | | | | | |
| 12 | | | | | | | | | |
| 13 | | | | | | | | | |
| 14 | | | | | | | | | |
| 15 | | | | | | | | | |
| 16 | | | | | | | | | |
| 17 | | | | | | | | | |
| 18 | 0800 | 72.43 | | | | | | | |
| 19 | | | | | | | | | |
| 20 | | | | | | | | | |
| 21 | | | | | | | | | |
| 22 | | | | | | | | | |
| 23 | | | | | | | | | |
| 24 | | | | | | | | | |
| 25 | 0835 | 72.43 | | | | | | | |
| 26 | | | | | | | | | |
| 27 | | | | | | | | | |
| 28 | | | | | | | | | |
| 29 | | | | | | | | | |
| 30 | | | | | | | | | |
| 31 | | | | | | | | | |

YEAR: 2018 MONTH: JUNE

LEACHATE COLLECTION SYSTEM

Notes: Top of sump [top of concrete manhole] (feet AMSL): 740.83 Bottom of sump (feet AMSL): 671.00 Inside diameter of sump (feet): 6 Total depth of sump manhole (feet): 69.83
 Pump operating level between 1.5 ft (672.50 ft AMSL or 68.83 ft below the top of sump) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.
 (a) Water level not to rise above 36 inches deep (equates to a water level of 674.00 ft AMSL or 66.83 ft below top of the sump). Pumping must be initiated if the water level is above 674.00 ft AMSL. Confirm PLC water level measurement by taking a manual water level measurement. If both measurements exceed the maximum allowable level (674.00 ft AMSL).
 (b) Depth to water level should not be less than 66.83 ft below the top of sump (equates to a water level of 674.00 ft AMSL or water depth of 36 inches). Pumping must be initiated if the water level is above 674.00 ft AMSL. Confirm manual water level measurement. If confirmed measurement exceeds the maximum allowable level (674.00 ft AMSL), initiate pumping.
 (c) Readout from display on magnetic flow meter (serial number F1095C16000). Readings are cumulative unless noted otherwise.

| DAY | TIME OF MANUAL MEASUREMENT (hh:mm) | (Y) WATER LEVEL DEPTH AT PLC (a) (inches) <i>*should not be more than 36 inches*</i> | (1) CONVERT PLC WATER DEPTH TO ELEVATION (b) (ft AMSL) $=\{(Y)/12\} + 671.00$ <i>*should not be more than 674.00 ft AMSL*</i> | QUANTITY PUMPED @ PLC (gallons removed) | (X) MANUAL DEPTH TO WATER LEVEL (b) (ft below top of sump) <i>*should not be less than 66.83 ft*</i> | (2) CONVERT MANUAL DEPTH TO WATER LEVEL TO ELEVATION (b) (ft AMSL) $= 740.83 - (X)$ <i>*should not be more than 674.00 ft AMSL*</i> | LOCAL FLOW METER READING (c) (gallons) | COMMENTS Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. <i>** (1) and (2) should be compared and any discrepancies between measurements explained here.</i> |
|-----|------------------------------------|---|---|---|---|---|--|---|
| 1 | | 0 | 671 | 0 | | | | |
| 2 | | 0 | 671 | 0 | | | | |
| 3 | | 0 | 671 | 0 | | | | |
| 4 | 0815 | 0 | 671 | 0 | 68.47 | 672.36 | | |
| 5 | | 0 | 671 | 0 | | | | |
| 6 | | 0 | 671 | 0 | | | | |
| 7 | | 0 | 671 | 0 | | | | |
| 8 | | 0 | 671 | 0 | | | | |
| 9 | | 0 | 671 | 0 | | | | |
| 10 | | 0 | 671 | 0 | | | | |
| 11 | 0845 | 0 | 671 | 0 | 68.45 | 672.38 | | |
| 12 | | 0 | 671 | 0 | | | | |
| 13 | | 0 | 671 | 0 | | | | |
| 14 | | 0 | 671 | 0 | | | | |
| 15 | | 0 | 671 | 0 | | | | |
| 16 | | 0 | 671 | 0 | | | | |
| 17 | | 0 | 671 | 0 | | | | |
| 18 | 0815 | 0 | 671 | 0 | 68.44 | 672.39 | | |
| 19 | | 0 | 671 | 0 | | | | |
| 20 | | 0 | 671 | 0 | | | | |
| 21 | | 0 | 671 | 0 | | | | |
| 22 | | 0 | 671 | 0 | | | | |
| 23 | | 0 | 671 | 0 | | | | |
| 24 | | 0 | 671 | 0 | | | | |
| 25 | 0825 | 0 | 671 | 0 | 68.41 | 672.42 | | |
| 26 | | 0 | 671 | 0 | | | | |
| 27 | | 0 | 671 | 0 | | | | |
| 28 | | 0 | 671 | 0 | | | | |
| 29 | | 0 | 671 | 0 | | | | |
| 30 | | 0 | 671 | 0 | | | | |
| 31 | | | | | | | | |

YEAR: 2018

MONTH: July

LEACHATE COLLECTION SYSTEM

Notes: Top of sump [top of concrete manhole] (feet AMSL): 740.83 Bottom of sump (feet AMSL): 671.00 Inside diameter of sump (feet): 6 Total depth of sump manhole (feet): 69.83
 Pump operating level between 1.5 ft (672.50 ft AMSL or 68.83 ft below the top of sump) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.

(a) Water level not to rise above 36 inches deep (equates to a water level of 674.00 ft AMSL or 66.83 ft below top of the sump). Pumping must be initiated if the water level is above 674.00 ft AMSL. Confirm PLC water level measurement by taking a manual water level measurement. If both measurements exceed the maximum allowable level (674.00 ft AMSL).

(b) Depth to water level should not be less than 66.83 ft below the top of sump (equates to a water level of 674.00 ft AMSL or water depth of 36 inches). Pumping must be initiated if the water level is above 674.00 ft AMSL. Confirm manual water level measurement. If confirmed measurement exceeds the maximum allowable level (674.00 ft AMSL), initiate pumping.

(c) Readout from display on magnetic flow meter (serial number F1095C16000). Readings are cumulative unless noted otherwise.

| DAY | TIME OF MANUAL MEASUREMENT (h:m:mm) | (Y) WATER LEVEL DEPTH AT PLC (b) (inches) *should not be more than 36 inches* | (1) CONVERT PLC WATER DEPTH TO ELEVATION (a) (ft AMSL) = [(Y)/12] + 671.00 *should not be more than 674.00 ft AMSL* | QUANTITY PUMPED @ PLC (gallons removed) | (X) MANUAL DEPTH TO WATER LEVEL (b) (ft below top of sump) *should not be less than 66.83 ft* | (2) CONVERT MANUAL DEPTH TO WATER LEVEL TO ELEVATION (b) (ft AMSL) = 740.83 - (X) *should not be more than 674.00 ft AMSL* | LOCAL FLOW METER READING (c) (gallons) | COMMENTS Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. ** (1) and (2) should be compared and any discrepancies between measurements explained here. |
|-----|-------------------------------------|--|--|---|--|---|--|--|
| 1 | | 0 | 671 | 0 | | | | |
| 2 | 0945 | 0 | 671 | 0 | 68.38 | 672.45 | | |
| 3 | | 0 | 671 | 0 | | | | |
| 4 | | 0 | 671 | 0 | | | | |
| 5 | | 0 | 671 | 0 | | | | |
| 6 | | 0 | 671 | 0 | | | | |
| 7 | | 0 | 671 | 0 | | | | |
| 8 | | 0 | 671 | 0 | | | | |
| 9 | 1040 | 0 | 671 | 0 | 68.53 | 672.50 | | |
| 10 | | 0 | 671 | 0 | | | | |
| 11 | | 0 | 671 | 0 | | | | |
| 12 | | 0 | 671 | 0 | | | | |
| 13 | | 0 | 671 | 0 | | | | |
| 14 | | 0 | 671 | 0 | | | | |
| 15 | | 0 | 671 | 0 | | | | |
| 16 | | 0 | 671 | 0 | | | | |
| 17 | | 0 | 671 | 0 | | | | |
| 18 | 1445 | 0 | 671 | 0 | 68.31 | 672.52 | | |
| 19 | | 0 | 671 | 0 | | | | |
| 20 | | 0 | 671 | 0 | | | | |
| 21 | | 0 | 671 | 0 | | | | |
| 22 | | 0 | 671 | 0 | | | | |
| 23 | 1000 | 0 | 671 | 0 | 68.29 | 672.54 | | |
| 24 | | 0 | 671 | 0 | | | | |
| 25 | | 0 | 671 | 0 | | | | |
| 26 | | 0 | 671 | 0 | | | | |
| 27 | | 0 | 671 | 0 | | | | |
| 28 | | 0 | 671 | 0 | | | | |
| 29 | | 0 | 671 | 0 | | | | |
| 30 | 0930 | 0 | 671 | 0 | 68.26 | 672.57 | | |
| 31 | | 0 | 671 | 0 | | | | |

YEAR: 2018 MONTH: July

GRAVEL UNDERDRAIN SYSTEM

Notes: Top of sump [top of concrete] (feet AMSL): 738.99 Bottom of sump (feet AMSL): 662.18 Inside diameter of sump (feet): 3 Total depth of sump manhole (feet): 76.81
 Pump operating level between 2.5 ft (664.68 ft AMSL or 74.31 ft below the top of sump) and 4.33 ft (666.5 ft AMSL or 72.49 ft below the top of sump) of water in the GUS manhole.

- (a) Water level not to rise above 52 inches deep (equates to a water level of 666.5 ft AMSL or 72.49 ft below top of the sump). Pumping must be initiated if the water level is above 666.5 ft AMSL. Confirm PLC water level measurement by taking a manual water level measurement. If both measurements exceed the maximum allowable level (666.5 ft AMSL), notify the PM immediately.
- (b) Depth to water level should not be less than 72.49 ft below the top of sump (equates to a water level of 666.5 ft AMSL or water depth of 52 inches). Pumping must be initiated if the water level is above 666.5 ft AMSL. Confirm manual water level measurement. If confirmed measurement exceeds the maximum allowable level (666.5 ft AMSL), notify the PM immediately.
- (c) Readout from display on magnetic flow meter (serial number F1095B16000). Readings are cumulative unless noted otherwise.

| DAY | TIME OF MANUAL MEASUREMENT (hh:mm) | (Y) WATER LEVEL DEPTH AT PLC (a) (inches) *should not be more than 52 inches* | (1) CONVERT PLC WATER DEPTH TO ELEVATION (b) (ft AMSL) = [(Y)/12] + 662.18 *should not be more than 666.5 ft AMSL* | QUANTITY PUMPED @ PLC (gallons removed) | (X) MANUAL DEPTH TO WATER LEVEL (b) (ft below top of sump) *should not be less than 72.49 ft* | (2) CONVERT MANUAL DEPTH TO WATER LEVEL TO ELEVATION (b) (ft AMSL) = 738.99 - (X) *should not be more than 666.5 ft AMSL* | LOCAL FLOW METER READING (c) (gallons) | COMMENTS Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. ** (1) and (2) should be compared and any discrepancies between measurements explained here. |
|-----|------------------------------------|--|---|---|--|--|--|--|
| 1 | 0800 | 84.5 | 669.22 | | * | | 1567410 | |
| 2 | 0800 | 84.6 | 669.23 | | * | | 1567410 | |
| 3 | 0800 | 84.6 | 669.23 | | * | | 1567410 | |
| 4 | 1000 | 84.6 | 669.23 | | * | | 1567410 | |
| 5 | 0800 | 84.7 | 669.23 | | * | | 1567410 | |
| 6 | 0800 | 84.4 | 669.21 | | * | | 1567410 | |
| 7 | 0800 | 84.5 | 669.22 | | * | | 1567410 | |
| 8 | 0900 | 84.6 | 669.23 | | * | | 1567410 | |
| 9 | 0800 | 84.7 | 669.23 | | * | | 1567410 | |
| 10 | 0800 | 84.5 | 669.22 | | * | | 1567410 | |
| 11 | 0800 | 84.4 | 669.21 | | * | | 1567410 | |
| 12 | 0800 | 84.4 | 669.21 | | * | | 1567410 | |
| 13 | 0800 | 84.6 | 669.23 | | * | | 1567410 | |
| 14 | 0850 | 84.5 | 669.22 | | * | | 1567410 | |
| 15 | 0900 | 84.4 | 669.21 | | * | | 1567410 | |
| 16 | 0800 | 84.6 | 669.23 | | * | | 1567410 | |
| 17 | 0730 | 84.4 | 669.21 | | * | | 1567410 | |
| 18 | 0730 | 84.4 | 669.21 | | * | | 1567410 | |
| 19 | 0700 | 84.6 | 669.23 | | * | | 1567410 | |
| 20 | 0800 | 84.5 | 669.22 | | * | | 1567410 | |
| 21 | 0800 | 84.5 | 669.22 | | * | | 1567410 | |
| 22 | 0800 | 84.4 | 669.21 | | * | | 1567410 | |
| 23 | 0730 | 84.4 | 669.21 | | * | | 1567410 | |
| 24 | 0800 | 84.4 | 669.21 | | * | | 1567410 | |
| 25 | 0800 | 84.5 | 669.22 | | * | | 1567410 | |
| 26 | 0800 | 84.4 | 669.21 | | * | | 1567410 | |
| 27 | 0800 | 84.4 | 669.21 | | * | | 1567410 | |
| 28 | 0900 | 84.5 | 669.22 | | * | | 1567410 | |
| 29 | 0900 | 84.5 | 669.22 | | * | | 1567410 | |
| 30 | 0800 | 84.4 | 669.21 | | * | | 1567410 | |
| 31 | 0800 | 84.4 | 669.21 | | * | | 1567410 | |

* NO MANUAL MEASUREMENT CAN BE TAKEN

YEAR: 2018 MONTH: July

LEAK DETECTION SYSTEM

Notes: Top of sump (top of concrete manhole) (feet AMSL): 741.14 Bottom of sump (feet AMSL): 668.50 Inside diameter of sump (feet): 6 Total depth of sump manhole (feet): 72.64
 (a) Water level not to rise above 18 inches deep (equates to a water level of 670.0 ft AMSL or 71.14 ft below top of the sump). Pumping must be initiated if the water level is above 670.00 ft AMSL.
 (b) If water level is equal to or exceeds one foot over the primary liner (equates to a water level of 671.5 ft AMSL or 69.99 ft below the top of the sump), initiate pumping and notify the PM immediately.
 (c) Compare the collection rate/average daily flow rate to the Action Leakage Rate (ALR) of 32,000 gallons/acre/day. An increase in the collection rate, or collection rate comparable to the Action Leakage Rate may indicate a leak in one of the liners. Notify the PM immediately of any significant changes in the LDS collection rate and if the collection rate exceeds the Action Leakage Rate of 32,000 gallons/acre/day.
 (d) Example average daily flow rate calculation: Vault footprint = 7 acres (this value is constant). Local flow meter reading on September 1 (X₁) = 22,000 gallons. Local flow meter reading on October 3 (X₂) = 58,000 gallons. Elapsed time between pumping events (Y) = 33 days. Volume pumped (X₂ - X₁) = (Z) = 58,000 - 22,000 = 36,000 gallons. Average daily flow rate (Z / Y) / 7 = (36,000 / 33) / 7 acres = 155 gallons/day/acre. Therefore, the average daily flow rate < ALR.

| DAY | TIME OF MANUAL MEASUREMENT #1 (hh:mm) | MANUAL DEPTH TO WATER LEVEL #1 (a, b) (ft below top of sump) *should not be less than 71.14 ft* | TIME OF MANUAL MEASUREMENT #2 (hh:mm) | MANUAL DEPTH TO WATER LEVEL #2 (a, b) (ft below top of sump) *should not be less than 71.14 ft* | (X) LOCAL FLOW METER READING (e) (gallons) | (Y) ELAPSED TIME BETWEEN PUMPING EVENTS (days) | (Z) VOLUME PUMPED (gallons) = X ₂ - X ₁ | AVERAGE DAILY FLOW RATE (c, d) (gal/day/acre) = (Z / Y) / 7 | COMMENTS Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. |
|-----|---------------------------------------|--|---------------------------------------|--|--|--|--|--|--|
| 1 | | | | | | | | | |
| 2 | 1000 | 72.38 | | | | | | | |
| 3 | | | | | | | | | |
| 4 | | | | | | | | | |
| 5 | | | | | | | | | |
| 6 | | | | | | | | | |
| 7 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | 1015 | 72.58 | | | | | | | |
| 10 | | | | | | | | | |
| 11 | | | | | | | | | |
| 12 | | | | | | | | | |
| 13 | | | | | | | | | |
| 14 | | | | | | | | | |
| 15 | | | | | | | | | |
| 16 | | | | | | | | | |
| 17 | | | | | | | | | |
| 18 | | | | | | | | | |
| 19 | 1450 | 72.37 | | | | | | | |
| 20 | | | | | | | | | |
| 21 | | | | | | | | | |
| 22 | | | | | | | | | |
| 23 | 1015 | 72.39 | | | | | | | |
| 24 | | | | | | | | | |
| 25 | | | | | | | | | |
| 26 | | | | | | | | | |
| 27 | | | | | | | | | |
| 28 | | | | | | | | | |
| 29 | | | | | | | | | |
| 30 | 0945 | 72.39 | | | | | | | |
| 31 | | | | | | | | | |

YEAR: 2018 MONTH: AUGUST

GRAVEL UNDERDRAIN SYSTEM

Notes: Top of sump (top of concrete) (feet AMSL): 738.99 Bottom of sump (feet AMSL): 662.18 Inside diameter of sump (feet): 3 Total depth of sump manhole (feet): 76.81
 Pump operating level between 2.5 ft (664.68 ft AMSL or 74.31 ft below the top of sump) and 4.33 ft (666.5 ft AMSL or 72.49 ft below the top of sump) of water in the GUS manhole.

- (a) Water level not to rise above 52 inches deep (equals to a water level of 666.5 ft AMSL or 72.49 ft below top of the sump). Pumping must be initiated if the water level is above 666.5 ft AMSL. Confirm PLC water level measurement by taking a manual water level measurement. If both measurements exceed the maximum allowable level (666.5 ft AMSL), notify the PM immediately.
- (b) Depth to water level should not be less than 72.49 ft below the top of sump (equals to a water level of 666.5 ft AMSL or water depth of 52 inches). Pumping must be initiated if the water level is above 666.5 ft AMSL. Confirm manual water level measurement. If confirmed measurement exceeds the maximum allowable level (666.5 ft AMSL), notify the PM immediately.
- (c) Readout from display on magnetic flow meter (serial number F1095B18000). Readings are cumulative unless noted otherwise.

| DAY | TIME OF MANUAL MEASUREMENT (hh:mm) | (Y) WATER LEVEL DEPTH AT PLC (inches) *should not be more than 52 inches* | (1) CONVERT PLC WATER DEPTH TO ELEVATION (ft AMSL) = (Y) * 12 + 662.18 *should not be more than 666.5 ft AMSL* | QUANTITY PUMPED @ PLC (gallons removed) | (X) MANUAL DEPTH TO WATER LEVEL (ft below top of sump) *should not be less than 72.49 ft* | (2) CONVERT MANUAL DEPTH TO ELEVATION (ft AMSL) = 738.99 - (X) *should not be more than 666.5 ft AMSL* | LOCAL FLOW METER READING (gallons) | COMMENTS Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. ** (1) and (2) should be compared and any discrepancies between measurements explained here. |
|-----|------------------------------------|--|--|---|--|--|------------------------------------|--|
| 1 | 0800 | 84.4 | 669.21 | | * | | 1567410 | |
| 2 | 0810 | 84.5 | 669.22 | | * | | 1567410 | |
| 3 | 0815 | 84.4 | 669.21 | | * | | 1567410 | |
| 4 | 0800 | 84.5 | 669.22 | | * | | 1567410 | |
| 5 | 0800 | 84.4 | 669.21 | | * | | 1567410 | |
| 6 | 0800 | 84.4 | 669.21 | | * | | 1567410 | |
| 7 | 0800 | 83.9 | 669.17 | | * | | 1567410 | |
| 8 | 0800 | 84.1 | 669.18 | | * | | 1567410 | |
| 9 | 0800 | 83.9 | 669.17 | | * | | 1567410 | |
| 10 | 0800 | 83.8 | 669.16 | | * | | 1567410 | |
| 11 | 0800 | 83.8 | 669.16 | | * | | 1567410 | |
| 12 | 0900 | 83.9 | 669.17 | | * | | 1567410 | |
| 13 | 0800 | 83.9 | 669.17 | | * | | 1567410 | |
| 14 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 15 | 0800 | 83.8 | 669.16 | | * | | 1567410 | |
| 16 | 0830 | 83.9 | 669.17 | | * | | 1567410 | |
| 17 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 18 | 0900 | 84.1 | 669.18 | | * | | 1567410 | |
| 19 | 0900 | 84.1 | 669.18 | | * | | 1567410 | |
| 20 | 0800 | 84.1 | 669.18 | | * | | 1567410 | |
| 21 | 0800 | 83.8 | 669.16 | | * | | 1567410 | |
| 22 | 0800 | 83.8 | 669.16 | | * | | 1567410 | |
| 23 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 24 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 25 | 0900 | 83.8 | 669.16 | | * | | 1567410 | |
| 26 | 0900 | 83.9 | 669.17 | | * | | 1567410 | |
| 27 | 0800 | 83.8 | 669.16 | | * | | 1567410 | |
| 28 | 0800 | 83.9 | 669.17 | | * | | 1567410 | |
| 29 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 30 | 0800 | 83.9 | 669.17 | | * | | 1567410 | |
| 31 | 0800 | 83.8 | 669.16 | | * | | 1567410 | |

* NO MANUAL MEASUREMENTS TAKEN - CAN NOT GET TAPE DOWN.

YEAR: 2018

MONTH: August

LEAK DETECTION SYSTEM

Notes: Top of sump [top of concrete manhole] (feet AMSL): 741.14 Bottom of sump (feet AMSL): 668.50 Inside diameter of sump (feet): 6 Total depth of sump manhole (feet): 72.64
 (a) Water level not to rise above 18 inches deep (equates to a water level of 670.0 ft AMSL or 71.14 ft below top of the sump). Pumping must be initiated if the water level is above 670.00 ft AMSL.
 (b) If water level is equal to or exceeds one foot over the primary liner (equates to a water level of 671.5 ft AMSL or 69.99 ft below the top of the sump), initiate pumping and notify the PM immediately.
 (c) Compare the collection rate/average daily flow rate to the Action Leakage Rate (ALR) of 32,000 gallons/acre/day. An increase in the collection rate, or collection rate comparable to the Action Leakage Rate may indicate a leak in one of the liners. Notify the PM immediately of any significant changes in the LDS collection rate and if the collection rate exceeds the Action Leakage Rate of 32,000 gallons/acre/day.
 (d) Example average daily flow rate calculation: Vault footprint = 7 acres (this value is constant). Local flow meter reading on September 1 (X_1) = 22,000 gallons. Local flow meter reading on October 3 (X_2) = 58,000 gallons. Elapsed time between pumping events (Y) = 33 days. Volume pumped ($X_2 - X_1$) = (Z) = 58,000 - 22,000 = 36,000 gallons. Average daily flow rate (Z / Y) / 7 = (36,000 / 33) / 7 acres = 155 gallons/day/acre. Therefore, the average daily flow rate < ALR.

| DAY | TIME OF MANUAL MEASUREMENT #1 (hh:mm) | MANUAL DEPTH TO WATER LEVEL #1 (ft below top of sump) <small>*should not be less than 71.14 ft*</small> | TIME OF MANUAL MEASUREMENT #2 (hh:mm) | MANUAL DEPTH TO WATER LEVEL #2 (ft below top of sump) <small>*should not be less than 71.14 ft*</small> | (X) LOCAL FLOW METER READING (e) (gallons) | (Y) ELAPSED TIME BETWEEN PUMPING EVENTS (days) | (Z) VOLUME PUMPED (gallons) = $X_2 - X_1$ | AVERAGE DAILY FLOW RATE (e, d) (gal/day/acre) = $(Z / Y) / 7$ | COMMENTS Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. |
|-----|---------------------------------------|--|---------------------------------------|--|--|--|---|---|--|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | | | | | | | | | |
| 4 | | | | | | | | | |
| 5 | | | | | | | | | |
| 6 | 0845 | 72.37 | | | | | | | |
| 7 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |
| 11 | | | | | | | | | |
| 12 | | | | | | | | | |
| 13 | 0815 | 72.38 | | | | | | | |
| 14 | | | | | | | | | |
| 15 | | | | | | | | | |
| 16 | | | | | | | | | |
| 17 | | | | | | | | | |
| 18 | | | | | | | | | |
| 19 | | | | | | | | | |
| 20 | 0845 | 72.39 | | | | | | | |
| 21 | | | | | | | | | |
| 22 | | | | | | | | | |
| 23 | | | | | | | | | |
| 24 | | | | | | | | | |
| 25 | | | | | | | | | |
| 26 | | | | | | | | | |
| 27 | 0815 | 72.39 | | | | | | | |
| 28 | | | | | | | | | |
| 29 | | | | | | | | | |
| 30 | | | | | | | | | |
| 31 | | | | | | | | | |

YEAR: 2018

MONTH: August

LEACHATE COLLECTION SYSTEM

Notes: Top of sump [top of concrete manhole] (feet AMSL): 740.83 Bottom of sump (feet AMSL): 671.00 Inside diameter of sump (feet): 6 Total depth of sump manhole (feet): 69.83
 Pump operating level between 1.5 ft (672.50 ft AMSL or 68.83 ft below the top of sump) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.

(a) Water level not to rise above 36 inches deep (equates to a water level of 674.00 ft AMSL or 66.83 ft below top of the sump). Pumping must be initiated if the water level is above 674.00 ft AMSL. Confirm PLC water level measurement by taking a manual water level measurement. If both measurements exceed the maximum allowable level (674.00 ft AMSL).

(b) Depth to water level should not be less than 66.83 ft below the top of sump (equates to a water level of 674.00 ft AMSL or water depth of 36 inches). Pumping must be initiated if the water level is above 674.00 ft AMSL. Confirm manual water level measurement. If confirmed measurement exceeds the maximum allowable level (674.00 ft AMSL), initiate pumping.

(c) Readout from display on magnetic flow meter (serial number F1095C16000). Readings are cumulative unless noted otherwise.

| DAY | TIME OF MANUAL MEASUREMENT (hh:mm) | (Y) | (1) | QUANTITY PUMPED @ PLC (gallons removed) | (X) | (2) | LOCAL FLOW METER READING (e) (gallons) | COMMENTS |
|-----|------------------------------------|---------------------------------------|--|---|--|---|--|--|
| | | WATER LEVEL DEPTH AT PLC (d) (inches) | CONVERT PLC WATER DEPTH TO ELEVATION (d) (ft AMSL) = [(Y)/12] + 671.00 | | MANUAL DEPTH TO WATER LEVEL (b) (ft below top of sump) | CONVERT MANUAL DEPTH TO WATER LEVEL TO ELEVATION (b) (ft AMSL) = 740.83 - (X) | | |
| | | *should not be more than 36 inches* | *should not be more than 674.00 ft AMSL* | | *should not be less than 66.83 ft* | *should not be more than 674.00 ft AMSL* | | Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. ** (1) and (2) should be compared and any discrepancies between measurements explained here. |
| 1 | | 0 | 671 | 0 | | | | |
| 2 | | 0 | 671 | 0 | | | | |
| 3 | | 0 | 671 | 0 | | | | |
| 4 | | 0 | 671 | 0 | | | | |
| 5 | | 0 | 671 | 0 | | | | |
| 6 | 0900 | 0 | 671 | 0 | 68.23 | 672.60 | | |
| 7 | | 0 | 671 | 0 | | | | |
| 8 | | 0 | 671 | 0 | | | | |
| 9 | | 0 | 671 | 0 | | | | |
| 10 | | 0 | 671 | 0 | | | | |
| 11 | | 0 | 671 | 0 | | | | |
| 12 | | 0 | 671 | 0 | | | | |
| 13 | 0820 | 0 | 671 | 0 | 68.23 | 672.60 | | |
| 14 | | 0 | 671 | 0 | | | | |
| 15 | | 0 | 671 | 0 | | | | |
| 16 | | 0 | 671 | 0 | | | | |
| 17 | | 0 | 671 | 0 | | | | |
| 18 | | 0 | 671 | 0 | | | | |
| 19 | | 0 | 671 | 0 | | | | |
| 20 | 0900 | 0 | 671 | 0 | 68.24 | 672.59 | | |
| 21 | | 0 | 671 | 0 | | | | |
| 22 | | 0 | 671 | 0 | | | | |
| 23 | | 0 | 671 | 0 | | | | |
| 24 | | 0 | 671 | 0 | | | | |
| 25 | | 0 | 671 | 0 | | | | |
| 26 | | 0 | 671 | 0 | | | | |
| 27 | 0830 | 0 | 671 | 0 | 68.24 | 672.59 | | |
| 28 | | 0 | 671 | 0 | | | | |
| 29 | | 0 | 671 | 0 | | | | |
| 30 | | 0 | 671 | 0 | | | | |
| 31 | | | | | | | | |

YEAR: 2018

MONTH: September

GRAVEL UNDERDRAIN SYSTEM

Notes: Top of sump [top of concrete] (feet AMSL): 738.99 Bottom of sump (feet AMSL): 662.18 Inside diameter of sump (feet): 3 Total depth of sump manhole (feet): 76.81
Pump operating level between 2.5 ft (664.68 ft AMSL or 74.31 ft below the top of sump) and 4.33 ft (666.5 ft AMSL or 72.49 ft below the top of sump) of water in the GUS manhole.

- (a) Water level not to rise above 52 inches deep (equates to a water level of 686.5 ft AMSL or 72.49 ft below top of the sump). Pumping must be initiated if the water level is above 666.5 ft AMSL. Confirm PLC water level measurement by taking a manual water level measurement. If both measurements exceed the maximum allowable level (686.5 ft AMSL), notify the PM immediately.
- (b) Depth to water level should not be less than 72.49 ft below the top of sump (equates to a water level of 666.5 ft AMSL or water depth of 52 inches). Pumping must be initiated if the water level is above 666.5 ft AMSL. Confirm manual water level measurement. If confirmed measurement exceeds the maximum allowable level (666.5 ft AMSL), notify the PM immediately.
- (c) Readout from display on magnetic flow meter (serial number F1095B18000). Readings are cumulative unless noted otherwise.

| DAY | TIME OF MANUAL MEASUREMENT (hh:mm) | (Y) WATER LEVEL DEPTH AT PLC (a) (inches) <small>*should not be more than 52 inches*</small> | (1) CONVERT PLC WATER DEPTH TO ELEVATION (b) (ft AMSL) <small>= [(Y)/12] + 662.18</small> <small>*should not be more than 666.5 ft AMSL*</small> | QUANTITY PUMPED @ PLC (gallons removed) | (X) MANUAL DEPTH TO WATER LEVEL (b) (ft below top of sump) <small>*should not be less than 72.49 ft*</small> | (2) CONVERT MANUAL DEPTH TO WATER LEVEL TO ELEVATION (b) (ft AMSL) <small>= 738.99 - (X)</small> <small>*should not be more than 666.5 ft AMSL*</small> | LOCAL FLOW METER READING (c) (gallons) | COMMENTS <small>Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc.</small> <small>** (1) and (2) should be compared and any discrepancies between measurements explained here.</small> |
|-----|------------------------------------|---|--|---|---|---|--|--|
| 1 | 0800 | 83.8 | 669.16 | | * | | 1567410 | |
| 2 | 0830 | 83.9 | 669.17 | | * | | 1567410 | |
| 3 | 0830 | 83.9 | 669.17 | | * | | 1567410 | |
| 4 | 0845 | 83.8 | 669.16 | | * | | 1567410 | |
| 5 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 6 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 7 | 0900 | 83.8 | 669.16 | | * | | 1567410 | |
| 8 | 0900 | 83.9 | 669.17 | | * | | 1567410 | |
| 9 | 0800 | 83.9 | 669.17 | | * | | 1567410 | |
| 10 | 0900 | 84.0 | 669.18 | | * | | 1567410 | |
| 11 | 0700 | 83.8 | 669.16 | | * | | 1567410 | |
| 12 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 13 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 14 | 0800 | 84.2 | 669.19 | | * | | 1567410 | |
| 15 | 0830 | 84.0 | 669.18 | | * | | 1567410 | |
| 16 | 0900 | 84.0 | 669.18 | | * | | 1567410 | |
| 17 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 18 | 0800 | 84.1 | 669.18 | | * | | 1567410 | |
| 19 | 0800 | 84.2 | 669.19 | | * | | 1567410 | |
| 20 | 0800 | 84.2 | 669.19 | | * | | 1567410 | |
| 21 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 22 | 0900 | 84.1 | 669.18 | | * | | 1567410 | |
| 23 | 0900 | 84.2 | 669.19 | | * | | 1567410 | |
| 24 | 0800 | 84.2 | 669.19 | | * | | 1567410 | |
| 25 | 0800 | 84.2 | 669.19 | | * | | 1567410 | |
| 26 | 0800 | 84.1 | 669.18 | | * | | 1567410 | |
| 27 | 0800 | 84.1 | 669.18 | | * | | 1567410 | |
| 28 | 0800 | 84.2 | 669.19 | | * | | 1567410 | |
| 29 | 0800 | 84.2 | 669.19 | | * | | 1567410 | |
| 30 | 0800 | 84.2 | 669.19 | | * | | 1567410 | |
| 31 | | | | | | | | |

* - NO MANUAL MEASUREMENT CAN BE TAKEN.

YEAR: 2018

MONTH: September

LEACHATE COLLECTION SYSTEM

Notes: Top of sump (top of concrete manhole) (feet AMSL): 740.83 Bottom of sump (feet AMSL): 671.00 Inside diameter of sump (feet): 6 Total depth of sump manhole (feet): 69.83
 Pump operating level between 1.5 ft (672.50 ft AMSL or 68.83 ft below the top of sump) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.
 (a) Water level not to rise above 36 inches deep (equates to a water level of 674.00 ft AMSL or 66.83 ft below top of the sump). Pumping must be initiated if the water level is above 674.00 ft AMSL. Confirm PLC water level measurement by taking a manual water level measurement. If both measurements exceed the maximum allowable level (674.00 ft AMSL).
 (b) Depth to water level should not be less than 66.83 ft below the top of sump (equates to a water level of 674.00 ft AMSL or water depth of 36 inches). Pumping must be initiated if the water level is above 674.00 ft AMSL. Confirm manual water level measurement. If confirmed measurement exceeds the maximum allowable level (674.00 ft AMSL), initiate pumping.
 (c) Readout from display on magnetic flow meter (serial number F1095C16000). Readings are cumulative unless noted otherwise.

| DAY | TIME OF MANUAL MEASUREMENT (hh:mm) | (Y) WATER LEVEL DEPTH AT PLC (a) (inches) *should not be more than 36 inches* | (1) CONVERT PLC WATER DEPTH TO ELEVATION (b) (ft AMSL) = [(Y)/12] + 671.00 *should not be more than 674.00 ft AMSL* | QUANTITY PUMPED @ PLC (gallons removed) | (X) MANUAL DEPTH TO WATER LEVEL (b) (ft below top of sump) *should not be less than 66.83 ft* | (2) CONVERT MANUAL DEPTH TO WATER LEVEL TO ELEVATION (b) (ft AMSL) = 740.83 - (X) *should not be more than 674.00 ft AMSL* | LOCAL FLOW METER READING (c) (gallons) | COMMENTS Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. ** (1) and (2) should be compared and any discrepancies between measurements explained here. |
|-----|------------------------------------|--|---|---|--|--|--|--|
| 1 | | 0 | 671 | 0 | | | | |
| 2 | | 0 | 671 | 0 | | | | |
| 3 | 0900 | 0 | 671 | 0 | 68.24 | 672.59 | | |
| 4 | | 0 | 671 | 0 | | | | |
| 5 | | 0 | 671 | 0 | | | | |
| 6 | | 0 | 671 | 0 | | | | |
| 7 | | 0 | 671 | 0 | | | | |
| 8 | | 0 | 671 | 0 | | | | |
| 9 | | 0 | 671 | 0 | | | | |
| 10 | 0900 | 0 | 671 | 0 | 68.24 | 672.59 | | |
| 11 | | 0 | 671 | 0 | | | | |
| 12 | | 0 | 671 | 0 | | | | |
| 13 | | 0 | 671 | 0 | | | | → Replaced Pump |
| 14 | | 0 | 671 | 0 | | | | |
| 15 | | 0 | 671 | 0 | | | | |
| 16 | | 0 | 671 | 0 | | | | |
| 17 | 0915 | 0 | 671 | 0 | 68.24 | 672.59 | | |
| 18 | | 0 | 671 | 0 | | | | |
| 19 | | 0 | 671 | 0 | | | | |
| 20 | | 0 | 671 | 0 | | | | |
| 21 | | 0 | 671 | 0 | | | | |
| 22 | | 0 | 671 | 0 | | | | |
| 23 | | 0 | 671 | 0 | | | | |
| 24 | 1030 | 0 | 671 | 0 | 68.24 | 672.59 | | |
| 25 | | 0 | 671 | 0 | | | | |
| 26 | | 0 | 671 | 0 | | | | |
| 27 | | 0 | 671 | 0 | | | | |
| 28 | | 0 | 671 | 0 | | | | |
| 29 | | 0 | 671 | 0 | | | | |
| 30 | | 0 | 671 | 0 | | | | |
| 31 | | 0 | 671 | 0 | | | | |

YEAR: 2018

MONTH: September

LEAK DETECTION SYSTEM

Notes: Top of sump (top of concrete manhole) (feet AMSL): 741.14 Bottom of sump (feet AMSL): 668.50 Inside diameter of sump (feet): 6 Total depth of sump manhole (feet): 72.64
 (a) Water level not to rise above 18 inches deep (equates to a water level of 670.0 ft AMSL or 71.14 ft below top of the sump). Pumping must be initiated if the water level is above 670.00 ft AMSL.
 (b) If water level is equal to or exceeds one foot over the primary liner (equates to a water level of 671.5 ft AMSL or 69.99 ft below the top of the sump), initiate pumping and notify the PM immediately.
 (c) Compare the collection rate/average daily flow rate to the Action Leakage Rate (ALR) of 32,000 gallons/acre/day. An increase in the collection rate, or collection rate comparable to the Action Leakage Rate may indicate a leak in one of the liners. Notify the PM immediately of any significant changes in the LDS collection rate and if the collection rate exceeds the Action Leakage Rate of 32,000 gallons/acre/day.
 (d) Example average daily flow rate calculation: Vault footprint = 7 acres (this value is constant). Local flow meter reading on September 1 (X_1) = 22,000 gallons. Local flow meter reading on October 3 (X_2) = 58,000 gallons. Elapsed time between pumping events (Y) = 33 days. Volume pumped ($X_2 - X_1$) = (Z) = 58,000 - 22,000 = 36,000 gallons. Average daily flow rate (Z / Y) / 7 = (36,000 / 33) / 7 acres = 155 gallons/day/acre. Therefore, the average daily flow rate < ALR.

| DAY | TIME OF MANUAL MEASUREMENT #1 (hh:mm) | MANUAL DEPTH TO WATER LEVEL #1 (a, b) (ft below top of sump) <i>*should not be less than 71.14 ft*</i> | TIME OF MANUAL MEASUREMENT #2 (hh:mm) | MANUAL DEPTH TO WATER LEVEL #2 (a, b) (ft below top of sump) <i>*should not be less than 71.14 ft*</i> | (X) LOCAL FLOW METER READING (a) (gallons) | (Y) ELAPSED TIME BETWEEN PUMPING EVENTS (days) | (Z) VOLUME PUMPED (gallons) = $X_2 - X_1$ | AVERAGE DAILY FLOW RATE (a, b) (gal/day/acre) = $(Z / Y) / 7$ | COMMENTS Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. |
|-----|---------------------------------------|---|---------------------------------------|---|--|--|--|--|--|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 0915 | 72.39 | | | | | | | |
| 4 | | | | | | | | | |
| 5 | | | | | | | | | |
| 6 | | | | | | | | | |
| 7 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | 1010 | 72.26 | | | | | | | |
| 11 | | | | | | | | | |
| 12 | | | | | | | | | |
| 13 | | | | | | | | | |
| 14 | | | | | | | | | |
| 15 | | | | | | | | | |
| 16 | | | | | | | | | |
| 17 | 1015 | 72.20 | | | | | | | |
| 18 | | | | | | | | | |
| 19 | | | | | | | | | |
| 20 | | | | | | | | | |
| 21 | | | | | | | | | |
| 22 | | | | | | | | | |
| 23 | | | | | | | | | |
| 24 | 1115 | 72.18 | | | | | | | |
| 25 | | | | | | | | | |
| 26 | | | | | | | | | |
| 27 | | | | | | | | | |
| 28 | | | | | | | | | |
| 29 | | | | | | | | | |
| 30 | | | | | | | | | |
| 31 | | | | | | | | | |

YEAR: 2018

MONTH: October

GRAVEL UNDERDRAIN SYSTEM

Notes: Top of sump (top of concrete) (feet AMSL): 738.99 Bottom of sump (feet AMSL): 662.18 Inside diameter of sump (feet): 3 Total depth of sump manhole (feet): 76.81
 Pump operating level between 2.5 ft (664.68 ft AMSL or 74.31 ft below the top of sump) and 4.33 ft (666.5 ft AMSL or 72.49 ft below the top of sump) of water in the GUS manhole.

- (a) Water level not to rise above 52 inches deep (equals to a water level of 666.5 ft AMSL or 72.49 ft below top of the sump). Pumping must be initiated if the water level is above 666.5 ft AMSL. Confirm PLC water level measurement by taking a manual water level measurement. If both measurements exceed the maximum allowable level (666.5 ft AMSL), notify the PM immediately.
- (b) Depth to water level should not be less than 72.49 ft below the top of sump (equals to a water level of 666.5 ft AMSL or water depth of 52 inches). Pumping must be initiated if the water level is above 666.5 ft AMSL. Confirm manual water level measurement. If confirmed measurement exceeds the maximum allowable level (666.5 ft AMSL), notify the PM immediately.
- (c) Readout from display on magnetic flow meter (serial number F1095B16000). Readings are cumulative unless noted otherwise.

| DAY | TIME OF MANUAL MEASUREMENT (hh:mm) | (Y) WATER LEVEL DEPTH AT PLC (inches) <small>*should not be more than 52 inches*</small> | (1) CONVERT PLC WATER DEPTH TO ELEVATION (ft AMSL) <small>= [(Y)/12] + 662.18</small> <small>*should not be more than 666.5 ft AMSL*</small> | QUANTITY PUMPED @ PLC (gallons removed) | (X) MANUAL DEPTH TO WATER LEVEL (ft below top of sump) <small>*should not be less than 72.49 ft*</small> | (2) CONVERT MANUAL DEPTH TO WATER LEVEL TO ELEVATION (ft AMSL) <small>= 738.99 - (X)</small> <small>*should not be more than 666.5 ft AMSL*</small> | LOCAL FLOW METER READING (gallons) | COMMENTS <small>Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc.</small> <small>** (1) and (2) should be compared and any discrepancies between measurements explained here.</small> |
|-----|------------------------------------|---|--|---|---|---|------------------------------------|--|
| 1 | 0800 | 84.2 | 669.19 | | * | | 1567410 | |
| 2 | 0800 | 84.2 | 669.19 | | * | | 1567410 | |
| 3 | 0800 | 84.2 | 669.19 | | * | | 1567410 | |
| 4 | 0800 | 84.1 | 669.18 | | * | | 1567410 | |
| 5 | 0800 | 84.1 | 669.18 | | * | | 1567410 | |
| 6 | 0800 | 84.1 | 669.18 | | * | | 1567410 | |
| 7 | 0800 | 84.2 | 669.19 | | * | | 1567410 | |
| 8 | 0800 | 84.2 | 669.19 | | * | | 1567410 | |
| 9 | 0800 | 84.2 | 669.19 | | * | | 1567410 | |
| 10 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 11 | 0800 | 84.1 | 669.18 | | * | | 1567410 | |
| 12 | 0800 | 84.1 | 669.18 | | * | | 1567410 | |
| 13 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 14 | 0900 | 84.0 | 669.18 | | * | | 1567410 | |
| 15 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 16 | 0800 | 84.1 | 669.18 | | * | | 1567410 | |
| 17 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 18 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 19 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 20 | 0900 | 84.1 | 669.18 | | * | | 1567410 | |
| 21 | 0900 | 84.1 | 669.18 | | * | | 1567410 | |
| 22 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 23 | 0800 | 84.1 | 669.18 | | * | | 1567410 | |
| 24 | 0800 | 84.1 | 669.18 | | * | | 1567410 | |
| 25 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 26 | 0800 | 84.2 | 669.18 | | * | | 1567410 | |
| 27 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 28 | 0900 | 84.0 | 669.18 | | * | | 1567410 | |
| 29 | 0800 | 84.1 | 669.18 | | * | | 1567410 | |
| 30 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 31 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |

GHD 013968 * NO MANUAL MEASUREMENT CAN BE TAKEN

YEAR: 2018

MONTH: October

LEACHATE COLLECTION SYSTEM

Notes: Top of sump (top of concrete manhole) (feet AMSL): 740.83 Bottom of sump (feet AMSL): 671.00 Inside diameter of sump (feet): 6 Total depth of sump manhole (feet): 69.83
 Pump operating level between 1.5 ft (672.50 ft AMSL or 68.83 ft below the top of sump) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.

- (a) Water level not to rise above 36 inches deep (equates to a water level of 674.00 ft AMSL or 66.83 ft below top of the sump). Pumping must be initiated if the water level is above 674.00 ft AMSL. Confirm PLC water level measurement by taking a manual water level measurement. If both measurements exceed the maximum allowable level (674.00 ft AMSL).
- (b) Depth to water level should not be less than 66.83 ft below the top of sump (equates to a water level of 674.00 ft AMSL or water depth of 36 inches). Pumping must be initiated if the water level is above 674.00 ft AMSL. Confirm manual water level measurement. If confirmed measurement exceeds the maximum allowable level (674.00 ft AMSL), initiate pumping.
- (c) Readout from display on magnetic flow meter (serial number F1095C16000). Readings are cumulative unless noted otherwise.

| DAY | TIME OF MANUAL MEASUREMENT (hh:mm) | (Y) WATER LEVEL DEPTH AT PLC (d) (inches) <i>*should not be more than 36 inches*</i> | (1) CONVERT PLC WATER DEPTH TO ELEVATION (d) (ft AMSL) = [(Y)/12] + 671.00 <i>*should not be more than 674.00 ft AMSL*</i> | QUANTITY PUMPED @ PLC (gallons removed) | (X) MANUAL DEPTH TO WATER LEVEL (b) (ft below top of sump) <i>*should not be less than 66.83 ft*</i> | (2) CONVERT MANUAL DEPTH TO WATER LEVEL TO ELEVATION (b) (ft AMSL) = 740.83 - (X) <i>*should not be more than 674.00 ft AMSL*</i> | LOCAL FLOW METER READING (d) (gallons) | COMMENTS Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. <i>** (1) and (2) should be compared and any discrepancies between measurements explained here.</i> |
|-----|------------------------------------|---|---|---|---|--|--|---|
| 1 | 0900 | 0 | 671 | 0 | 68.26 | 672.57 | | There is A new Pump installed in LCS with new riser. |
| 2 | | 0 | 671 | 0 | | | | |
| 3 | | 0 | 671 | 0 | | | | |
| 4 | | 0 | 671 | 0 | | | | |
| 5 | | 0 | 671 | 0 | | | | |
| 6 | | 0 | 671 | 0 | | | | |
| 7 | | 0 | 671 | 0 | | | | |
| 8 | 0845 | 0 | 671 | 0 | 68.28 | 672.55 | | |
| 9 | | 0 | 671 | 0 | | | | |
| 10 | | 0 | 671 | 0 | | | | |
| 11 | | 0 | 671 | 0 | | | | |
| 12 | | 0 | 671 | 0 | | | | |
| 13 | | 0 | 671 | 0 | | | | |
| 14 | | 0 | 671 | 0 | | | | |
| 15 | 0838 | 0 | 671 | 0 | 68.28 | 672.55 | | |
| 16 | | 0 | 671 | 0 | | | | |
| 17 | | 0 | 671 | 0 | | | | |
| 18 | | 0 | 671 | 0 | | | | |
| 19 | | 0 | 671 | 0 | | | | |
| 20 | | 0 | 671 | 0 | | | | |
| 21 | | 0 | 671 | 0 | | | | |
| 22 | 0915 | 0 | 671 | 0 | 68.13 | 672.7 | | |
| 23 | | 0 | 671 | 0 | | | | |
| 24 | | 0 | 671 | 0 | | | | |
| 25 | | 0 | 671 | 0 | | | | |
| 26 | | 0 | 671 | 0 | | | | |
| 27 | | 0 | 671 | 0 | | | | |
| 28 | | 0 | 671 | 0 | | | | |
| 29 | | 0 | 671 | 0 | | | | |
| 30 | 0920 | 0 | 671 | 0 | 68.13 | 672.7 | | |
| 31 | | 0 | 671 | 0 | | | | |

YEAR: 2018

MONTH: October

LEAK DETECTION SYSTEM

Notes: Top of sump [top of concrete manhole] (feet AMSL): 741.14 Bottom of sump (feet AMSL): 668.50 Inside diameter of sump (feet): 6 Total depth of sump manhole (feet): 72.64
 (a) Water level not to rise above 18 inches deep (equates to a water level of 670.0 ft AMSL or 71.14 ft below top of the sump). Pumping must be initiated if the water level is above 670.00 ft AMSL.
 (b) If water level is equal to or exceeds one foot over the primary liner (equates to a water level of 674.5 ft AMSL or 69.89 ft below the top of the sump), initiate pumping and notify the PM immediately.
 (c) Compare the collection rate/average daily flow rate to the Action Leakage Rate (ALR) of 32,000 gallons/acre/day. An increase in the collection rate, or collection rate comparable to the Action Leakage Rate may indicate a leak in one of the liners. Notify the PM immediately of any significant changes in the LDS collection rate and if the collection rate exceeds the Action Leakage Rate of 32,000 gallons/acre/day.
 (d) Example average daily flow rate calculation: Vault footprint = 7 acres (this value is constant). Local flow meter reading on September 1 (X_1) = 22,000 gallons. Local flow meter reading on October 3 (X_2) = 58,000 gallons. Elapsed time between pumping events (Y) = 33 days. Volume pumped ($X_2 - X_1$) = (Z) = 58,000 - 22,000 = 36,000 gallons. Average daily flow rate (Z / Y) / 7 = (36,000 / 33) / 7 acres = 155 gallons/day/acre. Therefore, the average daily flow rate < ALR.

| DAY | TIME OF MANUAL MEASUREMENT #1 (hh:mm) | MANUAL DEPTH TO WATER LEVEL #1 (ft below top of sump) <small>*should not be less than 71.14 ft*</small> | TIME OF MANUAL MEASUREMENT #2 (hh:mm) | MANUAL DEPTH TO WATER LEVEL #2 (ft below top of sump) <small>*should not be less than 71.14 ft*</small> | (X) LOCAL FLOW METER READING (gallons) | (Y) ELAPSED TIME BETWEEN PUMPING EVENTS (days) | (Z) VOLUME PUMPED (gallons) = $X_2 - X_1$ | AVERAGE DAILY FLOW RATE (gal/day/acre) = $(Z / Y) / 7$ | COMMENTS Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. |
|-----|---------------------------------------|--|---------------------------------------|--|---|---|---|---|--|
| 1 | 0940 | 72.24 | | | | | | | |
| 2 | | | | | | | | | |
| 3 | | | | | | | | | |
| 4 | | | | | | | | | |
| 5 | | | | | | | | | |
| 6 | | | | | | | | | |
| 7 | | | | | | | | | |
| 8 | 0850 | 72.24 | | | | | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |
| 11 | | | | | | | | | |
| 12 | | | | | | | | | |
| 13 | | | | | | | | | |
| 14 | | | | | | | | | |
| 15 | 0834 | 72.24 | | | | | | | |
| 16 | | | | | | | | | |
| 17 | | | | | | | | | |
| 18 | | | | | | | | | |
| 19 | | | | | | | | | |
| 20 | | | | | | | | | |
| 21 | | | | | | | | | |
| 22 | 0910 | 72.18 | | | | | | | |
| 23 | | | | | | | | | |
| 24 | | | | | | | | | |
| 25 | | | | | | | | | |
| 26 | | | | | | | | | |
| 27 | | | | | | | | | |
| 28 | | | | | | | | | |
| 29 | | | | | | | | | |
| 30 | 0930 | 72.18 | | | | | | | |
| 31 | | | | | | | | | |

YEAR: 2018 MONTH: November

GRAVEL UNDERDRAIN SYSTEM

Notes: Top of sump (top of concrete) (feet AMSL): 738.99 Bottom of sump (feet AMSL): 662.18 Inside diameter of sump (feet): 3 Total depth of sump manhole (feet): 76.81
 Pump operating level between 2.5 ft (664.68 ft AMSL or 74.31 ft below the top of sump) and 4.33 ft (666.5 ft AMSL or 72.49 ft below the top of sump) of water in the GUS manhole.

- (a) Water level not to rise above 52 inches deep (equates to a water level of 666.5 ft AMSL or 72.49 ft below top of the sump). Pumping must be initiated if the water level is above 666.5 ft AMSL. Confirm PLC water level measurement by taking a manual water level measurement. If both measurements exceed the maximum allowable level (666.5 ft AMSL), notify the PM immediately.
- (b) Depth to water level should not be less than 72.49 ft below the top of sump (equates to a water level of 666.5 ft AMSL or water depth of 52 inches). Pumping must be initiated if the water level is above 666.5 ft AMSL. Confirm manual water level measurement. If confirmed measurement exceeds the maximum allowable level (666.5 ft AMSL), notify the PM immediately.
- (c) Readout from display on magnetic flow meter (serial number F1095B16000). Readings are cumulative unless noted otherwise.

| DAY | TIME OF MANUAL MEASUREMENT (hh:mm) | (Y) WATER LEVEL DEPTH AT PLC (a) (inches) <i>*should not be more than 52 inches*</i> | (1) CONVERT PLC WATER DEPTH TO ELEVATION (a) (ft AMSL) = [(Y)/12] + 662.18 <i>*should not be more than 666.5 ft AMSL*</i> | QUANTITY PUMPED @ PLC (gallons removed) | (X) MANUAL DEPTH TO WATER LEVEL (b) (ft below top of sump) <i>*should not be less than 72.49 ft*</i> | (2) CONVERT MANUAL DEPTH TO WATER LEVEL TO ELEVATION (b) (ft AMSL) = 738.99 - (X) <i>*should not be more than 666.5 ft AMSL*</i> | LOCAL FLOW METER READING (c) (gallons) | COMMENTS Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. ** (1) and (2) should be compared and any discrepancies between measurements explained here. |
|-----|------------------------------------|---|--|---|---|---|--|---|
| 1 | 0800 | 84.1 | 669.18 | | * | | 1567410 | |
| 2 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 3 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 4 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 5 | 0800 | 83.9 | 669.17 | | * | | 1567410 | |
| 6 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 7 | 0800 | 84.1 | 669.18 | | * | | 1567410 | |
| 8 | 0800 | 84.3 | 669.20 | | * | | 1567410 | |
| 9 | 0800 | 84.1 | 669.18 | | * | | 1567410 | |
| 10 | 0800 | 84.2 | 669.20 | | * | | 1567410 | |
| 11 | 0800 | 84.2 | 669.20 | | * | | 1567410 | |
| 12 | 0800 | 84.3 | 669.20 | | * | | 1567410 | |
| 13 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 14 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 15 | 0800 | 84.3 | 669.20 | | * | | 1567410 | |
| 16 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 17 | 0900 | 84.1 | 669.18 | | * | | 1567410 | |
| 18 | 0900 | 84.1 | 669.18 | | * | | 1567400 | |
| 19 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 20 | 0800 | 83.9 | 669.17 | | * | | 1567410 | |
| 21 | 0800 | 83.9 | 669.17 | | * | | 1567410 | |
| 22 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 23 | 0900 | 84.0 | 669.18 | | * | | 1567410 | |
| 24 | 0900 | 84.1 | 669.18 | | * | | 1567400 | |
| 25 | 0900 | 84.1 | 669.18 | | * | | 1567410 | |
| 26 | 0700 | 84.0 | 669.18 | | * | | 1567410 | |
| 27 | 0700 | 84.3 | 669.20 | | * | | 1567410 | |
| 28 | 0800 | 84.3 | 669.20 | | * | | 1567410 | |
| 29 | 0800 | 84.3 | 669.20 | | * | | 1567410 | |
| 30 | 0800 | 84.1 | 669.18 | | * | | 1567410 | |
| 31 | | | | | | | | |

GHD 013968 * NO manual depth can be taken

YEAR: 2018

MONTH: November

LEAK DETECTION SYSTEM

Notes: Top of sump (top of concrete manhole) (feet AMSL): 741.14 Bottom of sump (feet AMSL): 668.50 Inside diameter of sump (feet): 6 Total depth of sump manhole (feet): 72.64
 (a) Water level not to rise above 18 inches deep (equates to a water level of 670.0 ft AMSL or 71.14 ft below top of the sump). Pumping must be initiated if the water level is above 670.00 ft AMSL.
 (b) If water level is equal to or exceeds one foot over the primary liner (equates to a water level of 671.5 ft AMSL or 69.99 ft below the top of the sump), initiate pumping and notify the PM immediately.
 (c) Compare the collection rate/average daily flow rate to the Action Leakage Rate (ALR) of 32,000 gallons/acre/day. An increase in the collection rate, or collection rate comparable to the Action Leakage Rate may indicate a leak in one of the liners. Notify the PM immediately of any significant changes in the LDS collection rate and if the collection rate exceeds the Action Leakage Rate of 32,000 gallons/acre/day.
 (d) Example average daily flow rate calculation: Vault footprint = 7 acres (this value is constant). Local flow meter reading on September 1 (X_1) = 22,000 gallons. Local flow meter reading on October 3 (X_2) = 58,000 gallons. Elapsed time between pumping events (Y) = 33 days. Volume pumped ($X_2 - X_1$) = (Z) = 58,000 - 22,000 = 36,000 gallons. Average daily flow rate (Z / Y) / 7 = (36,000 / 33) / 7 acres = 155 gallons/day/acre. Therefore, the average daily flow rate < ALR.

| DAY | TIME OF MANUAL MEASUREMENT #1 (hh:mm) | MANUAL DEPTH TO WATER LEVEL #1 (a, b) (ft below top of sump) *should not be less than 71.14 ft* | TIME OF MANUAL MEASUREMENT #2 (hh:mm) | MANUAL DEPTH TO WATER LEVEL #2 (a, b) (ft below top of sump) *should not be less than 71.14 ft* | (X) LOCAL FLOW METER READING (a) (gallons) | (Y) ELAPSED TIME BETWEEN PUMPING EVENTS (days) | (Z) VOLUME PUMPED (gallons) = $X_2 - X_1$ | AVERAGE DAILY FLOW RATE (c, d) (gal/day/acre) = $(Z / Y) / 7$ | COMMENTS Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. |
|-----|---------------------------------------|--|---------------------------------------|--|--|--|--|--|--|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | | | | | | | | | |
| 4 | | | | | | | | | |
| 5 | 1425 | 72.1 | | | | | | | |
| 6 | | | | | | | | | |
| 7 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |
| 11 | | | | | | | | | |
| 12 | 1310 | 72.0 | | | | | | | |
| 13 | | | | | | | | | |
| 14 | | | | | | | | | |
| 15 | | | | | | | | | |
| 16 | | | | | | | | | |
| 17 | | | | | | | | | |
| 18 | | | | | | | | | |
| 19 | 1415 | 71.9 | | | | | | | |
| 20 | | | | | | | | | |
| 21 | | | | | | | | | |
| 22 | | | | | | | | | |
| 23 | | | | | | | | | |
| 24 | | | | | | | | | |
| 25 | | | | | | | | | |
| 26 | 1434 | 71.8 | | | | | | | |
| 27 | | | | | | | | | |
| 28 | | | | | | | | | |
| 29 | | | | | | | | | |
| 30 | | | | | | | | | |
| 31 | | | | | | | | | |

YEAR: 2018

MONTH: November

LEACHATE COLLECTION SYSTEM

Notes: Top of sump [top of concrete manhole] (feet AMSL): 740.83 Bottom of sump (feet AMSL): 671.00 Inside diameter of sump (feet): 6 Total depth of sump manhole (feet): 69.83
 Pump operating level between 1.5 ft (672.50 ft AMSL or 68.83 ft below the top of sump) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.

- (a) Water level not to rise above 36 inches deep (equates to a water level of 674.00 ft AMSL or 66.83 ft below top of the sump). Pumping must be initiated if the water level is above 674.00 ft AMSL. Confirm PLC water level measurement by taking a manual water level measurement. If both measurements exceed the maximum allowable level (674.00 ft AMSL).
- (b) Depth to water level should not be less than 66.83 ft below the top of sump (equates to a water level of 674.00 ft AMSL or water depth of 36 inches). Pumping must be initiated if the water level is above 674.00 ft AMSL. Confirm manual water level measurement. If confirmed measurement exceeds the maximum allowable level (674.00 ft AMSL), initiate pumping.
- (c) Readout from display on magnetic flow meter (serial number F1095C16000). Readings are cumulative unless noted otherwise.

| DAY | TIME OF MANUAL MEASUREMENT (hh:mm) | (Y) WATER LEVEL DEPTH AT PLC (inches) <small>*should not be more than 36 inches*</small> | (1) CONVERT PLC WATER DEPTH TO ELEVATION (ft AMSL) <small>= [(Y)/12] + 671.00</small> <small>*should not be more than 674.00 ft AMSL*</small> | QUANTITY PUMPED @ PLC (gallons removed) | (X) MANUAL DEPTH TO WATER LEVEL (ft below top of sump) <small>*should not be less than 66.83 ft*</small> | (2) CONVERT MANUAL DEPTH TO WATER LEVEL TO ELEVATION (ft AMSL) <small>= 740.83 - (X)</small> <small>*should not be more than 674.00 ft AMSL*</small> | LOCAL FLOW METER READING (gallons) | COMMENTS <small>Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc.</small> <small>** (1) and (2) should be compared and any discrepancies between measurements explained here.</small> |
|-----|------------------------------------|---|---|---|---|--|------------------------------------|--|
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | 1432 | 9.2 | 671.76 | 0 | 68.14 | 672.69 | 1567410 | Flowmeter is LCS/GUS Combined |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |
| 12 | 1320 | 9.5 | 671.79 | 0 | 68.12 | 672.71 | 1567410 | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |
| 16 | | | | | | | | |
| 17 | | | | | | | | |
| 18 | | | | | | | | |
| 19 | 1425 | 10.1 | 671.84 | 0 | 68.07 | 672.76 | 1567410 | |
| 20 | | | | | | | | |
| 21 | | | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | | | | |
| 24 | | | | | | | | |
| 25 | | | | | | | | |
| 26 | 1444 | 10.9 | 671.90 | 0 | 68.03 | 672.8 | 1567410 | |
| 27 | | | | | | | | |
| 28 | | | | | | | | |
| 29 | | | | | | | | |
| 30 | | | | | | | | |
| 31 | | | | | | | | |

YEAR: 2018

MONTH: December

GRAVEL UNDERDRAIN SYSTEM

Notes: Top of sump (top of concrete) (feet AMSL): 738.99 Bottom of sump (feet AMSL): 662.18 Inside diameter of sump (feet): 3 Total depth of sump manhole (feet): 76.81
Pump operating level between 2.5 ft (664.68 ft AMSL or 74.31 ft below the top of sump) and 4.33 ft (666.5 ft AMSL or 72.49 ft below the top of sump) of water in the GUS manhole.

- (a) Water level not to rise above 52 inches deep (equates to a water level of 666.5 ft AMSL or 72.49 ft below top of the sump). Pumping must be initiated if the water level is above 666.5 ft AMSL. Confirm PLC water level measurement by taking a manual water level measurement. If both measurements exceed the maximum allowable level (666.5 ft AMSL), notify the PM immediately.
- (b) Depth to water level should not be less than 72.49 ft below the top of sump (equates to a water level of 666.5 ft AMSL or water depth of 52 inches). Pumping must be initiated if the water level is above 666.5 ft AMSL. Confirm manual water level measurement. If confirmed measurement exceeds the maximum allowable level (666.5 ft AMSL), notify the PM immediately.
- (c) Readout from display on magnetic flow meter (serial number F1095B16000). Readings are cumulative unless noted otherwise.

| DAY | TIME OF MANUAL MEASUREMENT (hh:mm) | (Y) WATER LEVEL DEPTH AT PLC (inches) <i>*should not be more than 52 inches*</i> | (1) CONVERT PLC WATER DEPTH TO ELEVATION (ft AMSL) = [(Y)/12] + 662.18 <i>*should not be more than 666.5 ft AMSL*</i> | QUANTITY PUMPED @ PLC (gallons removed) | (X) MANUAL DEPTH TO WATER LEVEL (ft below top of sump) <i>*should not be less than 72.49 ft*</i> | (2) CONVERT MANUAL DEPTH TO WATER LEVEL TO ELEVATION (ft AMSL) = 738.99 - (X) <i>*should not be more than 666.5 ft AMSL*</i> | LOCAL FLOW METER READING (gallons) | COMMENTS Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. ** (1) and (2) should be compared and any discrepancies between measurements explained here. |
|-----|------------------------------------|---|---|---|---|--|------------------------------------|---|
| 1 | 0900 | 84.0 | 669.18 | | * | | 1567410 | |
| 2 | 0900 | 84.1 | 669.18 | | * | | 1567410 | |
| 3 | 0800 | 84.1 | 669.18 | | * | | 1567410 | |
| 4 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 5 | 0800 | 83.9 | 669.17 | | * | | 1567410 | |
| 6 | 0800 | 84.1 | 669.18 | | * | | 1567410 | |
| 7 | 0800 | 83.9 | 669.17 | | * | | 1567410 | |
| 8 | 0800 | 83.9 | 669.17 | | * | | 1567410 | |
| 9 | 0800 | 83.8 | 669.16 | | * | | 1567410 | |
| 10 | 0800 | 83.7 | 669.16 | | * | | 1567410 | |
| 11 | 0800 | 84.0 | 669.18 | | * | | 1567410 | |
| 12 | 0800 | 83.9 | 669.17 | | * | | 1567410 | |
| 13 | 0800 | 83.9 | 669.17 | | * | | 1567410 | |
| 14 | 0800 | 83.9 | 669.17 | | * | | 1567410 | |
| 15 | 0800 | 83.8 | 669.16 | | * | | 1567410 | |
| 16 | 0800 | 83.8 | 669.16 | | * | | 1567410 | |
| 17 | 0800 | 83.7 | 669.16 | | * | | 1567410 | |
| 18 | 0800 | 83.9 | 669.17 | | * | | 1567410 | |
| 19 | 0800 | 83.7 | 669.16 | | * | | 1567410 | |
| 20 | 0800 | 83.8 | 669.16 | | * | | 1567410 | |
| 21 | 0800 | 83.8 | 669.16 | | * | | 1567410 | |
| 22 | 0800 | 83.9 | 669.17 | | * | | 1567410 | |
| 23 | 0900 | 83.9 | 669.17 | | * | | 1567410 | |
| 24 | 0900 | 84.0 | 669.18 | | * | | 1567410 | |
| 25 | 0900 | 83.7 | 669.16 | | * | | 1567410 | |
| 26 | 0900 | 83.9 | 669.17 | | * | | 1567410 | |
| 27 | 0900 | 84.0 | 669.18 | | * | | 1567410 | |
| 28 | 0900 | 84.0 | 669.18 | | * | | 1567410 | |
| 29 | 0900 | 84.0 | 669.18 | | * | | 1567410 | |
| 30 | 0900 | 84.1 | 669.18 | | * | | 1567410 | |
| 31 | 0800 | 84.2 | 669.19 | | * | | 1567410 | |

GHD 013968 * NO manual measurement can be taken

YEAR: 2018

MONTH: December

LEAK DETECTION SYSTEM

Notes: Top of sump (top of concrete manhole) (feet AMSL): 741.14 Bottom of sump (feet AMSL): 668.50 Inside diameter of sump (feet): 6 Total depth of sump manhole (feet): 72.64
 (a) Water level not to rise above 18 inches deep (equates to a water level of 670.0 ft AMSL or 71.14 ft below top of the sump). Pumping must be initiated if the water level is above 670.00 ft AMSL.
 (b) If water level is equal to or exceeds one foot over the primary liner (equates to a water level of 671.5 ft AMSL or 69.99 ft below the top of the sump), initiate pumping and notify the PM immediately.
 (c) Compare the collection rate/average daily flow rate to the Action Leakage Rate (ALR) of 32,000 gallons/acre/day. An increase in the collection rate, or collection rate comparable to the Action Leakage Rate may indicate a leak in one of the liners. Notify the PM immediately of any significant changes in the LDS collection rate and if the collection rate exceeds the Action Leakage Rate of 32,000 gallons/acre/day.
 (d) Example average daily flow rate calculation: Vault footprint = 7 acres (this value is constant). Local flow meter reading on September 1 (X_1) = 22,000 gallons. Local flow meter reading on October 3 (X_2) = 58,000 gallons. Elapsed time between pumping events (Y) = 33 days. Volume pumped ($X_2 - X_1$) = (Z) = 58,000 - 22,000 = 36,000 gallons. Average daily flow rate (Z / Y) / 7 = (36,000 / 33) / 7 acres = 155 gallons/day/acre. Therefore, the average daily flow rate < ALR.

| DAY | TIME OF MANUAL MEASUREMENT #1 (hh:mm) | MANUAL DEPTH TO WATER LEVEL #1 (a, b) BEFORE PUMPING (ft below top of sump) *should not be less than 71.14 ft* | TIME OF MANUAL MEASUREMENT #2 (hh:mm) | MANUAL DEPTH TO WATER LEVEL #2 (a, b) AFTER PUMPING (ft below top of sump) *should not be less than 71.14 ft* | (X) LOCAL FLOW METER READING (c) (gallons) | (Y) ELAPSED TIME BETWEEN PUMPING EVENTS (days) | (Z) VOLUME PUMPED (gallons) = $X_2 - X_1$ | AVERAGE DAILY FLOW RATE (e, d) (gal/day/ac) = $(Z / Y) / 7$ | COMMENTS Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. |
|-----|---------------------------------------|---|---------------------------------------|--|--|--|--|--|--|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | 0910 | 71.78 | | | | | | | |
| 4 | | | | | | | | | |
| 5 | | | | | | | | | |
| 6 | | | | | | | | | |
| 7 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | 1000 | 71.78 | | | | | | | |
| 11 | | | | | | | | | |
| 12 | | | | | | | | | |
| 13 | | | | | | | | | |
| 14 | | | | | | | | | |
| 15 | | | | | | | | | |
| 16 | | | | | | | | | |
| 17 | 1020 | 71.76 | | | | | | | |
| 18 | | | | | | | | | |
| 19 | | | | | | | | | |
| 20 | | | | | | | | | |
| 21 | | | | | | | | | |
| 22 | | | | | | | | | |
| 23 | | | | | | | | | |
| 24 | 0925 | 71.74 | | | | | | | |
| 25 | | | | | | | | | |
| 26 | | | | | | | | | |
| 27 | | | | | | | | | |
| 28 | | | | | | | | | |
| 29 | | | | | | | | | |
| 30 | | | | | | | | | |
| 31 | 1022 | 71.72 | | | | | | | |

YEAR: 2010

MONTH: December

LEACHATE COLLECTION SYSTEM

Notes: Top of sump [top of concrete manhole] (feet AMSL): 740.83 Bottom of sump (feet AMSL): 671.00 Inside diameter of sump (feet): 6 Total depth of sump manhole (feet): 69.83
 Pump operating level between 1.5 ft (672.50 ft AMSL or 66.83 ft below the top of sump) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.

(i) Water level not to rise above 36 inches deep (equates to a water level of 674.00 ft AMSL or 66.83 ft below top of the sump). Pumping must be initiated if the water level is above 674.00 ft AMSL. Confirm PLC water level measurement by taking a manual water level measurement. If both measurements exceed the maximum allowable level (674.00 ft AMSL).

(ii) Depth to water level should not be less than 66.83 ft below the top of sump (equates to a water level of 674.00 ft AMSL or water depth of 36 inches). Pumping must be initiated if the water level is above 674.00 ft AMSL. Confirm manual water level measurement. If confirmed measurement exceeds the maximum allowable level (674.00 ft AMSL), initiate pumping.

(iii) Readout from display on magnetic flow meter (serial number F1095C16000). Readings are cumulative unless noted otherwise.

| DAY | TIME OF MANUAL MEASUREMENT (hh:mm) | (Y) WATER LEVEL DEPTH AT PLC (inches) *should not be more than 36 inches* | (1) CONVERT PLC WATER DEPTH TO ELEVATION (ft AMSL) = [(Y)/12] + 671.00 *should not be more than 674.00 ft AMSL* | QUANTITY PUMPED @ PLC (gallons removed) | (X) MANUAL DEPTH TO WATER LEVEL (ft below top of sump) *should not be less than 66.83 ft* | (2) CONVERT MANUAL DEPTH TO WATER LEVEL TO ELEVATION (ft AMSL) = 740.83 - (X) *should not be more than 674.00 ft AMSL* | LOCAL FLOW METER READING (gallons) (gallons) | COMMENTS Note when samples are collected, any maintenance activities occur, any calibration/reprogramming efforts, etc. ** (1) and (2) should be compared and any discrepancies between measurements explained here. |
|-----|------------------------------------|--|---|---|--|--|---|--|
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | 0900 | 10.8 | 671.9 | | 68.02 | 671.98 | 1567410 | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | 0945 | 10.8 | 671.9 | | 68.02 | 671.98 | 1567410 | |
| 11 | 0915 | 10.8 | 671.9 | | 68.02 | 671.98 | 1567410 | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |
| 16 | | | | | | | | |
| 17 | 1015 | 11.2 | 671.93 | | 68.0 | 672.83 | 1567410 | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |
| 21 | | | | | | | | |
| 22 | | | | | | | | |
| 23 | | | | | | | | |
| 24 | 0920 | 11.5 | 671.95 | | 68.0 | 672.83 | 1567410 | |
| 25 | | | | | | | | |
| 26 | | | | | | | | |
| 27 | | | | | | | | |
| 28 | | | | | | | | |
| 29 | | | | | | | | |
| 30 | | | | | | | | |
| 31 | 1015 | 11.8 | 671.98 | | 67.95 | 672.88 | 1567410 | |

Appendix B

Cover System Inspection Log

COVER SYSTEMS INSPECTION LOG
 CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
 GM CET BEDFORD FACILITY
 BEDFORD, INDIANA

Date of Inspection: 10/29/2018 sunny
 Inspector: mike curtis 46 degrees F

| ITEM | TYPES OF PROBLEMS | CHECKED | | DETAILED ACTIONS REQUIRED | DATE AND NATURE OF ACTIONS COMPLETED |
|------------------------------------|---|-------------|----------------------------|---------------------------------------|--------------------------------------|
| | | NO PROBLEMS | CORRECTIVE ACTION REQUIRED | | |
| VEGETATED SOIL COVER SYSTEM | | | | | |
| <u>Transect EV1</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EXPOSURE OF LINER | X | | | |
| | - EROSION | x | | | |
| | - LOCALIZED SETTLEMENT/SLUMPING | X | | | |
| | - PONDING OF WATER/DRAINAGE | | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | x | | | |
| <u>Transect EV2</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EXPOSURE OF LINER | x | | | |
| | - EROSION | x | | | |
| | - LOCALIZED SETTLEMENT/SLUMPING | x | | | |
| | - PONDING OF WATER/DRAINAGE | x | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | | | | |

TABLE D.1

COVER SYSTEMS INSPECTION LOG
 CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
 GM CET BEDFORD FACILITY
 BEDFORD, INDIANA

| ITEM | TYPES OF PROBLEMS | CHECKED | | DETAILED ACTIONS REQUIRED | DATE AND NATURE OF ACTIONS COMPLETED |
|--|---|-------------|----------------------------|---------------------------------------|--------------------------------------|
| | | NO PROBLEMS | CORRECTIVE ACTION REQUIRED | | |
| VEGETATED SOIL COVER SYSTEM (CONTINUED) | | | | | |
| <u>Transect EV3</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EXPOSURE OF LINER | X | | | |
| | - EROSION | X | | | |
| | - LOCALIZED SETTLEMENT/SLUMPING | X | | | |
| | - PONDING OF WATER/DRAINAGE | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |
| <u>Transect EV4</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EXPOSURE OF LINER | X | | | |
| | - EROSION | X | | slight erosion | |
| | - LOCALIZED SETTLEMENT/SLUMPING | X | | | |
| | - PONDING OF WATER/DRAINAGE | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |
| <u>Transect EV5</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EXPOSURE OF LINER | X | | | |
| | - EROSION | X | | slight erosion | |
| | - LOCALIZED SETTLEMENT/SLUMPING | X | | | |
| | - PONDING OF WATER/DRAINAGE | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |

COVER SYSTEMS INSPECTION LOG
 CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
 GM CET BEDFORD FACILITY
 BEDFORD, INDIANA

| ITEM | TYPES OF PROBLEMS | CHECKED | | DETAILED ACTIONS REQUIRED | DATE AND NATURE OF ACTIONS COMPLETED |
|--|---|-------------|----------------------------|---------------------------------------|--------------------------------------|
| | | NO PROBLEMS | CORRECTIVE ACTION REQUIRED | | |
| VEGETATED SOIL COVER SYSTEM (CONTINUED) | | | | | |
| <u>Transect EV6</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EXPOSURE OF LINER | X | | | |
| | - EROSION | X | | | |
| | - LOCALIZED SETTLEMENT/SLUMPING | X | | | |
| | - PONDING OF WATER/DRAINAGE | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |
| <u>Transect EV7</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EXPOSURE OF LINER | X | | | |
| | - EROSION | X | | | |
| | - LOCALIZED SETTLEMENT/SLUMPING | X | | | |
| | - PONDING OF WATER/DRAINAGE | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |
| <u>Transect EV8</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EXPOSURE OF LINER | X | | | |
| | - EROSION | X | | | |
| | - LOCALIZED SETTLEMENT/SLUMPING | X | | | |
| | - PONDING OF WATER/DRAINAGE | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |

COVER SYSTEMS INSPECTION LOG
 CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
 GM CET BEDFORD FACILITY
 BEDFORD, INDIANA

| ITEM | TYPES OF PROBLEMS | CHECKED | | DETAILED ACTIONS REQUIRED | DATE AND NATURE OF ACTIONS COMPLETED |
|--|---|-------------|----------------------------|---------------------------------------|--------------------------------------|
| | | NO PROBLEMS | CORRECTIVE ACTION REQUIRED | | |
| VEGETATED SOIL COVER SYSTEM (CONTINUED) | | | | | |
| <u>Transect EV9</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EXPOSURE OF LINER | X | | | |
| | - EROSION | X | | | |
| | - LOCALIZED SETTLEMENT/SLUMPING | X | | | |
| | - PONDING OF WATER/DRAINAGE | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |
| <u>Transect WV1</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EXPOSURE OF LINER | X | | | |
| | - EROSION | X | | | |
| | - LOCALIZED SETTLEMENT/SLUMPING | X | | | |
| | - PONDING OF WATER/DRAINAGE | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |

TABLE D.1

COVER SYSTEMS INSPECTION LOG
 CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
 GM CET BEDFORD FACILITY
 BEDFORD, INDIANA

| ITEM | TYPES OF PROBLEMS | CHECKED | | DETAILED ACTIONS REQUIRED | DATE AND NATURE OF ACTIONS COMPLETED |
|-----------------------------------|---|-------------|----------------------------|---------------------------|--------------------------------------|
| | | NO PROBLEMS | CORRECTIVE ACTION REQUIRED | | |
| HARD SURFACE COVER SYSTEMS | | | | | |
| <u>Transect EA1</u> | - QUALITY OF ASPHALT COVER | x | | | |
| | - PRESENCE OF CRACKING OR DISCOLORATION | X | | | |
| <u>Transect EA2</u> | - QUALITY OF ASPHALT COVER | x | | | |
| | - PRESENCE OF CRACKING OR DISCOLORATION | X | | | |
| <u>Transect WA1</u> | - QUALITY OF ASPHALT COVER | x | | | |
| | - PRESENCE OF CRACKING OR DISCOLORATION | X | | | |
| ACCESS ROAD | | | | | |
| <u>ACCESS ROAD</u> | - EROSION | X | | | |
| | - OBSTRUCTIONS/DEBRIS | x | | | |
| | - POTHOLES | X | | | |
| | - DAMAGE CAUSED BY VEHICULAR TRAFFIC | X | | | |

COVER SYSTEMS INSPECTION LOG
 CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
 GM CET BEDFORD FACILITY
 BEDFORD, INDIANA

| ITEM | TYPES OF PROBLEMS | CHECKED | | DETAILED ACTIONS REQUIRED | DATE AND NATURE OF ACTIONS COMPLETED |
|-------------------------------|---|-------------|----------------------------|---------------------------------------|--------------------------------------|
| | | NO PROBLEMS | CORRECTIVE ACTION REQUIRED | | |
| SWALE/DRAINAGE DITCHES | | | | | |
| <u>Transect ES1</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EROSION | X | | | |
| | - OBSTRUCTIONS | X | | | |
| | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |
| <u>Transect ES2</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EROSION | X | | | |
| | - OBSTRUCTIONS | X | | | |
| | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |
| <u>Transect ES3</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EROSION | X | | | |
| | - OBSTRUCTIONS | X | | | |
| | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |

COVER SYSTEMS INSPECTION LOG
 CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
 GM CET BEDFORD FACILITY
 BEDFORD, INDIANA

| ITEM | TYPES OF PROBLEMS | CHECKED | | DETAILED ACTIONS REQUIRED | DATE AND NATURE OF ACTIONS COMPLETED | |
|---|---------------------|---|----------------------------|---------------------------|---------------------------------------|--|
| | | NO PROBLEMS | CORRECTIVE ACTION REQUIRED | | | |
| SWALE/DRAINAGE DITCHES (CONTINUED) | | | | | | |
| | <u>Transect ES4</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | | - EROSION | X | | | |
| | | - OBSTRUCTIONS | X | | | |
| | | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | | |
| | | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | | - ROOTING OF TREES | X | | | |
| | <u>Transect ES5</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | | - EROSION | X | | | |
| | | - OBSTRUCTIONS | X | | | |
| | | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | | |
| | | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | | - ROOTING OF TREES | X | | | |
| | <u>Transect ES6</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | | - EROSION | X | | slight erosion | |
| | | - OBSTRUCTIONS | X | | | |
| | | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | | |
| | | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | | - ROOTING OF TREES | X | | | |

COVER SYSTEMS INSPECTION LOG
 CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
 GM CET BEDFORD FACILITY
 BEDFORD, INDIANA

| ITEM | TYPES OF PROBLEMS | CHECKED | | DETAILED ACTIONS REQUIRED | DATE AND NATURE OF ACTIONS COMPLETED |
|---|---|-------------|----------------------------|---------------------------------------|--------------------------------------|
| | | NO PROBLEMS | CORRECTIVE ACTION REQUIRED | | |
| SWALE/DRAINAGE DITCHES (CONTINUED) | | | | | |
| <u>Transect ES7</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EROSION | X | | | |
| | - OBSTRUCTIONS | X | | | |
| | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |
| <u>Transect ES8</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EROSION | X | | | |
| | - OBSTRUCTIONS | X | | | |
| | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |
| <u>Transect ES9</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EROSION | X | | | |
| | - OBSTRUCTIONS | X | | | |
| | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |

COVER SYSTEMS INSPECTION LOG
 CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
 GM CET BEDFORD FACILITY
 BEDFORD, INDIANA

| ITEM | TYPES OF PROBLEMS | CHECKED | | DETAILED ACTIONS REQUIRED | DATE AND NATURE OF ACTIONS COMPLETED |
|---|---|-------------|----------------------------|---------------------------------------|--------------------------------------|
| | | NO PROBLEMS | CORRECTIVE ACTION REQUIRED | | |
| SWALE/DRAINAGE DITCHES (CONTINUED) | | | | | |
| <u>Transect ES10</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EROSION | X | | | |
| | - OBSTRUCTIONS | X | | | |
| | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |
| | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| <u>Transect ES11</u> | - EROSION | X | | | |
| | - OBSTRUCTIONS | X | | | |
| | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |
| | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EROSION | X | | | |
| <u>Transect ES12</u> | - OBSTRUCTIONS | X | | | |
| | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |

COVER SYSTEMS INSPECTION LOG
 CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
 GM CET BEDFORD FACILITY
 BEDFORD, INDIANA

| ITEM | TYPES OF PROBLEMS | CHECKED | | DETAILED ACTIONS REQUIRED | DATE AND NATURE OF ACTIONS COMPLETED |
|---|----------------------|---|----------------------------|---------------------------|---------------------------------------|
| | | NO PROBLEMS | CORRECTIVE ACTION REQUIRED | | |
| SWALE/DRAINAGE DITCHES (CONTINUED) | | | | | |
| | <u>Transect ES13</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots |
| | | - EROSION | X | | |
| | | - OBSTRUCTIONS | X | | |
| | | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | |
| | | - SIGNS OF BURROWING BY ANIMALS | X | | |
| | | - ROOTING OF TREES | X | | |
| | <u>Transect ES13</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots |
| | | - EROSION | X | | |
| | | - OBSTRUCTIONS | X | | |
| | | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | |
| | | - SIGNS OF BURROWING BY ANIMALS | X | | |
| | | - ROOTING OF TREES | X | | |

TABLE D.1

COVER SYSTEMS INSPECTION LOG
 CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
 GM CET BEDFORD FACILITY
 BEDFORD, INDIANA

Date of Inspection: 6/5/2018 sunny
 Inspector: mike curtis 86 degrees F

| ITEM | TYPES OF PROBLEMS | CHECKED | | DETAILED ACTIONS REQUIRED | DATE AND NATURE OF ACTIONS COMPLETED |
|------------------------------------|---|-------------|----------------------------|---------------------------------------|--------------------------------------|
| | | NO PROBLEMS | CORRECTIVE ACTION REQUIRED | | |
| VEGETATED SOIL COVER SYSTEM | | | | | |
| Transect EV1 | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EXPOSURE OF LINER | X | | | |
| | - EROSION | x | | | |
| | - LOCALIZED SETTLEMENT/SLUMPING | X | | | |
| | - PONDING OF WATER/DRAINAGE | | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | x | | | |
| Transect EV2 | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EXPOSURE OF LINER | x | | | |
| | - EROSION | x | | | |
| | - LOCALIZED SETTLEMENT/SLUMPING | x | | | |
| | - PONDING OF WATER/DRAINAGE | x | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | | | | |

TABLE D.1

COVER SYSTEMS INSPECTION LOG
 CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
 GM CET BEDFORD FACILITY
 BEDFORD, INDIANA

| ITEM | TYPES OF PROBLEMS | CHECKED | | DETAILED ACTIONS REQUIRED | DATE AND NATURE OF ACTIONS COMPLETED |
|--|---|-------------|----------------------------|---------------------------------------|--------------------------------------|
| | | NO PROBLEMS | CORRECTIVE ACTION REQUIRED | | |
| VEGETATED SOIL COVER SYSTEM (CONTINUED) | | | | | |
| Transect EV3 | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EXPOSURE OF LINER | X | | | |
| | - EROSION | X | | | |
| | - LOCALIZED SETTLEMENT/SLUMPING | X | | | |
| | - PONDING OF WATER/DRAINAGE | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |
| Transect EV4 | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EXPOSURE OF LINER | X | | | |
| | - EROSION | X | | slight erosion | |
| | - LOCALIZED SETTLEMENT/SLUMPING | X | | | |
| | - PONDING OF WATER/DRAINAGE | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |
| Transect EV5 | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EXPOSURE OF LINER | X | | | |
| | - EROSION | X | | slight erosion | |
| | - LOCALIZED SETTLEMENT/SLUMPING | X | | | |
| | - PONDING OF WATER/DRAINAGE | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |

TABLE D.1

COVER SYSTEMS INSPECTION LOG
 CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
 GM CET BEDFORD FACILITY
 BEDFORD, INDIANA

| ITEM | TYPES OF PROBLEMS | CHECKED | | DETAILED ACTIONS REQUIRED | DATE AND NATURE OF ACTIONS COMPLETED | |
|--|---------------------|---|----------------------------|---------------------------|---------------------------------------|--|
| | | NO PROBLEMS | CORRECTIVE ACTION REQUIRED | | | |
| VEGETATED SOIL COVER SYSTEM (CONTINUED) | | | | | | |
| | <u>Transect EV6</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | | - EXPOSURE OF LINER | X | | | |
| | | - EROSION | X | | | |
| | | - LOCALIZED SETTLEMENT/SUMPING | X | | | |
| | | - PONDING OF WATER/DRAINAGE | X | | | |
| | | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | | - ROOTING OF TREES | X | | | |
| | <u>Transect EV7</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | | - EXPOSURE OF LINER | X | | | |
| | | - EROSION | X | | | |
| | | - LOCALIZED SETTLEMENT/SUMPING | X | | | |
| | | - PONDING OF WATER/DRAINAGE | X | | | |
| | | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | | - ROOTING OF TREES | X | | | |
| | <u>Transect EV8</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | | - EXPOSURE OF LINER | X | | | |
| | | - EROSION | X | | | |
| | | - LOCALIZED SETTLEMENT/SUMPING | X | | | |
| | | - PONDING OF WATER/DRAINAGE | X | | | |
| | | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | | - ROOTING OF TREES | X | | | |

TABLE D.1

COVER SYSTEMS INSPECTION LOG
 CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
 GM CET BEDFORD FACILITY
 BEDFORD, INDIANA

| ITEM | TYPES OF PROBLEMS | CHECKED | | DETAILED ACTIONS REQUIRED | DATE AND NATURE OF ACTIONS COMPLETED |
|--|---|-------------|----------------------------|---------------------------------------|--------------------------------------|
| | | NO PROBLEMS | CORRECTIVE ACTION REQUIRED | | |
| VEGETATED SOIL COVER SYSTEM (CONTINUED) | | | | | |
| <u>Transect EV9</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EXPOSURE OF LINER | X | | | |
| | - EROSION | X | | | |
| | - LOCALIZED SETTLEMENT/SLUMPING | X | | | |
| | - PONDING OF WATER/DRAINAGE | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |
| <u>Transect WV1</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EXPOSURE OF LINER | X | | | |
| | - EROSION | X | | | |
| | - LOCALIZED SETTLEMENT/SLUMPING | X | | | |
| | - PONDING OF WATER/DRAINAGE | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |

TABLE D.1

COVER SYSTEMS INSPECTION LOG
 CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
 GM CET BEDFORD FACILITY
 BEDFORD, INDIANA

| ITEM | TYPES OF PROBLEMS | CHECKED | | DETAILED ACTIONS REQUIRED | DATE AND NATURE OF ACTIONS COMPLETED |
|-----------------------------------|---------------------|---|----------------------------|---------------------------|--------------------------------------|
| | | NO PROBLEMS | CORRECTIVE ACTION REQUIRED | | |
| HARD SURFACE COVER SYSTEMS | | | | | |
| | <u>Transect EA1</u> | - QUALITY OF ASPHALT COVER | x | | |
| | | - PRESENCE OF CRACKING OR DISCOLORATION | X | | |
| | <u>Transect EA2</u> | - QUALITY OF ASPHALT COVER | x | | |
| | | - PRESENCE OF CRACKING OR DISCOLORATION | X | | |
| | <u>Transect WA1</u> | - QUALITY OF ASPHALT COVER | x | | |
| | | - PRESENCE OF CRACKING OR DISCOLORATION | X | | |
| ACCESS ROAD | | | | | |
| | <u>ACCESS ROAD</u> | - EROSION | X | | |
| | | - OBSTRUCTIONS/DEBRIS | x | | |
| | | - POTHOLES | X | | |
| | | - DAMAGE CAUSED BY VEHICULAR TRAFFIC | X | | |

TABLE D.1

COVER SYSTEMS INSPECTION LOG
 CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
 GM CET BEDFORD FACILITY
 BEDFORD, INDIANA

| ITEM | TYPES OF PROBLEMS | CHECKED | | DETAILED ACTIONS REQUIRED | DATE AND NATURE OF ACTIONS COMPLETED |
|-------------------------------|---------------------|---|----------------------------|---------------------------|---------------------------------------|
| | | NO PROBLEMS | CORRECTIVE ACTION REQUIRED | | |
| SWALE/DRAINAGE DITCHES | | | | | |
| | <u>Transect ES1</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots |
| | | - EROSION | X | | |
| | | - OBSTRUCTIONS | X | | |
| | | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | |
| | | - SIGNS OF BURROWING BY ANIMALS | X | | |
| | | - ROOTING OF TREES | X | | |
| | <u>Transect ES2</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots |
| | | - EROSION | X | | |
| | | - OBSTRUCTIONS | X | | |
| | | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | |
| | | - SIGNS OF BURROWING BY ANIMALS | X | | |
| | | - ROOTING OF TREES | X | | |
| | <u>Transect ES3</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots |
| | | - EROSION | X | | |
| | | - OBSTRUCTIONS | X | | |
| | | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | |
| | | - SIGNS OF BURROWING BY ANIMALS | X | | |
| | | - ROOTING OF TREES | X | | |

COVER SYSTEMS INSPECTION LOG
 CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
 GM CET BEDFORD FACILITY
 BEDFORD, INDIANA

| ITEM | TYPES OF PROBLEMS | CHECKED | | DETAILED ACTIONS REQUIRED | DATE AND NATURE OF ACTIONS COMPLETED |
|---|---|-------------|----------------------------|---------------------------------------|--------------------------------------|
| | | NO PROBLEMS | CORRECTIVE ACTION REQUIRED | | |
| SWALE/DRAINAGE DITCHES (CONTINUED) | | | | | |
| <u>Transect ES4</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EROSION | X | | | |
| | - OBSTRUCTIONS | X | | | |
| | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |
| <u>Transect ES5</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EROSION | X | | | |
| | - OBSTRUCTIONS | X | | | |
| | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |
| <u>Transect ES6</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EROSION | X | | slight erosion | |
| | - OBSTRUCTIONS | X | | | |
| | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |

TABLE D.1

COVER SYSTEMS INSPECTION LOG
 CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
 GM CET BEDFORD FACILITY
 BEDFORD, INDIANA

| ITEM | TYPES OF PROBLEMS | CHECKED | | DETAILED ACTIONS REQUIRED | DATE AND NATURE OF ACTIONS COMPLETED |
|---|---------------------|---|----------------------------|---------------------------|---------------------------------------|
| | | NO PROBLEMS | CORRECTIVE ACTION REQUIRED | | |
| SWALE/DRAINAGE DITCHES (CONTINUED) | | | | | |
| | <u>Transect ES7</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots |
| | | - EROSION | X | | |
| | | - OBSTRUCTIONS | X | | |
| | | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | |
| | | - SIGNS OF BURROWING BY ANIMALS | X | | |
| | | - ROOTING OF TREES | X | | |
| | <u>Transect ES8</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots |
| | | - EROSION | X | | |
| | | - OBSTRUCTIONS | X | | |
| | | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | |
| | | - SIGNS OF BURROWING BY ANIMALS | X | | |
| | | - ROOTING OF TREES | X | | |
| | <u>Transect ES9</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots |
| | | - EROSION | X | | |
| | | - OBSTRUCTIONS | X | | |
| | | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | |
| | | - SIGNS OF BURROWING BY ANIMALS | X | | |
| | | - ROOTING OF TREES | X | | |

TABLE D.1

COVER SYSTEMS INSPECTION LOG
 CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
 GM CET BEDFORD FACILITY
 BEDFORD, INDIANA

| ITEM | TYPES OF PROBLEMS | CHECKED | | DETAILED ACTIONS REQUIRED | DATE AND NATURE OF ACTIONS COMPLETED |
|---|---|-------------|----------------------------|---------------------------------------|--------------------------------------|
| | | NO PROBLEMS | CORRECTIVE ACTION REQUIRED | | |
| SWALE/DRAINAGE DITCHES (CONTINUED) | | | | | |
| <u>Transect ES10</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EROSION | X | | | |
| | - OBSTRUCTIONS | X | | | |
| | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |
| <u>Transect ES11</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EROSION | X | | | |
| | - OBSTRUCTIONS | X | | | |
| | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |
| <u>Transect ES12</u> | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EROSION | X | | | |
| | - OBSTRUCTIONS | X | | | |
| | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |

TABLE D.1

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 CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
 GM CET BEDFORD FACILITY
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| ITEM | TYPES OF PROBLEMS | CHECKED | | DETAILED ACTIONS REQUIRED | DATE AND NATURE OF ACTIONS COMPLETED |
|---|---|-------------|----------------------------|---------------------------------------|--------------------------------------|
| | | NO PROBLEMS | CORRECTIVE ACTION REQUIRED | | |
| SWALE/DRAINAGE DITCHES (CONTINUED) | | | | | |
| Transect ES13 | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EROSION | X | | | |
| | - OBSTRUCTIONS | X | | | |
| | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |
| Transect ES13 | - QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS | X | | heavy weed growth and some bare spots | |
| | - EROSION | X | | | |
| | - OBSTRUCTIONS | X | | | |
| | - CULVERT/CATCH BASIN - OBSTRUCTIONS - SEDIMENT ACCUMULATION | X | | | |
| | - SIGNS OF BURROWING BY ANIMALS | X | | | |
| | - ROOTING OF TREES | X | | | |



about GHD

GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, and construction services to private and public sector clients.

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