962424

Civil & Environmental Consultants, Inc.

March 31, 2020

Ms. Giang-Van Nguyen
U.S. Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

Dear Ms. Nguyen:

RE: Annual Report of Environmental Monitoring and Maintenance Activities
Stickney Avenue and Tyler Street Landfills, Lucas County, Ohio
CEC Project 185-376

On behalf of the City of Toledo (City), Civil & Environmental Consultants, Inc. (CEC) has prepared this Annual Report of Environmental Monitoring and Maintenance Activities for the Stickney Avenue and Tyler Street Landfills (Facilities) in accordance with Administrative Order on Consent, Docket No. V-W-97-C-433. These activities include the annual explosive gas monitoring, the annual leachate monitoring, and inspection for both landfills, consistent with the procedures established in the Operation and Maintenance (O&M) Plan, dated March 1, 2006.

Should you have any questions or comments regarding the O&M program at the Facilities, please contact the undersigned at your convenience.

Sincerely,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

William W. Speiser
Project Manager

Thomas R. Covrett, CPG
Vice President

Enclosure

Cc: Scott Lockhart, City of Toledo
Lynn Ackerson, Ohio EPA

ANNUAL REPORT OF ENVIRONMENTAL MONITORING AND MAINTENANCE ACTIVITIES

STICKNEY AVENUE AND TYLER STREET LANDFILLS
TOLEDO, OHIO

PREPARED FOR:
THE CITY OF TOLEDO
DIVISION OF SOLID WASTE
3962 HOFFMAN ROAD
TOLEDO, OHIO 43611

PREPARED BY:
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
TOLEDO, OHIO

MARCH 2020

CEC PROJECT 185-376

Civil & Environmental Consultants, Inc.

Toledo 4841 Monroe Street, Suite 103 | Toledo, OH 43623 | p: 419-724-5281 f: 419-724-5286 | www.cecinc.com

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1.0 INTRODUCTION

This report was developed by Civil & Environmental Consultants, Inc. (CEC) on behalf of the City of Toledo (City) to document the findings of the 2019 environmental performance monitoring activities for the Stickney Avenue and Tyler Street Landfills in accordance with the Administrative Order on Consent, Docket No. V-W-97-C-433. These activities include the annual leachate monitoring, explosive gas monitoring, and inspection for both landfills, consistent with the procedures established in the Operation and Maintenance (O&M) Plan (dated March 1, 2006) for the facilities. This event marks the 13th year of monitoring in accordance with the procedures outlined within the O&M Plan.

2.0 STICKNEY AVENUE LANDFILL

2.1 ANNUAL LEACHATE MONITORING

Leachate sampling was completed at the Stickney Avenue Landfill (Stickney) on November 12, 2019. Leachate samples were collected from the six leachate monitoring wells (S-MW-21LP, S-MW-24LP, S-MW-27LP, S-MW-30LP, S-MW-33LP, and S-MW-35LP), as well as from the two leachate sentinel monitoring wells (S-MW-36LP and S-MW-37LP). The field equipment calibration record and field data sheets for the leachate monitoring wells are included in Appendix A. The location of the leachate monitoring wells are depicted on Figure 1.

The annual leachate samples were sent to Pace Analytical Services, Inc. (Pace) in Indianapolis, Indiana for analysis of the annual target compound list provided in the March 2006 O&M Plan. In addition to the leachate monitoring well samples, quality assurance and quality control (QA/QC) samples were analyzed for the annual parameter list as follows:

- Duplicate sample (S-MW-33LP);
- Matrix spike/matrix spike duplicate (S-MW-33LP); and,
- Field blank

As required in the consent order, the two sentinel wells (S-MW-36LP and S-MW-37LP) were sampled for parameters, including PCBs, dimethylaniline, and volatile organic compounds (VOCs). Additional QA/QC samples were analyzed for the sentinel well parameter list as follows:

- Duplicate sample (S-MW-36LP);
- Matrix spike/matrix spike duplicate(S-MW-36LP); and,
- Trip blank (VOCs only).

The associated laboratory analytical report and chain-of-custody forms for the samples are included in Appendix B.

During the sampling event, a sampling pump malfunctioned after completing low-flow purging at S-MW-36LP. The sampling crew used a bailer to collect the sample for analysis, resulting in a sample that was not considered representative. S-MW-36LP was not analyzed and a resample was collected on November 25, 2019. A duplicate was also collected.

Tables 1-8 summarize the laboratory analytical data reported for the current and past sampling activities completed for the Stickney leachate monitoring wells and sentinel wells. Values footnoted with a "J" on the data summary tables represent estimated values that were reported between the method detection limit (MDL) and the laboratory practical quantitation limit (PQL) or reporting limit (RL). Constituents reported at values with J-qualifiers are not valid for quantitative use in data evaluation, but are considered as present at an estimated value between the

MDL and PQL. All analytical data were reported below the respective PQLs for the field blank, with the exception of PCB-1248 (reported at 0.00016 milligrams per Liter [mg/L]). All analytical data were reported below the respective PQLs for the trip blank.

Consistent with the March 2006 O&M Plan, monitoring wells S-MW-21LP, S-MW-24LP, S-MW-27LP, S-MW-30LP, S-MW-33LP, and S-MW-35LP were analyzed for the target compound list consisting of polychlorinated biphenyls (PCBs), heptachlor, aldrin, dichlorodiphenyltrichloroethane (DDT), mercury, and polycyclic aromatic hydrocarbons (PAHs). The 2019 data reported for these monitoring wells are generally similar to previous annual sampling events. Due to the laboratory changing methods of determining MDLs and PQLs/RLs, several parameters were detected above PQLs/RLs that are lower compared to historical PQLs. These detections are consistent with previous estimated detections reported for previous sampling events. The following parameters were detected above this event's PQL/RLs:

- S-MW-21LP: Aroclor 1248 was reported at 0.00016 mg/L;
- S-MW-24LP: Aroclor 1248 was reported at 0.0051 mg/L, Aroclor 1254 was reported at 0.00059 mg/L and Aroclor 1260 was reported at 0.00028 mg/L;
- S-MW-27LP: Aroclor 1248 was reported at 0.00013 mg/L;
- S-MW-30LP: Acenaphthene was reported at 0.0138 mg/L, Benzo(a)anthracene was reported at 0.00013 mg/L, Benzo(a)pyrene was reported at 0.0001 mg/L, and Benzo(b)fluoranthene was reported at 0.00014 mg/L;
- S-MW-33LP: Aroclor 1248 was reported at 0.00066 mg/L, Aroclor 1254 was reported at 0.00094 mg/L and Aroclor 1260 was reported at 0.00037 mg/L; and,
- S-MW-35LP: Aroclor 1248 was reported at 0.00051 mg/L, Aroclor 1254 was reported at 0.00057 mg/L, Aroclor 1260 was reported at 0.00035 mg/L, and Acenapthene was reported at 0.0013 mg/L.

There were several parameters reported as estimated values between the MDL and PQL/RL; therefore, are not valid for quantitative use in data evaluation. The estimated parameters are as follows:

- Acenaphthene at S-MW-33LP;
- Aroclor 1248 at S-MW-30LP;
- Aroclor 1254 at S-MW-21LP, and S-MW-27LP;
- Benzo(a)anthracene at S-MW-21LP, S-MW-24LP, S-MW-33LP, and S-MW-35LP;
- Benzo(k)fluoranthene at S-MW-24LP, S-MW-30LP, and S-MW-33LP;
- Chrysene at S-MW-21LP, S-MW-24LP, S-MW-30LP, S-MW-33LP, and S-MW-35LP;
- Indeno(1,2,3-cd)pyrene at S-MW-30LP;

- Mercury at S-MW-24LP, S-MW-33LP, and S-MW-35LP;
- Napthalene at S-MW-21LP, S-MW-24LP, and S-MW-35LP; and,
- Pyrene at S-MW-21LP, S-MW-24LP, S-MW-30LP, S-MW-33LP, and S-MW-35LP.

Section 8.3 of the O&M Plan indicates that leachate monitoring may be discontinued after 5 years following approval of the plan. Based on monitoring results under the revised program, leachate is relatively free of quantifiable concentrations of required parameters, and discontinuation of leachate monitoring may be warranted. The 2019 event marks the 13th year of monitoring in accordance with the O&M Plan.

The 2019 data reported for the sentinel monitoring wells are similar to previous annual sampling events. Provided below are the parameters reported above the PQL/RL:

- S-MW-36LP: Aroclor 1242 was reported at 0.00023 mg/L, Aroclor 1254 was reported at 0.00049 mg/L, Benzene was reported at 0.0105 mg/L, and Chlorobenzene was reported at 0.0055 mg/L; and,
- S-MW-37LP: Aroclor 1248 was reported at 6.24 mg/L, Aroclor 1254 was reported at 3.33 mg/L, Aroclor 1260 was reported at 2.03 mg/L, Ethylbenzene was reported at 0.205 mg/L, M&P-Xylene was reported at 3.07 mg/L, and O-Xylene was reported at 0.807 mg/L.

The following parameters were reported as estimated values between the MDL and PQL and are not valid for quantitative use in data evaluation. The estimated parameters are as follows:

- Methyl-tert-butyl ether at S-MW-36LP;
- M&P-Xylene at S-MW-36LP;
- Benzene at S-MW-37LP;
- Chlorobenzene at S-MW-37LP;
- Chloroethane at S-MW-37LP:
- Methylene Chloride at S-MW-37LP; and,
- Toluene at S-MW-37LP.

2.2 ANNUAL EXPLOSIVE GAS MONITORING

CEC personnel monitored 19 methane gas probe (or punch bar) locations on November 12, 2019. Figure 1 provides the location of the methane gas probe (or punch bar) locations. A Methane Monitoring Field Data Sheet (MMFDS) for these monitoring activities is included in Appendix C. The O&M Plan requires the completion of explosive gas monitoring quarterly for the first two years following implementation of the O&M Plan, semi-annually for the following three years, and annually thereafter. Annual explosive gas monitoring completed for 2019 was the 13th year of

explosive gas monitoring. Explosive gas monitoring will continue to be completed on an annual basis. The City has also implemented a quarterly "sweep" for landfill gas around the landfill's northern and eastern borders as an interim measure until an updated O&M plan is approved.

The MMFDS documents the gas pressure, percent methane, percent Lower Explosive Limit (LEL), percent oxygen, percent carbon dioxide, and depth to water in each of the gas probes and punch bar locations. Also documented on the MMFDS are the weather-related monitoring parameters including ambient barometric pressure, ambient air temperature, relative humidity, and observed weather conditions.

Gas probes S-GP-10S, S-GP-10D, S-GP-11S, S-GP-11D, S-GP-14, and S-GP-15 were unable to be located; punch bars to a terminal depth of 6 feet below ground surface (bgs) were completed in close proximity to each probe location.

A review of historical information suggests that probes 10 and 11 were located on the former Textileather property and, at some point, were abandoned. Similarly, probes 14 and 15 south of the former XXKEM facility appear to have been abandoned at some point during the closure of that facility. Significant time was spent in the field to locate gas probes, and the City was able to locate gas monitoring probes S-GP-9S and S-GP-9D. These probes are located immediately north of the former 10 and 11 locations along the southern side of the landfill property and north of the rail bed.

The results of the gas probe sampling indicate that no landfill gas was reported at any of the Stickney gas probes during the November 2019 monitoring event, with the exception of gas probes S-GP-2S, S-GP-2D, and S-GP-9S (not part of the monitoring network); therefore, punch bar sampling was completed in the vicinity of these probes in general accordance with OAC 3745-27-12. Each punch bar was installed to a terminal depth of 6 feet below ground surface (top of deep probe location screens). No methane was observed at the barhole locations. In addition to the punch bars installed to a terminal depth of 6 feet, passive vents located in the northeast corner of the landfill property were evaluated for methane concentrations. Methane was not detected in the punch bars or passive vents. On March 27, 2020, the City installed methane gas alarms within the Facility & Fleet Operations buildings. A gas alarm was installed in both the pole barn and within the mechanics bay (which is closest to Stickney Avenue Landfill).

The City was able to locate gas probes BE-BP-1 and BE-BP-2 along the south side of the former Barriger Electric Building. Additionally, the City was able to locate S-GP-6S and S-GP-6D along the eastern boundary of the facility. No methane was detected within these locations.

As part of the City's proactive approach to maintaining compliance at the facility, CEC conducted a sweep for explosive gasses at the catch basins along the east and west sides of Stickney Avenue, as well as underneath the guard shack of the former XXKem Facility. No explosive gas was detected at any sampling location. The City is also working with CEC to activate the on-site gas

extraction system for source control. A summary of each sweep, the results, and sampling locations are located in Appendix C.

2.3 ANNUAL INSPECTION

The routine annual inspection was completed on November 12 -13, 2019. Documentation of the 2019 annual inspection activities completed for the landfill, cover system, leachate monitoring well system, riverbank stability, and the explosive gas monitoring system are included in Appendix D. The Stickney Avenue Landfill generally appears to be in good condition. No areas requiring maintenance were observed during the 2019 Annual Inspection.

2.4 COMPLETED MAINTENANCE

Maintenance activities were performed at the Stickney Avenue Landfill throughout the year, and are summarized below:

- Routine mowing of vegetative cover;
- Routine litter collection;
- Annual pavement refurbishments;
- Tree removal along river;
- Parking yard swept on a monthly basis;
- Semi bays swept once a week; and,
- Review vaults on a monthly basis for liquid above the threshold and removal/disposal of liquids.

3.0 SUMMARY OF MAINTENANCE ACTIVITIES SCHEDULED FOR THE STICKNEY AVENUE LANDFILL

In accordance with the March 2006 O&M Plan, during the 2020 reporting period for the Stickney and Tyler facilities, the annual leachate sampling, explosive gas monitoring, and inspections are scheduled to be completed in or around September 2020, with the annual report submitted in or around March 2021. Maintenance activities identified in Section 2.3 will be addressed prior to the 2020 annual event.

The City is currently updating the O&M Plan at the request of the USEPA and Ohio EPA. The City will be installing a replacement gas probe south of the former XXKem property to monitor for potential methane migration.

4.0 TYLER STREET LANDFILL

4.1 ANNUAL LEACHATE MONITORING

Leachate sampling activities were completed at the Tyler Street Landfill (Tyler) on November 13 and 14, 2019. Leachate samples were collected from eight of the nine leachate monitoring wells (T-MW-19LP, T-MW-21LP, T-MW-23LP, T-MW-25LP, T-MW-27LP, T-MW-29LP, T-MW-31LP, and T-MW-33LP). Figure 2 provides the locations of the monitoring wells. Similar to previous monitoring events, a leachate sample was not collected from leachate monitoring well T-MW-35LP because it was observed to be dry. The field equipment calibration record and field data sheets for the leachate monitoring wells are included in Appendix E. The leachate samples were sent to Pace for analysis of the annual target compound list provided in the March 2006 O&M Plan. For quality control/assurance purposes, a duplicate (T-MW-23LP), a matrix spike/matrix spike duplicate (T-MW-23LP), and one field blank were collected and analyzed for the annual parameter list. The associated laboratory analytical report and chain-of-custody forms for the samples are included in Appendix F.

Tables 9-17 provide a summary of the current and historical leachate quality data for the monitoring wells. Values footnoted with a "J" on the data summary tables represent estimated values that were reported between the MDL and the PQL. Constituents reported at values with J-qualifiers are not valid for quantitative use in data evaluation, but are considered as present at an estimated value between the MDL and PQL. All data were reported below respective PQLs for the field blank with the exception of Aroclor 1248 (0.0018 mg/L), Aroclor 1254 (0.00073 mg/L), and Aroclor 1260 (0.00028 mg/L).

Consistent with the March 2006 O&M Plan, monitoring wells T-MW-19LP, T-MW-21LP, T-MW-23LP, T-MW-25LP, T-MW-27LP, T-MW-29LP, T-MW-31LP, and T-MW-33LP were analyzed for the target compound list consisting of PCBs, heptachlor, aldrin, DDT, mercury, and PAHs. The 2019 data reported for these monitoring wells are similar to previous annual sampling events; however, due to the laboratory changing methods of determining MDLs and PQLs/RLs several parameters were detected above PQLs/RLs. These detections are consistent with previous estimated detections reported for previous sampling events. The following parameters were detected above this event's PQL/RLs:

- T-MW-19LP: Aroclor 1242 was reported at 0.00053 mg/L, Aroclor 1254 was reported at 0.0019 mg/L, and Aroclor 1260 was reported at 0.00096 mg/L;
- T-MW-21LP: Aroclor 1254 was reported at 0.00018 mg/L;
- T-MW-23LP: Acenaphthene was reported at 0.0032 mg/L, Aroclor 1248 was reported at 0.00033 mg/L, Aroclor 1254 was reported at 0.00017 mg/L;

- T-MW-25LP: Acenaphthene was reported at 0.0022 mg/L, Benzo(a)anthracene was reported at 0.00029 mg/L, Benzo(a)pyrene was reported at 0.00022 mg/L, Benzo(b) fluoranthene was reported at 0.00025 mg/L, Benzo(k)fluoranthene was reported at 0.00022 mg/L, Dibenz(a,h)anthracene was reported at 0.00023 mg/L, and Indeno(1,2,3-cd)pyrene was reported at 0.00021 mg/L;
- T-MW-27LP: Acenaphthene was reported at 0.0028 mg/L and Aroclor 1248 was reported at 0.00011 mg/L;
- T-MW-29LP: Naphthalene was reported at 0.0096 mg/L, Aroclor 1248 was reported at 0.00063, Aroclor 1254 was reported at 0.00023, Aroclor 1260 was reported at 0.00015 mg/L;
- T-MW-31-LP: Aroclor 1248 was reported at 0.00025 mg/L and Aroclor 1254 was reported at 0.00011 mg/L; and,
- T-MW-33LP: Aroclor 1248 was reported at 0.0030 mg/L, Aroclor 1254 was reported at 0.0019 mg/L, and Aroclor 1260 was reported at 0.00044 mg/L.

As noted above, Aroclor 1248, Aroclor 1254 and Aroclor 1260 were detected in many of the monitoring wells as well as the atmospheric field blank. All monitoring wells are equipped with dedicated bladder pumps; therefore, cross contamination of the samples is not likely. Accounting for the concentrations observed within the atmospheric blank, the only detections above the PQLs/RLs for Aroclor 1248, Aroclor 1254, and Aroclor 1260 were observed in T-MW-33LP. Aroclor 1254 and Aroclor 1260 were also observed above the PQLs/RLs in T-MW-19LP.

Additionally, the following target compound list parameters were reported as estimated values between the MDL and PQL, and are not valid for quantitative use in data evaluation. The estimated parameters are as follows:

- Acenaphthene in T-MW-19LP, T-MW-21LP, T-MW-29LP, T-MW-31LP, T-MW-33LP;
- Aroclor 1260 in T-MW-23LP, T-MW-25LP;
- Benz(a)anthracene in T-MW-19LP;
- Chrysene in T-MW-19LP, T-MW-25LP;
- Mercury in T-MW-19LP, T-MW-23LP, T-MW-29LP, T-MW-31LP, T-MW-33LP;
- Naphthalene in T-MW-19LP; and,
- Pyrene in T-MW-23LP, T-MW-25LP, T-MW-27LP, T-MW-29LP, T-MW-31LP.

Section 8.3 of the O&M Plan indicates that leachate monitoring may be discontinued after 5 years following approval of the plan. Based on monitoring results under the revised program, leachate is relatively free of quantifiable concentrations of required parameters, and discontinuation of leachate monitoring may be warranted.

4.2 ANNUAL LANDFILL GAS MONITORING

CEC personnel completed explosive gas monitoring at 18 methane gas probes and four gas blower locations on November 13, 2019. Figure 2 provides the location of the gas monitoring points. The March 2006 O&M Plan requires the completion of explosive gas monitoring quarterly for the first two years following implementation of the O&M Plan, semi-annually for the following three years, and annually thereafter. Annual explosive gas monitoring completed for 2019 was the 13th year of explosive gas monitoring. Explosive gas monitoring will continue to be completed on an annual basis.

The MMFDS for the November 2019 annual monitoring activities is included in Appendix G. The MMFDS documents the gas pressure, percent methane, percent LEL, percent oxygen, percent carbon dioxide, and depth to water in each of the gas probes. Also included on the MMFDS are the gas monitoring results for the punch bar and gas blower locations. Also documented on the MMFDS are the weather-related monitoring parameters including ambient barometric pressure, ambient air temperature, relative humidity, and observed weather conditions.

Gas probes T-GP-07S and T-GP-07D, T-GP-10S, T-GP-10D, T-GP-11S, T-GP-11D, T-GP-12S, and T-GP-12D could not be located, have been abandoned or are covered by soil; therefore, punch bar sampling was conducted in the general vicinity of these locations to a terminal depth of 6 feet (top of screen in the deep gas probes) bgs.

As previously mentioned, the City anticipates installing strategic replacement monitoring probes as part of the USEPA and Ohio EPA requested O & M Plan update. Significant time was spent in the field to locate gas probes, and the City was able to locate several probes along the northern boundary of the facility including, T-GP-4S, T-GP-4D, T-GP-9S, and T-GP-9D. Although these probes are not part of the existing monitoring network, the City monitored these probes to determine if replacement of T-GP-11S and T-GP-11D was warranted. As the MMFDS indicates methane was observed above the LEL at T-GP-4S and T-GP9S locations. Punch bars were completed in this area to a terminal depth of 6 feet bgs with no methane detected. However, the city will be installing replacement probes for T-GP-11S and T-GP-11D in general conformance with OAC 3745-27-12. Once these probes are installed, the O&M Plan will be updated with the new probe locations and construction information. On March 27, 2020, the City installed a methane gas alarm within the portion of the Sewers and Drainage Department Truck Bay closest to the Tyler Street Landfill.

Landfill gas was detected in all four blower system monitoring locations during the annual monitoring event, including the horizontal well, pre-system, between the two granular activated carbon (GAC) tanks, and post-system. The blower system was not operating at the time of the November 2019 event. The detection of landfill gas in the blower system is expected and currently acts as a passive venting system; therefore, this is not a compliance issue. The field inspection of

the gas probes indicates the operation of the gas system is not necessary to control gas migration. A review of historical and anecdotal information suggests that a formal request to cease operation of the temporary landfill gas migration system was submitted to the U.S. EPA in 2004 or 2005. Section 5.0 of the approved May 2002 O&M plan for the LFG migration control system provides the mechanism for such a request. Documentation of the request could not be located.

The available data from the gas probes monitored at the facility suggest there is potential off-site landfill gas migration toward the undeveloped City of Toledo owned parcel along the northern boundary of the landfill. The punch bar in the approximate location of T-GP-11 probes resulted in no detection of landfill gas; therefore, landfill gas migration is confined to the approximate landfill boundary. As previously mentioned the City is installing a replacement monitoring probe on this property to monitor for potential landfill gas migration.

4.3 ANNUAL INSPECTION

The routine annual inspection was completed on November 13, 2019. Documentation of the 2019 annual inspection activities completed for the landfill, cover system, leachate monitoring well system, riverbank stability, and the explosive gas monitoring system are included in Appendix H. The Tyler Street Landfill appears to be in good condition. The following minor maintenance activities are recommended to be completed prior to the next annual monitoring event based on the maintenance activities identified on the inspection form:

- Removal of excessive, overgrown vegetation along the rock let downs, drainage outlet riprap, and the riprap surface along the Ottawa River; and,
- Fix ponded water near T-MW-33LP.

Once maintenance activities are complete, the corrective actions will be documented and provided in the corresponding annual report.

4.4 COMPLETED MAINTENANCE

Maintenance activities were performed at the Tyler Street Landfill throughout the year, and are summarized below:

- Routine mowing of vegetative cover; and,
- Filled low lying/ponded areas with soil previously observed during the 2018 annual inspection.

5.0 SUMMARY OF MAINTENANCE ACTIVITIES SCHEDULED FOR THE TYLER LANDFILL

In accordance with the March 2006 O&M Plan, during the 2020 reporting period for the Stickney and Tyler facilities, the annual leachate sampling, explosive gas monitoring, and inspections are scheduled to be completed in or around September 2020, with the annual report anticipated to be submitted in March 2021. Maintenance activities identified in Section 4.3 will be addressed prior to the 2020 annual event. Excessive overgrown vegetation will be addressed on an as-needed basis.

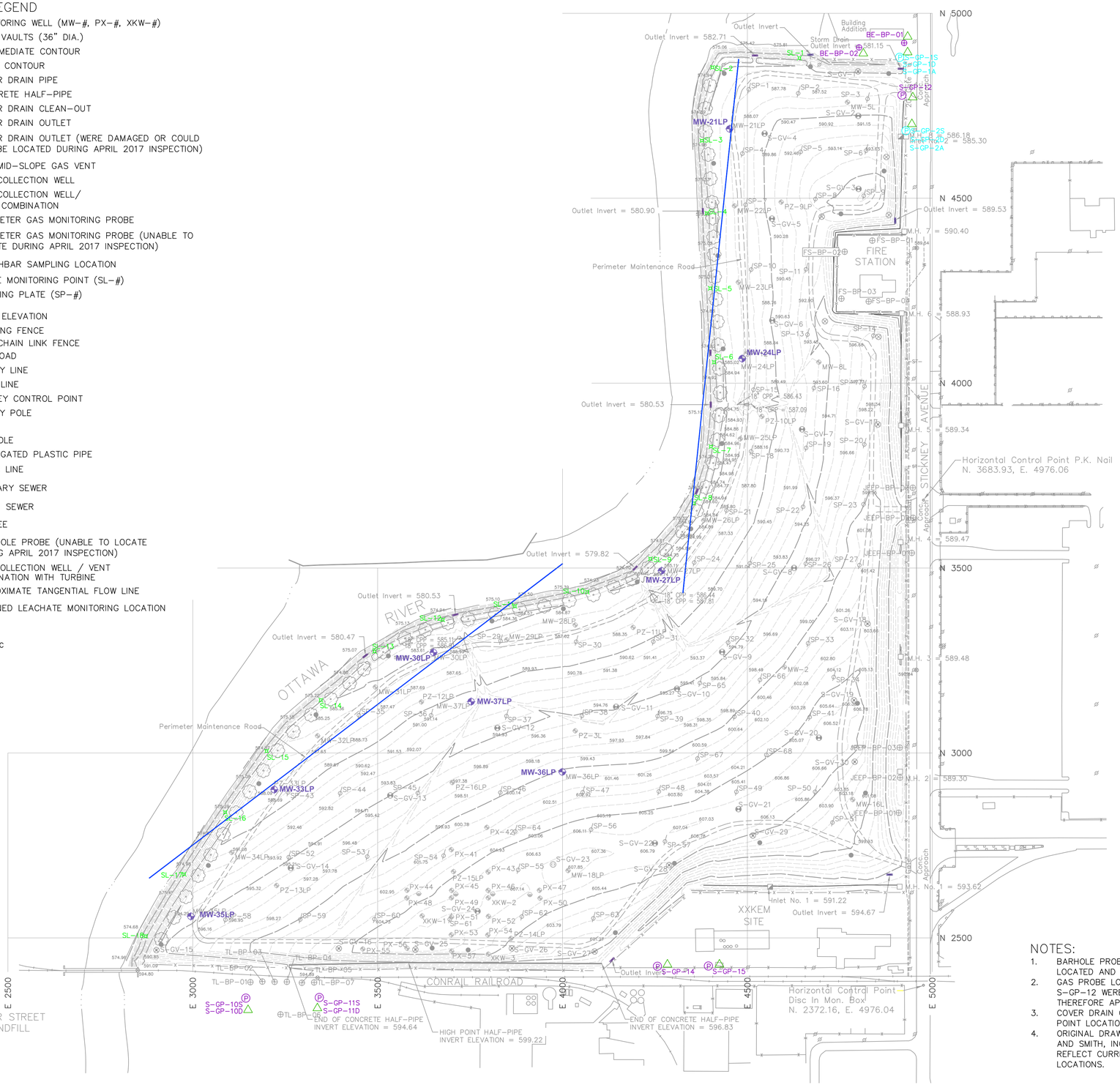
FIGURES

NORTH

LEGEND

- MONITORING WELL (MW-#, PX-#, XKW-#)
- WELL VAULTS (36" DIA.)
- INTERMEDIATE CONTOUR
- INDEX CONTOUR
- COVER DRAIN PIPE
- CONCRETE HALF-PIPE
- COVER DRAIN CLEAN-OUT
- COVER DRAIN OUTLET
- COVER DRAIN OUTLET (WERE DAMAGED OR COULD NOT BE LOCATED DURING APRIL 2017 INSPECTION)
- TOP/MID-SLOPE GAS VENT
- GAS COLLECTION WELL
- GAS COLLECTION WELL/ VENT COMBINATION
- PERIMETER GAS MONITORING PROBE
- PERIMETER GAS MONITORING PROBE (UNABLE TO LOCATE DURING APRIL 2017 INSPECTION)
- PUNCHBAR SAMPLING LOCATION
- SLOPE MONITORING POINT (SL-#)
- SETTLING PLATE (SP-#)
- 600.00 SPOT ELEVATION
- EXISTING FENCE
- NEW CHAIN LINK FENCE
- RAILROAD
- UTILITY LINE
- TREE LINE
- SURVEY CONTROL POINT
- UTILITY POLE
- INLET
- MANHOLE
- CPP CORRUGATED PLASTIC PIPE
- W WATER LINE
- SA SANITARY SEWER
- ST STORM SEWER
- 2" TREE
- BAR HOLE PROBE (UNABLE TO LOCATE DURING APRIL 2017 INSPECTION)
- GAS COLLECTION WELL / VENT COMBINATION WITH TURBINE
- APPROXIMATE TANGENTIAL FLOW LINE
- MW-37LP RETAINED LEACHATE MONITORING LOCATION

FS – FIRESTATION
BE – BARIGER ELECTRIC
JEEP – JEEP
TL – TEXTILEATHER
BH – BARHOLE PROBE



SOURCE: MANNIK AND SMITH, INC. AS-BUILT SURVEY OF STICKNEY AVENUE LANDFILL, FINAL SITE GRADING, 1999.

NOTES:

1. BARHOLE PROBE LOCATIONS WERE FIELD LOCATED AND ARE THEREFORE APPROXIMATE.
2. GAS PROBE LOCATIONS S-GP-10, S-GP-11, S-GP-12 WERE FIELD LOCATED AND ARE THEREFORE APPROXIMATE.
3. COVER DRAIN OUTLET AND SLOPE MONITORING POINT LOCATIONS CONFIRMED IN APRIL 2017.
4. ORIGINAL DRAWING COMPLETED BY MANNIK AND SMITH, INC. AND MODIFIED BY HULL TO REFLECT CURRENT MONITORING POINT LOCATIONS.

SCALE IN FEET
0 150 300

REVISION RECORD

NO	DATE	DESCRIPTION

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CITY OF TOLEDO
TOLEDO, OHIO

STICKNEY AVENUE LANDFILL
LEACHATE AND GAS
MONITORING LOCATIONS

DATE: JANUARY 2020	DRAWN BY: ASL
DWG SCALE: 1"=150'	CHECKED BY: WWS
PROJECT NO:	185-376
APPROVED BY:	TRC*

*HAND SIGNATURE ON FILE

FIGURE NO.: 1

P:\2018\185-376\-CADD\Dwg\GY01-Leachate and Gas Monitoring Locations\185376-GY01-Figure 1 Leachate and Gas Monitoring Locations.dwg[LAYOUT1] LS:(2/20/2019 - dbowell) - LP: 1/21/2020 1:35 PM

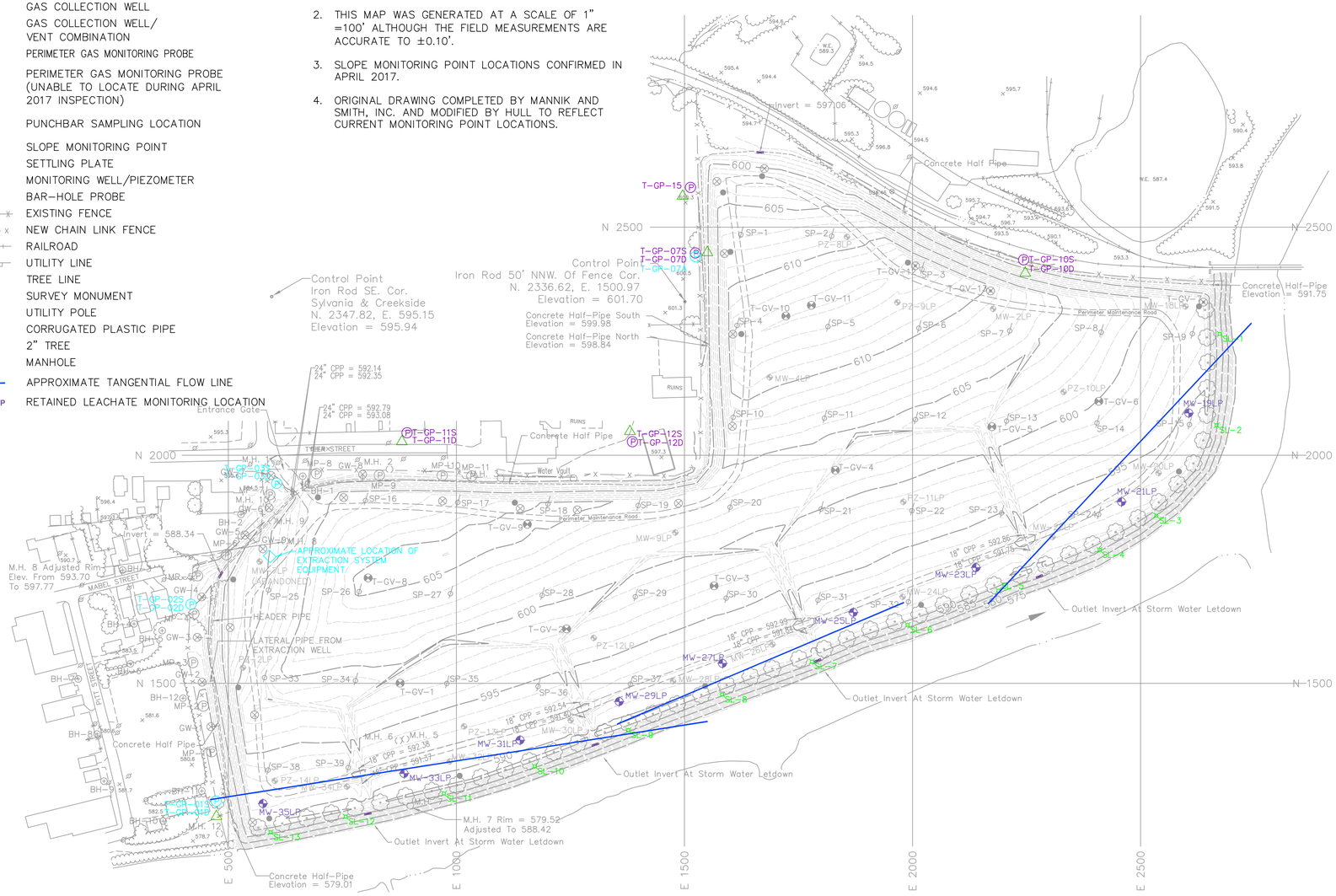
NORTH

LEGEND

- INTERMEDIATE CONTOUR
- INDEX CONTOUR
- CONCRETE HALF-PIPE
- COVER DRAIN CLEANOUT
- COVER DRAIN OUTLET
- TOP/MID-SLOPE GAS VENT
- GAS COLLECTION WELL
- GAS COLLECTION WELL/ VENT COMBINATION
- PERIMETER GAS MONITORING PROBE
- PERIMETER GAS MONITORING PROBE (UNABLE TO LOCATE DURING APRIL 2017 INSPECTION)
- PUNCHBAR SAMPLING LOCATION
- SLOPE MONITORING POINT
- SETTLING PLATE
- MONITORING WELL/PIEZOMETER
- BAR-HOLE PROBE
- EXISTING FENCE
- NEW CHAIN LINK FENCE
- RAILROAD
- UTILITY LINE
- TREE LINE
- SURVEY MONUMENT
- UTILITY POLE
- CPP CORRUGATED PLASTIC PIPE
- 2" TREE
- M.H.() MANHOLE
- APPROXIMATE TANGENTIAL FLOW LINE
- MW-21LP RETAINED LEACHATE MONITORING LOCATION

NOTES:

1. UTILITIES & EXISTING STRUCTURES LOCATED OFF CAP WERE NOT SURVEYED; LOCATIONS TAKEN FROM WOODWARD CLYDE DESIGN DRAWINGS.
2. THIS MAP WAS GENERATED AT A SCALE OF 1" =100' ALTHOUGH THE FIELD MEASUREMENTS ARE ACCURATE TO ±0.10'.
3. SLOPE MONITORING POINT LOCATIONS CONFIRMED IN APRIL 2017.
4. ORIGINAL DRAWING COMPLETED BY MANNIK AND SMITH, INC. AND MODIFIED BY HULL TO REFLECT CURRENT MONITORING POINT LOCATIONS.



SCALE IN FEET
0 140 280

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
4841 Monroe Street · Suite 103 · Toledo, OH 43623
Ph: 419.724.5281 · Fax: 419.724.5286
www.cecinc.com

CITY OF TOLEDO
TOLEDO, OHIO

TYLER STREET LANDFILL
LEACHATE AND GAS
MONITORING LOCATIONS

DATE:	JANUARY 2020	DRAWN BY:	ASL
DWG SCALE:	1"=140'	CHECKED BY:	WSS
PROJECT NO:			185-376
APPROVED BY:			TRC*

*HAND SIGNATURE ON FILE

FIGURE NO.: 2

P:\2018\185-376\-CADD\Dwg\EV01-Leachate and Gas Monitoring Locations\185376-EV01-Figure 2 Leachate and Gas Monitoring Locations.dwg[LAYOUT1] LS:(2/20/2019 - aiswell) - LP: 1/21/2020 1:36 PM

TABLES

CITY OF TOLEDO
STICKNEY AVENUE LANDFILL

Table 1: Laboratory Analytical Data Reported for S-MW-21

Parameter	Units	7/25/2007	6/12/2008	6/12/08#	9/23/2009	10/6/2010	9/15/2011	10/3/2012	9/25/2013	9/24/2014	9/17/2015	10/18/2016	10/18/16#	9/14/2017	12/17/2018	11/12/2019
Metals																
Mercury	mg/L	<0.0002	0.00018 J	0.00018 J	0.000118 J	0.000164 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0000521 J	<0.002	<0.0020
PCBs																
Aroclor 1016	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1221	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	< 0.0002	<0.000095
Aroclor 1232	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1242	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	< 0.0001	<0.000095
Aroclor 1248	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	0.00016
Aroclor 1254	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	< 0.0001	0.000078 J
Aroclor 1260	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Pesticides																
4,4 - DDT	mg/L	<0.0005	<0.00005	<0.00005	<0.00005	<0.0005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	<0.000095
Aldrin	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.0005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.000048
Heptachlor	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.0005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.000048
PAHs																
Acenaphthene	mg/L	0.0002 J	<0.010	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.00091
Benz(A)Anthracene	mg/L	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	0.00011 J	<0.0001	0.000033 J
Benzo(A)Pyrene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0001	<0.000091
Benzo(B)Fluoranthene	mg/L	0.00012 J	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	0.0001 J	<0.0001	<0.000091
Benzo(K)Fluoranthene	mg/L	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0001	<0.000091
Chrysene	mg/L	<0.01	<0.010	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0005	0.000026 J
Dibenz(A,H)Anthracene	mg/L	0.00084 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.00014 J	<0.000092	<0.000084
Indeno(1,2,3-Cd)pyrene	mg/L	0.00099 J	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.0001	<0.000091
Naphthalene	mg/L	0.0082 J	0.0062 J	0.0046 J	0.00783 J	0.00532 J	0.00552 J	<0.01	0.00154 J	0.00086 J	0.0006 J	0.0014 J	0.00191 J	0.00079 J	0.00055 J	0.00042 J
Pyrene	mg/L	<0.01	<0.010	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	0.000055 J
Field Parameters																
Conductivity	umhos/cm	7830	9500	9500	6640	5160	3180	3130	2810	2130	2469	3020	3020	3820	2384	2989
Dissolved Oxygen	mg/L	0.1	5.24	5.24	2.54	0.2	1.67	0	1.08	0.8	2.63	0.64	0.64	0.7	0.29	0.31
pH	S.U.	6.61	6.76	6.76	6.36	7.09	6.72	6.77	6.8	6.17	6.58	6.51	6.51	6.8	6.69	6.73
Redox Potential	mv	-128	-58	-58	-95	-191	-107	-99	-58.4	-93	4.1	-155	-155	-156	-55.6	-17.9
Temperature	° C	13.3	12.8	12.8	16.8	17.1	15.6	16.2	16.84	16.29	16.29	16.9	16.9	15.1	13.9	12.4
Turbidity	mg/L	65	92	92	47	193	17	77	7.22	7.5	4.81	3	3	3	13.1	15.2

NOTES:
(J) Estimated value detected between the MDL and the laboratory PQL.
(#) Duplicate Sample
(--) Not analyzed
(*) No sample was collected.
Analytical data was tabulated by CEC Inc., except for data reported from July 2007 through October 2012, and October 2016 through September 2017, which was tabulated by Hull & Associates, Inc.

CITY OF TOLEDO
STICKNEY AVENUE LANDFILL

Table 2: Laboratory Analytical Data Reported for S-MW-24

Parameter	Units	7/25/2007	6/12/2008	9/23/2009	10/6/2010	9/15/2011	10/3/2012	9/25/2013	9/24/2014	9/17/2015	10/18/2016	9/14/2017	12/17/2018	11/12/2019
Metals														
Mercury	mg/L	<0.0002	<0.0002	<0.0002	0.0000288 J	<0.0002	<0.0002	0.0000754 J	<0.0002	<0.0002	<0.0002	<0.002	<0.002	0.00016 J
PCBs														
Aroclor 1016	mg/L	<0.0002	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1221	mg/L	<0.0002	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.000095
Aroclor 1232	mg/L	<0.0002	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1242	mg/L	<0.0002	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1248	mg/L	<0.0002	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	0.00051
Aroclor 1254	mg/L	<0.0002	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	0.00059
Aroclor 1260	mg/L	<0.0002	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	0.00028
Pesticides														
4,4 - DDT	mg/L	<0.0005	<0.00005	<0.00005	<0.00025	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	<0.000095
Aldrin	mg/L	<0.00005	<0.00005	<0.00005	<0.00025	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.000048
Heptachlor	mg/L	<0.00005	<0.00005	<0.00005	<0.00025	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.000048
PAHs														
Acenaphthene	mg/L	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	0.00005 J	<0.01	<0.01	0.00007 J	<0.001	<0.00091
Benz(A)Anthracene	mg/L	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	0.00011 J	<0.0001	0.000057 J
Benzo(A)Pyrene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0001	<0.000091
Benzo(B)Fluoranthene	mg/L	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.0001	<0.000091
Benzo(K)Fluoranthene	mg/L	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0001	0.000031 J
Chrysene	mg/L	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0005	0.000051 J
Dibenz(A,H)Anthracene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000092	<0.000084
Indeno(1,2,3-Cd)pyrene	mg/L	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.0001	<0.000091
Naphthalene	mg/L	<0.01	<0.010	<0.01	<0.01	<0.01	0.00207 J	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	0.00021 J
Pyrene	mg/L	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	0.000092 J
Field Parameters														
Conductivity	umhos/cm	3270	5370	1580	1180	1390	969	1971	3210	2260	3250	3840	3839	5614
Dissolved Oxygen	mg/L	0.29	4.84	2.6	0	4.7	5.1	1.02	1.25	1.99	0.8	0.84	1.65	0.1
pH	S.U.	6.87	7.1	6.85	7.65	7.46	7.55	7.02	6.55	6.3	6.35	6.5	6.55	6.39
Redox Potential	mv	-118	-64	-33	-76	-35	12	-138.6	-149	-14.8	-164	-99	-77.4	-136.8
Temperature	° C	16.6	21.6	25.3	18.7	19.6	19.5	18.39	18.7	19.32	19.5	17.4	15.2	14.2
Turbidity	mg/L	145	435	45	137	62	155	75.8	50.1	6.81	8	2	3.41	51.39

NOTES:
(J) Estimated value detected between the MDL and the laboratory PQL.
(#) Duplicate Sample
(--) Not analyzed
(*) No sample was collected.
Analytical data was tabulated by CEC Inc., except for data reported from July 2007 through October 2012, and October 2016 through September 2017, which was tabulated by Hull & Associates, Inc.

CITY OF TOLEDO
STICKNEY AVENUE LANDFILL

Table 3: Laboratory Analytical Data Reported for S-MW-27

Parameter	Units	7/25/2007	7/25/07#	6/12/2008	9/23/2009	9/23/09#	10/6/2010	10/6/10#	9/15/2011	9/15/11#	10/3/2012	9/25/2013	9/24/2014	9/24/2014	9/17/2015	10/18/2016	9/14/2017	12/17/2018	11/12/2019
Metals																			
Mercury	mg/L	<0.0002	<0.0002	<0.0002	0.0000399 J	0.0000283 J	0.0000654 J	0.0000335 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	<0.0020
PCBs																			
Aroclor 1016	mg/L	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1221	mg/L	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.000095
Aroclor 1232	mg/L	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1242	mg/L	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1248	mg/L	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	0.00013
Aroclor 1254	mg/L	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	0.000082 J
Aroclor 1260	mg/L	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Pesticides																			
4,4 - DDT	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00025	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	<0.000095
Aldrin	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00025	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.000048
Heptachlor	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00025	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.000048
PAHs																			
Acenaphthene	mg/L	<0.01	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00006 J	0.00006 J	<0.01	<0.01	0.00009 J	<0.001	<0.00091
Benz(A)Anthracene	mg/L	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.0001	<0.000091
Benzo(A)Pyrene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0001	<0.000091
Benzo(B)Fluoranthene	mg/L	<0.00017	0.00014 J	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.0001	<0.000091
Benzo(K)Fluoranthene	mg/L	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0001	<0.000091
Chrysene	mg/L	<0.01	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0005	<0.00045
Dibenz(A,H)Anthracene	mg/L	<0.0002	0.00091	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000092	<0.000084
Indeno(1,2,3-Cd)pyrene	mg/L	<0.00022	0.0011	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.0001	<0.000091
Naphthalene	mg/L	<0.01	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.000053 J	<0.00091
Pyrene	mg/L	<0.01	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.00091
Field Parameters																			
Conductivity	umhos/cm	3430	3430	5000	4230	4230	4170	4170	4140	4140	3830	3394	3920	3920	3510	3760	4060	3440	3565
Dissolved Oxygen	mg/L	0.01	0.01	6.63	2.65	2.65	1.03	1.03	1.65	1.65	0	1.29	0.93	0.93	1.68	0.55	0.6	0.21	3.21
pH	S.U.	6.28	6.28	6.56	6.08	6.08	6.87	6.87	6.8	6.8	6.58	6.8	6.26	6.26	6.39	6.41	6.6	6.6	6.65
Redox Potential	mv	-116	-116	-115	-127	-127	-154	-154	-130	-130	-66	-60.4	-94	-94	-28.7	-155	-119	-66.9	-27.4
Temperature	° C	12.8	12.8	13.5	17.1	17.1	16.4	16.4	15.2	15.2	16.5	16.95	16.59	16.59	15.48	16.2	13.8	13.6	11.8
Turbidity	mg/L	1	1	86	88	88	135	135	34	34	66	19.9	1.2	1.2	4.12	9	2	3.99	4.69

NOTES:
(J) Estimated value detected between the MDL and the laboratory PQL.
(#) Duplicate Sample
(--) Not analyzed
(*) No sample was collected.
Analytical data was tabulated by CEC Inc., except for data reported from July 2007 through October 2012, and October 2016 through September 2017, which was tabulated by Hull & Associates, Inc.

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Table 4: Laboratory Analytical Data Reported for S-MW-30

Parameter	Units	7/25/2007	6/12/2008	9/23/2009	10/6/2010	9/15/2011	10/3/2012	10/3/12#	9/25/2013	9/24/2014	9/17/2015	10/18/2016	9/14/2017	12/17/2018	11/12/2019
Metals															
Mercury	mg/L	<0.0002	0.000093 J	0.0000624 J	0.000282	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	<0.0020
PCBs															
Aroclor 1016	mg/L	<0.0002	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1221	mg/L	<0.0002	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.000095
Aroclor 1232	mg/L	<0.0002	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1242	mg/L	<0.0002	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1248	mg/L	<0.0002	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	0.000091 J
Aroclor 1254	mg/L	<0.0002	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1260	mg/L	<0.0002	<0.0005	<0.0005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Pesticides															
4,4 - DDT	mg/L	<0.00005	<0.00005	<0.00005	<0.0005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	<0.000095
Aldrin	mg/L	<0.00005	<0.00005	<0.00005	<0.0005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.000048
Heptachlor	mg/L	<0.00005	<0.00005	<0.00005	<0.0005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.00002 J	<0.00005	<0.00005	<0.000048
PAHs															
Acenaphthene	mg/L	0.005 J	0.0042 J	0.00372 J	0.00429 J	0.00098 J	<0.01	<0.01	0.00194 J	0.00462 J	0.001 J	0.00141 J	0.00476 J	0.0064	0.0138
Benz(A)Anthracene	mg/L	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	0.00015 J	<0.0001	0.00013
Benzo(A)Pyrene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0001	0.0001
Benzo(B)Fluoranthene	mg/L	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	0.00012 J	<0.0001	0.00014
Benzo(K)Fluoranthene	mg/L	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0001	0.000066 J
Chrysene	mg/L	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0005	0.000069 J
Dibenz(A,H)Anthracene	mg/L	0.00084	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000092	<0.000084
Indeno(1,2,3-Cd)pyrene	mg/L	0.00082	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.0001	0.000083 J
Naphthalene	mg/L	0.00045 J	0.00027 J	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00039 J	0.00007 J	0.0003 J	0.00031 J	0.0031	<0.00091
Pyrene	mg/L	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00019 J	<0.01	<0.01	0.00034 J	0.00018 J	0.00034 J
Field Parameters															
Conductivity	umhos/cm	4130	5720	3920	4140	1790	2350	2350	3444	4430	1285	3540	4910	4999	5094
Dissolved Oxygen	mg/L	0.01	4.75	2.26	1.88	1.16	0	0	1.27	1.18	2.33	0.65	0.6	0.31	0.01
pH	S.U.	6.51	6.66	6.29	6.96	7.04	6.61	6.61	6.68	6.39	6.55	6.6	6.69	6.79	6.56
Redox Potential	mv	-144	-145	-149	-119	-113	-70	-70	-73.7	-133	-7.8	-166	-114	-122.7	-124.2
Temperature	° C	13.4	13.2	16.9	17.9	17.3	18.2	18.2	17.7	17.3	19.26	22	15.9	14.9	14.3
Turbidity	mg/L	1000	1000	1000	1000	41	60	60	9.75	15.9	4.28	8	9	73.7	98.6

NOTES:
(J) Estimated value detected between the MDL and the laboratory PQL.
(#) Duplicate Sample
(--) Not analyzed
(*) No sample was collected.
Analytical data was tabulated by CEC Inc., except for data reported from July 2007 through October 2012, and October 2016 through September 2017, which was tabulated by Hull & Associates, Inc.

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Table 5: Laboratory Analytical Data Reported for S-MW-33

Parameter	Units	7/25/2007	6/12/2008	9/23/2009	10/6/2010	9/15/2011	10/3/2012	9/25/2013	9/25/13#	9/24/2014	9/17/2015	9/17/2015	10/18/2016	9/14/2017	9/14/17#	12/17/2018	12/17/18#	11/12/2019	11/12/19#
Metals																			
Mercury	mg/L	<0.0002	<0.0002	<0.0002	0.0000538 J	0.0000284 J	0.0000493 J	0.0000477 J	<0.000200	0.0000607J	<0.0002	<0.0002	0.00211	0.000268	0.000345	0.00028 J	0.00029 J	0.00044 J	0.00032 J
PCBs																			
Aroclor 1016	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.000095
Aroclor 1221	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0001	<0.000095
Aroclor 1232	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.000095
Aroclor 1242	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.000095
Aroclor 1248	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	0.00066	0.00092
Aroclor 1254	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0011	0.00084	0.00094	0.001
Aroclor 1260	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.00043	0.00035	0.00037	0.00035
Pesticides																			
4,4 - DDT	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	<0.0001	<0.0001	<0.00095
Aldrin	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.000048
Heptachlor	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.000048
PAHs																			
Acenaphthene	mg/L	0.0013 J	0.00092 J	<0.01	<0.01	0.00095 J	<0.01	<0.01	<0.01	0.0008 J	0.00066 J	0.00066 J	0.00088 J	0.00113 J	0.0011 J	0.00093 J	0.00077 J	0.0005 J	0.00035 J
Benz(A)Anthracene	mg/L	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	0.00015 J	0.00018 J	<0.0001	<0.0001	0.00008 J	0.000063 J
Benzo(A)Pyrene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.000091	<0.000091
Benzo(B)Fluoranthene	mg/L	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	0.0001 J	<0.0001	<0.0001	<0.000091	<0.000091
Benzo(K)Fluoranthene	mg/L	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0001	<0.0001	0.000045 J	<0.000091
Chrysene	mg/L	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0005	<0.0005	0.000051 J	0.000036 J
Dibenz(A,H)Anthracene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000092	<0.000092	<0.000084	<0.000084
Indeno(1,2,3-Cd)pyrene	mg/L	0.0005	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.0001	<0.0001	<0.000091	<0.000091
Naphthalene	mg/L	0.0061 J	0.0045 J	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00023 J	<0.01	<0.01	<0.001	<0.001	<0.00091	<0.00091
Pyrene	mg/L	0.00017 J	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00012 J	<0.01	<0.01	<0.01	0.00015 J	0.0002 J	0.00019 J	0.00014 J	0.0002 J	0.00016 J
Field Parameters																			
Conductivity	umhos/cm	6400	7680	6300	5360	5420	5580	5061	5061	5650	5410	5410	5370	5800	5800	4290	4290	4650	4650
Dissolved Oxygen	mg/L	0.01	3.74	1.63	0	1.1	0	0.7	0.76	1.2	1.78	1.78	0.72	0.54	0.54	0.17	0.17	1.14	1.14
pH	S.U.	6.62	6.68	6.46	7.05	7.1	6.77	6.75	6.75	6.48	6.61	6.61	6.64	6.81	6.81	6.79	6.79	6.74	6.74
Redox Potential	mv	-145	-133	-126	-108	-44	-55	-86.2	-86.2	-151	-99.8	-99.8	-179	-157	-157	-108.4	-108.4	-61.2	-61.2
Temperature	° C	13.2	14.7	21.5	22.7	19.7	19.9	21.78	21.78	20.12	19.19	19.19	19.6	17.3	17.3	18.6	18.6	18.3	18.3
Turbidity	mg/L	29	68	86	80	22	46	15.1	15.1	50.1	4.32	4.32	8	28	28	33	33	22.03	22.03

NOTES:
(J) Estimated value detected between the MDL and the laboratory PQL.
(#) Duplicate Sample
(--) Not analyzed
(*) No sample was collected.
Analytical data was tabulated by CEC Inc., except for data reported from July 2007 through October 2012, and October 2016 through September 2017, which was tabulated by Hull & Associates, Inc.

Table 6: Laboratory Analytical Data Reported for S-MW-35

Parameter	Units	7/25/2007	6/12/2008	9/23/2009	10/6/2010	9/15/2011	10/3/2012	9/25/2013	9/24/2014	9/17/2015	10/18/2016	9/14/2017	12/17/2018	11/12/2019
Metals														
Mercury	mg/L	<0.0002	<0.0002	0.0000324 J	0.0000587 J	<0.0002	0.0000276 J	<0.000200	0.0000343 J	<0.0002	0.0000949 J	<0.0002	<0.002	0.000094 J
PCBs														
Aroclor 1016	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1221	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.000095
Aroclor 1232	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1242	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1248	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	0.00051
Aroclor 1254	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.00046	0.00057
Aroclor 1260	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.00034	0.00035
Pesticides														
4,4 - DDT	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	<0.000095
Aldrin	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.000048
Heptachlor	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.000048
PAHs														
Acenaphthene	mg/L	0.0019 J	0.0018 J	0.00144 J	0.0014 J	0.00133 J	<0.01	<0.01	0.00102 J	0.00069 J	0.00133 J	0.00108 J	0.0011	0.0013
Benz(A)Anthracene	mg/L	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	0.00013 J	<0.0001	0.000070 J
Benzo(A)Pyrene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0001	<0.000091
Benzo(B)Fluoranthene	mg/L	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.0001	<0.000091
Benzo(K)Fluoranthene	mg/L	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0001	<0.000091
Chrysene	mg/L	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0005	0.000038 J
Dibenz(A,H)Anthracene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000092	<0.000084
Indeno(1,2,3-Cd)pyrene	mg/L	0.00078	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.0001	<0.000091
Naphthalene	mg/L	0.00014 J	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00009 J	0.00013 J	0.00018 J
Pyrene	mg/L	0.0003 J	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	0.00031 J	<0.01	0.0002 J	0.00022 J	0.00021 J	0.00029 J
Field Parameters														
Conductivity	umhos/cm	5900	5740	5540	5090	4900	5070	5058	4890	3750	4020	4020	3410	3375
Dissolved Oxygen	mg/L	0.01	4.15	1.91	1.2	2.3	0.68	1.66	1.42	0.27	0.46	0.63	0.83	2.77
pH	S.U.	6.57	6.69	6.37	7.08	7.1	6.89	6.89	6.44	7.13	6.79	6.92	6.82	6.79
Redox Potential	mv	-175	-138	-130	-140	-140	-65	-64.8	-176	-139	-166	-152	-117	-42.1
Temperature	° C	13.9	18.1	19	21.2	19.4	18.5	17.58	17.45	18.2	17.3	14.8	15.8	12.2
Turbidity	mg/L	26	47	71	49	9	33	5.67	25.9	26.7	22	1	34	26.28

NOTES:
(J) Estimated value detected between the MDL and the laboratory PQL.
(#) Duplicate Sample
(--) Not analyzed
(*) No sample was collected.
Analytical data was tabulated by CEC Inc., except for data reported from July 2007 through October 2012, and October 2016 through September 2017, which was tabulated by Hull & Associates, Inc.

Table 7: Laboratory Analytical Data Reported for S-MW-36

Parameter	Units	7/25/2007	6/12/2008	9/23/2009	10/6/2010	9/15/2011	10/3/2012	9/25/2013	9/24/2014	9/17/2015	10/18/2016	9/14/2017	12/17/2018	11/25/2019	11/25/2019#
PCBs															
Aroclor 1016	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	0.0192	<0.0005	<0.005	<0.0025	<0.0005	<0.0005	<0.0001	<0.00091	<0.00091
Aroclor 1221	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0025	<0.0005	<0.0005	<0.0002	<0.00091	<0.00091
Aroclor 1232	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0254	<0.0025	<0.0005	<0.0005	<0.0001	<0.00091	<0.00091
Aroclor 1242	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0025	<0.0005	<0.0005	<0.0001	0.00023	0.00019
Aroclor 1248	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	0.00233	<0.0005	<0.0005	<0.005	<0.0025	<0.0005	<0.0005	0.0015	<0.00091	<0.00091
Aroclor 1254	mg/L	<0.0002	<0.0005	0.0117	0.00166	<0.0005	0.0199	<0.0005	0.0151	0.00275	<0.0005	<0.0005	0.002	0.00049	0.00049
Aroclor 1260	mg/L	<0.0002	<0.0005	<0.0005	<0.0005	0.000973	0.0148	<0.0005	<0.005	<0.0025	<0.0005	<0.0005	0.00048	<0.00091	<0.00091
SEMIVOLATILE ORGANICS															
Dimethylaniline	mg/L	<0.01	<0.01	<0.01	<0.01	ND	ND	--	--	--	ND	ND	ND	ND	ND
VOCs [1]															
2-butanone	mg/L	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	0.00353 J	<0.1	<0.25	<0.025	<0.025
4-Methyl-2-pentanone	mg/L	<PQL	<PQL	<PQL	0.00128 J	<0.02	<0.02	<0.02	0.042 J	<0.02	<0.02	<0.1	<0.25	<0.025	<0.025
Acetone	mg/L	0.058	<0.020	0.0269	0.0124 J	0.0159 J	0.0166 J	0.0149 J	<0.2	0.00553 J	0.0273	<0.1	<1.0	<0.1	<0.1
Acetonitrile	mg/L	--	--	--	--	--	--	0.0377 J	<0.4	0.00734 J	<0.04	<0.2	<1.0	<0.1	<0.1
Benzene	mg/L	0.022	0.016	0.0157	0.00889	0.0161	0.0201	0.0201	0.0165 J	0.00811	0.00317 J	0.0099 J	0.0115 J	0.0105	0.0111
Carbon Disulfide	mg/L	--	--	--	--	--	--	<PQL	<PQL	0.00055 J	<0.02	<0.1	<0.1	<0.01	<0.01
Chlorobenzene	mg/L	0.0082	0.0049 J	0.00682	0.00265 J	0.00755	0.00752	0.00817	0.0074 J	0.0034 J	<0.005	0.0033 J	<0.05	0.0055	0.006
Chloroethane	mg/L	0.059	0.037	0.0204	0.0179	0.0175	0.0207	0.0148	0.0136 J	0.00896	0.00351 J	0.0102 J	<0.05	<0.005	<0.005
Ethylbenzene	mg/L	<0.005	0.029	0.0366	0.00245 J	0.00545	0.0115	0.00736	0.0048 J	0.00132 J	0.0161	0.0155 J	<0.05	<0.005	<0.005
m,p-Xylene	mg/L	0.0043 J	0.046	0.0874	0.00569	0.0141	0.0416	0.0249	0.0211 J	0.00777 J	0.0963	0.0922	<0.05	0.002 J	0.0022 J
Methyl Chloride	mg/L	--	0.0044 J	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.05	<0.05	<0.025	<0.05	<0.005	<0.005
Methyl tert-Butyl Ether	mg/L	<0.01	<0.01	0.00117 J	0.00134 J	<0.01	0.0023 J	0.00221 J	<0.1	0.00164 J	0.00049 J	0.00225 J	<0.04	0.0021 J	0.0021 J
n-Hexane	mg/L	--	--	--	--	--	--	<PQL	<PQL	0.00053 J	<0.005	<0.025	<0.05	<0.005	<0.005
O-Xylene	mg/L	<0.005	0.0019 J	0.0138	<0.005	0.0011 J	0.0154	0.00131 J	0.0053 J	0.00055 J	0.0423	0.0424	<0.05	<0.005	<0.005
Styrene	mg/L	<PQL	<PQL	<PQL	0.00069 J	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.025	<0.05	<0.005	<0.005
Tetrachloroethene	mg/L	--	--	--	--	--	--	<0.005	<0.05	0.00028 J	<0.005	<0.025	<0.05	<0.005	<0.005
Toluene	mg/L	0.0013 J	<0.005	0.00181 J	<0.005	0.001 J	0.00155 J	<0.005	0.0759	0.00035 J	0.00213	0.0071 J	<0.05	<0.005	<0.005
Field Parameters															
Conductivity	umhos/cm	5220	6220	1270	3500	3830	3970	3306	3620	3630	3760	3570	3893	6098	6098
Dissolved Oxygen	mg/L	0.12	6.1	1.59	1.46	1.7	0	1.55	1.02	0	0.4	0.56	0.41	0.05	0.05
pH	S.U.	6.46	6.7	6.83	7.02	6.95	6.71	6.77	6.4	7.11	6.15	6.67	6.91	6.68	6.68
Redox Potential	mv	-118	-182	-121	-124	-122	-78	-29.9	-134	-98	-115	-130	-234.4	-150.8	-150.8
Temperature	° C	13.5	14.6	23	17.3	16.2	16.4	14.93	15.1	16.32	18.4	16.4	13.4	14.1	14.1
Turbidity	mg/L	13	140	1000	20	2	5	9.21	26.9	27.3	9	6	36.2	5.92	5.92

NOTES:
(J) Estimated value detected between the MDL and the laboratory PQL. (#) Duplicate Sample
(--) Not analyzed
(*) No sample was collected.
Analytical data was tabulated by CEC Inc., except for data reported from July 2007 through October 2012, and October 2016 through September 2017, which was tabulated by Hull & Associates, Inc.
Volatile Organic Compounds: Only volatile organics detected above the MDL or laboratory PQL are listed.

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Table 8: Laboratory Analytical Data Reported for S-MW-37

Parameter	Units	7/25/2007	6/12/2008	9/23/2009	10/6/2010	9/15/2011	10/3/2012	9/25/2013	9/24/2014	9/17/2015	9/17/15#	10/18/2016	10/18/16#	9/14/2017	9/14/17#	12/17/2018	12/17/18#	11/12/2019
PCBs																		
Aroclor 1016	mg/L	<0.0002	<0.0005	<0.0005	<0.005	<0.025	0.862	<0.05	<0.0005	<0.05	<0.0025	0.148	--	<0.01	--	<0.0001	<0.0001	<0.0238
Aroclor 1221	mg/L	<0.0002	<0.0005	<0.0005	<0.005	<0.025	<0.050	<0.05	<0.0005	<0.05	<0.0025	<0.0025	--	<0.01	--	<0.0002	<0.0002	<0.0238
Aroclor 1232	mg/L	<0.0002	<0.0005	<0.0005	<0.005	<0.025	<0.050	<0.05	0.222	0.218	<0.0025	<0.0025	--	<0.01	--	<0.0001	<0.0001	<0.0238
Aroclor 1242	mg/L	0.047	<0.0005	<0.0005	<0.005	<0.025	<0.050	<0.05	<0.0005	<0.05	<0.0025	<0.0025	--	<0.01	--	<0.0001	<0.0001	<0.0238
Aroclor 1248	mg/L	<0.0002	0.074	0.186	<0.005	0.574	<0.050	<0.05	<0.0005	<0.05	<0.0025	<0.0025	--	0.254	--	0.0473	0.023	6.24
Aroclor 1254	mg/L	<0.0002	<0.0005	<0.0005	0.104	<0.025	0.649	<0.05	0.314	<0.05	0.0778	<0.0025	--	<0.01	--	0.018	0.0117	3.33
Aroclor 1260	mg/L	0.038	0.024	0.124	<0.005	0.326	0.443	0.048	<0.0005	0.054	<0.0025	0.054	--	0.154	--	0.0182	0.0117	2.03
SEMIVOLATILE ORGANICS																		
Dimethylaniline	mg/L	<0.01	<0.01	<0.01	<0.01	ND	ND	--	--	--	--	ND	ND	ND	ND	ND	ND	ND
VOCs [1]																		
1,1-Dichloroethane	mg/L	0.13	0.072	0.00427 J	0.053	0.015	0.00243 J	0.00562	0.033 J	0.02 J	0.0225 J	0.0147	<0.25	0.00405 J	0.00405 J	0.0156 J	0.0183 J	<0.05
1,2-Dichloroethane	mg/L	<PQL	<PQL	<PQL	0.00205 J	<0.005	<0.005	0.00152 J	<0.25	<0.25	<0.25	0.00141 J	<0.25	<0.025	<0.025	<0.025	<0.025	<0.05
2-Butanone	mg/L	--	0.08	0.00978 J	0.0238	0.0142 J	0.0107 J	0.0327	0.388 J	<1	<1	<0.02	<1	<0.1	<0.1	<0.125	<0.125	<0.25
2-Chlorotoluene	mg/L	--	--	--	--	--	--	<0.005	0.075 J	<0.25	<0.25	<0.005	<0.25	<0.025	<0.025	<0.025	<0.025	<0.05
2-Hexanone	mg/L	--	--	--	--	--	--	0.00581 J	<1	<1	<1	<0.02	<1	<0.1	<0.1	<0.125	<0.125	<0.25
4-Methyl-2-pentanone	mg/L	<1	<0.02	0.00823 J	0.0542	0.0125 J	<0.020	0.0466	0.104 J	<1	<1	<0.02	<1	<0.1	<0.1	<0.125	<0.125	<0.25
Acetone	mg/L	<1	0.063	0.036	0.0362	<0.02	0.0373	0.0308	0.272 J	<1	<1	0.0163 J	<1	<0.1	<0.1	<0.500	<0.500	<1
Acetonitrile	mg/L	<PQL	<PQL	<PQL	0.0345 J	<0.04	<0.040	0.0191 J	<2	<2	<2	<0.04	<2	0.0179 J	<0.2	<0.500	<0.500	<1
Benzene	mg/L	0.14	0.11	0.0225	0.133	0.0832	0.0632	0.137	0.132 J	0.102 J	0.118 J	0.167	0.122 J	0.13	0.127	0.15	0.164	0.0225 J
Carbon Disulfide	mg/L	<1	<0.02	0.00191 J	<0.02	<0.02	<0.02	<0.02	<1	0.0185 J	0.0165 J	<0.02	<1	<0.1	<0.1	<0.050	<0.050	<0.1
Chlorobenzene	mg/L	<0.25	< 0.005	<0.005	0.0258	0.0141	<0.050	0.0182	<0.25	0.025 J	0.0265 J	<0.005	0.022 J	0.0314	0.0308	0.0288	0.0294	0.0082 J
Chloroethane	mg/L	<0.25	0.043	0.011	0.0473	0.0514	0.0348	<0.005	0.0935 J	0.076 J	0.086 J	0.141	0.095 J	0.102	0.108	0.0966	0.103	0.0413 J
Cis-1,2-dichloroethene	mg/L	--	0.0045 J	<0.005	0.00846	0.00368 J	<0.005	0.00141 J	<0.25	<0.25	<0.25	0.0027 J	<0.25	<0.025	<0.025	<0.025	<0.025	<0.05
Ethylbenzene	mg/L	2.1	2	0.556	1.8	1.18	1.1	1.12	1.52	0.837	0.948	0.504	0.594	0.932	0.905	1.89	1.5	0.205
Hexane	mg/L	--	0.0034 J	<0.005	<0.005	<0.005	<0.005	<0.005	<0.25	<0.25	0.017 J	<0.005	<0.25	<0.025	<0.025	<0.025	<0.025	<0.05
M,p-Xylene	mg/L	7.6	6.9	2.12	5.16	3.52	3.93	5.38	6.24	3.78	4.19	3.87	4.09	3.85	4.31	8.94	7.2	3.07
Methyl Chloride	mg/L	--	0.013	<0.005	<0.005	<0.005	<0.005	<0.005	<0.25	<0.25	<0.25	<0.005	<0.25	<0.025	<0.025	<0.025	<0.025	<0.05
Methylene Chloride	mg/L	0.1	0.0043 J	<0.005	<0.005	0.00157 J	<0.005	0.00163 J	<0.25	<0.25	<0.25	0.00377 J	<0.25	0.00135 J	<0.025	<0.025	<0.025	0.0245 J
Methyl tert-Butyl Ether	mg/L	--	--	--	--	--	--	<PQL	<PQL	0.022 J	0.015 J	<0.01	<0.5	<0.05	<0.05	<0.020	<0.020	<0.04
O-Xylene	mg/L	4.5	3.7	1.2	3.03	1.97	1.91	2.63	3.17	1.8	2.03	1.84	2.07	1.93	2.14	4.13	3.36	0.807
Toluene	mg/L	1.2	1.4	0.155	0.931	0.222	0.125	0.114	0.75	0.155 J	0.18 J	0.117	0.192 J	0.116	0.11	0.176	0.182	0.0082 J
Trans-1,2-dichloroethene	mg/L	--	0.0028 J	<0.005	0.00325 J	0.00169 J	<0.005	0.00263 J	<0.25	<0.25	<0.25	0.00283 J	<0.25	0.00205 J	0.002 J	<0.025	<0.025	<0.05
Trans-1,3-dichloropropene	mg/L	<PQL	<PQL	<PQL	0.00229 J	<0.005	<0.005	<0.005	<0.25	<0.25	<0.25	<0.005	<0.25	<0.025	<0.025	<0.0205	<0.0205	<0.041
Trichloroethene	mg/L	--	0.0011 J	<0.005	<0.005	0.00092 J	<0.005	<0.005	<0.25	<0.25	<0.25	<0.005	<0.25	<0.025	<0.025	<0.025	<0.025	<0.05
Vinyl Acetate	mg/L	<PQL	<PQL	<PQL	0.0006 J	<0.01	<0.01	<0.01	<0.5	<0.5	<0.5	<0.01	<0.5	<0.05	<0.05	<0.25	<0.250	<0.5
Vinyl Chloride	mg/L	--	0.013	0.00129	0.0155	0.00697	<0.001	0.0024	<0.05	<0.05	<0.05	<0.001	<0.05	0.00475 J	0.00525	0.0026 J	0.0031 J	<0.02
Field Parameters																		
Conductivity	umhos/cm	16200	1900	3820	12900	2040	973	7017	14100	8030	8030	5770	5770	8230	8230	5245	5245	5892
Dissolved Oxygen	mg/L	0.03	5.3	2.41	0	2	0	1.78	3.09	0.23	0.23	0.88	0.88	0.47	0.47	0.3	0.3	0.23
pH	S.U.	6.82	6.98	6.26	7.5	6.79	6.39	6.76	6.91	7.48	7.48	6.91	6.91	6.97	6.97	6.99	6.99	6.95
Redox Potential	mv	-155	-187	-131	-239	-145	-34	75.6	-214	-135	-135	-203	-203	-134	-134	-159.6	-159.6	-147.1
Temperature	° C	16.2	14.9	15.6	20.4	17.6	18.1	18.28	16.77	22.93	22.93	22.8	22.8	17.5	17.5	15.1	15.1	10.7
Turbidity	mg/L	188	1000	107	160	43	63	159	257	229	229	67	67	34	34	235.3	235.3	112.3

NOTES:
(J) Estimated value detected between the MDL and the laboratory PQL. (#) Duplicate Sample
(#) Duplicate Sample
(--) Not analyzed
(*) No sample was collected.
Analytical data was tabulated by CEC Inc., except for data reported from July 2007 through October 2012, and October 2016 through September 2017, which was tabulated by Hull & Associates, Inc.
Volatile Organic Compounds: Only volatile organics detected above the MDL or laboratory PQL are listed.
The complete list of sampled organics can be found on the laboratory analytical report included in Appendix C.

Table 9: Laboratory Analytical Data Reported for T-MW-19

Parameter	Units	7/24/2007	7/24/07#	6/12/2008	6/12/08#	9/22/2009	10/5/2010	10/5/10#	9/14/2011	10/2/2012	9/27/2013	9/23/2014	9/16/2015	10/17/2016	10/17/16#	9/13/2017	12/18/2018	11/14/2019
Metals																		
Mercury	mg/L	0.00032	0.0003	0.00036	0.00034	0.000206	0.000301	0.00029	0.000175 J	0.000219	0.000149 J	0.000135 J	0.0000812 J	0.000149 J	0.000163 J	0.000325	0.00022 J	0.00012 J
PCBs																		
Aroclor 1016	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001
Aroclor 1221	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0001
Aroclor 1232	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	0.0077	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001
Aroclor 1242	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0025	0.00254	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	0.00053
Aroclor 1248	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0014	<0.0001
Aroclor 1254	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	0.0025	<0.0005	<0.0005	<0.0005	<0.0005	0.00024	0.0019
Aroclor 1260	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.000091 J	0.00096
Pesticides																		
4,4 - DDT	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00025	<0.00005	<0.00005	<0.00005	<0.00005	<0.00025	<0.00005	<0.00005	<0.00005	<0.0001	<0.00015
Aldrin	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00025	<0.00005	<0.00005	<0.00005	0.00002 J	<0.00025	<0.00005	<0.00005	<0.00005	<0.00005	<0.000077
Heptachlor	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00025	<0.00005	<0.00005	<0.00005	<0.00005	<0.00025	0.00006	0.00005	<0.00005	<0.00005	<0.000077
PAHs																		
Acenaphthene	mg/L	<0.01	0.00039 J	0.00027 J	0.00042 J	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00023 J	0.00024 J	0.00026 J	0.00031 J	0.00021 J	0.00022 J	0.0002 J
Benz(A)Anthracene	mg/L	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	0.00013 J	<0.00026	0.00021 J	0.00023 J	0.00018 J	0.000086 J	0.000073 J
Benzo(A)Pyrene	mg/L	0.00068	0.00075	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001
Benzo(B)Fluoranthene	mg/L	0.00091	0.001	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	0.00014 J	0.000053 J	<0.0001
Benzo(K)Fluoranthene	mg/L	0.0008 J	0.00082 J	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0001	<0.0001
Chrysene	mg/L	0.00042 J	0.00048 J	<0.010	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00007 J	<0.01	<0.010	<0.010	0.00012 J	0.00011 J	0.000085 J
Dibenz(A,H)Anthracene	mg/L	0.0021	0.003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000092	<0.0001
Indeno(1,2,3-Cd)pyrene	mg/L	0.003	0.003	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.0001	<0.0001
Naphthalene	mg/L	0.017	0.015	0.00043 J	0.0006 J	0.00915 J	0.00682 J	0.00387 J	<0.01	0.0194	0.0197	0.0142	0.0124	0.00466 J	0.00785 J	0.00412 J	0.0015	0.00085 J
Pyrene	mg/L	0.00067 J	0.00053 J	0.013	0.016	<0.01	<0.01	0.00084 J	<0.01	<0.01	<0.01	0.00031 J	<0.01	0.00037 J	0.00041 J	0.00038 J	0.00027 J	<0.0001
Field Parameters																		
Conductivity	umhos/cm	7410	7410	9250	9250	6370	6150	6150	5200	5540	4899	5450	4622	4770	4770	5350	3748	3313
Dissolved Oxygen	mg/L	0.09	0.09	5.47	5.47	3.19	0	0	2.62	0.33	1.87	3.9	1.61	4.76	4.76	0.47	41.19	0.05
pH	S.U.	6.79	6.79	6.79	6.79	6.79	7.34	7.34	7.08	7.23	7.48	7.27	6.99	7	7	7.1	7.79	6.68
Redox Potential	mv	-205	-205	-95	-95	-187	-189	-189	-194	-152	-1.5	-159	-99.3	-247	-247	-210	-82.6	-137.4
Temperature	° C	13.1	13.1	14.2	14.2	14	13.9	13.9	13.5	13.5	14.82	12.73	14.45	14.6	14.6	13.5	13.0	13.3
Turbidity	mg/L	1000	1000	1000	1000	15	72	72	32	51	37.5	31.4	18.01	15	15	62	36.1	181.66

NOTES:
(J) Estimated value detected between the MDL and the laboratory PQL.
(#) Duplicate Sample
(--) Not analyzed
(*) No sample was collected.
Analytical data was tabulated by CEC Inc., except for data reported from July 2007 through October 2012, and October 2016 through September 2017, which was tabulated by Hull & Associates, Inc.

Table 10: Laboratory Analytical Data Reported for T-MW-21

Parameter	Units	7/24/2007	6/12/2008	6/12/08#	9/22/2009	10/5/2010	9/14/2011	9/14/11#	10/2/2012	9/27/2013	9/23/2014	9/16/2015	9/16/2015	10/17/2016	9/13/2017	12/18/2018	11/13/2019
Metals																	
Mercury	mg/L	<0.0002	0.0001 J	0.0001 J	<0.0002	0.000165 J	0.0000617 J	0.0000311 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	<0.002
PCBs																	
Aroclor 1016	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.00025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001
Aroclor 1221	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.00025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0001
Aroclor 1232	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.00025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001
Aroclor 1242	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.00025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001
Aroclor 1248	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.00025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001
Aroclor 1254	mg/L	<0.0005	<0.0005	<0.0005	< 0.0005	<0.00025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	0.00018
Aroclor 1260	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.00025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001
Pesticides																	
4,4 - DDT	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.000025	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	<0.0001
Aldrin	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.000025	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Heptachlor	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.000025	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
PAHs																	
Acenaphthene	mg/L	0.00046 J	0.00058 J	0.00058 J	<0.01	<0.01	<0.01	0.00053 J	<0.01	<0.01	0.00043 J	0.00053 J	0.00051 J	0.00046 J	0.0006 J	0.00033 J	0.00059 J
Benz(A)Anthracene	mg/L	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	0.00014 J	0.00013 J	<0.0001	<0.0001
Benzo(A)Pyrene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001
Benzo(B)Fluoranthene	mg/L	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	0.00015 J	<0.0001	<0.0001
Benzo(K)Fluoranthene	mg/L	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0001	<0.0001
Chrysene	mg/L	<0.01	<0.010	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0005	<0.0005
Dibenz(A,H)Anthracene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000092	<0.0001
Indeno(1,2,3-Cd)pyrene	mg/L	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.0001	<0.0001
Naphthalene	mg/L	<0.01	<0.010	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00011 J	<0.01	<0.01	0.00018 J	0.000064 J	<0.001
Pyrene	mg/L	<0.01	0.00062 J	0.00062 J	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00012 J	0.00016 J	<0.001	<0.001
Field Parameters																	
Conductivity	umhos/cm	3310	3440	3440	3110	2890	2880	2880	2950	3257	2450	2246	2246	2370	2640	2242	2170
Dissolved Oxygen	mg/L	0.39	5.64	5.64	2.71	0.59	2.08	2.08	0.3	2.24	3.89	3.55	3.55	2.1	0.46	4.34	1.89
pH	S.U.	6.45	6.72	6.72	6.49	7.09	6.71	6.71	6.97	7.31	7.13	5.29	5.29	6.6	6.75	7.63	6.82
Redox Potential	mv	-154	-129	-129	-147	-119	-119	-119	-94	2.9	-120	-22.3	-22.3	-170	-141	-52.5	-30.1
Temperature	° C	13.9	14.6	14.6	13.7	13.5	13.1	13.1	13.1	16.22	12.45	13.18	13.18	14	13	12.3	12.5
Turbidity	mg/L	364	1000	1000	45	52	40	40	17	38.2	72.4	7.53	7.53	3	20	6.6	7.7

NOTES:
(J) Estimated value detected between the MDL and the laboratory PQL.
(#) Duplicate Sample
(--) Not analyzed
(*) No sample was collected.
Analytical data was tabulated by CEC Inc., except for data reported from July 2007 through October 2012, and October 2016 through September 2017, which was tabulated by Hull & Associates, Inc.

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Table 11: Laboratory Analytical Data Reported for T-MW-23

Parameter	Units	7/24/2007	6/12/2008	9/22/2009	10/5/2010	9/14/2011	10/2/2012	10/2/12#	9/27/2013	9/23/2014	9/16/2015	10/17/2016	9/13/2017	9/13/17#	12/18/2018	12/18/18#	11/13/2019	11/13/19#
Metals																		
Mercury	mg/L	<0.0002	0.000072 J	0.000154 J	0.0000977 J	0.000149 J	0.000188 J	0.000179 J	<0.0002	0.000053 J	<0.0002	0.0000634 J	0.0000527 J	0.0000574 J	0.00021 J	0.00018 J	0.000096 J	0.000082 J
PCBs																		
Aroclor 1016	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001
Aroclor 1221	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0001	<0.0001
Aroclor 1232	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001
Aroclor 1242	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001
Aroclor 1248	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	0.00033	0.00034
Aroclor 1254	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	0.00017	0.00016
Aroclor 1260	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	0.00445	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	0.000098 J	0.000085 J
Pesticides																		
4,4 - DDT	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	<0.0001	<0.0001	<0.0001
Aldrin	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Heptachlor	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.00002 J	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
PAHs																		
Acenaphthene	mg/L	0.0026 J	0.0028 J	0.00259 J	0.00263 J	0.00284 J	0.00296 J	0.00294 J	0.00227 J	0.0024 J	0.00261 J	0.00259 J	0.00234 J	0.00223 J	0.002	0.0019	0.0032	0.0029
Benz(A)Anthracene	mg/L	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	0.00019 J	0.00015 J	0.00014 J	<0.0001	<0.0001	<0.0001	<0.0001
Benzo(A)Pyrene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0001
Benzo(B)Fluoranthene	mg/L	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	0.00011 J	0.00011 J	<0.0001	<0.0001	<0.0001	<0.0001
Benzo(K)Fluoranthene	mg/L	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0001	<0.0001	<0.0001	<0.0001
Chrysene	mg/L	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0005	<0.0005	<0.0005	<0.0005
Dibenz(A,H)Anthracene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000092	<0.000092	<0.0001	<0.0001
Indeno(1,2,3-Cd)pyrene	mg/L	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	0.00018 J	<0.0001	<0.0001	<0.0001	<0.0001
Naphthalene	mg/L	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00051 J	0.00035 J	0.00028 J	<0.001	<0.001	<0.001	<0.001
Pyrene	mg/L	<0.01	0.0019 J	<0.01	0.00048 J	<0.01	<0.01	<0.01	<0.01	0.00034 J	0.00025 J	0.00032 J	0.00026 J	0.00031 J	0.00018 J	0.00016 J	0.00028 J	0.00025 J
Field Parameters																		
Conductivity	umhos/cm	6170	9840	5830	5570	5480	5500	5500	5324	4700	4294	4720	4470	4470	4145	4145	3928	3928
Dissolved Oxygen	mg/L	0.1	3.56	2	0	1.5	0.13	0.13	1.41	3.22	0.78	0.79	0.38	0.38	3.46	3.46	0.04	0.04
pH	S.U.	6.7	6.9	6.81	7.23	7.08	7.11	7.11	7.49	7.14	6.06	6.8	6.96	6.96	8.06	8.06	6.76	6.76
Redox Potential	mv	-180	-149	-159	-145	-138	-112	-112	-0.7	-143	-83.1	-193	-158	-158	-41	-41	-124.6	-124.6
Temperature	° C	17.8	19.6	20.2	19.4	20.5	19.4	19.4	21.56	20.58	22.34	20.6	19.1	19.1	17.5	17.5	19.8	19.8
Turbidity	mg/L	0.09	1000	9	8	2	9	9	8.67	3	3.98	8	1	1	4.7	4.7	18.79	18.79

NOTES:
(J) Estimated value detected between the MDL and the laboratory PQL.
(#) Duplicate Sample
(--) Not analyzed
(*) No sample was collected.
Analytical data was tabulated by CEC Inc., except for data reported from July 2007 through October 2012, and October 2016 through September 2017, which was tabulated by Hull & Associates, Inc.

Table 12: Laboratory Analytical Data Reported for T-MW-25

Parameter	Units	7/24/2007	6/12/2008	9/22/2009	10/5/2010	9/14/2011	10/2/2012	9/26/2013	9/23/2014	9/16/2015	10/17/2016	9/13/2017	12/18/2018	11/13/2019
Metals														
Mercury	mg/L	<0.0002	<0.0002	0.0000738 J	0.0000494 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	<0.002
PCBs														
Aroclor 1016	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1221	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.000095
Aroclor 1232	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1242	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1248	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1254	mg/L	<0.0005	<0.0005	<0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1260	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	0.000081 J
Pesticides														
4,4 - DDT	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	<0.000095
Aldrin	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.000048
Heptachlor	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.00002 J	<0.00005	<0.00005	<0.000048
PAHs														
Acenaphthene	mg/L	0.0021 J	0.0017 J	0.00117 J	<0.01	0.00165 J	0.00218 J	0.00149 J	0.00175 J	0.00174 J	0.00179 J	0.00187 J	0.0017	0.0022
Benz(A)Anthracene	mg/L	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	0.00016 J	0.000054 J	0.00029
Benzo(A)Pyrene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0001	0.00022
Benzo(B)Fluoranthene	mg/L	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.0001	0.00025
Benzo(K)Fluoranthene	mg/L	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0001	0.00022
Chrysene	mg/L	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0005	0.00022 J
Dibenz(A,H)Anthracene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000092	0.00023
Indeno(1,2,3-Cd)pyrene	mg/L	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.0001	0.00021
Naphthalene	mg/L	<0.01	0.00036 J	<0.01	<0.01	<0.01	<0.01	<0.01	0.00031 J	<0.01	0.00035 J	0.00035 J	<0.001	<0.001
Pyrene	mg/L	0.0003 J	0.0028 J	<0.01	0.00036 J	<0.01	<0.01	<0.01	0.00035 J	0.00027 J	0.0003 J	0.00034 J	0.00029 J	0.00043 J
Field Parameters														
Conductivity	umhos/cm	8650	12800	8310	7560	7640	7930	7169	7310	6373	6770	7300	6327	6081
Dissolved Oxygen	mg/L	0.06	3.6	2.02	0.06	2.04	0.14	1.95	5.23	1.81	0.99	0.38	4.8	0.03
pH	S.U.	6.59	6.81	6.77	7.27	7.01	7.09	7.36	7.2	6	6.96	7.06	8.19	6.98
Redox Potential	mv	-179	-159	-176	-159	-147	-113	38.4	-164	-98.7	-208	-169	-67.1	-120.8
Temperature	° C	14.6	16.9	17.1	16.2	17.4	14.8	15.47	15.87	16.71	16.6	15.3	12.9	12.9
Turbidity	mg/L	13.91	84	2	23	2	6	9.97	1.1	3.88	1	4	15.4	17.17

NOTES:
(J) Estimated value detected between the MDL and the laboratory PQL.
(#) Duplicate Sample
(--) Not analyzed
(*) No sample was collected.
Analytical data was tabulated by CEC Inc., except for data reported from July 2007 through October 2012, and October 2016 through September 2017, which was tabulated by Hull & Associates, Inc.

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Table 13: Laboratory Analytical Data Reported for T-MW-27

Parameter	Units	7/24/2007	6/12/2008	9/22/2009	9/22/09#	10/5/2010	9/14/2011	10/2/2012	9/26/2013	9/23/2014	9/16/2015	10/17/2016	9/13/2017	12/18/2018	11/13/2019
Metals															
Mercury	mg/L	<0.0002	0.000092 J	0.0000358 J	0.000195 J	0.0000543 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	<0.0020
PCBs															
Aroclor 1016	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1221	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.000095
Aroclor 1232	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1242	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1248	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	0.00011
Aroclor 1254	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1260	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Pesticides															
4,4 - DDT	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	<0.000095
Aldrin	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.000048
Heptachlor	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.00002 J	<0.00005	<0.00005	<0.000048
PAHs															
Acenaphthene	mg/L	0.0023 J	0.0016 J	0.00152 J	0.00165 J	<0.01	0.00186 J	0.00276 J	0.00231 J	0.00201 J	0.00165 J	0.00242 J	0.00232 J	0.0021	0.0028
Benz(A)Anthracene	mg/L	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	0.00017 J	<0.00026	<0.00026	0.00016 J	0.000067 J	<0.0001
Benzo(A)Pyrene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.00019 J	0.00019 J	<0.0002	<0.0002	<0.0001	<0.0001
Benzo(B)Fluoranthene	mg/L	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	0.0002	0.0002	<0.00017	0.00017	<0.0001	<0.0001
Benzo(K)Fluoranthene	mg/L	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	0.00012 J	0.00009 J	<0.0017	<0.0017	<0.0001	<0.0001
Chrysene	mg/L	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00009 J	<0.01	<0.01	0.00008 J	<0.0005	<0.0005
Dibenz(A,H)Anthracene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000092	<0.0001
Indeno(1,2,3-Cd)pyrene	mg/L	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	0.00015 J	<0.00022	<0.00022	<0.00022	<0.0001	<0.0001
Naphthalene	mg/L	<0.01	0.00039 J	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00017 J	0.00013 J	<0.01	0.00012 J	<0.001	<0.001
Pyrene	mg/L	0.00031 J	0.0011 J	<0.01	<0.01	0.00158 J	<0.01	0.0009 J	<0.01	0.0004 J	0.00038 J	0.0004 J	0.00045 J	0.00031 J	0.00031 J
Field Parameters															
Conductivity	umhos/cm	7620	9350	7180	7180	6820	6640	6210	6061	6120	5539	5720	6550	4952	5248
Dissolved Oxygen	mg/L	0.02	4.51	2.34	2.34	0.02	2.08	0	1.22	2.46	3.07	0.79	0.34	1.04	0.79
pH	S.U.	6.69	6.98	6.86	6.86	7.35	7.14	7.24	7.44	7.3	7.09	7.09	7.2	7.22	7.11
Redox Potential	mv	-177	-139	-173	-173	-159	-150	-111	18	-166	-94.9	-208	-169	-118.9	10.2
Temperature	° C	13.3	14.2	13.6	13.6	13.8	16.1	13.2	13.88	14.69	13.29	14.7	12.8	13.1	12.6
Turbidity	mg/L	1	92	24	24	48	69	19	21.2	1.5	4.89	1	8	4.06	4.87

NOTES:
(J) Estimated value detected between the MDL and the laboratory PQL.
(#) Duplicate Sample
(--) Not analyzed
(*) No sample was collected.
Analytical data was tabulated by CEC Inc., except for data reported from July 2007 through October 2012, and October 2016 through September 2017, which was tabulated by Hull & Associates, Inc.

Table 14: Laboratory Analytical Data Reported for T-MW-29

Parameter	Units	7/24/2007	6/12/2008	9/22/2009	10/5/2010	9/14/2011	10/2/2012	9/26/2013	9/23/2014	9/23/14#	9/16/2015	10/17/2016	9/13/2017	12/18/2018	11/13/2019
Metals															
Mercury	mg/L	0.00016 J	0.00018 J	0.0000758 J	0.000248	0.000209	0.0000866 J	0.000154 J	0.000111 J	0.0000808 J	<0.0002	0.00008 J	0.0000536 J	<0.002	0.00013 J
PCBs															
Aroclor 1016	mg/L	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1221	mg/L	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.000095
Aroclor 1232	mg/L	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	0.0108	0.022	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1242	mg/L	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1248	mg/L	<0.0005	<0.0005	<0.0005	<0.0025	0.00261	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	0.00063
Aroclor 1254	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	0.00023
Aroclor 1260	mg/L	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	0.00015
Pesticides															
4,4 - DDT	mg/L	<0.00005	<0.00005	<0.00005	<0.00025	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	<0.000095
Aldrin	mg/L	<0.00005	<0.00005	<0.00005	<0.00025	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.000048
Heptachlor	mg/L	<0.00005	<0.00005	<0.00005	<0.00025	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.00003 J	<0.00005	<0.00005	<0.000048
PAHs															
Acenaphthene	mg/L	0.00042 J	0.0006 J	<0.01	<0.01	0.00042 J	<0.01	<0.01	0.0004 J	0.00044 J	0.00041 J	0.00051 J	0.00056 J	0.00028 J	0.00044 J
Benz(A)Anthracene	mg/L	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	0.00015 J	<0.0001	<0.00010
Benzo(A)Pyrene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0001	<0.00010
Benzo(B)Fluoranthene	mg/L	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.0001	<0.00010
Benzo(K)Fluoranthene	mg/L	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0001	<0.00010
Chrysene	mg/L	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0005	<0.00050
Dibenz(A,H)Anthracene	mg/L	0.0012	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000092	<0.00010
Indeno(1,2,3-Cd)pyrene	mg/L	0.0012	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.0001	<0.00010
Naphthalene	mg/L	0.0078 J	<0.010	0.00671 J	0.00079 J	0.00543 J	0.00674 J	0.0114	0.00867 J	0.01	0.00844 J	0.00913 J	0.00836 J	0.0063	0.0096
Pyrene	mg/L	0.00033 J	<0.010	<0.01	0.00068 J	<0.01	<0.01	<0.01	0.00012 J	0.00019 J	0.00016 J	0.00023 J	0.00021 J	0.000088 J	0.00016 J
Field Parameters															
Conductivity	umhos/cm	11100	10700	9240	8560	7900	7970	6996	7050	7050	6289	6710	7730	6020	6655
Dissolved Oxygen	mg/L	0.03	4.37	2.03	0	2.12	0	1.4	4.24	4.24	1.15	1.12	0.31	0.31	0.08
pH	S.U.	6.82	6.99	6.97	7.46	7.3	7.35	7.53	7.35	7.35	7.02	7.22	7.35	7.33	7.17
Redox Potential	mv	-208	-173	-193	-184	-190	-149	-7.9	-195	-195	-135.8	-228	-194	-134.7	-111.2
Temperature	° C	14.7	14.6	14.3	14.1	14.2	13.5	14.2	14.11	14.11	13.31	15.1	13.6	12.7	12.8
Turbidity	mg/L	121	110	56	122	85	273	186	38.1	38.1	21.9	10	1	15.76	68.36

NOTES:
(J) Estimated value detected between the MDL and the laboratory PQL.
(#) Duplicate Sample
(--) Not analyzed
(*) No sample was collected.
Analytical data was tabulated by CEC Inc., except for data reported from July 2007 through October 2012, and October 2016 through September 2017, which was tabulated by Hull & Associates, Inc.

Table 15: Laboratory Analytical Data Reported for T-MW-31

Parameter	Units	7/24/2007	6/12/2008	9/22/2009	10/5/2010	9/14/2011	10/2/2012	9/26/2013	9/23/2014	9/16/2015	10/17/2016	9/13/2017	12/18/2018	11/13/2019
Metals														
Mercury	mg/L	0.00012 J	0.00008 J	0.0000652 J	0.000115 J	0.0000952 J	0.0000476 J	<0.0002	0.0000152 J	<0.0002	0.0000625 J	<0.0002	<0.002	0.000083 J
PCBs														
Aroclor 1016	mg/L	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1221	mg/L	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.000095
Aroclor 1232	mg/L	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1242	mg/L	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1248	mg/L	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	0.00025
Aroclor 1254	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	0.00011
Aroclor 1260	mg/L	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Pesticides														
4,4 - DDT	mg/L	<0.00005	<0.00005	<0.00005	<0.00025	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	<0.000095
Aldrin	mg/L	<0.00005	<0.00005	<0.00005	<0.00025	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.000048
Heptachlor	mg/L	<0.00005	<0.00005	<0.00005	<0.00025	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.00002 J	<0.00005	<0.00005	<0.000048
PAHs														
Acenaphthene	mg/L	0.00042 J	0.00063 J	<0.01	<0.01	<0.01	<0.01	<0.01	0.00029 J	0.00011 J	0.00039 J	0.00038 J	0.00024 J	0.00044 J
Benz(A)Anthracene	mg/L	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	0.00013 J	<0.0001	<0.00010
Benzo(A)Pyrene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0001	<0.00010
Benzo(B)Fluoranthene	mg/L	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.0001	<0.00010
Benzo(K)Fluoranthene	mg/L	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0001	<0.00010
Chrysene	mg/L	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0005	<0.00050
Dibenz(A,H)Anthracene	mg/L	0.0014	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000092	<0.00010
Indeno(1,2,3-Cd)pyrene	mg/L	0.0011	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.0001	<0.00010
Naphthalene	mg/L	0.00041 J	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	0.00043 J	0.00036 J	0.00032 J	0.00039 J	0.00031 J	<0.0010
Pyrene	mg/L	0.00016 J	0.0013 J	<0.01	0.00059 J	<0.01	<0.01	<0.01	0.0001 J	<0.01	0.00026 J	0.00028 J	0.000075 J	0.00015 J
Field Parameters														
Conductivity	umhos/cm	4490	5000	4720	4360	4240	4690	4208	4220	3488	3690	4080	3023	3648
Dissolved Oxygen	mg/L	0.71	5.84	2.04	0	2.09	0	1.86	7.98	2.88	0.78	0.61	1.09	0.89
pH	S.U.	6.41	6.65	6.57	7.03	6.81	6.95	7.26	6.96	6.99	6.75	6.88	6.85	6.75
Redox Potential	mv	-138	-114	-134	-119	-118	-84	18.8	-148	-52.6	-165	-127	-62.4	21.7
Temperature	° C	12.7	12.8	13.3	13.6	14.9	13.4	14.86	13.32	12.66	14.5	13	12.9	12.4
Turbidity	mg/L	25	18	23	75	19	25	5.08	2.7	3.98	8	4	19.7	25.42

NOTES:
(J) Estimated value detected between the MDL and the laboratory PQL.
(#) Duplicate Sample
(--) Not analyzed
(*) No sample was collected.
Analytical data was tabulated by CEC Inc., except for data reported from July 2007 through October 2012, and October 2016 through September 2017, which was tabulated by Hull & Associates, Inc.

CITY OF TOLEDO
TYLER STREET LANDFILL

Table 16: Laboratory Analytical Data Reported for T-MW-33

Parameter	Units	7/24/2007	6/12/2008	9/22/2009	10/5/2010	9/14/2011	10/2/2012	9/26/2013	9/26/2013	9/23/2014	9/16/2015	10/17/2016	9/13/2017	12/18/2018	11/13/2019
Metals															
Mercury	mg/L	<0.0002	0.000093 J	0.000046 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0000675 J	0.00029 J	0.0010 J
PCBs															
Aroclor 1016	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1221	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.000095
Aroclor 1232	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	<0.000095
Aroclor 1242	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.00034	<0.000095
Aroclor 1248	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	0.0030
Aroclor 1254	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	0.0019
Aroclor 1260	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0001	0.00044
Pesticides															
4,4 - DDT	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.0001	<0.000095
Aldrin	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.000048
Heptachlor	mg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.00002 J	<0.00005	<0.00005	<0.000048
PAHs															
Acenaphthene	mg/L	<0.01	0.00027 J	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00018 J	<0.01	<0.01	0.00022 J	0.00012 J	0.00021 J
Benz(A)Anthracene	mg/L	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	<0.00026	0.00012 J	<0.0001	<0.00010
Benzo(A)Pyrene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0001	<0.00010
Benzo(B)Fluoranthene	mg/L	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	<0.00017	0.0001 J	<0.0001	<0.00010
Benzo(K)Fluoranthene	mg/L	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0001	<0.00010
Chrysene	mg/L	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0005	<0.00050
Dibenz(A,H)Anthracene	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.000092	<0.00010
Indeno(1,2,3-Cd)pyrene	mg/L	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	0.00018 J	<0.0001	<0.00010
Naphthalene	mg/L	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0001 J	0.00012 J	<0.01	0.00015 J	<0.001	<0.0010
Pyrene	mg/L	<0.01	0.00056 J	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00007 J	<0.001	<0.0010
Field Parameters															
Conductivity	umhos/cm	5780	8720	5880	5480	5170	5420	5797	5797	5840	4409	4880	5520	4122	4647
Dissolved Oxygen	mg/L	0.29	3.2	1.38	0.14	1.27	0	3.14	3.14	2.62	0.78	0.77	0.29	6.3	0.01
pH	S.U.	6.55	6.83	6.73	7.15	6.99	7.03	7.18	7.18	7.11	6.88	6.85	7	6.97	6.76
Redox Potential	mv	-167	-152	-161	-156	-152	-116	-17.4	-17.4	-200	-149.3	-201	-168	68.7	-107.2
Temperature	° C	21.2	17.6	19.4	21.8	21.5	21.1	22.84	22.84	21.39	21.06	23.2	20.2	15.9	20.6
Turbidity	mg/L	2	28	9	46	5	10	17.7	17.7	1.2	11.97	23	8	47.5	91.05

NOTES:
(J) Estimated value detected between the MDL and the laboratory PQL.
(#) Duplicate Sample
(--) Not analyzed
(*) No sample was collected.
Analytical data was tabulated by CEC Inc., except for data reported from July 2007 through October 2012, and October 2016 through September 2017, which was tabulated by Hull & Associates, Inc.

Table 17: Laboratory Analytical Data Reported for T-MW-35

Parameter	Units	7/24/2007	6/12/2008	9/22/2009	10/5/2010	9/14/2011	10/2/2012	9/26/2013	9/23/2014	9/16/2015	10/17/2016	9/13/2017	12/18/2018	11/13/2019
Metals														
Mercury	mg/L	<0.0002	0.00035	*	*	*	*	*	*	*	*	*	*	*
PCBs														
Aroclor 1016	mg/L	<0.0005	<0.0005	*	*	*	*	*	*	*	*	*	*	*
Aroclor 1221	mg/L	<0.0005	<0.0005	*	*	*	*	*	*	*	*	*	*	*
Aroclor 1232	mg/L	<0.0005	<0.0005	*	*	*	*	*	*	*	*	*	*	*
Aroclor 1242	mg/L	<0.0005	<0.0005	*	*	*	*	*	*	*	*	*	*	*
Aroclor 1248	mg/L	<0.0005	<0.0005	*	*	*	*	*	*	*	*	*	*	*
Aroclor 1254	mg/L	<0.0005	<0.0005	*	*	*	*	*	*	*	*	*	*	*
Aroclor 1260	mg/L	<0.0005	<0.0005	*	*	*	*	*	*	*	*	*	*	*
Pesticides														
4,4 - DDT	mg/L	<0.00005	<0.00005	*	*	*	*	*	*	*	*	*	*	*
Aldrin	mg/L	<0.00005	<0.00005	*	*	*	*	*	*	*	*	*	*	*
Heptachlor	mg/L	<0.00005	<0.00005	*	*	*	*	*	*	*	*	*	*	*
PAHs														
Acenaphthene	mg/L	<0.01	<0.010	*	*	*	*	*	*	*	*	*	*	*
Benz(A)Anthracene	mg/L	<0.00026	<0.00026	*	*	*	*	*	*	*	*	*	*	*
Benzo(A)Pyrene	mg/L	<0.0002	<0.0002	*	*	*	*	*	*	*	*	*	*	*
Benzo(B)Fluoranthene	mg/L	<0.00017	<0.00017	*	*	*	*	*	*	*	*	*	*	*
Benzo(K)Fluoranthene	mg/L	<0.0017	<0.0017	*	*	*	*	*	*	*	*	*	*	*
Chrysene	mg/L	<0.01	<0.010	*	*	*	*	*	*	*	*	*	*	*
Dibenz(A,H)Anthracene	mg/L	<0.0002	<0.0002	*	*	*	*	*	*	*	*	*	*	*
Indeno(1,2,3-Cd)pyrene	mg/L	<0.00022	<0.00022	*	*	*	*	*	*	*	*	*	*	*
Naphthalene	mg/L	<0.01	<0.010	*	*	*	*	*	*	*	*	*	*	*
Pyrene	mg/L	<0.01	0.001 J	*	*	*	*	*	*	*	*	*	*	*
Field Parameters														
Conductivity	umhos/cm	3330	7610	*	*	*	*	*	*	*	*	*	*	*
Dissolved Oxygen	mg/L	0.04	3.79	*	*	*	*	*	*	*	*	*	*	*
pH	S.U.	6.56	6.98	*	*	*	*	*	*	*	*	*	*	*
Redox Potential	mv	-202	-172	*	*	*	*	*	*	*	*	*	*	*
Temperature	° C	15.2	16.8	*	*	*	*	*	*	*	*	*	*	*
Turbidity	mg/L	2	1000	*	*	*	*	*	*	*	*	*	*	*

NOTES:
(J) Estimated value detected between the MDL and the laboratory PQL.
(#) Duplicate Sample
(--) Not analyzed
(*) No sample was collected.
Analytical data was tabulated by Hull & Associates, Inc.

APPENDIX A
FIELD EQUIPMENT CALIBRATION RECORD AND FIELD DATA SHEETS – STICKNEY AVENUE LANDFILL

GROUNDWATER MONITORING WELL FIELD DATA SHEET

MONITORING POINT: S-MW-21LP
DETECTION:
ASSESSMENT:

FACILITY INFORMATION

NAME: Stickney Ave. Landfill
ADDRESS: Stickney Ave.
CONTACT: Scott Lockhart/Ryan Murphy
PROJECT NUMBER: 185-376
TELEPHONE: (419) 936-2640

MONITORING WELL DATA

COORDINATES: N/A N
N/A E
GROUND SURFACE ELEVATION: N/A
TOTAL DEPTH (FROM GROUND SURFACE): N/A
SCREENED INTERVAL (INCLUDING SAND PACK): N/A
SCREENED FORMATION: N/A
CONDITION OF WELL: Good
No Evidence of Tampering
CASING MATERIAL/DIAMETER: 4" PVC
TOP OF CASING ELEVATION: N/A
TOTAL DEPTH (FROM TOP OF CASING): N/A
SCREENED DEPTH (SCREEN ONLY): N/A

WEATHER CONDITIONS

WEATHER: Partly Cloudy
BAROMETRIC PRESSURE: 30.43" Hg
WIND DIRECTION: 5-10mph E
TEMPERATURE (°F): 25°F

FIELD MEASURED PARAMETERS

PERSONNEL PRESENT: Mike Cline / John Dilworth
MEASURED TOTAL DEPTH (FROM TOC): —
VOLUME OF STATIC WATER: —
STATIC WATER LEVEL (FROM TOC): 9.24
GROUNDWATER ELEVATION: —

PURGING DATA

DATE OF PURGING: 11/12/19
PURGING METHOD: Low Flow / QED Bladder Pump
PURGING RATE: 500 mL/min
TIME OF PURGING: 1422
VOLUME PURGED: 4,500 mL

LOW FLOW READINGS

	Initital	1	2	3	4	5	6/Final
Time	1422	1425	1428	1431			1431
pH	6.69	6.73	6.73	6.73			6.73
Temp. °C	12.1	12.4	12.4	12.4			12.4
Spc.Cond. uS/cm	2567	2990	2987	2989			2989
Redox Pot. mV	88.7	43.1	-2.8	-17.9			-17.9
D.O. mg/L	1.13	0.88	0.42	0.31			0.31
Turbidity NTU	13.41	15.29	15.18	15.20			15.20
Water Level*	9.24	9.68	9.68	9.68			9.68

* measurement from top of casing

VOLUME TO PURGE CALCULATION TABLE

Well casing Diameter (in.)	Gallons Per Foot of Depth	Feet of Standing Water	3 Well Volumes	Total Volume to Purge (Gal.)
1	0.041	x	x 3	
2	0.163	x	x 3	
4	0.653	x	x 3	
6	1.469	x	x 3	

SAMPLING DATA

DATE/TIME OF SAMPLING: 11/12/19 1435
SAMPLING METHOD: Low Flow / QED Bladder Pump
SAMPLING RATE (IF USING DEDICATED PUMP): 100 mL/min
STATIC WATER LEVEL (AFTER SAMPLING): 9.68

NOTES

- 4 cpm 7.5/7.5 @30 psi = 500 mL/min
- air line adaptor used to operate pump

EXPLOSIVE GAS READING PRIOR TO STATIC WATER LEVEL: %CH4: 0.0 %LEL: 0.0

GROUNDWATER MONITORING WELL FIELD DATA SHEET

MONITORING POINT: S-MW-24LP
DETECTION:
ASSESSMENT:

FACILITY INFORMATION

NAME: Stickney Ave. Landfill
ADDRESS: Stickney Ave.
CONTACT: Scott Lockhart/Ryan Murphy
PROJECT NUMBER: 185-376
TELEPHONE: (419) 936-2640

MONITORING WELL DATA

COORDINATES: N/A N
N/A E
GROUND SURFACE ELEVATION: N/A
TOTAL DEPTH (FROM GROUND SURFACE): 14.15
SCREENED INTERVAL (INCLUDING SAND PACK): N/A
SCREENED FORMATION: N/A
CONDITION OF WELL: good
Water bailed from annulus, no evidence of tampering
CASING MATERIAL/DIAMETER: 4" PVC
TOP OF CASING ELEVATION: N/A
TOTAL DEPTH (FROM TOP OF CASING): N/A
SCREENED DEPTH (SCREEN ONLY): N/A

WEATHER CONDITIONS

WEATHER: ~~partly~~ 20 Sunny
BAROMETRIC PRESSURE: 30.35 "Hg
WIND DIRECTION: WNW 12 mph
TEMPERATURE (°F): 23°F

FIELD MEASURED PARAMETERS

PERSONNEL PRESENT: John Dilworth, Mike Cline
MEASURED TOTAL DEPTH (FROM TOC): –
VOLUME OF STATIC WATER: –
STATIC WATER LEVEL (FROM TOC): 5.90
GROUNDWATER ELEVATION: –

PURGING DATA

DATE OF PURGING: 11-12-19
PURGING METHOD: Low Flow / Peristaltic Pump
PURGING RATE: 400mL/min
TIME OF PURGING: 1331
VOLUME PURGED: 4,800 mL

LOW FLOW READINGS

	Initial	1	2	3	4	5	6/Final
Time	1331	1334	1337	1340	1343		1343
pH	6.36	6.40	6.40	6.36	6.39		6.39
Temp. °C	12.9	13.6	14.1	14.2	14.2		14.2
Spc.Cond. us/cm	5707	5684	5628	5605	5614		5614
Redox Pot. mV	-130.8	-140.6	-144.0	-141.6	-136.8		-136.8
D.O. mg/L	1.12	0.36	0.17	0.14	0.10		0.10
Turbidity NTU	36.65	46.70	40.99	54.23	51.39		51.39
Water Level*	5.90	6.11	6.81	6.81	6.81		6.81

* measurement from top of casing

VOLUME TO PURGE CALCULATION TABLE

Well casing Diameter (in.)	Gallons Per Foot of Depth	Feet of Standing Water	3 Well Volumes	Total Volume to Purge (Gal.)
1	0.041	x	x 3	
2	0.163	x	x 3	
4	0.653	x	x 3	
6	1.469	x	x 3	

SAMPLING DATA

DATE/TIME OF SAMPLING: 11-12-19 / 1348
SAMPLING METHOD: Low Flow / Peristaltic Pump
SAMPLING RATE (IF USING DEDICATED PUMP): 100mL/min
STATIC WATER LEVEL (AFTER SAMPLING): 6.81

NOTES

Dedicated pump removed prior to event, used peristaltic pump.

EXPLOSIVE GAS READING PRIOR TO STATIC WATER LEVEL: %CH4: 45.0 %LEL: >100

GROUNDWATER MONITORING WELL FIELD DATA SHEET

MONITORING POINT: S-MW-27LP
DETECTION:
ASSESSMENT:

FACILITY INFORMATION

NAME: Stickney Ave. Landfill
ADDRESS: Stickney Ave.
CONTACT: Scott Lockhart/Ryan Murphy
PROJECT NUMBER: 185-376
TELEPHONE: (419) 936-2640

MONITORING WELL DATA

COORDINATES: N/A N
N/A E
CONDITION OF WELL: Good
No Evidence of tampering
GROUND SURFACE ELEVATION: N/A
CASING MATERIAL/DIAMETER: 4" PVC
TOTAL DEPTH (FROM GROUND SURFACE): N/A
TOP OF CASING ELEVATION: N/A
SCREENED INTERVAL (INCLUDING SAND PACK): N/A
TOTAL DEPTH (FROM TOP OF CASING): N/A
SCREENED FORMATION: N/A
SCREENED DEPTH (SCREEN ONLY): N/A

WEATHER CONDITIONS

WEATHER: Partly Cloudy
WIND DIRECTION: 0-5 mph E
BAROMETRIC PRESSURE: 30.43" Hg
TEMPERATURE (°F): 25°F

FIELD MEASURED PARAMETERS

PERSONNEL PRESENT: Mike Cline / John Dilworth
MEASURED TOTAL DEPTH (FROM TOC): —
STATIC WATER LEVEL (FROM TOC): 11.14
VOLUME OF STATIC WATER: —
GROUNDWATER ELEVATION: —

PURGING DATA

DATE OF PURGING: 11/12/19
PURGING METHOD: Low Flow / QED Bladder Pump
TIME OF PURGING: 1353
PURGING RATE: 500 mL/min
VOLUME PURGED: 6,000 mL

LOW FLOW READINGS

	Initial	1	2	3	4	5	6/Final
Time	1353	1356	1359	1402	1405		1405
pH	6.70	6.64	6.65	6.65	6.65		6.65
Temp. °C	11.4	11.8	11.8	11.8	11.8		11.8
Spc.Cond. uS/cm	3318	3324	3588	3567	3565		3565
Redox Pot. mV	82.9	73.2	41.8	-6.3	-27.4		-27.4
D.O. mg/L	3.18	3.46	3.72	3.38	3.21		3.21
Turbidity NTU	5.45	4.81	4.73	4.68	4.69		4.69
Water Level*	11.14	11.21	11.21	11.21	11.21		11.21

* measurement from top of casing

VOLUME TO PURGE CALCULATION TABLE

Well casing Diameter (in.)	Gallons Per Foot of Depth	Feet of Standing Water	3 Well Volumes	Total Volume to Purge (Gal.)
1	0.041	x	x 3	
2	0.163	x	x 3	
4	0.653	x	x 3	
6	1.469	x	x 3	

SAMPLING DATA

DATE/TIME OF SAMPLING: 11/12/19 1409
SAMPLING RATE (IF USING DEDICATED PUMP): 100 mL/min
SAMPLING METHOD: Low Flow / QED Bladder Pump
STATIC WATER LEVEL (AFTER SAMPLING): 11.21

NOTES

- 4 cpm 7.5/7.5 @ 30 psi = 500 mL/min
- Airline adaptor used to operate pump

EXPLOSIVE GAS READING PRIOR TO STATIC WATER LEVEL: %CH4: 0.0 %LEL: 0.0

GROUNDWATER MONITORING WELL FIELD DATA SHEET

MONITORING POINT: S-MW-30LP
DETECTION:
ASSESSMENT:

FACILITY INFORMATION

NAME: Stickney Ave. Landfill
ADDRESS: Stickney Ave.
CONTACT: Scott Lockhart/Ryan Murphy
PROJECT NUMBER: 185-376
TELEPHONE: (419) 936-2640

MONITORING WELL DATA

COORDINATES: N/A N
N/A E
CONDITION OF WELL: good
no evidence of tampering
GROUND SURFACE ELEVATION: N/A
TOTAL DEPTH (FROM GROUND SURFACE): 14.3
SCREENED INTERVAL (INCLUDING SAND PACK): N/A
SCREENED FORMATION: N/A
CASING MATERIAL/DIAMETER: 4" PVC
TOP OF CASING ELEVATION: N/A
TOTAL DEPTH (FROM TOP OF CASING): N/A
SCREENED DEPTH (SCREEN ONLY): N/A

WEATHER CONDITIONS

WEATHER: Sunny
BAROMETRIC PRESSURE: 30.35 "Hg
WIND DIRECTION: WNW 12 mph
TEMPERATURE (°F): 25

FIELD MEASURED PARAMETERS

PERSONNEL PRESENT: John Dilworth, Mike Cline
MEASURED TOTAL DEPTH (FROM TOC): –
VOLUME OF STATIC WATER: –
STATIC WATER LEVEL (FROM TOC): 7.63
GROUNDWATER ELEVATION: –

PURGING DATA

DATE OF PURGING: 11-12-19
PURGING METHOD: 2D Low Flow / Peristaltic Pump
PURGING RATE: 300 mL/min
TIME OF PURGING: 1433
VOLUME PURGED: 3,600 mL

LOW FLOW READINGS

	Initial	1	2	3	4	5	6/Final
Time	1433	1436	1439	1442	1445	–	1445
pH	6.73	6.58	6.57	6.57	6.56	–	6.56
Temp. °C	14.1	14.3	14.3	14.3	14.3	–	14.3
Spc.Cond. uS/cm	5058	5061	5048	5046	5044	–	5044
Redox Pot. mV	-96.5	-111.8	-114.6	-120.8	-124.2	–	-124.2
D.O. mg/L	0.41	0.09	0.03	0.02	0.01	–	0.01
Turbidity NTU	133.34	70.61	136.95	136.14	98.6	–	98.6
Water Level*	7.63	7.81	7.81	7.81	7.81	–	7.81

* measurement from top of casing

VOLUME TO PURGE CALCULATION TABLE

Well casing Diameter (in.)	Gallons Per Foot of Depth	Feet of Standing Water	3 Well Volumes	Total Volume to Purge (Gal.)
1	0.041	x	x 3	
2	0.163	x	x 3	
4	0.653	x	x 3	
6	1.469	x	x 3	

SAMPLING DATA

DATE/TIME OF SAMPLING: 11-12-19 / 1449
SAMPLING METHOD: Low Flow / Peristaltic Pump
SAMPLING RATE (IF USING DEDICATED PUMP): 100 mL/min
STATIC WATER LEVEL (AFTER SAMPLING): 7.81

NOTES

EXPLOSIVE GAS READING PRIOR TO STATIC WATER LEVEL: %CH4: 0.0 %LEL: 0

GROUNDWATER MONITORING WELL FIELD DATA SHEET

MONITORING POINT: S-MW-33LP
DETECTION:
ASSESSMENT:

FACILITY INFORMATION

NAME: Stickney Ave. Landfill
PROJECT NUMBER: 185-376
ADDRESS: Stickney Ave.
TELEPHONE: (419) 936-2640
CONTACT: Scott Lockhart/Ryan Murphy

MONITORING WELL DATA

COORDINATES: N/A N
N/A E
CONDITION OF WELL: Good
No Evidence of Tampering
GROUND SURFACE ELEVATION: N/A
CASING MATERIAL/DIAMETER: 4" PVC
TOTAL DEPTH (FROM GROUND SURFACE): N/A
TOP OF CASING ELEVATION: N/A
SCREENED INTERVAL (INCLUDING SAND PACK): N/A
TOTAL DEPTH (FROM TOP OF CASING): N/A
SCREENED FORMATION: N/A
SCREENED DEPTH (SCREEN ONLY): N/A

WEATHER CONDITIONS

WEATHER: Partly Cloudy
WIND DIRECTION: 0-5 mph N-NE
BAROMETRIC PRESSURE: 30.43" Hg
TEMPERATURE (°F): 24

FIELD MEASURED PARAMETERS

PERSONNEL PRESENT: Mike Cline / John Dilworth
MEASURED TOTAL DEPTH (FROM TOC): —
STATIC WATER LEVEL (FROM TOC): 11.27
VOLUME OF STATIC WATER: —
GROUNDWATER ELEVATION: —

PURGING DATA

DATE OF PURGING: 11/12/19
PURGING METHOD: Low Flow / QED Bladder Pump
TIME OF PURGING: 1250
PURGING RATE: 400 mL/min
VOLUME PURGED: 3,600 mL

LOW FLOW READINGS

	Initial	1	2	3	4	5	6/Final
Time	1250	1253	1256	1259			1259
pH	6.76	6.74	6.74	6.74			6.74
Temp. °C	17.7	18.1	18.3	18.3			18.3
Spc.Cond. uS/cm	4634	4644	4651	4650			4658
Redox Pot. mV	91.4	-33.0	-52.6	-61.2			-61.2
D.O. mg/L	2.03	1.21	1.15	1.14			1.14
Turbidity NTU	23.43	25.42	22.18	22.03			22.03
Water Level*	11.27	11.38	11.38	11.38			11.38

* measurement from top of casing

VOLUME TO PURGE CALCULATION TABLE

Well casing Diameter (in.)	Gallons Per Foot of Depth	Feet of Standing Water	3 Well Volumes	Total Volume to Purge (Gal.)
1	0.041	x	x 3	
2	0.163	x	x 3	
4	0.653	x	x 3	
6	1.469	x	x 3	

SAMPLING DATA

DATE/TIME OF SAMPLING: 11/12/19 1304
SAMPLING RATE (IF USING DEDICATED PUMP): 100 ml/min
SAMPLING METHOD: Low Flow / QED Bladder Pump
STATIC WATER LEVEL (AFTER SAMPLING): 11.38

NOTES

- 4 cpm 7.5/7.5 @ 30 psi = 400 mL/min
- Air line adaptor used to operate pump
- MS/MSD collected here @1319
- DUP collected here @ —
- Field Blank Collected @ 1330 1325

EXPLOSIVE GAS READING PRIOR TO STATIC WATER LEVEL: %CH4: 0.0 %LEL: 0.0

GROUNDWATER MONITORING WELL FIELD DATA SHEET

MONITORING POINT: S-MW-35LP
DETECTION:
ASSESSMENT:

FACILITY INFORMATION

NAME: Stickney Ave. Landfill
ADDRESS: Stickney Ave.
CONTACT: Scott Lockhart/Ryan Murphy
PROJECT NUMBER: 185-376
TELEPHONE: (419) 936-2640

MONITORING WELL DATA

COORDINATES: N/A N
N/A E
GROUND SURFACE ELEVATION: N/A
TOTAL DEPTH (FROM GROUND SURFACE): N/A
SCREENED INTERVAL (INCLUDING SAND PACK): N/A
SCREENED FORMATION: N/A

CONDITION OF WELL: Good
No Evidence of Tampering
CASING MATERIAL/DIAMETER: 4" PVC
TOP OF CASING ELEVATION: N/A
TOTAL DEPTH (FROM TOP OF CASING): N/A
SCREENED DEPTH (SCREEN ONLY): N/A

WEATHER CONDITIONS

WEATHER: Sunny, Calm Wind
BAROMETRIC PRESSURE: 30.43 "Hg

WIND DIRECTION: Calm - N/A
TEMPERATURE (°F): 19

FIELD MEASURED PARAMETERS

PERSONNEL PRESENT: Mike Cline / John Dilworth
MEASURED TOTAL DEPTH (FROM TOC): —
VOLUME OF STATIC WATER: —

STATIC WATER LEVEL (FROM TOC): 20.14
GROUNDWATER ELEVATION: —

PURGING DATA

DATE OF PURGING: 11/12/19
PURGING METHOD: Low Flow / QED Bladder Pump
PURGING RATE: 350 mL/min

TIME OF PURGING: 0955
VOLUME PURGED: 4,200 mL

LOW FLOW READINGS

	Initial	1	2	3	4	5	6/Final
Time	0955	0958	1003	1004	1007		1007
pH	6.84	6.78	6.79	6.79	6.79		6.79
Temp. °C	11.3	12.0	12.3	12.2	12.2		12.2
Spc.Cond. uS/cm	3443	3456	3390	3378	3375		3375
Redox Pot. mV	213.7	73.8	-30.8	-37.2	-42.1		-42.1
D.O. mg/L	3.17	2.98	2.92	2.88	2.77		2.77
Turbidity NTU	28.98	27.34	26.38	26.10	26.28		26.28
Water Level*	20.14	20.36	20.36	20.36	20.36		20.36

* measurement from top of casing

VOLUME TO PURGE CALCULATION TABLE

Well casing Diameter (in.)	Gallons Per Foot of Depth	Feet of Standing Water	3 Well Volumes	Total Volume to Purge (Gal.)
1	0.041	x	x 3	
2	0.163	x	x 3	
4	0.653	x	x 3	
6	1.469	x	x 3	

SAMPLING DATA

DATE/TIME OF SAMPLING: 11/12/19 1011
SAMPLING METHOD: Low Flow / QED Bladder Pump

SAMPLING RATE (IF USING DEDICATED PUMP): 100 mL/min
STATIC WATER LEVEL (AFTER SAMPLING): 20.36

NOTES

4 cpm 7.5/7.5 @ 30 psi = 350 mL/min
Airline adaptor used to operate pump

EXPLOSIVE GAS READING PRIOR TO STATIC WATER LEVEL: %CH4: 0.0 %LEL: 0.0

GROUNDWATER MONITORING WELL FIELD DATA SHEET

MONITORING POINT: S-MW-37LP
DETECTION:
ASSESSMENT:

FACILITY INFORMATION

NAME: Stickney Ave. Landfill
ADDRESS: Stickney Ave.
CONTACT: Scott Lockhart/Ryan Murphy
PROJECT NUMBER: 185-376
TELEPHONE: (419) 936-2640

MONITORING WELL DATA

COORDINATES: N/A N, N/A E
CONDITION OF WELL: Good No Evidence of Tampering
GROUND SURFACE ELEVATION: N/A
CASING MATERIAL/DIAMETER: 4" PVC
TOTAL DEPTH (FROM GROUND SURFACE): 12.98
TOP OF CASING ELEVATION: N/A
SCREENED INTERVAL (INCLUDING SAND PACK): N/A
TOTAL DEPTH (FROM TOP OF CASING): N/A
SCREENED FORMATION: N/A
SCREENED DEPTH (SCREEN ONLY): N/A

WEATHER CONDITIONS

WEATHER: Partly Cloudy
WIND DIRECTION: 0-10 mph N-NW
BAROMETRIC PRESSURE: 30.35" Hg
TEMPERATURE (°F): 23

FIELD MEASURED PARAMETERS

PERSONNEL PRESENT: M. Cline, J. Dillworth
MEASURED TOTAL DEPTH (FROM TOC): 12.98
STATIC WATER LEVEL (FROM TOC): ~~10.94~~ 20 4.71
VOLUME OF STATIC WATER: 8.27 x 0.653 = 5.40 gal.
GROUNDWATER ELEVATION: —

PURGING DATA

DATE OF PURGING: 11/12/19
PURGING METHOD: Low Flow / Peristaltic Pump
TIME OF PURGING: 1652
PURGING RATE: 400 mL/min
VOLUME PURGED: 7,200 mL

LOW FLOW READINGS

	Initital	1	2	3	4	5	6/Final
Time	1652	1655	1658	1701	1704	1707	1710
pH	7.10	6.98	6.95	6.95	6.94	6.94	6.95
Temp. °C	12.5	11.4	11.2	10.8	10.7	10.7	10.7
Spc.Cond. uS/cm	6200	3419	3088	4290	5881	5890	5892
Redox Pot. mV	-90.1	-120.2	-131.1	-140.0	-145.1	-148.2	-147.1
D.O. mg/L	0.81	0.75	0.68	0.21	0.28	0.23	0.23
Turbidity NTU	70.23	78.22	60.13	112.12	140.9	110.8	112.3
Water Level*	4.71	4.89	5.01	5.01	5.01	5.01	5.01

* measurement from top of casing

VOLUME TO PURGE CALCULATION TABLE

Well casing Diameter (in.)	Gallons Per Foot of Depth	Feet of Standing Water	3 Well Volumes	Total Volume to Purge (Gal.)
1	0.041	x	x 3	
2	0.163	x	x 3	
4	0.653	x	x 3	
6	1.469	x	x 3	

SAMPLING DATA

DATE/TIME OF SAMPLING: 11/12/19 1710
SAMPLING RATE (IF USING DEDICATED PUMP): 100 mL/min
SAMPLING METHOD: Low Flow / Peristaltic Pump
STATIC WATER LEVEL (AFTER SAMPLING): 5.01

NOTES

· VOA's sampled via Bailer

EXPLOSIVE GAS READING PRIOR TO STATIC WATER LEVEL: %CH4: 0.0 %LEL: 0

Calibration Record

Site: Stickney Landfill

	1	2	3	4	5	6
Instrument	YSI ProDSS	YSI ProPlus	LaMotte 2020			
Date:	11-12-19	11-12-19	11-12-19			
Time:	0915	0915	0915			
pH 4:	4.00	4.00	—			
pH 7:	7.01	7.00	—			
pH 10:	10.02	10.02	—			
Cond. 1413:	1413	1415	—			
Turb. (0.0/~~10.0~~ 20.0/100)	0.1/19.9/100.1	—	0.1/20.2/100.0			
ORP	239.9	240.1	—			
DO	99.2	99.0	—			

Notes:

Landtec GEM 5000

Cal. Date/Time: 11-12-19 0920

Cal. Standard: 4% O_2, 15% CH_4, 15% CO_2

GROUNDWATER MONITORING WELL FIELD DATA SHEET

MONITORING POINT: S-MW-36LP
DETECTION:
ASSESSMENT:

FACILITY INFORMATION

NAME: Stickney Ave. Landfill
PROJECT NUMBER: 185-376
ADDRESS: Stickney Ave.
TELEPHONE: (419) 936-2640
CONTACT: Scott Lockhart/Ryan Murphy

MONITORING WELL DATA

COORDINATES: N/A N
N/A E
CONDITION OF WELL: Good
No Evidence of Tampering
GROUND SURFACE ELEVATION: N/A
CASING MATERIAL/DIAMETER: 4" PVC
TOTAL DEPTH (FROM GROUND SURFACE): 20.81
TOP OF CASING ELEVATION: N/A
SCREENED INTERVAL (INCLUDING SAND PACK): N/A
TOTAL DEPTH (FROM TOP OF CASING): N/A
SCREENED FORMATION: N/A
SCREENED DEPTH (SCREEN ONLY): N/A

WEATHER CONDITIONS

WEATHER: Sunny
WIND DIRECTION: 5-10 mph E-NE
BAROMETRIC PRESSURE: 29.72 "Hg
TEMPERATURE (°F): 46

FIELD MEASURED PARAMETERS

PERSONNEL PRESENT: M. Cline, J. Dilworth
MEASURED TOTAL DEPTH (FROM TOC): 20.81
STATIC WATER LEVEL (FROM TOC): 16.72
VOLUME OF STATIC WATER: 4.09 x 0.653 = 2.67 gal.
GROUNDWATER ELEVATION: —

PURGING DATA

DATE OF PURGING: 11/25/19
PURGING METHOD: Low Flow / Peristaltic Pump
TIME OF PURGING: 1145
PURGING RATE: 400 mL/min
VOLUME PURGED: 6,000 mL

LOW FLOW READINGS

	Initital	1	2	3	4	5	6/Final
Time	1145	1148	1151	1154	1157	1200	1200
pH	6.65	6.58	6.61	6.63	6.65	6.68	6.68
Temp. °C	13.8	14.0	14.0	14.0	14.1	14.1	14.1
Spc.Cond. uS/cm	6612	7051	6712	6054	6028	6095	6098
Redox Pot. mV	-106.5	-123.5	-128.2	-135.5	-144.2	-150.8	-150.8
D.O. mg/L	4.26	0.47	0.24	0.10	0.08	0.05	0.05
Turbidity NTU	13.03	8.61	7.15	6.58	7.11	5.92	5.92
Water Level*	16.72	16.94	16.94	16.94	16.94	16.94	16.94

* measurement from top of casing

VOLUME TO PURGE CALCULATION TABLE

Well casing Diameter (in.)	Gallons Per Foot of Depth	Feet of Standing Water	3 Well Volumes	Total Volume to Purge (Gal.)
1	0.041	x	x 3	
2	0.163	x	x 3	
4	0.653	x	x 3	
6	1.469	x	x 3	

SAMPLING DATA

DATE/TIME OF SAMPLING: 11/25/19 1205
SAMPLING RATE (IF USING DEDICATED PUMP): 100 mL/min
SAMPLING METHOD: Low Flow / Peristaltic Pump
STATIC WATER LEVEL (AFTER SAMPLING): 16.94

NOTES

VOA Sampled Via Bailer · Dup Collected Here
· MS/MSD Collected Here

EXPLOSIVE GAS READING PRIOR TO STATIC WATER LEVEL: %CH4: 26.9 %LEL: >100

Calibration Record

Site: Stickney Landfill

	1	2	3	4	5	6
Instrument	YSI Pro DSS					
Date:	11-25-19					
Time:	1115					
pH 4:	4.00					
pH 7:	7.01					
pH 10:	10.01					
Cond. 1413:	1413					
Turb. (0.0/20.0/100)	0.09/19.98/100.2					
ORP	239.8					
DO	99.2%					

Notes:

Landtec GEM 5000

Cal. Date/Time: 11/25/19 1115

Cal. Standard: 4% O_2, 15% CH_4 + 15% CO_2

APPENDIX B
LABORATORY ANALYTICAL REPORTS AND SUPPORTING DOCUMENTATION – STICKNEY AVENUE LANDFILL

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

January 17, 2020

Wes Speiser
Civil and Environmental Consultants
4841 Monroe Street
Suite 103
Toledo, OH 43623

RE: Project: Stickney Landfill
Pace Project No.: 50241614

Dear Wes Speiser:
Enclosed are the analytical results for sample(s) received by the laboratory on November 14, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Revised report replaces the one issued on 12/02/19. Testing deleted to match QAPP. ccb 01/17/20

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Chris Boyle
chris.boyle@pacelabs.com
(317)228-3100
Project Manager

Enclosures

cc: Michael Cline, Civil & Environmental Consultants, Inc.

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project:	Stickney Landfill
Pace Project No.:	50241614

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Certification #: 200074
Indiana Certification #: C-49-06
Kansas/NELAP Certification #: E-10177
Kentucky UST Certification #: 80226
Kentucky WW Certification #: 98019
Michigan Department of Environmental Quality, Laboratory #9050
Ohio VAP Certification #: CL0065
Oklahoma Certification #: 9204
Texas Certification #: T104704355
West Virginia Certification #: 330
Wisconsin Certification #: 999788130
USDA Soil Permit #: P330-19-00257

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Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Stickney Landfill
Pace Project No.: 50241614

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50241614001	**S-MW-21LP**	Water	11/12/19 14:35	11/14/19 09:00
50241614002	**S-MW-24LP**	Water	11/12/19 13:48	11/14/19 09:00
50241614003	**S-MW-27LP**	Water	11/12/19 14:09	11/14/19 09:00
50241614004	**S-MW-30LP**	Water	11/12/19 14:49	11/14/19 09:00
50241614005	**S-MW-33LP**	Water	11/12/19 13:04	11/14/19 09:00
50241614006	**S-MW-35LP**	Water	11/12/19 10:11	11/14/19 09:00
50241614007	**DUP-1**	Water	11/12/19 08:00	11/14/19 09:00
50241614008	**Field Blank**	Water	11/12/19 13:25	11/14/19 09:00
50241614009	**.**	Water	11/12/19 16:18	11/14/19 09:00
50241614010	**S-MW-37LP**	Water	11/12/19 17:10	11/14/19 09:00
50241614011	**.**	Water	11/12/19 08:00	11/14/19 09:00
50241614012	**Field Blank (FB)**	Water	11/12/19 16:40	11/14/19 09:00
50241614013	**Trip Blank**	Water	11/12/19 08:00	11/14/19 09:00

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(317)228-3100

SAMPLE ANALYTE COUNT

Project: Stickney Landfill
Pace Project No.: 50241614

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50241614001	**S-MW-21LP**	EPA 8081	KAV	4	PASI-I
		EPA 8082	KAV	8	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 8270 by SIM	GRM	12	PASI-I
50241614002	**S-MW-24LP**	EPA 8081	KAV	4	PASI-I
		EPA 8082	KAV	8	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 8270 by SIM	GRM	12	PASI-I
50241614003	**S-MW-27LP**	EPA 8081	KAV	4	PASI-I
		EPA 8082	KAV	8	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 8270 by SIM	GRM	12	PASI-I
50241614004	**S-MW-30LP**	EPA 8081	KAV	4	PASI-I
		EPA 8082	KAV	8	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 8270 by SIM	GRM	12	PASI-I
50241614005	**S-MW-33LP**	EPA 8081	KAV	4	PASI-I
		EPA 8082	KAV	8	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 8270 by SIM	GRM	12	PASI-I
50241614006	**S-MW-35LP**	EPA 8081	KAV	4	PASI-I
		EPA 8082	KAV	8	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 8270 by SIM	GRM	12	PASI-I
50241614007	**DUP-1**	EPA 8081	KAV	4	PASI-I
		EPA 8082	KAV	8	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 8270 by SIM	GRM	12	PASI-I
50241614008	**Field Blank**	EPA 8081	KAV	4	PASI-I
		EPA 8082	KAV	8	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 8270 by SIM	GRM	12	PASI-I
50241614010	**S-MW-37LP**	EPA 8082	KAV	8	PASI-I
		EPA 8260	RSW	58	PASI-I
50241614012	**Field Blank (FB)**	EPA 8081	KAV	4	PASI-I
		EPA 8082	KAV	8	PASI-I
		EPA 8270 by SIM	GRM	12	PASI-I

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Stickney Landfill
Pace Project No.: 50241614

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8260	RSW	58	PASI-I
50241614013	**Trip Blank**	EPA 8260	RSW	58	PASI-I

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Stickney Landfill
Pace Project No.: 50241614

Sample: S-MW-21LP **Lab ID: 50241614001** Collected: 11/12/19 14:35 Received: 11/14/19 09:00 Matrix: Water

Comments: • Dimethylaniline CAS#121-69-7 not detected as a SVOA TIC

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.73**	Std. Units			1		11/12/19 14:35		
Field Temperature	**12.4**	deg C			1		11/12/19 14:35		
Field Specific Conductance	**2989**	umhos/cm			1		11/12/19 14:35		
Oxygen, Dissolved	**0.31**	mg/L			1		11/12/19 14:35	7782-44-7	
REDOX	**-17.9**	mV			1		11/12/19 14:35		
Field Turbidity	**15.2**	NTU			1		11/12/19 14:35		
8081 GCS Pest RV Waters	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	ND	ug/L	0.048	0.047	1	11/19/19 14:00	11/21/19 01:44	309-00-2	
4,4'-DDT	ND	ug/L	0.095	0.038	1	11/19/19 14:00	11/21/19 01:44	50-29-3	
Heptachlor	ND	ug/L	0.048	0.040	1	11/19/19 14:00	11/21/19 01:44	76-44-8	
Surrogates									
Decachlorobiphenyl (S)	29	%.	14-122		1	11/19/19 14:00	11/21/19 01:44	2051-24-3	
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.095	0.069	1	11/19/19 14:00	11/20/19 19:02	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.095	0.083	1	11/19/19 14:00	11/20/19 19:02	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.095	0.073	1	11/19/19 14:00	11/20/19 19:02	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.095	0.074	1	11/19/19 14:00	11/20/19 19:02	53469-21-9	
PCB-1248 (Aroclor 1248)	**0.16**	ug/L	0.095	0.061	1	11/19/19 14:00	11/20/19 19:02	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.078J**	ug/L	0.095	0.077	1	11/19/19 14:00	11/20/19 19:02	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.095	0.068	1	11/19/19 14:00	11/20/19 19:02	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	66	%.	10-148		1	11/19/19 14:00	11/20/19 19:02	877-09-8	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	2.0	0.079	1	11/21/19 19:30	11/22/19 08:06	7439-97-6	
8270 100mL Combo RV	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	ND	ug/L	0.91	0.014	1	11/19/19 12:49	11/20/19 18:03	83-32-9	
Benzo(a)anthracene	**0.033J**	ug/L	0.091	0.025	1	11/19/19 12:49	11/20/19 18:03	56-55-3	B0
Benzo(a)pyrene	ND	ug/L	0.091	0.024	1	11/19/19 12:49	11/20/19 18:03	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.091	0.028	1	11/19/19 12:49	11/20/19 18:03	205-99-2	
Benzo(k)fluoranthene	ND	ug/L	0.091	0.018	1	11/19/19 12:49	11/20/19 18:03	207-08-9	
Chrysene	**0.026J**	ug/L	0.45	0.018	1	11/19/19 12:49	11/20/19 18:03	218-01-9	B0
Dibenz(a,h)anthracene	ND	ug/L	0.084	0.064	1	11/19/19 12:49	11/20/19 18:03	53-70-3	
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.091	0.066	1	11/19/19 12:49	11/20/19 18:03	193-39-5	
Naphthalene	**0.42J**	ug/L	0.91	0.013	1	11/19/19 12:49	11/20/19 18:03	91-20-3	
Pyrene	**0.055J**	ug/L	0.91	0.018	1	11/19/19 12:49	11/20/19 18:03	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	67	%.	10-83		1	11/19/19 12:49	11/20/19 18:03	321-60-8	
p-Terphenyl-d14 (S)	67	%.	28-125		1	11/19/19 12:49	11/20/19 18:03	1718-51-0	

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ANALYTICAL RESULTS

Project: Stickney Landfill
Pace Project No.: 50241614

Sample: S-MW-24LP **Lab ID: 50241614002** Collected: 11/12/19 13:48 Received: 11/14/19 09:00 Matrix: Water

Comments: • Dimethylaniline CAS#121-69-7 not detected as a SVOA TIC

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.39**	Std. Units			1		11/12/19 13:48		
Field Temperature	**14.2**	deg C			1		11/12/19 13:48		
Field Specific Conductance	**5614**	umhos/cm			1		11/12/19 13:48		
Oxygen, Dissolved	**0.1**	mg/L			1		11/12/19 13:48	7782-44-7	
REDOX	**-136.8**	mV			1		11/12/19 13:48		
Field Turbidity	**51.39**	NTU			1		11/12/19 13:48		
8081 GCS Pest RV Waters	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	ND	ug/L	0.048	0.047	1	11/19/19 14:00	11/21/19 01:56	309-00-2	
4,4'-DDT	ND	ug/L	0.095	0.038	1	11/19/19 14:00	11/21/19 01:56	50-29-3	
Heptachlor	ND	ug/L	0.048	0.040	1	11/19/19 14:00	11/21/19 01:56	76-44-8	
Surrogates									
Decachlorobiphenyl (S)	60	%.	14-122		1	11/19/19 14:00	11/21/19 01:56	2051-24-3	
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.095	0.069	1	11/19/19 14:00	11/20/19 19:16	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.095	0.083	1	11/19/19 14:00	11/20/19 19:16	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.095	0.073	1	11/19/19 14:00	11/20/19 19:16	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.095	0.074	1	11/19/19 14:00	11/20/19 19:16	53469-21-9	
PCB-1248 (Aroclor 1248)	**0.51**	ug/L	0.095	0.061	1	11/19/19 14:00	11/20/19 19:16	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.59**	ug/L	0.095	0.077	1	11/19/19 14:00	11/20/19 19:16	11097-69-1	
PCB-1260 (Aroclor 1260)	**0.28**	ug/L	0.095	0.068	1	11/19/19 14:00	11/20/19 19:16	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	91	%.	10-148		1	11/19/19 14:00	11/20/19 19:16	877-09-8	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**0.16J**	ug/L	2.0	0.079	1	11/21/19 19:30	11/22/19 08:08	7439-97-6	
8270 100mL Combo RV	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	ND	ug/L	0.91	0.014	1	11/19/19 12:49	11/20/19 18:15	83-32-9	
Benzo(a)anthracene	**0.057J**	ug/L	0.091	0.025	1	11/19/19 12:49	11/20/19 18:15	56-55-3	B0
Benzo(a)pyrene	ND	ug/L	0.091	0.024	1	11/19/19 12:49	11/20/19 18:15	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.091	0.028	1	11/19/19 12:49	11/20/19 18:15	205-99-2	
Benzo(k)fluoranthene	**0.031J**	ug/L	0.091	0.018	1	11/19/19 12:49	11/20/19 18:15	207-08-9	B0
Chrysene	**0.051J**	ug/L	0.45	0.018	1	11/19/19 12:49	11/20/19 18:15	218-01-9	B0
Dibenz(a,h)anthracene	ND	ug/L	0.084	0.064	1	11/19/19 12:49	11/20/19 18:15	53-70-3	
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.091	0.066	1	11/19/19 12:49	11/20/19 18:15	193-39-5	
Naphthalene	**0.21J**	ug/L	0.91	0.013	1	11/19/19 12:49	11/20/19 18:15	91-20-3	
Pyrene	**0.092J**	ug/L	0.91	0.018	1	11/19/19 12:49	11/20/19 18:15	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	70	%.	10-83		1	11/19/19 12:49	11/20/19 18:15	321-60-8	
p-Terphenyl-d14 (S)	79	%.	28-125		1	11/19/19 12:49	11/20/19 18:15	1718-51-0	

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ANALYTICAL RESULTS

Project: Stickney Landfill
Pace Project No.: 50241614

Sample: S-MW-27LP **Lab ID: 50241614003** Collected: 11/12/19 14:09 Received: 11/14/19 09:00 Matrix: Water

Comments: • Dimethylaniline CAS#121-69-7 not detected as a SVOA TIC

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.65**	Std. Units			1		11/12/19 14:09		
Field Temperature	**11.8**	deg C			1		11/12/19 14:09		
Field Specific Conductance	**3565**	umhos/cm			1		11/12/19 14:09		
Oxygen, Dissolved	**3.21**	mg/L			1		11/12/19 14:09	7782-44-7	
REDOX	**-27.4**	mV			1		11/12/19 14:09		
Field Turbidity	**4.69**	NTU			1		11/12/19 14:09		
8081 GCS Pest RV Waters	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	ND	ug/L	0.048	0.047	1	11/19/19 14:00	11/21/19 02:09	309-00-2	
4,4'-DDT	ND	ug/L	0.095	0.038	1	11/19/19 14:00	11/21/19 02:09	50-29-3	
Heptachlor	ND	ug/L	0.048	0.040	1	11/19/19 14:00	11/21/19 02:09	76-44-8	
Surrogates									
Decachlorobiphenyl (S)	63	%.	14-122		1	11/19/19 14:00	11/21/19 02:09	2051-24-3	
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.095	0.069	1	11/19/19 14:00	11/19/19 22:48	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.095	0.083	1	11/19/19 14:00	11/19/19 22:48	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.095	0.073	1	11/19/19 14:00	11/19/19 22:48	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.095	0.074	1	11/19/19 14:00	11/19/19 22:48	53469-21-9	
PCB-1248 (Aroclor 1248)	**0.13**	ug/L	0.095	0.061	1	11/19/19 14:00	11/19/19 22:48	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.082J**	ug/L	0.095	0.077	1	11/19/19 14:00	11/19/19 22:48	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.095	0.068	1	11/19/19 14:00	11/19/19 22:48	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	100	%.	10-148		1	11/19/19 14:00	11/19/19 22:48	877-09-8	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	2.0	0.079	1	11/21/19 19:30	11/22/19 08:11	7439-97-6	
8270 100mL Combo RV	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	ND	ug/L	0.91	0.014	1	11/19/19 12:49	11/20/19 18:26	83-32-9	
Benzo(a)anthracene	ND	ug/L	0.091	0.025	1	11/19/19 12:49	11/20/19 18:26	56-55-3	
Benzo(a)pyrene	ND	ug/L	0.091	0.024	1	11/19/19 12:49	11/20/19 18:26	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.091	0.028	1	11/19/19 12:49	11/20/19 18:26	205-99-2	
Benzo(k)fluoranthene	ND	ug/L	0.091	0.018	1	11/19/19 12:49	11/20/19 18:26	207-08-9	
Chrysene	ND	ug/L	0.45	0.018	1	11/19/19 12:49	11/20/19 18:26	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.084	0.064	1	11/19/19 12:49	11/20/19 18:26	53-70-3	
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.091	0.066	1	11/19/19 12:49	11/20/19 18:26	193-39-5	
Naphthalene	ND	ug/L	0.91	0.013	1	11/19/19 12:49	11/20/19 18:26	91-20-3	
Pyrene	ND	ug/L	0.91	0.018	1	11/19/19 12:49	11/20/19 18:26	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	69	%.	10-83		1	11/19/19 12:49	11/20/19 18:26	321-60-8	
p-Terphenyl-d14 (S)	69	%.	28-125		1	11/19/19 12:49	11/20/19 18:26	1718-51-0	

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ANALYTICAL RESULTS

Project: Stickney Landfill
Pace Project No.: 50241614

Sample: S-MW-30LP **Lab ID: 50241614004** Collected: 11/12/19 14:49 Received: 11/14/19 09:00 Matrix: Water

Comments: • Dimethylaniline CAS#121-69-7 not detected as a SVOA TIC

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.56**	Std. Units			1		11/12/19 14:49		
Field Temperature	**14.3**	deg C			1		11/12/19 14:49		
Field Specific Conductance	**5094**	umhos/cm			1		11/12/19 14:49		
Oxygen, Dissolved	**0.01**	mg/L			1		11/12/19 14:49	7782-44-7	
REDOX	**-124.2**	mV			1		11/12/19 14:49		
Field Turbidity	**98.6**	NTU			1		11/12/19 14:49		
8081 GCS Pest RV Waters	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	ND	ug/L	0.048	0.047	1	11/19/19 14:00	11/21/19 02:21	309-00-2	
4,4'-DDT	ND	ug/L	0.095	0.038	1	11/19/19 14:00	11/21/19 02:21	50-29-3	
Heptachlor	ND	ug/L	0.048	0.040	1	11/19/19 14:00	11/21/19 02:21	76-44-8	
Surrogates									
Decachlorobiphenyl (S)	55	%.	14-122		1	11/19/19 14:00	11/21/19 02:21	2051-24-3	
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.095	0.069	1	11/19/19 14:00	11/19/19 23:02	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.095	0.083	1	11/19/19 14:00	11/19/19 23:02	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.095	0.073	1	11/19/19 14:00	11/19/19 23:02	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.095	0.074	1	11/19/19 14:00	11/19/19 23:02	53469-21-9	
PCB-1248 (Aroclor 1248)	**0.091J**	ug/L	0.095	0.061	1	11/19/19 14:00	11/19/19 23:02	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/L	0.095	0.077	1	11/19/19 14:00	11/19/19 23:02	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.095	0.068	1	11/19/19 14:00	11/19/19 23:02	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	74	%.	10-148		1	11/19/19 14:00	11/19/19 23:02	877-09-8	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	2.0	0.079	1	11/21/19 19:30	11/22/19 08:13	7439-97-6	
8270 100mL Combo RV	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	**13.8**	ug/L	0.91	0.014	1	11/19/19 12:49	11/20/19 18:37	83-32-9	
Benzo(a)anthracene	**0.13**	ug/L	0.091	0.025	1	11/19/19 12:49	11/20/19 18:37	56-55-3	B,H7
Benzo(a)pyrene	**0.10**	ug/L	0.091	0.024	1	11/19/19 12:49	11/20/19 18:37	50-32-8	B,H7
Benzo(b)fluoranthene	**0.14**	ug/L	0.091	0.028	1	11/19/19 12:49	11/20/19 18:37	205-99-2	B,H7
Benzo(k)fluoranthene	**0.066J**	ug/L	0.091	0.018	1	11/19/19 12:49	11/20/19 18:37	207-08-9	B0
Chrysene	**0.069J**	ug/L	0.45	0.018	1	11/19/19 12:49	11/20/19 18:37	218-01-9	B0
Dibenz(a,h)anthracene	ND	ug/L	0.084	0.064	1	11/19/19 12:49	11/20/19 18:37	53-70-3	
Indeno(1,2,3-cd)pyrene	**0.083J**	ug/L	0.091	0.066	1	11/19/19 12:49	11/20/19 18:37	193-39-5	B0
Naphthalene	ND	ug/L	0.91	0.013	1	11/19/19 12:49	11/20/19 18:37	91-20-3	
Pyrene	**0.34J**	ug/L	0.91	0.018	1	11/19/19 12:49	11/20/19 18:37	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	66	%.	10-83		1	11/19/19 12:49	11/20/19 18:37	321-60-8	
p-Terphenyl-d14 (S)	77	%.	28-125		1	11/19/19 12:49	11/20/19 18:37	1718-51-0	

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ANALYTICAL RESULTS

Project: Stickney Landfill
Pace Project No.: 50241614

Sample: S-MW-33LP **Lab ID: 50241614005** Collected: 11/12/19 13:04 Received: 11/14/19 09:00 Matrix: Water

Comments: • Dimethylaniline CAS#121-69-7 not detected as a SVOA TIC

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.74**	Std. Units			1		11/12/19 13:04		
Field Temperature	**18.3**	deg C			1		11/12/19 13:04		
Field Specific Conductance	**4650**	umhos/cm			1		11/12/19 13:04		
Oxygen, Dissolved	**1.14**	mg/L			1		11/12/19 13:04	7782-44-7	
REDOX	**-61.2**	mV			1		11/12/19 13:04		
Field Turbidity	**22.03**	NTU			1		11/12/19 13:04		
8081 GCS Pest RV Waters	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	ND	ug/L	0.050	0.049	1	11/19/19 14:00	11/21/19 02:34	309-00-2	
4,4'-DDT	ND	ug/L	0.10	0.040	1	11/19/19 14:00	11/21/19 02:34	50-29-3	
Heptachlor	ND	ug/L	0.050	0.042	1	11/19/19 14:00	11/21/19 02:34	76-44-8	
Surrogates									
Decachlorobiphenyl (S)	44	%.	14-122		1	11/19/19 14:00	11/21/19 02:34	2051-24-3	
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.10	0.072	1	11/19/19 14:00	11/19/19 23:17	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.10	0.087	1	11/19/19 14:00	11/19/19 23:17	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.10	0.077	1	11/19/19 14:00	11/19/19 23:17	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.10	0.077	1	11/19/19 14:00	11/19/19 23:17	53469-21-9	
PCB-1248 (Aroclor 1248)	**0.66**	ug/L	0.10	0.064	1	11/19/19 14:00	11/19/19 23:17	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.94**	ug/L	0.10	0.081	1	11/19/19 14:00	11/19/19 23:17	11097-69-1	
PCB-1260 (Aroclor 1260)	**0.37**	ug/L	0.10	0.071	1	11/19/19 14:00	11/19/19 23:17	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	79	%.	10-148		1	11/19/19 14:00	11/19/19 23:17	877-09-8	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**0.44J**	ug/L	2.0	0.079	1	11/21/19 19:30	11/22/19 08:16	7439-97-6	
8270 100mL Combo RV	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	**0.50J**	ug/L	0.91	0.014	1	11/19/19 12:49	11/20/19 18:49	83-32-9	
Benzo(a)anthracene	**0.080J**	ug/L	0.091	0.025	1	11/19/19 12:49	11/20/19 18:49	56-55-3	B0
Benzo(a)pyrene	ND	ug/L	0.091	0.024	1	11/19/19 12:49	11/20/19 18:49	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.091	0.028	1	11/19/19 12:49	11/20/19 18:49	205-99-2	M1
Benzo(k)fluoranthene	**0.045J**	ug/L	0.091	0.018	1	11/19/19 12:49	11/20/19 18:49	207-08-9	B0
Chrysene	**0.051J**	ug/L	0.45	0.018	1	11/19/19 12:49	11/20/19 18:49	218-01-9	B0
Dibenz(a,h)anthracene	ND	ug/L	0.084	0.064	1	11/19/19 12:49	11/20/19 18:49	53-70-3	
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.091	0.066	1	11/19/19 12:49	11/20/19 18:49	193-39-5	
Naphthalene	ND	ug/L	0.91	0.013	1	11/19/19 12:49	11/20/19 18:49	91-20-3	
Pyrene	**0.20J**	ug/L	0.91	0.018	1	11/19/19 12:49	11/20/19 18:49	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	55	%.	10-83		1	11/19/19 12:49	11/20/19 18:49	321-60-8	
p-Terphenyl-d14 (S)	76	%.	28-125		1	11/19/19 12:49	11/20/19 18:49	1718-51-0	

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ANALYTICAL RESULTS

Project: Stickney Landfill
Pace Project No.: 50241614

Sample: S-MW-35LP **Lab ID: 50241614006** Collected: 11/12/19 10:11 Received: 11/14/19 09:00 Matrix: Water

Comments: • Dimethylaniline CAS#121-69-7 not detected as a SVOA TIC

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.79**	Std. Units			1		11/12/19 10:11		
Field Temperature	**12.2**	deg C			1		11/12/19 10:11		
Field Specific Conductance	**3375**	umhos/cm			1		11/12/19 10:11		
Oxygen, Dissolved	**2.77**	mg/L			1		11/12/19 10:11	7782-44-7	
REDOX	**-42.1**	mV			1		11/12/19 10:11		
Field Turbidity	**26.28**	NTU			1		11/12/19 10:11		
8081 GCS Pest RV Waters	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	ND	ug/L	0.048	0.047	1	11/19/19 14:00	11/21/19 02:47	309-00-2	
4,4'-DDT	ND	ug/L	0.095	0.038	1	11/19/19 14:00	11/21/19 02:47	50-29-3	
Heptachlor	ND	ug/L	0.048	0.040	1	11/19/19 14:00	11/21/19 02:47	76-44-8	
Surrogates									
Decachlorobiphenyl (S)	51	%.	14-122		1	11/19/19 14:00	11/21/19 02:47	2051-24-3	
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.095	0.069	1	11/19/19 14:00	11/19/19 23:31	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.095	0.083	1	11/19/19 14:00	11/19/19 23:31	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.095	0.073	1	11/19/19 14:00	11/19/19 23:31	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.095	0.074	1	11/19/19 14:00	11/19/19 23:31	53469-21-9	
PCB-1248 (Aroclor 1248)	**0.51**	ug/L	0.095	0.061	1	11/19/19 14:00	11/19/19 23:31	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.57**	ug/L	0.095	0.077	1	11/19/19 14:00	11/19/19 23:31	11097-69-1	
PCB-1260 (Aroclor 1260)	**0.35**	ug/L	0.095	0.068	1	11/19/19 14:00	11/19/19 23:31	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	75	%.	10-148		1	11/19/19 14:00	11/19/19 23:31	877-09-8	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**0.094J**	ug/L	2.0	0.079	1	11/21/19 19:30	11/22/19 08:28	7439-97-6	
8270 100mL Combo RV	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	**1.3**	ug/L	0.91	0.014	1	11/19/19 12:49	11/20/19 19:23	83-32-9	
Benzo(a)anthracene	**0.070J**	ug/L	0.091	0.025	1	11/19/19 12:49	11/20/19 19:23	56-55-3	B0
Benzo(a)pyrene	ND	ug/L	0.091	0.024	1	11/19/19 12:49	11/20/19 19:23	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.091	0.028	1	11/19/19 12:49	11/20/19 19:23	205-99-2	
Benzo(k)fluoranthene	ND	ug/L	0.091	0.018	1	11/19/19 12:49	11/20/19 19:23	207-08-9	
Chrysene	**0.038J**	ug/L	0.45	0.018	1	11/19/19 12:49	11/20/19 19:23	218-01-9	B0
Dibenz(a,h)anthracene	ND	ug/L	0.084	0.064	1	11/19/19 12:49	11/20/19 19:23	53-70-3	
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.091	0.066	1	11/19/19 12:49	11/20/19 19:23	193-39-5	
Naphthalene	**0.18J**	ug/L	0.91	0.013	1	11/19/19 12:49	11/20/19 19:23	91-20-3	
Pyrene	**0.29J**	ug/L	0.91	0.018	1	11/19/19 12:49	11/20/19 19:23	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	75	%.	10-83		1	11/19/19 12:49	11/20/19 19:23	321-60-8	
p-Terphenyl-d14 (S)	91	%.	28-125		1	11/19/19 12:49	11/20/19 19:23	1718-51-0	

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ANALYTICAL RESULTS

Project: Stickney Landfill
Pace Project No.: 50241614

Sample: DUP-1 **Lab ID: 50241614007** Collected: 11/12/19 08:00 Received: 11/14/19 09:00 Matrix: Water

Comments: • Dimethylaniline CAS#121-69-7 not detected as a SVOA TIC

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.74**	Std. Units			1		11/12/19 13:04		
Field Temperature	**18.3**	deg C			1		11/12/19 13:04		
Field Specific Conductance	**4650**	umhos/cm			1		11/12/19 13:04		
Oxygen, Dissolved	**1.14**	mg/L			1		11/12/19 13:04	7782-44-7	
REDOX	**-61.2**	mV			1		11/12/19 13:04		
Field Turbidity	**22.03**	NTU			1		11/12/19 13:04		
8081 GCS Pest RV Waters	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	ND	ug/L	0.048	0.047	1	11/19/19 14:00	11/21/19 11:57	309-00-2	
4,4'-DDT	ND	ug/L	0.095	0.038	1	11/19/19 14:00	11/21/19 11:57	50-29-3	
Heptachlor	ND	ug/L	0.048	0.040	1	11/19/19 14:00	11/21/19 11:57	76-44-8	
Surrogates									
Decachlorobiphenyl (S)	42	%.	14-122		1	11/19/19 14:00	11/21/19 11:57	2051-24-3	
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.095	0.069	1	11/19/19 14:00	11/19/19 23:45	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.095	0.083	1	11/19/19 14:00	11/19/19 23:45	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.095	0.073	1	11/19/19 14:00	11/19/19 23:45	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.095	0.074	1	11/19/19 14:00	11/19/19 23:45	53469-21-9	
PCB-1248 (Aroclor 1248)	**0.92**	ug/L	0.095	0.061	1	11/19/19 14:00	11/19/19 23:45	12672-29-6	
PCB-1254 (Aroclor 1254)	**1.0**	ug/L	0.095	0.077	1	11/19/19 14:00	11/19/19 23:45	11097-69-1	
PCB-1260 (Aroclor 1260)	**0.35**	ug/L	0.095	0.068	1	11/19/19 14:00	11/19/19 23:45	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	80	%.	10-148		1	11/19/19 14:00	11/19/19 23:45	877-09-8	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**0.32J**	ug/L	2.0	0.079	1	11/21/19 19:30	11/22/19 08:30	7439-97-6	
8270 100mL Combo RV	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	**0.35J**	ug/L	0.91	0.014	1	11/19/19 12:49	11/20/19 19:34	83-32-9	
Benzo(a)anthracene	**0.063J**	ug/L	0.091	0.025	1	11/19/19 12:49	11/20/19 19:34	56-55-3	B0
Benzo(a)pyrene	ND	ug/L	0.091	0.024	1	11/19/19 12:49	11/20/19 19:34	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.091	0.028	1	11/19/19 12:49	11/20/19 19:34	205-99-2	
Benzo(k)fluoranthene	ND	ug/L	0.091	0.018	1	11/19/19 12:49	11/20/19 19:34	207-08-9	
Chrysene	**0.036J**	ug/L	0.45	0.018	1	11/19/19 12:49	11/20/19 19:34	218-01-9	B0
Dibenz(a,h)anthracene	ND	ug/L	0.084	0.064	1	11/19/19 12:49	11/20/19 19:34	53-70-3	
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.091	0.066	1	11/19/19 12:49	11/20/19 19:34	193-39-5	
Naphthalene	ND	ug/L	0.91	0.013	1	11/19/19 12:49	11/20/19 19:34	91-20-3	
Pyrene	**0.16J**	ug/L	0.91	0.018	1	11/19/19 12:49	11/20/19 19:34	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	38	%.	10-83		1	11/19/19 12:49	11/20/19 19:34	321-60-8	
p-Terphenyl-d14 (S)	55	%.	28-125		1	11/19/19 12:49	11/20/19 19:34	1718-51-0	

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ANALYTICAL RESULTS

Project: Stickney Landfill
Pace Project No.: 50241614

Sample: Field Blank **Lab ID: 50241614008** Collected: 11/12/19 13:25 Received: 11/14/19 09:00 Matrix: Water

Comments: • Dimethylaniline CAS#121-69-7 not detected as a SVOA TIC

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pest RV Waters	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	ND	ug/L	0.048	0.047	1	11/19/19 14:00	11/21/19 03:12	309-00-2	
4,4'-DDT	ND	ug/L	0.095	0.038	1	11/19/19 14:00	11/21/19 03:12	50-29-3	
Heptachlor	ND	ug/L	0.048	0.040	1	11/19/19 14:00	11/21/19 03:12	76-44-8	
Surrogates									
Decachlorobiphenyl (S)	91	%.	14-122		1	11/19/19 14:00	11/21/19 03:12	2051-24-3	
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.095	0.069	1	11/19/19 14:00	11/20/19 00:00	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.095	0.083	1	11/19/19 14:00	11/20/19 00:00	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.095	0.073	1	11/19/19 14:00	11/20/19 00:00	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.095	0.074	1	11/19/19 14:00	11/20/19 00:00	53469-21-9	
PCB-1248 (Aroclor 1248)	**0.28**	ug/L	0.095	0.061	1	11/19/19 14:00	11/20/19 00:00	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.13**	ug/L	0.095	0.077	1	11/19/19 14:00	11/20/19 00:00	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.095	0.068	1	11/19/19 14:00	11/20/19 00:00	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	111	%.	10-148		1	11/19/19 14:00	11/20/19 00:00	877-09-8	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	2.0	0.079	1	11/21/19 19:30	11/22/19 08:33	7439-97-6	
8270 100mL Combo RV	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	ND	ug/L	0.91	0.014	1	11/19/19 12:49	11/20/19 19:46	83-32-9	
Benzo(a)anthracene	ND	ug/L	0.091	0.025	1	11/19/19 12:49	11/20/19 19:46	56-55-3	
Benzo(a)pyrene	ND	ug/L	0.091	0.024	1	11/19/19 12:49	11/20/19 19:46	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.091	0.028	1	11/19/19 12:49	11/20/19 19:46	205-99-2	
Benzo(k)fluoranthene	ND	ug/L	0.091	0.018	1	11/19/19 12:49	11/20/19 19:46	207-08-9	
Chrysene	ND	ug/L	0.45	0.018	1	11/19/19 12:49	11/20/19 19:46	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.084	0.064	1	11/19/19 12:49	11/20/19 19:46	53-70-3	
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.091	0.066	1	11/19/19 12:49	11/20/19 19:46	193-39-5	
Naphthalene	ND	ug/L	0.91	0.013	1	11/19/19 12:49	11/20/19 19:46	91-20-3	
Pyrene	ND	ug/L	0.91	0.018	1	11/19/19 12:49	11/20/19 19:46	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	73	%.	10-83		1	11/19/19 12:49	11/20/19 19:46	321-60-8	
p-Terphenyl-d14 (S)	87	%.	28-125		1	11/19/19 12:49	11/20/19 19:46	1718-51-0	

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ANALYTICAL RESULTS

Project: Stickney Landfill
Pace Project No.: 50241614

Sample: . **Lab ID: 50241614009** Collected: 11/12/19 16:18 Received: 11/14/19 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
	Analytical Method:								
Field pH	**6.54**	Std. Units			1		11/12/19 16:18		
Field Temperature	**6.54**	deg C			1		11/12/19 16:18		
Field Specific Conductance	**7809**	umhos/cm			1		11/12/19 16:18		
Oxygen, Dissolved	**0.08**	mg/L			1		11/12/19 16:18	7782-44-7	
REDOX	**-160.5**	mV			1		11/12/19 16:18		
Field Turbidity	**7.82**	NTU			1		11/12/19 16:18		

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ANALYTICAL RESULTS

Project: Stickney Landfill
Pace Project No.: 50241614

Sample: S-MW-37LP **Lab ID: 50241614010** Collected: 11/12/19 17:10 Received: 11/14/19 09:00 Matrix: Water

Comments: • Dimethylaniline CAS#121-69-7 not detected as a SVOA TIC

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.95**	Std. Units			1		11/12/19 17:10		
Field Temperature	**10.7**	deg C			1		11/12/19 17:10		
Field Specific Conductance	**5892**	umhos/cm			1		11/12/19 17:10		
Oxygen, Dissolved	**0.23**	mg/L			1		11/12/19 17:10	7782-44-7	
REDOX	**-147.1**	mV			1		11/12/19 17:10		
Field Turbidity	**112.3**	NTU			1		11/12/19 17:10		
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	ND	ug/L	23.8	17.2	250	11/19/19 14:00	11/21/19 20:26	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	23.8	20.8	250	11/19/19 14:00	11/21/19 20:26	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	23.8	18.3	250	11/19/19 14:00	11/21/19 20:26	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	23.8	18.4	250	11/19/19 14:00	11/21/19 20:26	53469-21-9	
PCB-1248 (Aroclor 1248)	**6240**	ug/L	23.8	15.2	250	11/19/19 14:00	11/21/19 20:26	12672-29-6	
PCB-1254 (Aroclor 1254)	**3330**	ug/L	23.8	19.2	250	11/19/19 14:00	11/21/19 20:26	11097-69-1	
PCB-1260 (Aroclor 1260)	**2030**	ug/L	23.8	17.0	250	11/19/19 14:00	11/21/19 20:26	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	0	%.	10-148		250	11/19/19 14:00	11/21/19 20:26	877-09-8	S4
8260/5030 MSV unpreserved	Analytical Method: EPA 8260								
Acetone	ND	ug/L	1000	50.0	10		11/19/19 16:04	67-64-1	
Acetonitrile	ND	ug/L	1000	12.1	10		11/19/19 16:04	75-05-8	
Acrolein	ND	ug/L	500	99.2	10		11/19/19 16:04	107-02-8	
Acrylonitrile	ND	ug/L	1000	50.1	10		11/19/19 16:04	107-13-1	
Allyl chloride	ND	ug/L	50.0	31.0	10		11/19/19 16:04	107-05-1	
Benzene	**22.5J**	ug/L	50.0	6.8	10		11/19/19 16:04	71-43-2	
Bromobenzene	ND	ug/L	50.0	7.1	10		11/19/19 16:04	108-86-1	
Bromochloromethane	ND	ug/L	50.0	6.0	10		11/19/19 16:04	74-97-5	
Bromodichloromethane	ND	ug/L	50.0	4.9	10		11/19/19 16:04	75-27-4	
Bromoform	ND	ug/L	50.0	6.8	10		11/19/19 16:04	75-25-2	
Bromomethane	ND	ug/L	50.0	50.0	10		11/19/19 16:04	74-83-9	
2-Butanone (MEK)	ND	ug/L	250	20.0	10		11/19/19 16:04	78-93-3	
Carbon disulfide	ND	ug/L	100	5.1	10		11/19/19 16:04	75-15-0	
Carbon tetrachloride	ND	ug/L	50.0	6.3	10		11/19/19 16:04	56-23-5	
Chlorobenzene	**8.2J**	ug/L	50.0	6.1	10		11/19/19 16:04	108-90-7	
Chloroethane	**41.3J**	ug/L	50.0	6.6	10		11/19/19 16:04	75-00-3	
Chloroform	ND	ug/L	50.0	6.6	10		11/19/19 16:04	67-66-3	
Chloromethane	ND	ug/L	50.0	6.1	10		11/19/19 16:04	74-87-3	
2-Chlorotoluene	ND	ug/L	50.0	4.9	10		11/19/19 16:04	95-49-8	
4-Chlorotoluene	ND	ug/L	50.0	6.2	10		11/19/19 16:04	106-43-4	
Dibromochloromethane	ND	ug/L	50.0	5.4	10		11/19/19 16:04	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	50.0	5.1	10		11/19/19 16:04	106-93-4	
Dibromomethane	ND	ug/L	50.0	5.5	10		11/19/19 16:04	74-95-3	
Dichlorodifluoromethane	ND	ug/L	50.0	9.1	10		11/19/19 16:04	75-71-8	
1,1-Dichloroethane	ND	ug/L	50.0	6.6	10		11/19/19 16:04	75-34-3	
1,2-Dichloroethane	ND	ug/L	50.0	6.7	10		11/19/19 16:04	107-06-2	

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ANALYTICAL RESULTS

Project: Stickney Landfill
Pace Project No.: 50241614

Sample: S-MW-37LP **Lab ID: 50241614010** Collected: 11/12/19 17:10 Received: 11/14/19 09:00 Matrix: Water

Comments: • Dimethylaniline CAS#121-69-7 not detected as a SVOA TIC

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV unpreserved	Analytical Method: EPA 8260								
1,1-Dichloroethene	ND	ug/L	50.0	5.9	10		11/19/19 16:04	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	50.0	6.9	10		11/19/19 16:04	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	50.0	6.2	10		11/19/19 16:04	156-60-5	
1,2-Dichloropropane	ND	ug/L	50.0	7.1	10		11/19/19 16:04	78-87-5	
1,3-Dichloropropane	ND	ug/L	50.0	6.1	10		11/19/19 16:04	142-28-9	
2,2-Dichloropropane	ND	ug/L	50.0	5.0	10		11/19/19 16:04	594-20-7	
1,1-Dichloropropene	ND	ug/L	50.0	6.6	10		11/19/19 16:04	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	41.0	5.5	10		11/19/19 16:04	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	41.0	1.5	10		11/19/19 16:04	10061-02-6	
Ethylbenzene	**205**	ug/L	50.0	5.6	10		11/19/19 16:04	100-41-4	
n-Hexane	ND	ug/L	50.0	16.2	10		11/19/19 16:04	110-54-3	N2
2-Hexanone	ND	ug/L	250	24.0	10		11/19/19 16:04	591-78-6	
Iodomethane	ND	ug/L	100	20.9	10		11/19/19 16:04	74-88-4	
Methylene Chloride	**24.5J**	ug/L	50.0	10.0	10		11/19/19 16:04	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	250	43.1	10		11/19/19 16:04	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	40.0	4.4	10		11/19/19 16:04	1634-04-4	
Styrene	ND	ug/L	50.0	5.5	10		11/19/19 16:04	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	50.0	5.5	10		11/19/19 16:04	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	50.0	4.7	10		11/19/19 16:04	79-34-5	
Tetrachloroethene	ND	ug/L	50.0	7.1	10		11/19/19 16:04	127-18-4	
Toluene	**8.2J**	ug/L	50.0	5.7	10		11/19/19 16:04	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	50.0	5.3	10		11/19/19 16:04	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	50.0	3.6	10		11/19/19 16:04	79-00-5	
Trichloroethene	ND	ug/L	50.0	6.0	10		11/19/19 16:04	79-01-6	
Trichlorofluoromethane	ND	ug/L	50.0	3.9	10		11/19/19 16:04	75-69-4	
Vinyl acetate	ND	ug/L	500	15.2	10		11/19/19 16:04	108-05-4	
Vinyl chloride	ND	ug/L	20.0	3.9	10		11/19/19 16:04	75-01-4	
m&p-Xylene	**3070**	ug/L	50.0	12.7	10		11/19/19 16:04	179601-23-1	
o-Xylene	**807**	ug/L	50.0	5.2	10		11/19/19 16:04	95-47-6	
Surrogates									
Dibromofluoromethane (S)	100	%.	80-122		10		11/19/19 16:04	1868-53-7	D4
4-Bromofluorobenzene (S)	102	%.	85-114		10		11/19/19 16:04	460-00-4	
Toluene-d8 (S)	94	%.	85-114		10		11/19/19 16:04	2037-26-5	

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ANALYTICAL RESULTS

Project: Stickney Landfill
Pace Project No.: 50241614

Sample: . **Lab ID: 50241614011** Collected: 11/12/19 08:00 Received: 11/14/19 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
	Analytical Method:								
Field pH	**6.54**	Std. Units			1		11/12/19 17:10		
Field Temperature	**6.54**	deg C			1		11/12/19 17:10		
Field Specific Conductance	**7809**	umhos/cm			1		11/12/19 17:10		
Oxygen, Dissolved	**0.08**	mg/L			1		11/12/19 17:10	7782-44-7	
REDOX	**-160.5**	mV			1		11/12/19 17:10		
Field Turbidity	**7.82**	NTU			1		11/12/19 17:10		

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ANALYTICAL RESULTS

Project: Stickney Landfill
Pace Project No.: 50241614

Sample: Field Blank (FB) **Lab ID: 50241614012** Collected: 11/12/19 16:40 Received: 11/14/19 09:00 Matrix: Water

Comments: • Dimethylaniline CAS#121-69-7 not detected as a SVOA TIC

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pest RV Waters	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	ND	ug/L	0.048	0.047	1	11/19/19 14:00	11/21/19 01:31	309-00-2	
4,4'-DDT	ND	ug/L	0.095	0.038	1	11/19/19 14:00	11/21/19 01:31	50-29-3	
Heptachlor	ND	ug/L	0.048	0.040	1	11/19/19 14:00	11/21/19 01:31	76-44-8	
Surrogates									
Decachlorobiphenyl (S)	85	%.	14-122		1	11/19/19 14:00	11/21/19 01:31	2051-24-3	
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.095	0.069	1	11/19/19 14:00	11/20/19 18:47	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.095	0.083	1	11/19/19 14:00	11/20/19 18:47	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.095	0.073	1	11/19/19 14:00	11/20/19 18:47	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.095	0.074	1	11/19/19 14:00	11/20/19 18:47	53469-21-9	
PCB-1248 (Aroclor 1248)	**0.16**	ug/L	0.095	0.061	1	11/19/19 14:00	11/20/19 18:47	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/L	0.095	0.077	1	11/19/19 14:00	11/20/19 18:47	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.095	0.068	1	11/19/19 14:00	11/20/19 18:47	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	95	%.	10-148		1	11/19/19 14:00	11/20/19 18:47	877-09-8	
8270 100mL Combo RV	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	ND	ug/L	0.91	0.014	1	11/19/19 12:49	11/20/19 20:09	83-32-9	
Benzo(a)anthracene	ND	ug/L	0.091	0.025	1	11/19/19 12:49	11/20/19 20:09	56-55-3	
Benzo(a)pyrene	ND	ug/L	0.091	0.024	1	11/19/19 12:49	11/20/19 20:09	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.091	0.028	1	11/19/19 12:49	11/20/19 20:09	205-99-2	
Benzo(k)fluoranthene	ND	ug/L	0.091	0.018	1	11/19/19 12:49	11/20/19 20:09	207-08-9	
Chrysene	ND	ug/L	0.45	0.018	1	11/19/19 12:49	11/20/19 20:09	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.084	0.064	1	11/19/19 12:49	11/20/19 20:09	53-70-3	
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.091	0.066	1	11/19/19 12:49	11/20/19 20:09	193-39-5	
Naphthalene	ND	ug/L	0.91	0.013	1	11/19/19 12:49	11/20/19 20:09	91-20-3	
Pyrene	ND	ug/L	0.91	0.018	1	11/19/19 12:49	11/20/19 20:09	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	81	%.	10-83		1	11/19/19 12:49	11/20/19 20:09	321-60-8	
p-Terphenyl-d14 (S)	95	%.	28-125		1	11/19/19 12:49	11/20/19 20:09	1718-51-0	
8260/5030 MSV	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	5.0	1		11/19/19 16:36	67-64-1	
Acetonitrile	ND	ug/L	100	1.2	1		11/19/19 16:36	75-05-8	
Acrolein	ND	ug/L	50.0	9.9	1		11/19/19 16:36	107-02-8	
Acrylonitrile	ND	ug/L	100	5.0	1		11/19/19 16:36	107-13-1	
Allyl chloride	ND	ug/L	5.0	3.1	1		11/19/19 16:36	107-05-1	
Benzene	ND	ug/L	5.0	0.68	1		11/19/19 16:36	71-43-2	
Bromobenzene	ND	ug/L	5.0	0.71	1		11/19/19 16:36	108-86-1	
Bromochloromethane	ND	ug/L	5.0	0.60	1		11/19/19 16:36	74-97-5	
Bromodichloromethane	ND	ug/L	5.0	0.49	1		11/19/19 16:36	75-27-4	
Bromoform	ND	ug/L	5.0	0.68	1		11/19/19 16:36	75-25-2	
Bromomethane	ND	ug/L	5.0	5.0	1		11/19/19 16:36	74-83-9	
2-Butanone (MEK)	ND	ug/L	25.0	2.0	1		11/19/19 16:36	78-93-3	

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(317)228-3100

ANALYTICAL RESULTS

Project: Stickney Landfill
Pace Project No.: 50241614

Sample: Field Blank (FB) **Lab ID: 50241614012** Collected: 11/12/19 16:40 Received: 11/14/19 09:00 Matrix: Water

Comments: • Dimethylaniline CAS#121-69-7 not detected as a SVOA TIC

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV	Analytical Method: EPA 8260								
Carbon disulfide	ND	ug/L	10.0	0.51	1		11/19/19 16:36	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	0.63	1		11/19/19 16:36	56-23-5	
Chlorobenzene	ND	ug/L	5.0	0.61	1		11/19/19 16:36	108-90-7	
Chloroethane	ND	ug/L	5.0	0.66	1		11/19/19 16:36	75-00-3	
Chloroform	ND	ug/L	5.0	0.66	1		11/19/19 16:36	67-66-3	
Chloromethane	ND	ug/L	5.0	0.61	1		11/19/19 16:36	74-87-3	
2-Chlorotoluene	ND	ug/L	5.0	0.49	1		11/19/19 16:36	95-49-8	
4-Chlorotoluene	ND	ug/L	5.0	0.62	1		11/19/19 16:36	106-43-4	
Dibromochloromethane	ND	ug/L	5.0	0.54	1		11/19/19 16:36	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	5.0	0.51	1		11/19/19 16:36	106-93-4	
Dibromomethane	ND	ug/L	5.0	0.55	1		11/19/19 16:36	74-95-3	
Dichlorodifluoromethane	ND	ug/L	5.0	0.91	1		11/19/19 16:36	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	0.66	1		11/19/19 16:36	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	0.67	1		11/19/19 16:36	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.59	1		11/19/19 16:36	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.69	1		11/19/19 16:36	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.62	1		11/19/19 16:36	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	0.71	1		11/19/19 16:36	78-87-5	
1,3-Dichloropropane	ND	ug/L	5.0	0.61	1		11/19/19 16:36	142-28-9	
2,2-Dichloropropane	ND	ug/L	5.0	0.50	1		11/19/19 16:36	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	0.66	1		11/19/19 16:36	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	4.1	0.55	1		11/19/19 16:36	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.1	0.15	1		11/19/19 16:36	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	0.56	1		11/19/19 16:36	100-41-4	
n-Hexane	ND	ug/L	5.0	1.6	1		11/19/19 16:36	110-54-3	N2
2-Hexanone	ND	ug/L	25.0	2.4	1		11/19/19 16:36	591-78-6	
Iodomethane	ND	ug/L	10.0	2.1	1		11/19/19 16:36	74-88-4	
Methylene Chloride	ND	ug/L	5.0	1.0	1		11/19/19 16:36	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	4.3	1		11/19/19 16:36	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	0.44	1		11/19/19 16:36	1634-04-4	
Styrene	ND	ug/L	5.0	0.55	1		11/19/19 16:36	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.55	1		11/19/19 16:36	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	0.47	1		11/19/19 16:36	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	0.71	1		11/19/19 16:36	127-18-4	
Toluene	ND	ug/L	5.0	0.57	1		11/19/19 16:36	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	0.53	1		11/19/19 16:36	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	0.36	1		11/19/19 16:36	79-00-5	
Trichloroethene	ND	ug/L	5.0	0.60	1		11/19/19 16:36	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	0.39	1		11/19/19 16:36	75-69-4	
Vinyl acetate	ND	ug/L	50.0	1.5	1		11/19/19 16:36	108-05-4	
Vinyl chloride	ND	ug/L	2.0	0.39	1		11/19/19 16:36	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1.3	1		11/19/19 16:36	179601-23-1	
o-Xylene	ND	ug/L	5.0	0.52	1		11/19/19 16:36	95-47-6	
Surrogates									
Dibromofluoromethane (S)	102	%.	80-122		1		11/19/19 16:36	1868-53-7	

REPORT OF LABORATORY ANALYSIS

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Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Stickney Landfill
Pace Project No.: 50241614

Sample: Field Blank (FB) **Lab ID: 50241614012** Collected: 11/12/19 16:40 Received: 11/14/19 09:00 Matrix: Water

Comments: • Dimethylaniline CAS#121-69-7 not detected as a SVOA TIC

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV	Analytical Method: EPA 8260								
Surrogates									
4-Bromofluorobenzene (S)	98	%.	85-114		1		11/19/19 16:36	460-00-4	
Toluene-d8 (S)	94	%.	85-114		1		11/19/19 16:36	2037-26-5	

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ANALYTICAL RESULTS

Project: Stickney Landfill
Pace Project No.: 50241614

Sample: Trip Blank **Lab ID: 50241614013** Collected: 11/12/19 08:00 Received: 11/14/19 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	5.0	1		11/19/19 17:09	67-64-1	
Acetonitrile	ND	ug/L	100	1.2	1		11/19/19 17:09	75-05-8	
Acrolein	ND	ug/L	50.0	9.9	1		11/19/19 17:09	107-02-8	
Acrylonitrile	ND	ug/L	100	5.0	1		11/19/19 17:09	107-13-1	
Allyl chloride	ND	ug/L	5.0	3.1	1		11/19/19 17:09	107-05-1	
Benzene	ND	ug/L	5.0	0.68	1		11/19/19 17:09	71-43-2	
Bromobenzene	ND	ug/L	5.0	0.71	1		11/19/19 17:09	108-86-1	
Bromochloromethane	ND	ug/L	5.0	0.60	1		11/19/19 17:09	74-97-5	
Bromodichloromethane	ND	ug/L	5.0	0.49	1		11/19/19 17:09	75-27-4	
Bromoform	ND	ug/L	5.0	0.68	1		11/19/19 17:09	75-25-2	
Bromomethane	ND	ug/L	5.0	5.0	1		11/19/19 17:09	74-83-9	
2-Butanone (MEK)	ND	ug/L	25.0	2.0	1		11/19/19 17:09	78-93-3	
Carbon disulfide	ND	ug/L	10.0	0.51	1		11/19/19 17:09	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	0.63	1		11/19/19 17:09	56-23-5	
Chlorobenzene	ND	ug/L	5.0	0.61	1		11/19/19 17:09	108-90-7	
Chloroethane	ND	ug/L	5.0	0.66	1		11/19/19 17:09	75-00-3	
Chloroform	ND	ug/L	5.0	0.66	1		11/19/19 17:09	67-66-3	
Chloromethane	ND	ug/L	5.0	0.61	1		11/19/19 17:09	74-87-3	
2-Chlorotoluene	ND	ug/L	5.0	0.49	1		11/19/19 17:09	95-49-8	
4-Chlorotoluene	ND	ug/L	5.0	0.62	1		11/19/19 17:09	106-43-4	
Dibromochloromethane	ND	ug/L	5.0	0.54	1		11/19/19 17:09	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	5.0	0.51	1		11/19/19 17:09	106-93-4	
Dibromomethane	ND	ug/L	5.0	0.55	1		11/19/19 17:09	74-95-3	
Dichlorodifluoromethane	ND	ug/L	5.0	0.91	1		11/19/19 17:09	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	0.66	1		11/19/19 17:09	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	0.67	1		11/19/19 17:09	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.59	1		11/19/19 17:09	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.69	1		11/19/19 17:09	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.62	1		11/19/19 17:09	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	0.71	1		11/19/19 17:09	78-87-5	
1,3-Dichloropropane	ND	ug/L	5.0	0.61	1		11/19/19 17:09	142-28-9	
2,2-Dichloropropane	ND	ug/L	5.0	0.50	1		11/19/19 17:09	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	0.66	1		11/19/19 17:09	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	4.1	0.55	1		11/19/19 17:09	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.1	0.15	1		11/19/19 17:09	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	0.56	1		11/19/19 17:09	100-41-4	
n-Hexane	ND	ug/L	5.0	1.6	1		11/19/19 17:09	110-54-3	N2
2-Hexanone	ND	ug/L	25.0	2.4	1		11/19/19 17:09	591-78-6	
Iodomethane	ND	ug/L	10.0	2.1	1		11/19/19 17:09	74-88-4	
Methylene Chloride	ND	ug/L	5.0	1.0	1		11/19/19 17:09	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	4.3	1		11/19/19 17:09	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	0.44	1		11/19/19 17:09	1634-04-4	
Styrene	ND	ug/L	5.0	0.55	1		11/19/19 17:09	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.55	1		11/19/19 17:09	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	0.47	1		11/19/19 17:09	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	0.71	1		11/19/19 17:09	127-18-4	

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ANALYTICAL RESULTS

Project: Stickney Landfill
Pace Project No.: 50241614

Sample: Trip Blank **Lab ID: 50241614013** Collected: 11/12/19 08:00 Received: 11/14/19 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV	Analytical Method: EPA 8260								
Toluene	ND	ug/L	5.0	0.57	1		11/19/19 17:09	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	0.53	1		11/19/19 17:09	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	0.36	1		11/19/19 17:09	79-00-5	
Trichloroethene	ND	ug/L	5.0	0.60	1		11/19/19 17:09	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	0.39	1		11/19/19 17:09	75-69-4	
Vinyl acetate	ND	ug/L	50.0	1.5	1		11/19/19 17:09	108-05-4	
Vinyl chloride	ND	ug/L	2.0	0.39	1		11/19/19 17:09	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1.3	1		11/19/19 17:09	179601-23-1	
o-Xylene	ND	ug/L	5.0	0.52	1		11/19/19 17:09	95-47-6	
Surrogates									
Dibromofluoromethane (S)	102	%.	80-122		1		11/19/19 17:09	1868-53-7	
4-Bromofluorobenzene (S)	99	%.	85-114		1		11/19/19 17:09	460-00-4	
Toluene-d8 (S)	96	%.	85-114		1		11/19/19 17:09	2037-26-5	

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QUALITY CONTROL DATA

Project: Stickney Landfill
Pace Project No.: 50241614

QC Batch: 534108 | Analysis Method: EPA 7470
QC Batch Method: EPA 7470 | Analysis Description: 7470 Mercury
Associated Lab Samples: 50241614001, 50241614002, 50241614003, 50241614004, 50241614005, 50241614006, 50241614007, 50241614008

METHOD BLANK: 2464842 | Matrix: Water
Associated Lab Samples: 50241614001, 50241614002, 50241614003, 50241614004, 50241614005, 50241614006, 50241614007, 50241614008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	2.0	0.079	11/22/19 07:56	

LABORATORY CONTROL SAMPLE: 2464843

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.6	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2464844 2464845

Parameter	Units	50241614005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	0.44J	5	5	4.8	4.8	88	87	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2464846 2464847

Parameter	Units	50241620002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	0.096J	5	5	5.0	4.7	97	92	75-125	6	20	

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QUALITY CONTROL DATA

Project: Stickney Landfill
Pace Project No.: 50241614

QC Batch: 534033 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV
Associated Lab Samples: 50241614012, 50241614013

METHOD BLANK: 2464581 | Matrix: Water
Associated Lab Samples: 50241614010, 50241614012, 50241614013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	0.55	11/19/19 15:19	
1,1,1-Trichloroethane	ug/L	ND	5.0	0.53	11/19/19 15:19	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	0.47	11/19/19 15:19	
1,1,2-Trichloroethane	ug/L	ND	5.0	0.36	11/19/19 15:19	
1,1-Dichloroethane	ug/L	ND	5.0	0.66	11/19/19 15:19	
1,1-Dichloroethene	ug/L	ND	5.0	0.59	11/19/19 15:19	
1,1-Dichloropropene	ug/L	ND	5.0	0.66	11/19/19 15:19	
1,2-Dibromoethane (EDB)	ug/L	ND	5.0	0.51	11/19/19 15:19	
1,2-Dichloroethane	ug/L	ND	5.0	0.67	11/19/19 15:19	
1,2-Dichloropropane	ug/L	ND	5.0	0.71	11/19/19 15:19	
1,3-Dichloropropane	ug/L	ND	5.0	0.61	11/19/19 15:19	
2,2-Dichloropropane	ug/L	ND	5.0	0.50	11/19/19 15:19	
2-Butanone (MEK)	ug/L	ND	25.0	2.0	11/19/19 15:19	
2-Chlorotoluene	ug/L	ND	5.0	0.49	11/19/19 15:19	
2-Hexanone	ug/L	ND	25.0	2.4	11/19/19 15:19	
4-Chlorotoluene	ug/L	ND	5.0	0.62	11/19/19 15:19	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	25.0	4.3	11/19/19 15:19	
Acetone	ug/L	ND	100	5.0	11/19/19 15:19	
Acetonitrile	ug/L	ND	100	1.2	11/19/19 15:19	
Acrolein	ug/L	ND	50.0	9.9	11/19/19 15:19	
Acrylonitrile	ug/L	ND	100	5.0	11/19/19 15:19	
Allyl chloride	ug/L	ND	5.0	3.1	11/19/19 15:19	
Benzene	ug/L	ND	5.0	0.68	11/19/19 15:19	
Bromobenzene	ug/L	ND	5.0	0.71	11/19/19 15:19	
Bromochloromethane	ug/L	ND	5.0	0.60	11/19/19 15:19	
Bromodichloromethane	ug/L	ND	5.0	0.49	11/19/19 15:19	
Bromoform	ug/L	ND	5.0	0.68	11/19/19 15:19	
Bromomethane	ug/L	ND	5.0	5.0	11/19/19 15:19	
Carbon disulfide	ug/L	ND	10.0	0.51	11/19/19 15:19	
Carbon tetrachloride	ug/L	ND	5.0	0.63	11/19/19 15:19	
Chlorobenzene	ug/L	ND	5.0	0.61	11/19/19 15:19	
Chloroethane	ug/L	ND	5.0	0.66	11/19/19 15:19	
Chloroform	ug/L	ND	5.0	0.66	11/19/19 15:19	
Chloromethane	ug/L	ND	5.0	0.61	11/19/19 15:19	
cis-1,2-Dichloroethene	ug/L	ND	5.0	0.69	11/19/19 15:19	
cis-1,3-Dichloropropene	ug/L	ND	4.1	0.55	11/19/19 15:19	
Dibromochloromethane	ug/L	ND	5.0	0.54	11/19/19 15:19	
Dibromomethane	ug/L	ND	5.0	0.55	11/19/19 15:19	
Dichlorodifluoromethane	ug/L	ND	5.0	0.91	11/19/19 15:19	
Ethylbenzene	ug/L	ND	5.0	0.56	11/19/19 15:19	
Iodomethane	ug/L	ND	10.0	2.1	11/19/19 15:19	

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QUALITY CONTROL DATA

Project: Stickney Landfill
Pace Project No.: 50241614

METHOD BLANK: 2464581 Matrix: Water
Associated Lab Samples: 50241614010, 50241614012, 50241614013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
m&p-Xylene	ug/L	ND	5.0	1.3	11/19/19 15:19	
Methyl-tert-butyl ether	ug/L	ND	4.0	0.44	11/19/19 15:19	
Methylene Chloride	ug/L	ND	5.0	1.0	11/19/19 15:19	
n-Hexane	ug/L	ND	5.0	1.6	11/19/19 15:19	N2
o-Xylene	ug/L	ND	5.0	0.52	11/19/19 15:19	
Styrene	ug/L	ND	5.0	0.55	11/19/19 15:19	
Tetrachloroethene	ug/L	ND	5.0	0.71	11/19/19 15:19	
Toluene	ug/L	ND	5.0	0.57	11/19/19 15:19	
trans-1,2-Dichloroethene	ug/L	ND	5.0	0.62	11/19/19 15:19	
trans-1,3-Dichloropropene	ug/L	ND	4.1	0.15	11/19/19 15:19	
Trichloroethene	ug/L	ND	5.0	0.60	11/19/19 15:19	
Trichlorofluoromethane	ug/L	ND	5.0	0.39	11/19/19 15:19	
Vinyl acetate	ug/L	ND	50.0	1.5	11/19/19 15:19	
Vinyl chloride	ug/L	ND	2.0	0.39	11/19/19 15:19	
4-Bromofluorobenzene (S)	%.	100	85-114		11/19/19 15:19	
Dibromofluoromethane (S)	%.	101	80-122		11/19/19 15:19	
Toluene-d8 (S)	%.	95	85-114		11/19/19 15:19	

LABORATORY CONTROL SAMPLE: 2464582

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	45.5	91	78-120	
1,1,1-Trichloroethane	ug/L	50	55.7	111	72-127	
1,1,2,2-Tetrachloroethane	ug/L	50	49.7	99	70-124	
1,1,2-Trichloroethane	ug/L	50	49.9	100	79-121	
1,1-Dichloroethane	ug/L	50	54.7	109	70-119	
1,1-Dichloroethene	ug/L	50	60.8	122	71-126	
1,1-Dichloropropene	ug/L	50	55.4	111	76-122	
1,2-Dibromoethane (EDB)	ug/L	50	47.6	95	81-119	
1,2-Dichloroethane	ug/L	50	49.4	99	68-119	
1,2-Dichloropropane	ug/L	50	56.3	113	79-126	
1,3-Dichloropropane	ug/L	50	50.6	101	82-124	
2,2-Dichloropropane	ug/L	50	51.1	102	53-137	
2-Butanone (MEK)	ug/L	250	283	113	62-140	
2-Chlorotoluene	ug/L	50	53.7	107	76-120	
2-Hexanone	ug/L	250	240	96	62-143	
4-Chlorotoluene	ug/L	50	51.6	103	78-114	
4-Methyl-2-pentanone (MIBK)	ug/L	250	259	104	60-143	
Acetone	ug/L	250	257	103	44-156	
Acetonitrile	ug/L	50	51.7J	103	50-150	
Acrolein	ug/L	1000	915	92	17-189	
Acrylonitrile	ug/L	200	213	106	58-139	
Allyl chloride	ug/L	100	123	123	70-130	
Benzene	ug/L	50	54.5	109	78-117	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Stickney Landfill
Pace Project No.: 50241614

LABORATORY CONTROL SAMPLE: 2464582

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromobenzene	ug/L	50	50.6	101	76-114	
Bromochloromethane	ug/L	50	50.0	100	70-122	
Bromodichloromethane	ug/L	50	50.0	100	72-121	
Bromoform	ug/L	50	38.8	78	66-117	
Bromomethane	ug/L	50	40.2	80	20-176	
Carbon disulfide	ug/L	50	60.0	120	65-124	
Carbon tetrachloride	ug/L	50	48.3	97	68-132	
Chlorobenzene	ug/L	50	49.5	99	79-113	
Chloroethane	ug/L	50	46.4	93	62-140	
Chloroform	ug/L	50	51.8	104	73-118	
Chloromethane	ug/L	50	44.9	90	36-132	
cis-1,2-Dichloroethene	ug/L	50	53.7	107	74-122	
cis-1,3-Dichloropropene	ug/L	50	49.8	100	79-126	
Dibromochloromethane	ug/L	50	44.2	88	75-121	
Dibromomethane	ug/L	50	48.5	97	75-123	
Dichlorodifluoromethane	ug/L	50	53.5	107	27-172	
Ethylbenzene	ug/L	50	51.3	103	80-118	
Iodomethane	ug/L	100	98.7	99	10-186	
m&p-Xylene	ug/L	100	105	105	81-118	
Methyl-tert-butyl ether	ug/L	50	51.7	103	72-128	
Methylene Chloride	ug/L	50	58.5	117	70-121	
n-Hexane	ug/L	50	66.4	133	58-149	N2
o-Xylene	ug/L	50	50.5	101	79-119	
Styrene	ug/L	50	48.7	97	80-119	
Tetrachloroethene	ug/L	50	47.4	95	76-124	
Toluene	ug/L	50	52.4	105	78-116	
trans-1,2-Dichloroethene	ug/L	50	60.1	120	73-121	
trans-1,3-Dichloropropene	ug/L	50	46.1	92	73-126	
Trichloroethene	ug/L	50	54.0	108	76-120	
Trichlorofluoromethane	ug/L	50	51.8	104	60-138	
Vinyl acetate	ug/L	200	211	106	29-200	
Vinyl chloride	ug/L	50	58.5	117	70-136	
4-Bromofluorobenzene (S)	%.			104	85-114	
Dibromofluoromethane (S)	%.			97	80-122	
Toluene-d8 (S)	%.			96	85-114	

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QUALITY CONTROL DATA

Project: Stickney Landfill
Pace Project No.: 50241614

QC Batch: 533947 | Analysis Method: EPA 8081
QC Batch Method: EPA 3510 | Analysis Description: 8081 GCS Pesticides
Associated Lab Samples: 50241614001, 50241614002, 50241614003, 50241614004, 50241614005, 50241614006, 50241614007, 50241614008, 50241614012

METHOD BLANK: 2464178 | Matrix: Water
Associated Lab Samples: 50241614001, 50241614002, 50241614003, 50241614004, 50241614005, 50241614006, 50241614007, 50241614008, 50241614012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
4,4'-DDT	ug/L	ND	0.10	0.040	11/21/19 11:45	
Aldrin	ug/L	ND	0.050	0.049	11/21/19 11:45	
Heptachlor	ug/L	ND	0.050	0.042	11/21/19 11:45	
Decachlorobiphenyl (S)	%.	74	14-122		11/21/19 11:45	

LABORATORY CONTROL SAMPLE: 2464179

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4,4'-DDT	ug/L	2	1.9	97	31-192	
Aldrin	ug/L	1	1.1	108	10-166	
Heptachlor	ug/L	1	1.0	105	10-170	
Decachlorobiphenyl (S)	%.			85	14-122	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2464182 2464183

Parameter	Units	50241614005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
4,4'-DDT	ug/L	ND	2	2	1.5	1.5	75	75	24-178	1	20	
Aldrin	ug/L	ND	1	1	0.77	0.73	77	73	10-155	6	20	
Heptachlor	ug/L	ND	1	1	0.77	0.71	77	71	10-160	8	20	
Decachlorobiphenyl (S)	%.						37	45	14-122			

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QUALITY CONTROL DATA

Project: Stickney Landfill
Pace Project No.: 50241614

QC Batch: 533945 | Analysis Method: EPA 8082
QC Batch Method: EPA 3510 | Analysis Description: 8082 GCS PCB Mod
Associated Lab Samples: 50241614001, 50241614002, 50241614003, 50241614004, 50241614005, 50241614006, 50241614007, 50241614008, 50241614010, 50241614012

METHOD BLANK: 2464168 | Matrix: Water
Associated Lab Samples: 50241614001, 50241614002, 50241614003, 50241614004, 50241614005, 50241614006, 50241614007, 50241614008, 50241614010, 50241614012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	ND	0.10	0.072	11/19/19 21:08	
PCB-1221 (Aroclor 1221)	ug/L	ND	0.10	0.087	11/19/19 21:08	
PCB-1232 (Aroclor 1232)	ug/L	ND	0.10	0.077	11/19/19 21:08	
PCB-1242 (Aroclor 1242)	ug/L	ND	0.10	0.077	11/19/19 21:08	
PCB-1248 (Aroclor 1248)	ug/L	ND	0.10	0.064	11/19/19 21:08	
PCB-1254 (Aroclor 1254)	ug/L	ND	0.10	0.081	11/19/19 21:08	
PCB-1260 (Aroclor 1260)	ug/L	ND	0.10	0.071	11/19/19 21:08	
Tetrachloro-m-xylene (S)	%.	83	10-148		11/19/19 21:08	

LABORATORY CONTROL SAMPLE: 2464169

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	5	5.1	103	45-157	
PCB-1260 (Aroclor 1260)	ug/L	5	4.7	94	42-155	
Tetrachloro-m-xylene (S)	%.			92	10-148	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2464170 2464171

Parameter	Units	50241614005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/L	ND	5	5	4.4	4.4	89	87	27-174	2	20	
PCB-1260 (Aroclor 1260)	ug/L	0.37	5	5	2.3	2.4	39	40	10-157	2	20	
Tetrachloro-m-xylene (S)	%.						79	83	10-148			

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QUALITY CONTROL DATA

Project: Stickney Landfill
Pace Project No.: 50241614

QC Batch: 533917 | Analysis Method: EPA 8270 by SIM
QC Batch Method: EPA 3510 | Analysis Description: 8270 Water PAH Low Volume
Associated Lab Samples: 50241614001, 50241614002, 50241614003, 50241614004, 50241614005, 50241614006, 50241614007, 50241614008, 50241614012

METHOD BLANK: 2463974 | Matrix: Water
Associated Lab Samples: 50241614001, 50241614002, 50241614003, 50241614004, 50241614005, 50241614006, 50241614007, 50241614008, 50241614012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthene	ug/L	ND	1.0	0.015	11/20/19 17:40	
Benzo(a)anthracene	ug/L	0.19	0.10	0.027	11/20/19 17:40	
Benzo(a)pyrene	ug/L	0.17	0.10	0.026	11/20/19 17:40	
Benzo(b)fluoranthene	ug/L	0.21	0.10	0.031	11/20/19 17:40	
Benzo(k)fluoranthene	ug/L	0.19	0.10	0.020	11/20/19 17:40	
Chrysene	ug/L	0.13J	0.50	0.020	11/20/19 17:40	
Dibenz(a,h)anthracene	ug/L	0.13	0.092	0.071	11/20/19 17:40	
Indeno(1,2,3-cd)pyrene	ug/L	0.20	0.10	0.073	11/20/19 17:40	
Naphthalene	ug/L	ND	1.0	0.014	11/20/19 17:40	
Pyrene	ug/L	ND	1.0	0.020	11/20/19 17:40	
2-Fluorobiphenyl (S)	%.	85	10-83		11/20/19 17:40	S0
p-Terphenyl-d14 (S)	%.	103	28-125		11/20/19 17:40	

LABORATORY CONTROL SAMPLE: 2463975

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/L	10	8.8	88	21-102	
Benzo(a)anthracene	ug/L	10	9.9	99	36-131	
Benzo(a)pyrene	ug/L	10	9.0	90	31-121	
Benzo(b)fluoranthene	ug/L	10	11.4	114	32-130	
Benzo(k)fluoranthene	ug/L	10	8.3	83	33-127	
Chrysene	ug/L	10	10.4	104	41-118	
Dibenz(a,h)anthracene	ug/L	10	8.3	83	25-121	
Indeno(1,2,3-cd)pyrene	ug/L	10	8.8	88	26-119	
Naphthalene	ug/L	10	8.1	81	19-97	
Pyrene	ug/L	10	11.1	111	36-123	
2-Fluorobiphenyl (S)	%.			88	10-83	S0
p-Terphenyl-d14 (S)	%.			96	28-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2463976 2463977

Parameter	Units	50241614005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acenaphthene	ug/L	0.50J	9.1	9.1	5.7	5.4	58	54	13-91	7	20	
Benzo(a)anthracene	ug/L	0.080J	9.1	9.1	8.8	9.3	96	101	36-113	5	20	
Benzo(a)pyrene	ug/L	ND	9.1	9.1	7.2	7.8	80	86	22-92	8	20	
Benzo(b)fluoranthene	ug/L	ND	9.1	9.1	9.2	9.8	101	108	28-104	6	20	M1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Stickney Landfill
Pace Project No.: 50241614

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2463976 2463977

Parameter	Units	50241614005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzo(k)fluoranthene	ug/L	0.045J	9.1	9.1	5.7	6.5	63	71	19-98	12	20	
Chrysene	ug/L	0.051J	9.1	9.1	7.1	7.4	78	81	36-100	4	20	
Dibenz(a,h)anthracene	ug/L	ND	9.1	9.1	5.4	6.4	59	70	12-88	17	20	
Indeno(1,2,3-cd)pyrene	ug/L	ND	9.1	9.1	5.9	6.7	64	74	13-88	14	20	
Naphthalene	ug/L	ND	9.1	9.1	8.0	7.6	88	84	14-92	5	20	
Pyrene	ug/L	0.20J	9.1	9.1	9.6	9.2	103	99	29-112	4	20	
2-Fluorobiphenyl (S)	%.						53	53	10-83			
p-Terphenyl-d14 (S)	%.						77	87	28-125			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Stickney Landfill
Pace Project No.: 50241614

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-I	Pace Analytical Services - Indianapolis

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
B0	Analyte was detected in an associated blank at a concentration greater than the MDL.
D4	Sample was diluted due to the presence of high levels of target analytes.
H7	Re-extraction or re-analysis could not be performed within method holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
S0	Surrogate recovery outside laboratory control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Stickney Landfill
Pace Project No.: 50241614

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50241614001	**S-MW-21LP**		533875		
50241614002	**S-MW-24LP**		533875		
50241614003	**S-MW-27LP**		533875		
50241614004	**S-MW-30LP**		533875		
50241614005	**S-MW-33LP**		533875		
50241614006	**S-MW-35LP**		533875		
50241614007	**DUP-1**		533875		
50241614010	**S-MW-37LP**		533875		
50241614001	**S-MW-21LP**	EPA 3510	533947	EPA 8081	534040
50241614002	**S-MW-24LP**	EPA 3510	533947	EPA 8081	534040
50241614003	**S-MW-27LP**	EPA 3510	533947	EPA 8081	534040
50241614004	**S-MW-30LP**	EPA 3510	533947	EPA 8081	534040
50241614005	**S-MW-33LP**	EPA 3510	533947	EPA 8081	534040
50241614006	**S-MW-35LP**	EPA 3510	533947	EPA 8081	534040
50241614007	**DUP-1**	EPA 3510	533947	EPA 8081	534040
50241614008	**Field Blank**	EPA 3510	533947	EPA 8081	534040
50241614012	**Field Blank (FB)**	EPA 3510	533947	EPA 8081	534040
50241614001	**S-MW-21LP**	EPA 3510	533945	EPA 8082	534039
50241614002	**S-MW-24LP**	EPA 3510	533945	EPA 8082	534039
50241614003	**S-MW-27LP**	EPA 3510	533945	EPA 8082	534039
50241614004	**S-MW-30LP**	EPA 3510	533945	EPA 8082	534039
50241614005	**S-MW-33LP**	EPA 3510	533945	EPA 8082	534039
50241614006	**S-MW-35LP**	EPA 3510	533945	EPA 8082	534039
50241614007	**DUP-1**	EPA 3510	533945	EPA 8082	534039
50241614008	**Field Blank**	EPA 3510	533945	EPA 8082	534039
50241614010	**S-MW-37LP**	EPA 3510	533945	EPA 8082	534039
50241614012	**Field Blank (FB)**	EPA 3510	533945	EPA 8082	534039
50241614001	**S-MW-21LP**	EPA 7470	534108	EPA 7470	534752
50241614002	**S-MW-24LP**	EPA 7470	534108	EPA 7470	534752
50241614003	**S-MW-27LP**	EPA 7470	534108	EPA 7470	534752
50241614004	**S-MW-30LP**	EPA 7470	534108	EPA 7470	534752
50241614005	**S-MW-33LP**	EPA 7470	534108	EPA 7470	534752
50241614006	**S-MW-35LP**	EPA 7470	534108	EPA 7470	534752
50241614007	**DUP-1**	EPA 7470	534108	EPA 7470	534752
50241614008	**Field Blank**	EPA 7470	534108	EPA 7470	534752
50241614001	**S-MW-21LP**	EPA 3510	533917	EPA 8270 by SIM	534375
50241614002	**S-MW-24LP**	EPA 3510	533917	EPA 8270 by SIM	534375
50241614003	**S-MW-27LP**	EPA 3510	533917	EPA 8270 by SIM	534375
50241614004	**S-MW-30LP**	EPA 3510	533917	EPA 8270 by SIM	534375
50241614005	**S-MW-33LP**	EPA 3510	533917	EPA 8270 by SIM	534375
50241614006	**S-MW-35LP**	EPA 3510	533917	EPA 8270 by SIM	534375
50241614007	**DUP-1**	EPA 3510	533917	EPA 8270 by SIM	534375
50241614008	**Field Blank**	EPA 3510	533917	EPA 8270 by SIM	534375
50241614012	**Field Blank (FB)**	EPA 3510	533917	EPA 8270 by SIM	534375
50241614012	**Field Blank (FB)**	EPA 8260	534033		
50241614013	**Trip Blank**	EPA 8260	534033		

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Stickney Landfill
Pace Project No.: 50241614

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50241614010	**S-MW-37LP**	EPA 8260	534033		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Civil & Environmental Consultants - Toledo	Report To:	Wes Speiser	Attention:	
Address:	4841 Monroe Street	Copy To:		Company Name:	
	Toledo, OH 43623			Address:	
Email:	wspeiser@cecinc.com	Purchase Order #:		Pace Quote:	
Phone:	(419)378-1943 Fax:	Project Name:	Stickney Landfill	Pace Project Manager:	chris.boyle@pacelabs.com,
Requested Due Date:		Project #:		Pace Profile #:	7624 / 1

Regulatory Agency	
State / Location	OH

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Mercury, Total	Pesticide by 8081	PCB by 8082	SVOC by 8270	~~VOC by 8260~~ MC	Residual Chlorine (Y/N)	SS241614
1	S-MW-21LP	WT	G	11/12/19	1435	—	—		7	6		1							X	X	X	X			001
2	S-MW-24LP	WT	G	11/12/19	1348	—	—		7	6		1							X	X	X	X			002
3	S-MW-27LP	WT	G	11/12/19	1409	—	—		7	6		1							X	X	X	X			003
4	S-MW-30LP	WT	G	11/12/19	1449	—	—		7	6		1							X	X	X	X			004
5	S-MW-33LP	WT	G	11/12/19	1304	—	—		7	6		1							X	X	X	X			005
6	S-MW-35LP	WT	G	11/12/19	1011	—	—		~~6~~ 7	6		1	~~5~~ 7						X	X	X	X	X		006
7	DUP-1	WT	G	11/12/19	—	—	—		~~6~~ 7	6		1	~~5~~ 7						X	X	X	X	X		007
8	MS/MSD	WT	G	11/12/19	1319	—	—		~~6~~ 7	6		1	~~5~~ 7						X	X	X	X	X		~~008~~ 002
9	Field Blank (FB)	WT	G	11/12/19	1325	—	—		~~2~~ 7	6		1									X				008
~~10~~	~~[illegible]~~	~~WT~~	~~G~~						~~2~~	~~2~~											X				
~~11~~	~~[illegible]~~	~~WT~~	~~DI~~						~~3~~				3												
12																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	[signature] / CEC	11/13/19	1930	Fedex	11-13-19	1930				
	Fedex	11-14-19	900	[signature]	11-14-19	900	4.0 5.0 3.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Michael Cline, John Dilworth

SIGNATURE of SAMPLER: [signature]

DATE Signed: 11/13/19

COC PAGE 1 of 2

Sample Container Count

Sample Line Item	WGFU	SBS DI BK Kit R	DG9H VG9H	VOA VIALS (>6mm)	VG9U	DG9U	DG9T	AG0U	AG1H	AG1U	AG3S	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H					Matrix	pH <2	pH >9	pH>12
1								6								1										WT	—		
2																													
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

Container Codes

Glass

DG9B	40mL Na Bisulfate amber vial	AG0U	100mL unpres amber glass
DG9H	40mL HCl amber voa vial	AG1H	1L HCl amber glass
DG9M	40mL MeOH clear vial	AG1S	1L H2SO4 amber glass
DG9P	40mL TSP amber vial	AG1T	1L Na Thiosulfate amber glass
DG9S	40mL H2SO4 amber vial	AG1U	1liter unpres amber glass
DG9T	40mL Na Thio amber vial	AG2N	500mL HNO3 amber glass
DG9U	40mL unpreserved **amber** vial	AG2S	500mL H2SO4 amber glass
VG9H	40mL HCl clear vial	AG2U	500mL unpres amber glass
VG9T	40mL Na Thio. clear vial	AG3S	250mL H2SO4 amber glass
VG9U	40mL unpreserved **clear** vial	AG3U	250mL unpres amber glass
VGFX	40mL w/hexane wipe vial	BG1H	1L HCl clear glass
VSG	Headspace septa vial & HCl	BG1S	1L H2SO4 clear glass
WGKU	8oz unpreserved clear jar	BG1T	1L Na Thiosulfate clear glass
WGFU	4oz clear soil jar	BG1U	1L unpreserved glass
JGFU	4oz unpreserved amber wide	BG3H	250mL HCl Clear Glass
CG3H	250mL clear glass HCl	BG3U	250mL Unpres Clear Glass

Plastic / Misc.

BP1A	1L NaOH, Asc Acid plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2A	500mL NaOH, Asc Acid plastic
BP2N	500mL HNO3 plastic
BP2O	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic (field filtered)
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Ac plastic

AF	Air Filter
C	Air Cassettes
R	Terra core kit
SP5T	120mL Coliform Na Thiosulfate
U	Summa Can
ZPLC	Ziploc Bag

WT	Water
SL	Solid
NAL	Non-aqueous liquid
WP	Wipe

COC PAGE 2 of 2

Sample Container Count

WO#: 50241614

50241614

Sample Line Item	WGFU	SBS DI BK Kit R	DG9H VG9H	VOA VIALS (>6mm)	VG9U	DG9U	DG9T	AG0U	AG1H	AG1U	AG3S	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H					Matrix	pH <2	pH >9	pH>12
1					3			6																		WP			
2					3																								
3				1	3																								
4					3																								
5			3																										
6			3																										
7																													
8																													
9																													
10																													
11																													
12																													

Container Codes

Glass

DG9B	40mL Na Bisulfate amber vial	AG0U	100mL unpres amber glass
DG9H	40mL HCl amber voa vial	AG1H	1L HCl amber glass
DG9M	40mL MeOH clear vial	AG1S	1L H2SO4 amber glass
DG9P	40mL TSP amber vial	AG1T	1L Na Thiosulfate amber glass
DG9S	40mL H2SO4 amber vial	AG1U	1liter unpres amber glass
DG9T	40mL Na Thio amber vial	AG2N	500mL HNO3 amber glass
DG9U	40mL unpreserved amber vial	AG2S	500mL H2SO4 amber glass
VG9H	40mL HCl clear vial	AG2U	500mL unpres amber glass
VG9T	40mL Na Thio. clear vial	AG3S	250mL H2SO4 amber glass
VG9U	40mL unpreserved clear vial	AG3U	250mL unpres amber glass
VGFX	40mL w/hexane wipe vial	BG1H	1L HCl clear glass
VSG	Headspace septa vial & HCl	BG1S	1L H2SO4 clear glass
WGKU	8oz unpreserved clear jar	BG1T	1L Na Thiosulfate clear glass
WGFU	4oz clear soil jar	BG1U	1L unpreserved glass
JGFU	4oz unpreserved amber wide	BG3H	250mL HCl Clear Glass
CG3H	250mL clear glass HCl	BG3U	250mL Unpres Clear Glass

Plastic / Misc.

BP1A	1L NaOH, Asc Acid plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2A	500mL NaOH, Asc Acid plastic
BP2N	500mL HNO3 plastic
BP2O	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic (field filtered)
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Ac plastic

AF	Air Filter
C	Air Cassettes
R	Terra core kit
SP5T	120mL Coliform Na Thiosulfate
U	Summa Can
ZPLC	Ziploc Bag

WT	Water
SL	Solid
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Civil & Environmental Consultants - Toledo	Report To:	Wes Speiser	Attention:	
Address:	4841 Monroe Street	Copy To:		Company Name:	
	Toledo, OH 43623			Address:	
Email:	wspeiser@cecinc.com	Purchase Order #:		Pace Quote:	
Phone:	(419)378-1943 Fax:	Project Name:	Stickney Landfill	Pace Project Manager:	chris.boyle@pacelabs.com,
Requested Due Date:		Project #:		Pace Profile #	7624 / 1

Regulatory Agency	
State / Location	
	OH

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Mercury, Total	Pesticide by 8081	PCB by 8082	SVOC by 8270	VOC by 8260	Residual Chlorine (Y/N)	50241614
1	S-MW-36LP *	WT	G	11/12/19	1618	—	—		9	6		1	3						X	X	X	X	X		009
2	S-MW-37LP *	WT	G	11/12/19	1710	—	—		9	6		1	3						X	X	X	X	X		010
3	DUP-2 *	WT	G	11/12/19	—	—	—		9	6		1	3						X	X	X	X	X		011
4	MS/MSD *	WT	G	11/12/19	1623	—	—		9	6		1	3						X	X	X	X	X		~~012~~
5	Field Blank (FB)	WT	G	11/12/19	1640	—	—		9	6		1	3						X	X	X	X	X		012
6	Trip Blank	WT	G	—	—	—	—		~~3~~ 2	1		1	3						X	~~X~~	~~X~~	~~X~~	X		013
7		WT	G						10	6		1	3						X	~~X~~	~~X~~	~~X~~	X		
8		WT	G						10	6		1	3						X	X	X	X	X		
9		WT	G						2	2											X				
10		WT	G						2	2											X				
11		WT	DI						3				3										X		
12																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
*HCl Removed From Vials.	[signature] / CEC	11/13/19	1930	FedEx	11/13/19	1930	
HOLD TIME ⇒ 7 DAYS	FedEx	11-14-19	900	[signature]	11-14-19	900	4.0 5.0 3.6

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Michael Cline, John Dilworth

SIGNATURE of SAMPLER: [signature] DATE Signed 11/13/19

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

S-MW-36LP and DUP-2 will be resampled due to oil in samples.

Pace Analytical

SAMPLE CONDITION UPON RECEIPT FORM

Project #: _____

Date/Time and Initials of person examining contents: KS 11-14-19 1014

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other _____

Tracking #: 1250 8112 8532

Custody Seal on Cooler/Box Present: ☑ Yes ☐ No Seals Intact: ☑ Yes ☐ No

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

Thermometer: 1 2 3 4 5 6 A B C D E F Ice Type: ☑ Wet ☐ Blue ☐ None | Samples collected today and on ice: ☐ Yes ☐ No ☑ N/A

Cooler Temperature: 4.0|4.0, 3.6|3.6, 5.0|5.0 Ice Visible in Sample Containers?: ☐ Yes ☑ No ☐ N/A

(Initial/Corrected) Temp should be above freezing to 6°C If temp. is Over 6°C or under 0°C, was the PM Notified?: ☐ Yes ☐ No ☑ N/A

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
Are samples from West Virginia? Document any containers out of temp.		✓	All containers needing acid/base pres. Have been checked?: **exceptions: VOA, coliform, LLHg, O&G, and any container with a septum cap or preserved with HCl.** All containers needing preservation are found to be in compliance with EPA recommendation (<2, >9, >12) unless otherwise noted. Circle: HNO3 H2SO4 NaOH NaOH/ZnAc	✓		
USDA Regulated Soils? (ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓				
Chain of Custody Present:	✓					
Chain of Custody Filled Out:	✓		Dissolved Metals field filtered?:			✓
Short Hold Time Analysis (<72hr)?: Analysis:		✓	Headspace Wisconsin Sulfide			✓
Time 5035A TC placed in Freezer or Short Holds To Lab:				Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
			Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Rush TAT Requested:		✓	Headspace in VOA Vials (>6mm):	✓		
Containers Intact?:	✓		Trip Blank Present?:	✓		
Sample Labels (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Custody Seals?:	✓		
Extra labels on Terracore Vials (soils only)?						

Comments: Samples S-MW-36LP, [redacted], Dup-2 and MS/MSD time 1623 contains oils

Cancel analysis for S-MW-36LP and duplicate. Will resample per W. Speiser via phone 11/19/19 @ 1251. 11/19/19tms

F-IN-Q-290-rev.18,22Apr2019

Pace Analytical Services, Inc.

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Civil & Environment
Lab Smp Id: 50241614001
Operator : grm
Sample Location:
Sample Matrix: WATER
Analysis Type: SV
Inj Date: 20-NOV-2019 18:34

Client SDG: 50MSS6-112019
Client Smp ID: S-MW-21LP
Sample Date: 12-NOV-2019
Sample Point:
Date Received:14-NOV-2019 09:00
Level: LOW

Number TICs found: 30

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	1.486	22.20	J
2.		Unknown	3.373	11.44	J
3.	107-49-3	Diphosphoric acid, tetraeth	3.575	9.57	NJ
4.	24903-95-5	Bicyclo[3.1.1]heptan-2-one,	3.824	9.63	NJ
5.	610-72-0	Benzoic acid, 2,5-dimethyl-	5.401	3.05	NJ
6.		Unknown	5.885	5.15	J
7.		Unknown	6.105	3.86	J
8.		Unknown	6.158	3.28	J
9.	96-76-4	Phenol, 2,4-bis(1,1-dimethy	6.360	3.82	NJ
10.		Unknown	6.431	7.45	J
11.		Unknown	6.475	4.74	J
12.		Unknown	6.624	5.79	J
13.	134-62-3	Diethyltoluamide	6.721	15.49	NJ
14.	126-73-8	Phosphoric acid tributyl es	7.038	22.91	NJ
15.		Unknown	7.126	60.31	J
16.		Unknown	7.161	7.11	J
17.	934-34-9	2(3H)-Benzothiazolone	7.231	73.98	NJ
18.	80-39-7	Benzenesulfonamide, N-ethyl	7.416	14.31	NJ
19.		Unknown	7.638	2.83	J
20.		Unknown	7.994	14.14	J
21.		Unknown	8.119	3.03	J
22.		Unknown	8.345	2.75	J
23.	57-10-3	Hexadecanoic acid	8.420	20.33	NJ
24.	50-06-6	Phenobarbital	8.601	6.14	NJ
25.		Unknown	8.770	10.90	J
26.	10544-50-0	Sulfur, mol. (S8)	8.957	19.96	NJ
27.	57-11-4	Octadecanoic acid	9.195	17.88	NJ
28.	80-05-7	Phenol, 4,4'-(1-methylethyl	9.289	3.77	NJ
29.		Unknown	10.027	8.37	J
30.		Unknown	11.131	3.43	J

Pace Analytical Services, Inc.

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Civil & Environment
Lab Smp Id: 50241614002
Operator : grm
Sample Location:
Sample Matrix: WATER
Analysis Type: SV
Inj Date: 20-NOV-2019 18:50

Client SDG: 50MSS6-112019
Client Smp ID: S-MW-24LP
Sample Date: 12-NOV-2019
Sample Point:
Date Received:14-NOV-2019 09:00
Level: LOW

Number TICs found: 20

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	1.487	15.27	J
2.		Unknown	5.058	1.69	J
3.		Unknown	6.475	1.97	J
4.		Unknown	6.695	4.74	J
5.		Unknown	7.126	5.66	J
6.	934-34-9	2(3H)-Benzothiazolone	7.223	7.90	NJ
7.	17312-82-2	Undecane, 4,6-dimethyl-	7.328	6.09	NJ
8.	80-39-7	Benzenesulfonamide, N-ethyl	7.416	1.93	NJ
9.	57-10-3	Hexadecanoic acid	8.420	17.05	NJ
10.	20646-54-2	1H-Azepine, 1-(phenylsulfon	8.764	1.32	NJ
11.	10544-50-0	Sulfur, mol. (S8)	8.957	17.75	NJ
12.		Unknown	9.032	2.50	J
13.		Unknown	9.107	0.686	J
14.	57-11-4	Octadecanoic acid	9.189	10.64	NJ
15.		Unknown	9.677	1.68	J
16.	112-95-8	Eicosane	11.605	2.54	NJ
17.	112-95-8	Eicosane	11.950	3.89	NJ
18.	112-95-8	Eicosane	12.321	4.30	NJ
19.	629-59-4	Tetradecane	12.710	6.08	NJ
20.	629-92-5	Nonadecane	13.118	3.81	NJ

Pace Analytical Services, Inc.

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Civil & Environment
Lab Smp Id: 50241614003
Operator : grm
Sample Location:
Sample Matrix: WATER
Analysis Type: SV
Inj Date: 20-NOV-2019 19:06

Client SDG: 50MSS6-112019
Client Smp ID: S-MW-27LP
Sample Date: 12-NOV-2019
Sample Point:
Date Received:14-NOV-2019 09:00
Level: LOW

Number TICs found: 29

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	367-12-4	Phenol, 2-fluoro-	1.494	27.41	NJ
2.	1925-39-9	2,10-Bornanediol, exo-	3.513	3.77	NJ
3.	1192-62-7	Ethanone, 1-(2-furanyl)-	4.779	2.11	NJ
4.	501-00-8	Benzeneacetonitrile, 3-fluo	5.058	2.49	NJ
5.		Unknown	5.111	2.68	J
6.		Unknown	5.216	2.56	J
7.		Unknown	5.296	1.91	J
8.		Unknown	5.445	2.12	J
9.		Unknown	5.683	1.62	J
10.		Unknown	5.718	3.48	J
11.		Unknown	5.885	1.97	J
12.	934-80-5	Benzene, 4-ethyl-1,2-dimeth	5.982	3.99	NJ
13.		Unknown	6.149	1.86	J
14.		Unknown	6.431	2.58	J
15.		Unknown	6.475	2.26	J
16.		Unknown	6.624	2.52	J
17.	126-73-8	Phosphoric acid tributyl es	7.038	5.42	NJ
18.		Unknown	7.126	16.61	J
19.	934-34-9	2(3H)-Benzothiazolone	7.231	34.41	NJ
20.	80-39-7	Benzenesulfonamide, N-ethyl	7.416	7.00	NJ
21.	57-10-3	Hexadecanoic acid	8.420	13.22	NJ
22.	1614-92-2	Piperidine, 1-(1-cyclopente	8.770	1.81	NJ
23.	12427-38-2	Maneb	8.957	5.24	NJ
24.	57-11-4	Octadecanoic acid	9.195	8.69	NJ
25.	523-59-1	2H,8H-Benzo[1,2-b:3,4-b']di	9.289	2.18	NJ
26.		Unknown	9.958	3.25	J
27.		Unknown	10.027	2.86	J
28.	629-78-7	Heptadecane	11.954	4.45	NJ
29.	630-06-8	Hexatriacontane	12.710	2.81	NJ

Pace Analytical Services, Inc.

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Civil & Environment
Lab Smp Id: 50241614004
Operator : grm
Sample Location:
Sample Matrix: WATER
Analysis Type: SV
Inj Date: 20-NOV-2019 19:23

Client SDG: 50MSS6-112019
Client Smp ID: S-MW-30LP
Sample Date: 12-NOV-2019
Sample Point:
Date Received:14-NOV-2019 09:00
Level: LOW

Number TICs found: 29

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	2.923	25.30	J
2.	2591-86-8	1-Piperidinecarboxaldehyde	3.008	15.60	NJ
3.	931-20-4	2-Piperidinone, 1-methyl-	3.202	17.45	NJ
4.		Unknown	3.738	28.06	J
5.		Unknown	3.909	34.58	J
6.		Unknown	4.584	10.15	J
7.		Unknown	4.654	8.17	J
8.		Unknown	5.128	6.39	J
9.		Unknown	5.322	4.50	J
10.		Unknown	5.515	7.13	J
11.		Unknown	5.735	4.40	J
12.	1889-67-4	Benzene, 1,1'-(1,1,2,2-tetr	6.008	21.57	NJ
13.	86-53-3	1-Naphthalenecarbonitrile	6.343	3.80	NJ
14.		Unknown	6.439	42.15	J
15.		Unknown	6.580	2.13	J
16.		Unknown	6.782	2.50	J
17.		Unknown	7.196	18.74	J
18.	934-34-9	2(3H)-Benzothiazolone	7.240	59.27	NJ
19.	80-39-7	Benzenesulfonamide, N-ethyl	7.416	20.03	NJ
20.	20324-33-8	2-Propanol, 1-[2-(2-methoxy	7.531	12.36	NJ
21.	20324-33-8	2-Propanol, 1-[2-(2-methoxy	7.556	22.14	NJ
22.	14657-86-4	Benzamide, N,N-dipropyl-	7.869	8.95	NJ
23.		Unknown	8.182	13.28	J
24.		Unknown	8.207	4.30	J
25.	57-10-3	Hexadecanoic acid	8.426	8.26	NJ
26.	57-11-4	Octadecanoic acid	9.195	14.15	NJ
27.		Unknown	9.295	3.11	J
28.	578-95-0	9(10H)-Acridinone	9.501	18.57	NJ
29.		Unknown	10.033	29.92	J

Data File: \\192.168.50.6\chem\50mss6.i\112019.b\50241614005.d Page 1
Report Date: 21-Nov-2019 15:16

Pace Analytical Services, Inc.

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Civil & Environment
Lab Smp Id: 50241614005
Operator : grm
Sample Location:
Sample Matrix: WATER
Analysis Type: SV
Inj Date: 20-NOV-2019 19:39

Client SDG: 50MSS6-112019
Client Smp ID: S-MW-33LP
Sample Date: 12-NOV-2019
Sample Point:
Date Received:14-NOV-2019 09:00
Level: LOW

Number TICs found: 30

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-91-1	1,4-Dioxane	0.826	748.0	NJ
2.	367-12-4	Phenol, 2-fluoro-	1.486	32.33	NJ
3.	78-40-0	Triethyl phosphate	3.583	16.15	NJ
4.	3302-10-1	Hexanoic acid, 3,5,5-trimet	3.738	6.48	NJ
5.	934-74-7	Benzene, 1-ethyl-3,5-dimeth	3.924	9.55	NJ
6.		Unknown	4.328	8.64	J
7.	464-45-9	Bicyclo[2.2.1]heptan-2-ol,	4.810	6.29	NJ
8.		Unknown	5.322	5.78	J
9.	492-37-5	Benzeneacetic acid, .alpha.	5.428	11.71	NJ
10.	1112-55-6	Silane, tetraethenyl-	5.735	5.93	NJ
11.	933-98-2	Benzene, 1-ethyl-2,3-dimeth	5.903	12.93	NJ
12.	98-73-7	Benzoic acid, p-tert-butyl-	6.290	17.88	NJ
13.		Unknown	6.351	7.06	J
14.		Unknown	6.448	35.00	J
15.		Unknown	6.791	14.92	J
16.		Unknown	6.818	18.94	J
17.		Unknown	6.994	17.03	J
18.		Unknown	7.134	76.52	J
19.	934-34-9	2(3H)-Benzothiazolone	7.249	69.17	NJ
20.	93-09-4	2-Naphthalenecarboxylic aci	7.266	28.42	NJ
21.		Unknown	7.328	19.13	J
22.	80-39-7	Benzenesulfonamide, N-ethyl	7.425	33.29	NJ
23.		Unknown	7.557	5.56	J
24.		Unknown	8.007	19.07	J
25.		Unknown	8.182	18.41	J
26.	57-10-3	Hexadecanoic acid	8.426	31.82	NJ
27.	1614-92-2	Piperidine, 1-(1-cyclopente	8.776	8.26	NJ
28.	57-11-4	Octadecanoic acid	9.201	19.68	NJ
29.	80-05-7	Phenol, 4,4'-(1-methylethyl	9.301	5.23	NJ
30.	13316-08-0	Thiazolo[5,4-d]pyrimidine,	9.976	11.17	NJ

Pace Analytical Services, Inc.

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Civil & Environment
Lab Smp Id: 50241614006
Operator : grm
Sample Location:
Sample Matrix: WATER
Analysis Type: SV
Inj Date: 20-NOV-2019 20:27

Client SDG: 50MSS6-112019
Client Smp ID: S-MW-35LP
Sample Date: 12-NOV-2019
Sample Point:
Date Received:14-NOV-2019 09:00
Level: LOW

Number TICs found: 29

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	1.323	6.71	J
2.		Unknown	1.486	24.01	J
3.		Unknown	4.553	3.44	J
4.	106-26-3	2,6-Octadienal, 3,7-dimethy	4.670	4.48	NJ
5.	1192-62-7	Ethanone, 1-(2-furanyl)-	4.802	2.38	NJ
6.		Unknown	4.872	5.21	J
7.	585-34-2	Phenol, m-tert-butyl-	5.067	2.79	NJ
8.		Unknown	5.234	4.40	J
9.		Unknown	5.313	1.98	J
10.		Unknown	5.428	2.07	J
11.		Unknown	5.656	1.77	J
12.		Unknown	5.806	2.78	J
13.	480-63-7	Benzoic acid, 2,4,6-trimeth	5.868	3.75	NJ
14.		Unknown	5.964	2.07	J
15.	72403-15-7	Benzene, (1-chloroethyl)met	6.000	4.48	NJ
16.		Unknown	6.440	4.89	J
17.		Unknown	6.642	3.29	J
18.	34883-14-2	Benzaldehyde, 2,4-dihydroxy	6.827	7.89	NJ
19.	98-59-9	Benzenesulfonyl chloride, 4	7.126	13.60	NJ
20.	934-34-9	2(3H)-Benzothiazolone	7.240	3.68	NJ
21.		Unknown	7.416	13.47	J
22.	84-66-2	Diethyl Phthalate	7.794	6.87	NJ
23.		Unknown	7.882	5.56	J
24.		Unknown	8.182	8.03	J
25.	4459-57-8	Oxacyclohexadecan-2-one, 16	8.351	7.16	NJ
26.	57-10-3	Hexadecanoic acid	8.432	63.91	NJ
27.	10544-50-0	Sulfur, mol. (S8)	8.957	21.37	NJ
28.	57-11-4	Octadecanoic acid	9.201	25.31	NJ
29.		Unknown	9.977	26.41	J

Pace Analytical Services, Inc.

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Civil & Environment
Lab Smp Id: 50241614007
Operator : grm
Sample Location:
Sample Matrix: WATER
Analysis Type: SV
Inj Date: 20-NOV-2019 20:43

Client SDG: 50MSS6-112019
Client Smp ID: DUP-1
Sample Date: 12-NOV-2019
Sample Point:
Date Received:14-NOV-2019 09:00
Level: LOW

Number TICs found: 30

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-91-1	1,4-Dioxane	0.826	490.6	NJ
2.		Unknown	3.404	10.93	J
3.		Unknown	3.598	10.56	J
4.	95-93-2	Benzene, 1,2,4,5-tetramethy	3.924	7.82	NJ
5.		Unknown	4.437	8.24	J
6.	492-37-5	Benzeneacetic acid, .alpha.	5.428	7.26	NJ
7.		Unknown	5.472	5.72	J
8.	106-50-3	1,4-Benzenediamine	5.736	5.39	NJ
9.		Unknown	5.903	8.19	J
10.	99-87-6	Benzene, 1-methyl-4-(1-meth	6.008	18.48	NJ
11.		Unknown	6.175	6.96	J
12.	98-73-7	Benzoic acid, p-tert-butyl-	6.290	12.40	NJ
13.		Unknown	6.448	26.18	J
14.		Unknown	6.642	5.65	J
15.		Unknown	6.818	19.22	J
16.		Unknown	6.853	13.12	J
17.	54932-78-4	Phenol, 4-(2,2,3,3-tetramet	6.879	16.51	NJ
18.		Unknown	7.135	52.94	J
19.	934-34-9	2(3H)-Benzothiazolone	7.249	44.35	NJ
20.	86-55-5	1-Naphthalenecarboxylic aci	7.266	16.25	NJ
21.		Unknown	7.328	12.52	J
22.	80-39-7	Benzenesulfonamide, N-ethyl	7.425	23.40	NJ
23.	85-70-1	Phthalic acid, butyl ester,	7.788	8.17	NJ
24.	2380-94-1	1H-Indol-4-ol	8.019	12.41	NJ
25.		Unknown	8.182	13.68	J
26.	638-53-9	Tridecanoic acid	8.426	16.16	NJ
27.	1614-92-2	Piperidine, 1-(1-cyclopente	8.776	5.54	NJ
28.	10544-50-0	Sulfur, mol. (S8)	8.957	4.94	NJ
29.	57-11-4	Octadecanoic acid	9.201	5.89	NJ
30.		Unknown	9.977	38.56	J

Pace Analytical Services, Inc.

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Civil & Environment
Lab Smp Id: 50241614008
Operator : grm
Sample Location:
Sample Matrix: WATER
Analysis Type: SV
Inj Date: 20-NOV-2019 21:00

Client SDG: 50MSS6-112019
Client Smp ID: Field Blank
Sample Date: 12-NOV-2019
Sample Point:
Date Received:14-NOV-2019 09:00
Level: LOW

Number TICs found: 7

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 25796-26-3	1,3-Dioxane, 5-ethyl-2,2-di	1.292	4.60	NJ
2. 367-12-4	Phenol, 2-fluoro-	1.486	22.00	NJ
3.	Unknown	8.926	0.722	J
4. 7704-34-9	Sulfur	8.957	1.68	NJ
5.	Unknown	9.195	1.54	J
6.	Unknown	9.276	0.931	J
7. 544-76-3	Hexadecane	11.957	2.86	NJ

Data File: ...2.168.50.6\chem\50mss6.i\112019.b\50241614010x20.d Page 1
Report Date: 21-Nov-2019 15:20

Pace Analytical Services, Inc.

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Civil & Environment
Lab Smp Id: 50241614010
Operator : grm
Sample Location:
Sample Matrix: WATER
Analysis Type: SV
Inj Date: 20-NOV-2019 21:16

Client SDG: 50MSS6-112019
Client Smp ID: S-MW-37LP
Sample Date: 12-NOV-2019
Sample Point:
Date Received:14-NOV-2019 09:00
Level: LOW

Number TICs found: 30

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 106-42-3	p-Xylene	1.494	1506	NJ
2. 108-38-3	Benzene, 1,3-dimethyl-	1.517	2082	NJ
3. 108-38-3	Benzene, 1,3-dimethyl-	1.641	479.4	NJ
4. 108-38-3	Benzene, 1,3-dimethyl-	1.672	641.3	NJ
5. 74752-93-5	Cyclopropane, 1,1,2,3-tetra	1.952	294.4	NJ
6. 95-63-6	Benzene, 1,2,4-trimethyl-	2.255	561.1	NJ
7. 611-14-3	Benzene, 1-ethyl-2-methyl-	2.332	340.5	NJ
8. 95-63-6	Benzene, 1,2,4-trimethyl-	2.697	1260	NJ
9. 488-23-3	Benzene, 1,2,3,4-tetramethy	3.023	103.0	NJ
10. 1758-88-9	Benzene, 2-ethyl-1,4-dimeth	3.210	158.0	NJ
11. 95-93-2	Benzene, 1,2,4,5-tetramethy	3.590	571.1	NJ
12. 95-93-2	Benzene, 1,2,4,5-tetramethy	3.621	667.6	NJ
13.	Unknown	3.761	284.4	J
14. 824-22-6	1H-Indene, 2,3-dihydro-4-me	3.815	424.2	NJ
15. 55000-43-6	Benzoic acid, 2,4-dimethyl-	4.048	581.6	NJ
16. 2049-95-8	Benzene, (1,1-dimethylpropy	4.134	240.4	NJ
17. 700-12-9	Benzene, pentamethyl-	4.328	242.8	NJ
18. 4706-89-2	Benzene, 2,4-dimethyl-1-(1-	4.631	99.71	NJ
19. 700-12-9	Benzene, pentamethyl-	4.988	236.8	NJ
20. 611-01-8	Benzoic acid, 2,4-dimethyl-	5.418	167.7	NJ
21. 528-90-5	Benzoic acid, 2,4,5-trimeth	6.166	175.0	NJ
22. 10544-50-0	Sulfur, mol. (S8)	6.483	185.1	NJ
23. 629-78-7	Heptadecane	7.064	299.0	NJ
24. 37680-65-2	1,1'-Biphenyl, 2,2',5-trich	7.731	187.4	NJ
25. 7704-34-9	Sulfur	7.888	233.9	NJ
26. 16606-02-3	1,1'-Biphenyl, 2,4',5-trich	8.138	546.2	NJ
27. 15968-05-5	1,1'-Biphenyl, 2,2',6,6'-te	8.419	38.09	NJ
28. 629-94-7	Heneicosane	8.869	22.05	NJ
29. 2437-79-8	1,1'-Biphenyl, 2,2',4,4'-te	8.907	50.61	NJ
30. 10544-50-0	Sulfur, mol. (S8)	8.963	129.4	NJ

Pace Analytical Services, Inc.

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Civil & Environment
Lab Smp Id: 50241614012
Operator : grm
Sample Location:
Sample Matrix: WATER
Analysis Type: SV
Inj Date: 20-NOV-2019 21:32

Client SDG: 50MSS6-112019
Client Smp ID: Field Blank (FB)
Sample Date: 12-NOV-2019
Sample Point:
Date Received:14-NOV-2019 09:00
Level: LOW

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	1.292	6.61	J
2. 367-12-4	Phenol, 2-fluoro-	1.487	37.18	NJ
3.	Unknown	9.195	1.05	J
4.	Unknown	9.683	0.982	J
5. 301-02-0	9-Octadecenamide, (Z)-	9.908	1.87	NJ

Pace Analytical Services, LLC
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Indianapolis, IN 46268
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January 17, 2020

Wes Speiser
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4841 Monroe Street
Suite 103
Toledo, OH 43623

RE: Project: Stickney Landfill
Pace Project No.: 50242957

Dear Wes Speiser:
Enclosed are the analytical results for sample(s) received by the laboratory on November 27, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Revised report replaces the one issued on 12/19/19. Testing deleted to match QAPP. ccb 01/17/20

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Chris Boyle
chris.boyle@pacelabs.com
(317)228-3100
Project Manager

Enclosures

cc: Michael Cline, Civil & Environmental Consultants, Inc.

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project:	Stickney Landfill
Pace Project No.:	50242957

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Certification #: 200074
Indiana Certification #: C-49-06
Kansas/NELAP Certification #: E-10177
Kentucky UST Certification #: 80226
Kentucky WW Certification #: 98019
Michigan Department of Environmental Quality, Laboratory #9050
Ohio VAP Certification #: CL0065
Oklahoma Certification #: 9204
Texas Certification #: T104704355
West Virginia Certification #: 330
Wisconsin Certification #: 999788130
USDA Soil Permit #: P330-19-00257

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SAMPLE SUMMARY

Project: Stickney Landfill
Pace Project No.: 50242957

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50242957001	**S-MW-36LP**	Water	11/25/19 12:05	11/27/19 09:00
50242957002	**Dup**	Water	11/25/19 08:00	11/27/19 09:00
50242957003	**Trip Blank**	Water	11/25/19 08:00	11/27/19 09:00

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SAMPLE ANALYTE COUNT

Project: Stickney Landfill
Pace Project No.: 50242957

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50242957001	**S-MW-36LP**	EPA 8082	KAV	8	PASI-I
		EPA 8260	RSW	58	PASI-I
50242957002	**Dup**	EPA 8082	KAV	8	PASI-I
		EPA 8260	RSW	58	PASI-I
50242957003	**Trip Blank**	EPA 8260	TMW	58	PASI-I

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ANALYTICAL RESULTS

Project: Stickney Landfill
Pace Project No.: 50242957

Sample: S-MW-36LP **Lab ID: 50242957001** Collected: 11/25/19 12:05 Received: 11/27/19 09:00 Matrix: Water

Comments: • Dimethylaniline CAS#121-69-7 not detected as a SVOA TIC

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.68**	Std. Units			1		11/25/19 12:05		
Field Temperature	**14.1**	deg C			1		11/25/19 12:05		
Field Specific Conductance	**6098**	umhos/cm			1		11/25/19 12:05		
Oxygen, Dissolved	**0.05**	mg/L			1		11/25/19 12:05	7782-44-7	
REDOX	**-150.8**	mV			1		11/25/19 12:05		
Field Turbidity	**5.92**	NTU			1		11/25/19 12:05		
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.091	0.066	1	12/16/19 08:33	12/16/19 16:10	12674-11-2	R1
PCB-1221 (Aroclor 1221)	ND	ug/L	0.091	0.079	1	12/16/19 08:33	12/16/19 16:10	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.091	0.070	1	12/16/19 08:33	12/16/19 16:10	11141-16-5	
PCB-1242 (Aroclor 1242)	**0.23**	ug/L	0.091	0.070	1	12/16/19 08:33	12/16/19 16:10	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/L	0.091	0.058	1	12/16/19 08:33	12/16/19 16:10	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.49**	ug/L	0.091	0.073	1	12/16/19 08:33	12/16/19 16:10	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.091	0.065	1	12/16/19 08:33	12/16/19 16:10	11096-82-5	R1
Surrogates									
Tetrachloro-m-xylene (S)	53	%.	10-148		1	12/16/19 08:33	12/16/19 16:10	877-09-8	
8260/5030 MSV unpreserved	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		11/28/19 08:28	67-64-1	
Acetonitrile	ND	ug/L	100	1.1	1		11/28/19 08:28	75-05-8	
Acrolein	ND	ug/L	50.0	8.9	1		11/28/19 08:28	107-02-8	
Acrylonitrile	ND	ug/L	100	1.1	1		11/28/19 08:28	107-13-1	
Allyl chloride	ND	ug/L	5.0	1.4	1		11/28/19 08:28	107-05-1	
Benzene	**10.5**	ug/L	5.0	0.93	1		11/28/19 08:28	71-43-2	
Bromobenzene	ND	ug/L	5.0	0.71	1		11/28/19 08:28	108-86-1	
Bromochloromethane	ND	ug/L	5.0	0.98	1		11/28/19 08:28	74-97-5	
Bromodichloromethane	ND	ug/L	5.0	0.68	1		11/28/19 08:28	75-27-4	
Bromoform	ND	ug/L	5.0	0.65	1		11/28/19 08:28	75-25-2	
Bromomethane	ND	ug/L	5.0	0.61	1		11/28/19 08:28	74-83-9	
2-Butanone (MEK)	ND	ug/L	25.0	0.98	1		11/28/19 08:28	78-93-3	
Carbon disulfide	ND	ug/L	10.0	0.98	1		11/28/19 08:28	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	0.73	1		11/28/19 08:28	56-23-5	
Chlorobenzene	**5.5**	ug/L	5.0	0.87	1		11/28/19 08:28	108-90-7	
Chloroethane	ND	ug/L	5.0	0.52	1		11/28/19 08:28	75-00-3	
Chloroform	ND	ug/L	5.0	0.80	1		11/28/19 08:28	67-66-3	
Chloromethane	ND	ug/L	5.0	0.83	1		11/28/19 08:28	74-87-3	
2-Chlorotoluene	ND	ug/L	5.0	0.90	1		11/28/19 08:28	95-49-8	
4-Chlorotoluene	ND	ug/L	5.0	1.1	1		11/28/19 08:28	106-43-4	
Dibromochloromethane	ND	ug/L	5.0	0.45	1		11/28/19 08:28	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	5.0	0.59	1		11/28/19 08:28	106-93-4	
Dibromomethane	ND	ug/L	5.0	0.37	1		11/28/19 08:28	74-95-3	
Dichlorodifluoromethane	ND	ug/L	5.0	0.53	1		11/28/19 08:28	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	0.81	1		11/28/19 08:28	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	0.47	1		11/28/19 08:28	107-06-2	

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ANALYTICAL RESULTS

Project: Stickney Landfill
Pace Project No.: 50242957

Sample: S-MW-36LP **Lab ID: 50242957001** Collected: 11/25/19 12:05 Received: 11/27/19 09:00 Matrix: Water

Comments: • Dimethylaniline CAS#121-69-7 not detected as a SVOA TIC

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV unpreserved	Analytical Method: EPA 8260								
1,1-Dichloroethene	ND	ug/L	5.0	0.95	1		11/28/19 08:28	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1.1	1		11/28/19 08:28	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.95	1		11/28/19 08:28	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	0.87	1		11/28/19 08:28	78-87-5	
1,3-Dichloropropane	ND	ug/L	5.0	0.51	1		11/28/19 08:28	142-28-9	
2,2-Dichloropropane	ND	ug/L	5.0	1.1	1		11/28/19 08:28	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	0.88	1		11/28/19 08:28	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	4.1	0.62	1		11/28/19 08:28	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.1	0.41	1		11/28/19 08:28	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1.0	1		11/28/19 08:28	100-41-4	
n-Hexane	ND	ug/L	5.0	0.39	1		11/28/19 08:28	110-54-3	N2
2-Hexanone	ND	ug/L	25.0	1.2	1		11/28/19 08:28	591-78-6	
Iodomethane	ND	ug/L	10.0	0.96	1		11/28/19 08:28	74-88-4	
Methylene Chloride	ND	ug/L	5.0	0.53	1		11/28/19 08:28	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1.8	1		11/28/19 08:28	108-10-1	
Methyl-tert-butyl ether	**2.1J**	ug/L	4.0	0.29	1		11/28/19 08:28	1634-04-4	
Styrene	ND	ug/L	5.0	0.81	1		11/28/19 08:28	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.77	1		11/28/19 08:28	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	0.38	1		11/28/19 08:28	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	0.84	1		11/28/19 08:28	127-18-4	
Toluene	ND	ug/L	5.0	0.89	1		11/28/19 08:28	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	0.90	1		11/28/19 08:28	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	0.57	1		11/28/19 08:28	79-00-5	
Trichloroethene	ND	ug/L	5.0	1.0	1		11/28/19 08:28	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	0.23	1		11/28/19 08:28	75-69-4	
Vinyl acetate	ND	ug/L	50.0	1.2	1		11/28/19 08:28	108-05-4	
Vinyl chloride	ND	ug/L	2.0	0.41	1		11/28/19 08:28	75-01-4	
m&p-Xylene	**2.0J**	ug/L	5.0	1.2	1		11/28/19 08:28	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.0	1		11/28/19 08:28	95-47-6	
Surrogates									
Dibromofluoromethane (S)	102	%.	80-122		1		11/28/19 08:28	1868-53-7	
4-Bromofluorobenzene (S)	101	%.	85-114		1		11/28/19 08:28	460-00-4	
Toluene-d8 (S)	97	%.	85-114		1		11/28/19 08:28	2037-26-5	

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ANALYTICAL RESULTS

Project: Stickney Landfill
Pace Project No.: 50242957

Sample: Dup **Lab ID: 50242957002** Collected: 11/25/19 08:00 Received: 11/27/19 09:00 Matrix: Water

Comments: • Dimethylaniline CAS#121-69-7 not detected as a SVOA TIC

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.091	0.066	1	12/16/19 08:33	12/16/19 16:53	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.091	0.079	1	12/16/19 08:33	12/16/19 16:53	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.091	0.070	1	12/16/19 08:33	12/16/19 16:53	11141-16-5	
PCB-1242 (Aroclor 1242)	**0.19**	ug/L	0.091	0.070	1	12/16/19 08:33	12/16/19 16:53	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/L	0.091	0.058	1	12/16/19 08:33	12/16/19 16:53	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.49**	ug/L	0.091	0.073	1	12/16/19 08:33	12/16/19 16:53	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.091	0.065	1	12/16/19 08:33	12/16/19 16:53	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	43	%.	10-148		1	12/16/19 08:33	12/16/19 16:53	877-09-8	
8260/5030 MSV unpreserved	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		11/28/19 09:01	67-64-1	
Acetonitrile	ND	ug/L	100	1.1	1		11/28/19 09:01	75-05-8	
Acrolein	ND	ug/L	50.0	8.9	1		11/28/19 09:01	107-02-8	
Acrylonitrile	ND	ug/L	100	1.1	1		11/28/19 09:01	107-13-1	
Allyl chloride	ND	ug/L	5.0	1.4	1		11/28/19 09:01	107-05-1	
Benzene	**11.1**	ug/L	5.0	0.93	1		11/28/19 09:01	71-43-2	
Bromobenzene	ND	ug/L	5.0	0.71	1		11/28/19 09:01	108-86-1	
Bromochloromethane	ND	ug/L	5.0	0.98	1		11/28/19 09:01	74-97-5	
Bromodichloromethane	ND	ug/L	5.0	0.68	1		11/28/19 09:01	75-27-4	
Bromoform	ND	ug/L	5.0	0.65	1		11/28/19 09:01	75-25-2	
Bromomethane	ND	ug/L	5.0	0.61	1		11/28/19 09:01	74-83-9	
2-Butanone (MEK)	ND	ug/L	25.0	0.98	1		11/28/19 09:01	78-93-3	
Carbon disulfide	ND	ug/L	10.0	0.98	1		11/28/19 09:01	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	0.73	1		11/28/19 09:01	56-23-5	
Chlorobenzene	**6.0**	ug/L	5.0	0.87	1		11/28/19 09:01	108-90-7	
Chloroethane	ND	ug/L	5.0	0.52	1		11/28/19 09:01	75-00-3	
Chloroform	ND	ug/L	5.0	0.80	1		11/28/19 09:01	67-66-3	
Chloromethane	ND	ug/L	5.0	0.83	1		11/28/19 09:01	74-87-3	
2-Chlorotoluene	ND	ug/L	5.0	0.90	1		11/28/19 09:01	95-49-8	
4-Chlorotoluene	ND	ug/L	5.0	1.1	1		11/28/19 09:01	106-43-4	
Dibromochloromethane	ND	ug/L	5.0	0.45	1		11/28/19 09:01	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	5.0	0.59	1		11/28/19 09:01	106-93-4	
Dibromomethane	ND	ug/L	5.0	0.37	1		11/28/19 09:01	74-95-3	
Dichlorodifluoromethane	ND	ug/L	5.0	0.53	1		11/28/19 09:01	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	0.81	1		11/28/19 09:01	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	0.47	1		11/28/19 09:01	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.95	1		11/28/19 09:01	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1.1	1		11/28/19 09:01	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.95	1		11/28/19 09:01	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	0.87	1		11/28/19 09:01	78-87-5	
1,3-Dichloropropane	ND	ug/L	5.0	0.51	1		11/28/19 09:01	142-28-9	
2,2-Dichloropropane	ND	ug/L	5.0	1.1	1		11/28/19 09:01	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	0.88	1		11/28/19 09:01	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	4.1	0.62	1		11/28/19 09:01	10061-01-5	

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ANALYTICAL RESULTS

Project: Stickney Landfill
Pace Project No.: 50242957

Sample: Dup **Lab ID: 50242957002** Collected: 11/25/19 08:00 Received: 11/27/19 09:00 Matrix: Water

Comments: • Dimethylaniline CAS#121-69-7 not detected as a SVOA TIC

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV unpreserved	Analytical Method: EPA 8260								
trans-1,3-Dichloropropene	ND	ug/L	4.1	0.41	1		11/28/19 09:01	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1.0	1		11/28/19 09:01	100-41-4	
n-Hexane	ND	ug/L	5.0	0.39	1		11/28/19 09:01	110-54-3	N2
2-Hexanone	ND	ug/L	25.0	1.2	1		11/28/19 09:01	591-78-6	
Iodomethane	ND	ug/L	10.0	0.96	1		11/28/19 09:01	74-88-4	
Methylene Chloride	ND	ug/L	5.0	0.53	1		11/28/19 09:01	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1.8	1		11/28/19 09:01	108-10-1	
Methyl-tert-butyl ether	**2.1J**	ug/L	4.0	0.29	1		11/28/19 09:01	1634-04-4	
Styrene	ND	ug/L	5.0	0.81	1		11/28/19 09:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.77	1		11/28/19 09:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	0.38	1		11/28/19 09:01	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	0.84	1		11/28/19 09:01	127-18-4	
Toluene	ND	ug/L	5.0	0.89	1		11/28/19 09:01	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	0.90	1		11/28/19 09:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	0.57	1		11/28/19 09:01	79-00-5	
Trichloroethene	ND	ug/L	5.0	1.0	1		11/28/19 09:01	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	0.23	1		11/28/19 09:01	75-69-4	
Vinyl acetate	ND	ug/L	50.0	1.2	1		11/28/19 09:01	108-05-4	
Vinyl chloride	ND	ug/L	2.0	0.41	1		11/28/19 09:01	75-01-4	
m&p-Xylene	**2.2J**	ug/L	5.0	1.2	1		11/28/19 09:01	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.0	1		11/28/19 09:01	95-47-6	
Surrogates									
Dibromofluoromethane (S)	101	%.	80-122		1		11/28/19 09:01	1868-53-7	
4-Bromofluorobenzene (S)	100	%.	85-114		1		11/28/19 09:01	460-00-4	
Toluene-d8 (S)	97	%.	85-114		1		11/28/19 09:01	2037-26-5	

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ANALYTICAL RESULTS

Project: Stickney Landfill
Pace Project No.: 50242957

Sample: Trip Blank **Lab ID: 50242957003** Collected: 11/25/19 08:00 Received: 11/27/19 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	1.8	1		11/27/19 20:05	67-64-1	
Acetonitrile	ND	ug/L	100	0.24	1		11/27/19 20:05	75-05-8	
Acrolein	ND	ug/L	50.0	3.7	1		11/27/19 20:05	107-02-8	
Acrylonitrile	ND	ug/L	100	1.2	1		11/27/19 20:05	107-13-1	
Allyl chloride	ND	ug/L	5.0	0.37	1		11/27/19 20:05	107-05-1	
Benzene	ND	ug/L	5.0	0.15	1		11/27/19 20:05	71-43-2	
Bromobenzene	ND	ug/L	5.0	0.11	1		11/27/19 20:05	108-86-1	
Bromochloromethane	ND	ug/L	5.0	1.1	1		11/27/19 20:05	74-97-5	
Bromodichloromethane	ND	ug/L	5.0	0.15	1		11/27/19 20:05	75-27-4	
Bromoform	ND	ug/L	5.0	3.2	1		11/27/19 20:05	75-25-2	
Bromomethane	ND	ug/L	5.0	0.29	1		11/27/19 20:05	74-83-9	
2-Butanone (MEK)	ND	ug/L	25.0	1.5	1		11/27/19 20:05	78-93-3	
Carbon disulfide	ND	ug/L	10.0	0.21	1		11/27/19 20:05	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1.2	1		11/27/19 20:05	56-23-5	
Chlorobenzene	ND	ug/L	5.0	0.16	1		11/27/19 20:05	108-90-7	
Chloroethane	ND	ug/L	5.0	0.64	1		11/27/19 20:05	75-00-3	
Chloroform	ND	ug/L	5.0	0.11	1		11/27/19 20:05	67-66-3	
Chloromethane	ND	ug/L	5.0	0.43	1		11/27/19 20:05	74-87-3	
2-Chlorotoluene	ND	ug/L	5.0	0.17	1		11/27/19 20:05	95-49-8	
4-Chlorotoluene	ND	ug/L	5.0	0.16	1		11/27/19 20:05	106-43-4	
Dibromochloromethane	ND	ug/L	5.0	0.47	1		11/27/19 20:05	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	5.0	0.79	1		11/27/19 20:05	106-93-4	
Dibromomethane	ND	ug/L	5.0	0.84	1		11/27/19 20:05	74-95-3	
Dichlorodifluoromethane	ND	ug/L	5.0	0.27	1		11/27/19 20:05	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	0.22	1		11/27/19 20:05	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	0.74	1		11/27/19 20:05	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.30	1		11/27/19 20:05	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.40	1		11/27/19 20:05	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.37	1		11/27/19 20:05	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	0.45	1		11/27/19 20:05	78-87-5	
1,3-Dichloropropane	ND	ug/L	5.0	0.31	1		11/27/19 20:05	142-28-9	
2,2-Dichloropropane	ND	ug/L	5.0	0.47	1		11/27/19 20:05	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	0.28	1		11/27/19 20:05	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	4.1	0.22	1		11/27/19 20:05	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.1	0.22	1		11/27/19 20:05	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	0.24	1		11/27/19 20:05	100-41-4	
n-Hexane	ND	ug/L	5.0	0.20	1		11/27/19 20:05	110-54-3	N2
2-Hexanone	ND	ug/L	25.0	1.2	1		11/27/19 20:05	591-78-6	
Iodomethane	ND	ug/L	10.0	0.45	1		11/27/19 20:05	74-88-4	
Methylene Chloride	ND	ug/L	5.0	0.27	1		11/27/19 20:05	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1.2	1		11/27/19 20:05	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	0.24	1		11/27/19 20:05	1634-04-4	
Styrene	ND	ug/L	5.0	0.080	1		11/27/19 20:05	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.19	1		11/27/19 20:05	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	0.29	1		11/27/19 20:05	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	0.25	1		11/27/19 20:05	127-18-4	

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(317)228-3100

ANALYTICAL RESULTS

Project: Stickney Landfill
Pace Project No.: 50242957

Sample: Trip Blank **Lab ID: 50242957003** Collected: 11/25/19 08:00 Received: 11/27/19 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV	Analytical Method: EPA 8260								
Toluene	ND	ug/L	5.0	0.18	1		11/27/19 20:05	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1.3	1		11/27/19 20:05	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1.1	1		11/27/19 20:05	79-00-5	
Trichloroethene	ND	ug/L	5.0	1.2	1		11/27/19 20:05	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	0.46	1		11/27/19 20:05	75-69-4	
Vinyl acetate	ND	ug/L	50.0	0.63	1		11/27/19 20:05	108-05-4	
Vinyl chloride	ND	ug/L	2.0	0.46	1		11/27/19 20:05	75-01-4	
m&p-Xylene	ND	ug/L	5.0	0.32	1		11/27/19 20:05	179601-23-1	
o-Xylene	ND	ug/L	5.0	0.11	1		11/27/19 20:05	95-47-6	
Surrogates									
Dibromofluoromethane (S)	103	%.	80-122		1		11/27/19 20:05	1868-53-7	
4-Bromofluorobenzene (S)	98	%.	85-114		1		11/27/19 20:05	460-00-4	
Toluene-d8 (S)	94	%.	85-114		1		11/27/19 20:05	2037-26-5	

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QUALITY CONTROL DATA

Project: Stickney Landfill
Pace Project No.: 50242957

QC Batch: 535827 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV unpreserved
Associated Lab Samples: 50242957001, 50242957002

METHOD BLANK: 2472712 | Matrix: Water
Associated Lab Samples: 50242957001, 50242957002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	0.77	11/28/19 01:51	
1,1,1-Trichloroethane	ug/L	ND	5.0	0.90	11/28/19 01:51	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	0.38	11/28/19 01:51	
1,1,2-Trichloroethane	ug/L	ND	5.0	0.57	11/28/19 01:51	
1,1-Dichloroethane	ug/L	ND	5.0	0.81	11/28/19 01:51	
1,1-Dichloroethene	ug/L	ND	5.0	0.95	11/28/19 01:51	
1,1-Dichloropropene	ug/L	ND	5.0	0.88	11/28/19 01:51	
1,2-Dibromoethane (EDB)	ug/L	ND	5.0	0.59	11/28/19 01:51	
1,2-Dichloroethane	ug/L	ND	5.0	0.47	11/28/19 01:51	
1,2-Dichloropropane	ug/L	ND	5.0	0.87	11/28/19 01:51	
1,3-Dichloropropane	ug/L	ND	5.0	0.51	11/28/19 01:51	
2,2-Dichloropropane	ug/L	ND	5.0	1.1	11/28/19 01:51	
2-Butanone (MEK)	ug/L	ND	25.0	0.98	11/28/19 01:51	
2-Chlorotoluene	ug/L	ND	5.0	0.90	11/28/19 01:51	
2-Hexanone	ug/L	ND	25.0	1.2	11/28/19 01:51	
4-Chlorotoluene	ug/L	ND	5.0	1.1	11/28/19 01:51	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	25.0	1.8	11/28/19 01:51	
Acetone	ug/L	ND	100	2.2	11/28/19 01:51	
Acetonitrile	ug/L	ND	100	1.1	11/28/19 01:51	
Acrolein	ug/L	ND	50.0	8.9	11/28/19 01:51	
Acrylonitrile	ug/L	ND	100	1.1	11/28/19 01:51	
Allyl chloride	ug/L	ND	5.0	1.4	11/28/19 01:51	
Benzene	ug/L	ND	5.0	0.93	11/28/19 01:51	
Bromobenzene	ug/L	ND	5.0	0.71	11/28/19 01:51	
Bromochloromethane	ug/L	ND	5.0	0.98	11/28/19 01:51	
Bromodichloromethane	ug/L	ND	5.0	0.68	11/28/19 01:51	
Bromoform	ug/L	ND	5.0	0.65	11/28/19 01:51	
Bromomethane	ug/L	ND	5.0	0.61	11/28/19 01:51	
Carbon disulfide	ug/L	ND	10.0	0.98	11/28/19 01:51	
Carbon tetrachloride	ug/L	ND	5.0	0.73	11/28/19 01:51	
Chlorobenzene	ug/L	ND	5.0	0.87	11/28/19 01:51	
Chloroethane	ug/L	ND	5.0	0.52	11/28/19 01:51	
Chloroform	ug/L	ND	5.0	0.80	11/28/19 01:51	
Chloromethane	ug/L	ND	5.0	0.83	11/28/19 01:51	
cis-1,2-Dichloroethene	ug/L	ND	5.0	1.1	11/28/19 01:51	
cis-1,3-Dichloropropene	ug/L	ND	4.1	0.62	11/28/19 01:51	
Dibromochloromethane	ug/L	ND	5.0	0.45	11/28/19 01:51	
Dibromomethane	ug/L	ND	5.0	0.37	11/28/19 01:51	
Dichlorodifluoromethane	ug/L	ND	5.0	0.53	11/28/19 01:51	
Ethylbenzene	ug/L	ND	5.0	1.0	11/28/19 01:51	
Iodomethane	ug/L	ND	10.0	0.96	11/28/19 01:51	

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QUALITY CONTROL DATA

Project: Stickney Landfill
Pace Project No.: 50242957

METHOD BLANK: 2472712 Matrix: Water
Associated Lab Samples: 50242957001, 50242957002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
m&p-Xylene	ug/L	ND	5.0	1.2	11/28/19 01:51	
Methyl-tert-butyl ether	ug/L	ND	4.0	0.29	11/28/19 01:51	
Methylene Chloride	ug/L	1.4J	5.0	0.53	11/28/19 01:51	
n-Hexane	ug/L	ND	5.0	0.39	11/28/19 01:51	N2
o-Xylene	ug/L	ND	5.0	1.0	11/28/19 01:51	
Styrene	ug/L	ND	5.0	0.81	11/28/19 01:51	
Tetrachloroethene	ug/L	ND	5.0	0.84	11/28/19 01:51	
Toluene	ug/L	ND	5.0	0.89	11/28/19 01:51	
trans-1,2-Dichloroethene	ug/L	ND	5.0	0.95	11/28/19 01:51	
trans-1,3-Dichloropropene	ug/L	ND	4.1	0.41	11/28/19 01:51	
Trichloroethene	ug/L	ND	5.0	1.0	11/28/19 01:51	
Trichlorofluoromethane	ug/L	ND	5.0	0.23	11/28/19 01:51	
Vinyl acetate	ug/L	ND	50.0	1.2	11/28/19 01:51	
Vinyl chloride	ug/L	ND	2.0	0.41	11/28/19 01:51	
4-Bromofluorobenzene (S)	%.	99	85-114		11/28/19 01:51	
Dibromofluoromethane (S)	%.	104	80-122		11/28/19 01:51	
Toluene-d8 (S)	%.	97	85-114		11/28/19 01:51	

LABORATORY CONTROL SAMPLE: 2472713

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	51.7	103	78-120	
1,1,1-Trichloroethane	ug/L	50	58.5	117	72-127	
1,1,2,2-Tetrachloroethane	ug/L	50	49.9	100	70-124	
1,1,2-Trichloroethane	ug/L	50	52.0	104	79-121	
1,1-Dichloroethane	ug/L	50	52.6	105	70-119	
1,1-Dichloroethene	ug/L	50	53.2	106	71-126	
1,1-Dichloropropene	ug/L	50	53.4	107	76-122	
1,2-Dibromoethane (EDB)	ug/L	50	54.4	109	81-119	
1,2-Dichloroethane	ug/L	50	53.3	107	68-119	
1,2-Dichloropropane	ug/L	50	54.5	109	79-126	
1,3-Dichloropropane	ug/L	50	51.2	102	82-124	
2,2-Dichloropropane	ug/L	50	40.9	82	53-137	
2-Butanone (MEK)	ug/L	250	311	125	62-140	
2-Chlorotoluene	ug/L	50	51.1	102	76-120	
2-Hexanone	ug/L	250	263	105	62-143	
4-Chlorotoluene	ug/L	50	49.9	100	78-114	
4-Methyl-2-pentanone (MIBK)	ug/L	250	256	102	60-143	
Acetone	ug/L	250	288	115	44-156	
Acetonitrile	ug/L	50	46.6J	93	50-150	
Acrolein	ug/L	1000	1200	120	17-189	
Acrylonitrile	ug/L	200	220	110	58-139	
Allyl chloride	ug/L	100	93.6	94	70-130	
Benzene	ug/L	50	49.8	100	78-117	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Stickney Landfill
Pace Project No.: 50242957

LABORATORY CONTROL SAMPLE: 2472713

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromobenzene	ug/L	50	44.9	90	76-114	
Bromochloromethane	ug/L	50	51.1	102	70-122	
Bromodichloromethane	ug/L	50	56.8	114	72-121	
Bromoform	ug/L	50	53.2	106	66-117	
Bromomethane	ug/L	50	34.7	69	20-176	
Carbon disulfide	ug/L	50	47.2	94	65-124	
Carbon tetrachloride	ug/L	50	57.3	115	68-132	
Chlorobenzene	ug/L	50	50.5	101	79-113	
Chloroethane	ug/L	50	42.4	85	62-140	
Chloroform	ug/L	50	54.1	108	73-118	
Chloromethane	ug/L	50	33.4	67	36-132	
cis-1,2-Dichloroethene	ug/L	50	54.7	109	74-122	
cis-1,3-Dichloropropene	ug/L	50	51.9	104	79-126	
Dibromochloromethane	ug/L	50	53.9	108	75-121	
Dibromomethane	ug/L	50	55.4	111	75-123	
Dichlorodifluoromethane	ug/L	50	39.9	80	27-172	
Ethylbenzene	ug/L	50	53.9	108	80-118	
Iodomethane	ug/L	100	54.5	55	10-186	
m&p-Xylene	ug/L	100	105	105	81-118	
Methyl-tert-butyl ether	ug/L	50	54.6	109	72-128	
Methylene Chloride	ug/L	50	52.0	104	70-121	
n-Hexane	ug/L	50	49.3	99	58-149	N2
o-Xylene	ug/L	50	52.2	104	79-119	
Styrene	ug/L	50	52.0	104	80-119	
Tetrachloroethene	ug/L	50	50.7	101	76-124	
Toluene	ug/L	50	50.4	101	78-116	
trans-1,2-Dichloroethene	ug/L	50	53.2	106	73-121	
trans-1,3-Dichloropropene	ug/L	50	48.3	97	73-126	
Trichloroethene	ug/L	50	53.5	107	76-120	
Trichlorofluoromethane	ug/L	50	59.4	119	60-138	
Vinyl acetate	ug/L	200	200	100	29-200	
Vinyl chloride	ug/L	50	40.6	81	70-136	
4-Bromofluorobenzene (S)	%.			98	85-114	
Dibromofluoromethane (S)	%.			101	80-122	
Toluene-d8 (S)	%.			97	85-114	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2472714 2472715

Parameter	Units	50242957001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	50	50	50.2	49.1	100	98	44-142	2	20	
1,1,1-Trichloroethane	ug/L	ND	50	50	58.9	59.7	118	119	48-145	1	20	
1,1,2,2-Tetrachloroethane	ug/L	ND	50	50	49.8	50.3	100	101	44-139	1	20	
1,1,2-Trichloroethane	ug/L	ND	50	50	50.2	49.7	100	99	49-140	1	20	
1,1-Dichloroethane	ug/L	ND	50	50	50.6	50.7	101	101	38-142	0	20	

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QUALITY CONTROL DATA

Project: Stickney Landfill
Pace Project No.: 50242957

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2472714 2472715

Parameter	Units	50242957001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	ND	50	50	54.8	54.3	110	109	46-148	1	20	
1,1-Dichloropropene	ug/L	ND	50	50	52.3	52.9	105	106	47-142	1	20	
1,2-Dibromoethane (EDB)	ug/L	ND	50	50	50.9	50.8	102	102	47-143	0	20	
1,2-Dichloroethane	ug/L	ND	50	50	50.5	50.9	101	102	44-138	1	20	
1,2-Dichloropropane	ug/L	ND	50	50	52.8	52.1	106	104	53-142	1	20	
1,3-Dichloropropane	ug/L	ND	50	50	48.5	48.8	97	98	47-145	1	20	
2,2-Dichloropropane	ug/L	ND	50	50	36.3	35.0	73	70	19-147	3	20	
2-Butanone (MEK)	ug/L	ND	250	250	287	310	115	124	36-153	8	20	
2-Chlorotoluene	ug/L	ND	50	50	49.8	49.9	100	100	37-143	0	20	
2-Hexanone	ug/L	ND	250	250	248	255	99	102	38-149	3	20	
4-Chlorotoluene	ug/L	ND	50	50	48.9	47.8	98	96	38-137	2	20	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	250	250	241	243	97	97	43-145	1	20	
Acetone	ug/L	ND	250	250	270	275	108	110	21-161	2	20	
Acetonitrile	ug/L	ND	50	50	45.9J	45.3J	92	91	54-136		20	
Acrolein	ug/L	ND	1000	1000	975	1000	98	100	17-153	3	20	
Acrylonitrile	ug/L	ND	200	200	206	213	103	107	40-141	4	20	
Allyl chloride	ug/L	ND	100	100	93.7	86.4	94	86	70-130	8	20	
Benzene	ug/L	10.5	50	50	62.6	61.2	104	102	49-140	2	20	
Bromobenzene	ug/L	ND	50	50	42.7	43.2	85	86	39-137	1	20	
Bromochloromethane	ug/L	ND	50	50	49.3	48.7	99	97	50-132	1	20	
Bromodichloromethane	ug/L	ND	50	50	54.7	53.9	109	108	42-139	2	20	
Bromoform	ug/L	ND	50	50	50.5	51.5	101	103	29-135	2	20	
Bromomethane	ug/L	ND	50	50	38.3	41.2	77	82	10-162	7	20	
Carbon disulfide	ug/L	ND	50	50	47.6	47.6	95	95	33-144	0	20	
Carbon tetrachloride	ug/L	ND	50	50	59.0	59.1	118	118	45-148	0	20	
Chlorobenzene	ug/L	5.5	50	50	56.2	55.1	101	99	47-135	2	20	
Chloroethane	ug/L	ND	50	50	53.3	52.2	107	104	41-149	2	20	
Chloroform	ug/L	ND	50	50	51.5	51.9	103	104	49-136	1	20	
Chloromethane	ug/L	ND	50	50	36.2	36.0	72	72	17-138	0	20	
cis-1,2-Dichloroethene	ug/L	ND	50	50	54.5	52.7	109	105	46-143	3	20	
cis-1,3-Dichloropropene	ug/L	ND	50	50	48.8	48.5	98	97	44-142	1	20	
Dibromochloromethane	ug/L	ND	50	50	51.2	51.4	102	103	41-141	0	20	
Dibromomethane	ug/L	ND	50	50	51.4	52.0	103	104	46-140	1	20	
Dichlorodifluoromethane	ug/L	ND	50	50	43.2	42.4	86	85	10-193	2	20	
Ethylbenzene	ug/L	ND	50	50	53.4	52.6	107	105	44-145	1	20	
Iodomethane	ug/L	ND	100	100	56.5	54.7	56	55	10-172	3	20	
m&p-Xylene	ug/L	2.0J	100	100	104	101	102	99	44-144	3	20	
Methyl-tert-butyl ether	ug/L	2.1J	50	50	53.3	54.6	102	105	38-158	2	20	
Methylene Chloride	ug/L	ND	50	50	47.8	47.7	96	95	33-140	0	20	
n-Hexane	ug/L	ND	50	50	45.4	44.0	91	88	32-159	3	20	N2
o-Xylene	ug/L	ND	50	50	50.8	50.2	102	100	44-147	1	20	
Styrene	ug/L	ND	50	50	50.4	49.4	101	99	37-143	2	20	
Tetrachloroethene	ug/L	ND	50	50	50.7	49.7	101	99	41-145	2	20	
Toluene	ug/L	ND	50	50	50.4	48.8	100	97	48-139	3	20	
trans-1,2-Dichloroethene	ug/L	ND	50	50	54.8	54.3	110	109	46-140	1	20	

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(317)228-3100

QUALITY CONTROL DATA

Project: Stickney Landfill
Pace Project No.: 50242957

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2472714 2472715

Parameter	Units	50242957001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
trans-1,3-Dichloropropene	ug/L	ND	50	50	44.5	44.1	89	88	37-141	1	20	
Trichloroethene	ug/L	ND	50	50	52.5	51.2	105	102	43-147	2	20	
Trichlorofluoromethane	ug/L	ND	50	50	63.6	62.4	127	125	39-154	2	20	
Vinyl acetate	ug/L	ND	200	200	173	178	87	89	10-181	3	20	
Vinyl chloride	ug/L	ND	50	50	42.6	42.0	85	84	49-153	1	20	
4-Bromofluorobenzene (S)	%.						98	97	85-114			
Dibromofluoromethane (S)	%.						101	104	80-122			
Toluene-d8 (S)	%.						97	97	85-114			

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QUALITY CONTROL DATA

Project: Stickney Landfill
Pace Project No.: 50242957

QC Batch: 535881 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV
Associated Lab Samples: 50242957003

METHOD BLANK: 2472982 | Matrix: Water
Associated Lab Samples: 50242957003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	0.19	11/27/19 13:08	
1,1,1-Trichloroethane	ug/L	ND	5.0	1.3	11/27/19 13:08	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	0.29	11/27/19 13:08	
1,1,2-Trichloroethane	ug/L	ND	5.0	1.1	11/27/19 13:08	
1,1-Dichloroethane	ug/L	ND	5.0	0.22	11/27/19 13:08	
1,1-Dichloroethene	ug/L	ND	5.0	0.30	11/27/19 13:08	
1,1-Dichloropropene	ug/L	ND	5.0	0.28	11/27/19 13:08	
1,2-Dibromoethane (EDB)	ug/L	ND	5.0	0.79	11/27/19 13:08	
1,2-Dichloroethane	ug/L	ND	5.0	0.74	11/27/19 13:08	
1,2-Dichloropropane	ug/L	ND	5.0	0.45	11/27/19 13:08	
1,3-Dichloropropane	ug/L	ND	5.0	0.31	11/27/19 13:08	
2,2-Dichloropropane	ug/L	ND	5.0	0.47	11/27/19 13:08	
2-Butanone (MEK)	ug/L	ND	25.0	1.5	11/27/19 13:08	
2-Chlorotoluene	ug/L	ND	5.0	0.17	11/27/19 13:08	
2-Hexanone	ug/L	ND	25.0	1.2	11/27/19 13:08	
4-Chlorotoluene	ug/L	ND	5.0	0.16	11/27/19 13:08	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	25.0	1.2	11/27/19 13:08	
Acetone	ug/L	ND	100	1.8	11/27/19 13:08	
Acetonitrile	ug/L	ND	100	0.24	11/27/19 13:08	
Acrolein	ug/L	ND	50.0	3.7	11/27/19 13:08	
Acrylonitrile	ug/L	ND	100	1.2	11/27/19 13:08	
Allyl chloride	ug/L	ND	5.0	0.37	11/27/19 13:08	
Benzene	ug/L	ND	5.0	0.15	11/27/19 13:08	
Bromobenzene	ug/L	ND	5.0	0.11	11/27/19 13:08	
Bromochloromethane	ug/L	ND	5.0	1.1	11/27/19 13:08	
Bromodichloromethane	ug/L	ND	5.0	0.15	11/27/19 13:08	
Bromoform	ug/L	ND	5.0	3.2	11/27/19 13:08	
Bromomethane	ug/L	ND	5.0	0.29	11/27/19 13:08	
Carbon disulfide	ug/L	ND	10.0	0.21	11/27/19 13:08	
Carbon tetrachloride	ug/L	ND	5.0	1.2	11/27/19 13:08	
Chlorobenzene	ug/L	ND	5.0	0.16	11/27/19 13:08	
Chloroethane	ug/L	ND	5.0	0.64	11/27/19 13:08	
Chloroform	ug/L	ND	5.0	0.11	11/27/19 13:08	
Chloromethane	ug/L	ND	5.0	0.43	11/27/19 13:08	
cis-1,2-Dichloroethene	ug/L	ND	5.0	0.40	11/27/19 13:08	
cis-1,3-Dichloropropene	ug/L	ND	4.1	0.22	11/27/19 13:08	
Dibromochloromethane	ug/L	ND	5.0	0.47	11/27/19 13:08	
Dibromomethane	ug/L	ND	5.0	0.84	11/27/19 13:08	
Dichlorodifluoromethane	ug/L	ND	5.0	0.27	11/27/19 13:08	
Ethylbenzene	ug/L	ND	5.0	0.24	11/27/19 13:08	
Iodomethane	ug/L	ND	10.0	0.45	11/27/19 13:08	

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QUALITY CONTROL DATA

Project: Stickney Landfill
Pace Project No.: 50242957

METHOD BLANK: 2472982 Matrix: Water
Associated Lab Samples: 50242957003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
m&p-Xylene	ug/L	ND	5.0	0.32	11/27/19 13:08	
Methyl-tert-butyl ether	ug/L	ND	4.0	0.24	11/27/19 13:08	
Methylene Chloride	ug/L	ND	5.0	0.27	11/27/19 13:08	
n-Hexane	ug/L	ND	5.0	0.20	11/27/19 13:08	N2
o-Xylene	ug/L	ND	5.0	0.11	11/27/19 13:08	
Styrene	ug/L	ND	5.0	0.080	11/27/19 13:08	
Tetrachloroethene	ug/L	ND	5.0	0.25	11/27/19 13:08	
Toluene	ug/L	ND	5.0	0.18	11/27/19 13:08	
trans-1,2-Dichloroethene	ug/L	ND	5.0	0.37	11/27/19 13:08	
trans-1,3-Dichloropropene	ug/L	ND	4.1	0.22	11/27/19 13:08	
Trichloroethene	ug/L	ND	5.0	1.2	11/27/19 13:08	
Trichlorofluoromethane	ug/L	ND	5.0	0.46	11/27/19 13:08	
Vinyl acetate	ug/L	ND	50.0	0.63	11/27/19 13:08	
Vinyl chloride	ug/L	ND	2.0	0.46	11/27/19 13:08	
4-Bromofluorobenzene (S)	%.	100	85-114		11/27/19 13:08	
Dibromofluoromethane (S)	%.	103	80-122		11/27/19 13:08	
Toluene-d8 (S)	%.	95	85-114		11/27/19 13:08	

LABORATORY CONTROL SAMPLE: 2472983

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	46.1	92	78-120	
1,1,1-Trichloroethane	ug/L	50	48.9	98	72-127	
1,1,2,2-Tetrachloroethane	ug/L	50	45.0	90	70-124	
1,1,2-Trichloroethane	ug/L	50	45.3	91	79-121	
1,1-Dichloroethane	ug/L	50	47.4	95	70-119	
1,1-Dichloroethene	ug/L	50	55.5	111	71-126	
1,1-Dichloropropene	ug/L	50	51.0	102	76-122	
1,2-Dibromoethane (EDB)	ug/L	50	45.3	91	81-119	
1,2-Dichloroethane	ug/L	50	41.3	83	68-119	
1,2-Dichloropropane	ug/L	50	48.4	97	79-126	
1,3-Dichloropropane	ug/L	50	46.5	93	82-124	
2,2-Dichloropropane	ug/L	50	45.1	90	53-137	
2-Butanone (MEK)	ug/L	250	227	91	62-140	
2-Chlorotoluene	ug/L	50	45.6	91	76-120	
2-Hexanone	ug/L	250	211	84	62-143	
4-Chlorotoluene	ug/L	50	48.2	96	78-114	
4-Methyl-2-pentanone (MIBK)	ug/L	250	211	84	60-143	
Acetone	ug/L	250	210	84	44-156	
Acetonitrile	ug/L	50	42.2J	84	50-150	
Acrolein	ug/L	1000	719	72	17-189	
Acrylonitrile	ug/L	200	185	93	58-139	
Allyl chloride	ug/L	100	93.0	93	70-130	
Benzene	ug/L	50	50.6	101	78-117	

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QUALITY CONTROL DATA

Project: Stickney Landfill
Pace Project No.: 50242957

LABORATORY CONTROL SAMPLE: 2472983

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromobenzene	ug/L	50	42.9	86	76-114	
Bromochloromethane	ug/L	50	46.3	93	70-122	
Bromodichloromethane	ug/L	50	42.1	84	72-121	
Bromoform	ug/L	50	37.7	75	66-117	
Bromomethane	ug/L	50	31.3	63	20-176	
Carbon disulfide	ug/L	50	49.6	99	65-124	
Carbon tetrachloride	ug/L	50	46.3	93	68-132	
Chlorobenzene	ug/L	50	49.0	98	79-113	
Chloroethane	ug/L	50	43.9	88	62-140	
Chloroform	ug/L	50	45.3	91	73-118	
Chloromethane	ug/L	50	31.4	63	36-132	
cis-1,2-Dichloroethene	ug/L	50	49.7	99	74-122	
cis-1,3-Dichloropropene	ug/L	50	46.8	94	79-126	
Dibromochloromethane	ug/L	50	43.8	88	75-121	
Dibromomethane	ug/L	50	49.8	100	75-123	
Dichlorodifluoromethane	ug/L	50	35.6	71	27-172	
Ethylbenzene	ug/L	50	49.7	99	80-118	
Iodomethane	ug/L	100	93.4	93	10-186	
m&p-Xylene	ug/L	100	99.0	99	81-118	
Methyl-tert-butyl ether	ug/L	50	46.7	93	72-128	
Methylene Chloride	ug/L	50	45.4	91	70-121	
n-Hexane	ug/L	50	56.4	113	58-149	N2
o-Xylene	ug/L	50	48.7	97	79-119	
Styrene	ug/L	50	47.2	94	80-119	
Tetrachloroethene	ug/L	50	52.8	106	76-124	
Toluene	ug/L	50	46.3	93	78-116	
trans-1,2-Dichloroethene	ug/L	50	54.4	109	73-121	
trans-1,3-Dichloropropene	ug/L	50	42.5	85	73-126	
Trichloroethene	ug/L	50	50.0	100	76-120	
Trichlorofluoromethane	ug/L	50	53.5	107	60-138	
Vinyl acetate	ug/L	200	150	75	29-200	
Vinyl chloride	ug/L	50	40.9	82	70-136	
4-Bromofluorobenzene (S)	%.			96	85-114	
Dibromofluoromethane (S)	%.			91	80-122	
Toluene-d8 (S)	%.			96	85-114	

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QUALITY CONTROL DATA

Project: Stickney Landfill
Pace Project No.: 50242957

QC Batch: 538636 | Analysis Method: EPA 8082
QC Batch Method: EPA 3510 | Analysis Description: 8082 GCS PCB Mod
Associated Lab Samples: 50242957001, 50242957002

METHOD BLANK: 2486630 | Matrix: Water
Associated Lab Samples: 50242957001, 50242957002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	ND	0.10	0.072	12/16/19 10:11	
PCB-1221 (Aroclor 1221)	ug/L	ND	0.10	0.087	12/16/19 10:11	
PCB-1232 (Aroclor 1232)	ug/L	ND	0.10	0.077	12/16/19 10:11	
PCB-1242 (Aroclor 1242)	ug/L	ND	0.10	0.077	12/16/19 10:11	
PCB-1248 (Aroclor 1248)	ug/L	ND	0.10	0.064	12/16/19 10:11	
PCB-1254 (Aroclor 1254)	ug/L	ND	0.10	0.081	12/16/19 10:11	
PCB-1260 (Aroclor 1260)	ug/L	ND	0.10	0.071	12/16/19 10:11	
Tetrachloro-m-xylene (S)	%.	76	10-148		12/16/19 10:11	

LABORATORY CONTROL SAMPLE: 2486631

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	5	3.7	74	45-157	
PCB-1260 (Aroclor 1260)	ug/L	5	2.7	54	42-155	
Tetrachloro-m-xylene (S)	%.			72	10-148	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2486632 2486633

Parameter	Units	50242957001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/L	ND	4.5	4.5	2.5	3.2	56	71	27-174	25	20	R1
PCB-1260 (Aroclor 1260)	ug/L	ND	4.5	4.5	1.4	1.9	31	41	10-157	28	20	R1
Tetrachloro-m-xylene (S)	%.						50	69	10-148			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2486634 2486635

Parameter	Units	50243285001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/L	<0.20	4.5	4.5	1.7	2.5	37	56	27-174	40	20	R1
PCB-1260 (Aroclor 1260)	ug/L	<0.20	4.5	4.5	1.3	2.0	28	44	10-157	44	20	R1
Tetrachloro-m-xylene (S)	%.						32	51	10-148			

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QUALIFIERS

Project: Stickney Landfill
Pace Project No.: 50242957

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-I	Pace Analytical Services - Indianapolis

ANALYTE QUALIFIERS

N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
R1	RPD value was outside control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Stickney Landfill
Pace Project No.: 50242957

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50242957001	**S-MW-36LP**				
50242957001	**S-MW-36LP**	EPA 3510	538636	EPA 8082	538763
50242957002	**Dup**	EPA 3510	538636	EPA 8082	538763
50242957003	**Trip Blank**	EPA 8260	535881		
50242957001	**S-MW-36LP**	EPA 8260	535827		
50242957002	**Dup**	EPA 8260	535827		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Civil & Environmental Consultants - Toledo	Report To: Wes Speiser	Attention:
Address: 4841 Monroe Street	Copy To:	Company Name:
Toledo, OH 43623		Address:
Email: wspeiser@cecinc.com	Purchase Order #	Pace Quote:
Phone: (419)378-1943 Fax:	Project Name: Stickney Landfill	Pace Project Manager: chris.boyle@pacelabs.com,
Requested Due Date:	Project #	Pace Profile # 7624 / 1

Regulatory Agency

State / Location: OH

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	~~Mercury, Total~~	Pesticide by 8081	PCB by 8082	SVOC by 8270	VOC by 8260	Residual Chlorine (Y/N)	50242957
1	S-MW-36LP*	WT	G	11/25/19	1205	—	—		9	6		1	3						X	X	X	X	X		001
2	S-MW-36LP-MS*	WT	G	11/25/19	1205	—	—		9	6		1	3						X	X	X	X	X		↓
3	S-MW-36LP-MSD*	WT	G	11/25/19	1205	—	—		9	6		1	3						X	X	X	X	X		
4	Dup*	WT	G	11/25/19	—	—	—		9	6		1	3						X	X	X	X	X		002
5	Trip Blank	WT	G	—	—	—	—		3	1		1	3						~~X~~	X	X	X	X		003
6		WT	G						10	6		1	3						X	X	X	X	X	NC	
7		WT	G						10	6		1	3						X	X	X	X	X	NC	
8		WT	G						10	6		1	3						X	X	X	X	X	NC	
9		WT	G						2	2											X			NC	
10		WT	G						2	2											X			NC	
11		WT	DI						3				3										X	NC	
12																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
*HCl Removed From Vials	CEC	11/26/19	1730	Fed Ex	11/26/19	1730				
HOLD TIME ⇒ 7 DAYS	FEDEX				11/27/19	0900	4.2	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Michael Cline

SIGNATURE of SAMPLER: [signature] DATE Signed: 11/26/19

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Pace Analytical

SAMPLE CONDITION UPON RECEIPT FORM

Project #: 50242957

Date/Time and Initials of person examining contents: MMR 11/27/19 0920

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other _____

Tracking #: 1250 8713 6940

Custody Seal on Cooler/Box Present: ☑ Yes ☐ No Seals Intact: ☑ Yes ☐ No

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

Thermometer: 1 2 3 4 5 6 A B C D E F Ice Type: ☑ Wet ☐ Blue ☐ None | Samples collected today and on ice: ☐ Yes ☐ No ☑ N/A

Cooler Temperature: 4.1/4.2 Ice Visible in Sample Containers?: ☐ Yes ☑ No ☐ N/A

(Initial/Corrected) Temp should be above freezing to 6°C If temp. is Over 6°C or under 0°C, was the PM Notified?: ☐ Yes ☐ No ☑ N/A

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
Are samples from West Virginia?			All containers needing acid/base pres. Have been checked?: **exceptions: VOA, coliform, LLHg, O&G, and any container with a septum cap or preserved with HCl.** All containers needing preservation are found to be in compliance with EPA recommendation (<2, >9, >12) unless otherwise noted. Circle: HNO3 H2SO4 NaOH NaOH/ZnAc			✓
Document any containers out of temp.		✓				
USDA Regulated Soils? (ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓				
Chain of Custody Present:	✓					
Chain of Custody Filled Out:	✓		Dissolved Metals field filtered?:			✓
Short Hold Time Analysis (<72hr)?: Analysis: SVOC VOC	✓		Headspace Wisconsin Sulfide			✓
Time 5035A TC placed in Freezer or Short Holds To Lab:				Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
			Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Rush TAT Requested:		✓	Headspace in VOA Vials (>6mm):		✓	~~✓~~
Containers Intact?:	✓		Trip Blank Present?:	✓		
Sample Labels (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Custody Seals?:	✓		
Extra labels on Terracore Vials (soils only)?		N/A				

Comments:

COC PAGE ____ of ____

Sample Container Count

WO# : 50242957

50242957

Sample Line Item	WGFU	SBS DI BK Kit R	DG9H ~~VG9H~~	VOA VIALS (>6mm)	VG9U	DG9U	DG9T	AG0U	AG1H	AG1U	AG3S	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H					Matrix	pH <2	pH >9	pH>12
1					9			18																		W			
2																													
3																													
4					3			6																		W			
5			3																							W			
6																													
7																													
8																													
9																													
10																													
11																													
12																													

Container Codes

Glass

DG9B	40mL Na Bisulfate amber vial	AG0U	100mL unpres amber glass
DG9H	40mL HCl amber voa vial	AG1H	1L HCl amber glass
DG9M	40mL MeOH clear vial	AG1S	1L H2SO4 amber glass
DG9P	40mL TSP amber vial	AG1T	1L Na Thiosulfate amber glass
DG9S	40mL H2SO4 amber vial	AG1U	1liter unpres amber glass
DG9T	40mL Na Thio amber vial	AG2N	500mL HNO3 amber glass
DG9U	40mL unpreserved **amber** vial	AG2S	500mL H2SO4 amber glass
VG9H	40mL HCl clear vial	AG2U	500mL unpres amber glass
VG9T	40mL Na Thio. clear vial	AG3S	250mL H2SO4 amber glass
VG9U	40mL unpreserved **clear** vial	AG3U	250mL unpres amber glass
VGFX	40mL w/hexane wipe vial	BG1H	1L HCl clear glass
VSG	Headspace septa vial & HCl	BG1S	1L H2SO4 clear glass
WGKU	8oz unpreserved clear jar	BG1T	1L Na Thiosulfate clear glass
WGFU	4oz clear soil jar	BG1U	1L unpreserved glass
JGFU	4oz unpreserved amber wide	BG3H	250mL HCl Clear Glass
CG3H	250mL clear glass HCl	BG3U	250mL Unpres Clear Glass

Plastic / Misc.

BP1A	1L NaOH, Asc Acid plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2A	500mL NaOH, Asc Acid plastic
BP2N	500mL HNO3 plastic
BP2O	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic (field filtered)
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Ac plastic

AF	Air Filter
C	Air Cassettes
R	Terra core kit
SP5T	120mL Coliform Na Thiosulfate
U	Summa Can
ZPLC	Ziploc Bag

WT	Water
SL	Solid
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, Inc.

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Civil & Environment
Lab Smp Id: 50242957001
Operator : grm
Sample Location:
Sample Matrix: WATER
Analysis Type: SV
Inj Date: 02-DEC-2019 21:35

Client SDG: 50MSS6-120219
Client Smp ID: S-MW-36LP
Sample Date: 25-NOV-2019
Sample Point:
Date Received:27-NOV-2019 09:00
Level: LOW

Number TICs found: 30

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-91-1	1,4-Dioxane	0.818	2857	NJ
2.	121-44-8	Triethylamine	2.193	35.92	NJ
3.	10143-32-5	2-Propanol, 1-(2-ethoxyprop	2.449	57.83	NJ
4.	78-67-1	Propanenitrile, 2,2'-azobis	2.705	9.68	NJ
5.		Unknown	3.194	29.98	J
6.	631-67-4	Ethanethioamide, N,N-dimeth	3.520	113.1	NJ
7.	107-49-3	Diphosphoric acid, tetraeth	3.575	41.51	NJ
8.	3302-10-1	Hexanoic acid, 3,5,5-trimet	3.746	42.79	NJ
9.		Unknown	3.994	31.55	J
10.		Unknown	4.429	22.90	J
11.	0-00-0	2-Ethyl-5-methylfuran	4.801	18.24	NJ
12.		Unknown	5.295	15.50	J
13.		Unknown	5.401	8.77	J
14.		Unknown	5.735	10.96	J
15.	1889-67-4	Benzene, 1,1'-(1,1,2,2-tetr	6.008	30.18	NJ
16.		Unknown	6.043	12.22	J
17.	98-73-7	Benzoic acid, p-tert-butyl-	6.298	57.87	NJ
18.		Unknown	6.351	11.21	J
19.		Unknown	6.439	98.76	J
20.		Unknown	6.879	79.44	J
21.		Unknown	7.125	48.57	J
22.	934-34-9	2(3H)-Benzothiazolone	7.240	27.37	NJ
23.		Unknown	7.328	27.08	J
24.	80-39-7	Benzenesulfonamide, N-ethyl	7.416	16.85	NJ
25.	84-66-2	Diethyl Phthalate	7.788	14.50	NJ
26.		Unknown	8.182	80.75	J
27.	57-10-3	Hexadecanoic acid	8.425	40.79	NJ
28.	57-11-4	Octadecanoic acid	9.195	12.79	NJ
29.		Unknown	9.226	12.03	J
30.		Unknown	9.976	257.0	J

Pace Analytical Services, Inc.

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Civil & Environment
Lab Smp Id: 50242957002
Operator : grm
Sample Location:
Sample Matrix: WATER
Analysis Type: SV
Inj Date: 02-DEC-2019 22:24

Client SDG: 50MSS6-120219
Client Smp ID: Dup
Sample Date: 25-NOV-2019
Sample Point:
Date Received:27-NOV-2019 09:00
Level: LOW

Number TICs found: 30

CONCENTRATION UNITS:
(ug/L or ug/KG) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-91-1	1,4-Dioxane	0.826	1447	NJ
2.		Unknown	1.944	29.03	J
3.		Unknown	1.991	51.42	J
4.		Unknown	2.449	44.19	J
5.	78-67-1	Propanenitrile, 2,2'-azobis	2.713	12.48	NJ
6.		Unknown	3.101	27.31	J
7.	98-94-2	Cyclohexanamine, N,N-dimeth	3.466	46.84	NJ
8.	631-67-4	Ethanethioamide, N,N-dimeth	3.521	25.35	NJ
9.	107-49-3	Diphosphoric acid, tetraeth	3.583	39.05	NJ
10.	3302-10-1	Hexanoic acid, 3,5,5-trimet	3.746	38.37	NJ
11.		Unknown	4.010	36.66	J
12.		Unknown	4.437	16.54	J
13.		Unknown	5.137	4.93	J
14.	1638-16-0	2-Propanol, 1,1'-[(1-methyl	5.295	6.72	NJ
15.	492-37-5	Benzeneacetic acid, .alpha.	5.427	6.44	NJ
16.	2870-04-4	Benzene, 2-ethyl-1,3-dimeth	6.008	13.07	NJ
17.	98-73-7	Benzoic acid, p-tert-butyl-	6.299	39.38	NJ
18.		Unknown	6.439	76.93	J
19.		Unknown	6.466	13.07	J
20.		Unknown	6.879	43.69	J
21.	6315-52-2	Ethylene glycol di-p-toluen	7.126	25.01	NJ
22.	6975-98-0	Decane, 2-methyl-	7.328	30.62	NJ
23.	80-39-7	Benzenesulfonamide, N-ethyl	7.416	27.63	NJ
24.		Unknown	7.788	15.05	J
25.		Unknown	8.182	51.90	J
26.	57-10-3	Hexadecanoic acid	8.426	41.10	NJ
27.		Unknown	9.032	6.63	J
28.	57-11-4	Octadecanoic acid	9.195	7.78	NJ
29.		Unknown	9.226	11.84	J
30.		Unknown	9.970	230.9	J

APPENDIX C
METHANE MONITORING FIELD DATA SHEETS AND METHANE ASSESSMENT – STICKNEY LANDFILL

CITY OF TOLEDO – STICKNEY AVENUE LANDFILL
TOLEDO, LUCAS COUNTY, OHIO 43612
METHANE MONITORING FIELD DATA SHEET

TESTING DONE BY: M. Cline, J. Dilworth
DATE: 11/12/19
GAS INSTRUMENT TYPE: Landtec GEM
MODEL NO.: 5000
DATE LAST CALIBRATED: 11-12-19
CALIBRATION GAS: 4% O_2, 15% CH_4 + CO_2
SAMPLING METHOD: Vacuum Pump
PRESSURE INSTRUMENT TYPE: GEM
MODEL NO.: 5000
WATER LEVEL INSTRUMENT TYPE: Solinst
MODEL NO.: Skinny Dipper

Probe Designation	Time of Sampling	Pressure[1]	Percent Combustible Gas[2]		%LEL[4]	Percent Gas[2]		Depth to Water[3]	Depth to Top of Screen[3,5]	Punch Bar Results[6]	
			Initial	Retest		O_2	CO_2			Percent Gas[2]	Percent LEL[4]
S-GP-1S	14~~12~~20 09	-0.88	0	–	0	3.6	10.8	~~14~~20 4.20	–	0	0
S-GP-1D	14~~09~~20 12	-4.12	0	–	0	9.8	6.7	4.20	–	0	0
S-GP-1A	1359	0.00	0	–	0	15.4	5.3	Dry	–	0	0
S-GP-2S	1527	19.17	67.5	65.3	>100	0.0	6.4	Dry	–	0	0
S-GP-2D	1525	0.34	9.4	9.3	>100	13.1	6.2	8.64	–	0	0
S-GP-2A	1519	-0.11	0	–	0	19.9	1.1	3.86	–	0	0
S-GP-10S	1541	NA	NA	NA	NA	NA	NA	NA	–	0	0
S-GP-10D	1544	NA	NA	NA	NA	NA	NA	NA	–	0	0
S-GP-11S	1548	NA	NA	NA	NA	NA	NA	NA	–	0	0
S-GP-11D	15~~8~~50 20	NA	NA	NA	NA	NA	NA	NA	–	0	0
S-GP-12	1537	0.69	0	0	0	5.5	7.2	4.09	–	0	0
S-GP-14	1559	NA	NA	NA	NA	NA	NA	NA	–	0	0
S-GP-15	1608	NA	NA	NA	NA	NA	NA	NA	–	0	0
BE-BP-01	1345	-0.02	0	–	0	20.2	0.2	Dry	–	0	0
BE-BP-02	1341	-0.04	0	–	0	4.3	8.0	Dry	–	0	0
S-GP-6S *	1503	-0.03	0	–	0	12.7	4.8	Dry	–	0	0
S-GP-6D *	1505	-0.01	0	–	0	3.7	2.4	~~Dry~~ 20 5.41	–	0	0
S-GP-9S *	1402	15.02	31.5	31.0	>100	0L.	19.2	–	–	0	0
S-GP-9D *	1404	0.00	0.0	0	0	19.7	0.2	–	–	0	0

NOTES:
1. All pressure readings are expressed as inches of H_2O.
2. All readings are 0-100% combustible gas by volume by air.
3. All depth measurements are expressed in feet.
4. (LEL) Lower Explosive Limit
5. Top of Screen depths from the top of casing as indicated on individual explosive gas probe log.
6. Punch bars performed within five feet of the gas probe whenever there is water in the gas probe or when the gas probe cannot be located.
7. * Located additional gas probes during event, probes to be added to next plan revision.

CLIMATOLOGICAL CONDITIONS

Ambient Barometric Pressure: 30.35 ↔ ↑ ↓
Observed Weather Conditions: Overcast, winds W 13 mph
Relative Humidity: 57%
Ambient Temperature (°F): 24
COMMENTS: n/a = PROBE WAS NOT LOCATED

February 20, 2019

Mr. Scott Lockhart
City of Toledo, Department of Public Service
Solid Waste Division
3962 Hoffman Road
Toledo, Ohio 43611

Dear Mr. Lockhart:

Subject: Stickney Avenue Landfill Methane Assessment
CEC Project 185-376

In response to a request made by the Ohio Environmental Protection Agency (Ohio EPA) during their site inspection in May 2018, Civil & Environmental Consultants, Inc. (CEC) conducted a methane assessment of sixteen storm water catch basins between the Stickney Avenue Landfill and the Fiat Chrysler Automobiles (FCA) facility. The area around and beneath the guard shack located on the former XXKem facility was included in the assessment. The assessment procedures and results are provided below.

CEC conducted the methane assessment on February 20, 2019 using a Landtec GEM5000 Gas Analyzer, which was calibrated using a gas reference standard of 15% methane (CH_4), 15% carbon dioxide (CO_2), and Nitrogen (N2) prior to beginning field activities. A fresh air calibration was done to calibrate the oxygen (O_2) sensor. Each catch basin was assessed for methane concentrations by lowering the sample tubing connected to the GEM5000 sample pump into each catch basin's surface grate. The area beneath the guard shack was monitored from the access point near the subfloor of the structure. Assessment of the area around the guard shack was biased to joints between the structure and the concrete.

No detections of methane were observed at any of the sample locations. Sample locations are provided on Figure 1; the data exported from the GEM5000 is attached and a summary of the sample results from each location is provided below.

Location	Time	CH_4 %	CO_2 %	O_2 %
Passive Vent-1	1117	0.0	0.1	20.9
Passive Vent-2	1308	0.0	0.1	20.9
Passive Vent-3	1315	0.0	0.1	20.9
Passive Vent-4	1320	0.0	0.1	20.9

Location	Time	CH_4 %	CO_2 %	O_2 %
Passive Vent-5	1355	0.0	0.1	20.9
Passive Vent-6	1357	0.0	0.1	20.9
Passive Vent-7	1359	0.0	0.1	20.9
Passive Vent-8	1401	0.0	0.1	20.9
Catch Basin 1	1415	0.0	0.1	20.9
Catch Basin 2	1413	0.0	0.1	20.9
Catch Basin 3	1411	0.0	0.1	20.9
Catch Basin 4	1408	0.0	0.1	20.9
Catch Basin 5	1406	0.0	0.1	20.9
Catch Basin 6	1403	0.0	0.1	20.9
Catch Basin 7	1401	0.0	0.1	20.9
Catch Basin 8	1352	0.0	0.1	20.9
Catch Basin 9	1418	0.0	0.1	20.9
Guard Shack 10	1345	0.0	0.1	20.9
Guard Shack 11	1338	0.0	0.1	20.9
Guard Shack 12	1340	0.0	0.1	20.9
Guard Shack 13	1342	0.0	0.1	20.9
Catch Basin 14	1436	0.0	0.1	20.9
Catch Basin 15	1434	0.0	0.1	20.9
Catch Basin 16	1431	0.0	0.1	20.9
Catch Basin 17	1429	0.0	0.1	20.9
Catch Basin 18	1426	0.0	0.1	20.9
Catch Basin 19	1423	0.0	0.1	20.9
Catch Basin 20	1420	0.0	0.1	20.9

Please do not hesitate to contact the undersigned at 419-724-5281 should you have any questions.

Sincerely,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

William W. Speiser, CESSWI
Project Manager

Thomas R. Covrett, CPG
Vice President

Enclosures: Figure 1 – Methane Assessment Sample Locations
GEM5000 Exported Data

Legend

- Passive Gas Vent
- Methane Sample Locations
- Stickney Ave Landfill Boundary
- Former XXKem Facility Boundary

REFERENCE
AERIAL IMAGERY DATED 2017, PROVIDED BY OGRIP, ACCESSED 11/08/2018.

Civil & Environmental Consultants, Inc.
4841 Monroe Street · Suite 103 · Toledo, Ohio 43623
(419) 724-5281 · (855) 274-2324
www.cecinc.com

STICKNEY AVE LANDFILL
CITY OF TOLEDO
TOLEDO, OHIO

METHANE ASSESSMENT SAMPLE LOCATIONS
(FEBRUARY 20, 2019)

DRAWN BY:	MTC	CHECKED BY:	WWS	APPROVED BY:	TRC*	FIGURE NO:	1
DATE:	2/21/2019	SCALE:	1 " = 325 '	PROJECT NO:	185-376		

* Hand signature on file

P:\2018\185-376\-GIS\Maps\185-376_Stickney_LF_Catch_Basin_Map.mxd

Stickney Avenue Landfill Methane Assessment
Conducted December 18, 2018 using a Landtec Gem5000 Gas Analyzer

Location	Time	CH4 %	CO2 %	O2 %	Balance	Relative Pressure	Notes
PV-1	1117	0.0	0.1	20.9	79	0.02	
PV-2	1308	0.0	0.1	20.9	79	0.03	
PV-3	1315	0.0	0.1	20.9	79	0.03	
PV-4	1320	0.0	0.1	20.9	79	0.00	
PV-5	1355	0.0	0.1	20.9	79	0.02	
PV-6	1357	0.0	0.1	20.9	79	0.04	
PV-7	1359	0.0	0.1	20.9	79	0.01	
PV-8	1401	0.0	0.1	20.9	79	0.01	
1	1415	0.0	0.1	20.9	79	0.05	
2	1413	0.0	0.1	20.9	79	0.01	
3	1411	0.0	0.1	20.9	79	0.06	
4	1408	0.0	0.1	20.9	79	0.03	
5	1406	0.0	0.1	20.9	79	0.04	
6	1403	0.0	0.1	20.9	79	0.03	
7	1401	0.0	0.1	20.9	79	0.03	
8	1352	0.0	0.1	20.9	79	0.04	
9	1418	0.0	0.1	20.9	79	0.02	
10	1345	0.0	0.1	20.9	79	0.03	Recorded at East/ Northeast corner, from access point that went underneath the building. The access point is located near the front stairs of the building
11	1338	0.0	0.1	20.9	79	0.01	North/ Northwest corner, in crack between corner of building and concrete sidewalk
12	1340	0.0	0.1	20.9	79	0.04	South/ Southwest corner, in crack between building and concrete sidewalk
13	1342	0.0	0.1	20.9	79	0.04	South side of building, on cement ramp in crack between building and concrete ramp/ sidewalk
14	1436	0.0	0.1	20.9	79	0.06	
15	1434	0.0	0.1	20.9	79	0.02	
16	1431	0.0	0.1	20.9	79	0.03	
17	1429	0.0	0.1	20.9	79	0.01	
18	1426	0.0	0.1	20.9	79	0.02	
19	1423	0.0	0.1	20.9	79	0.03	
20	1420	0.0	0.1	20.9	79	0.02	

Notes: Signed in at Stickney Ave. Gatehouse - 0815
Took photos of landfill from Barringer electric - Started gas readings at Passive Vent 1 (PV-1) near Barringer Electric (See map)
Recorded four measurements at the gatehouse - gatehouse measurements are in GREEN

June 18, 2019

Mr. Scott Lockhart
City of Toledo, Department of Public Service
Solid Waste Division
3962 Hoffman Road
Toledo, Ohio 43611

Dear Mr. Lockhart:

Subject: Stickney Avenue Landfill Methane Assessment
CEC Project 185-376

In response to a request made by the Ohio Environmental Protection Agency (Ohio EPA) during their site inspection in May 2018, Civil & Environmental Consultants, Inc. (CEC) conducted a methane assessment of 16 storm water catch basins between the Stickney Avenue Landfill and the Fiat Chrysler Automobiles (FCA) facility. The area around and beneath the guard shack located on the former XXKem facility was included in the assessment, as were eight passive vents. The assessment procedures and results are provided below.

CEC conducted the methane assessment on May 29, 2019 using a Landtec GEM5000 Gas Analyzer, which was calibrated using a gas reference standard of 15% methane (CH_4), 15% carbon dioxide (CO_2), and Nitrogen (N_2) prior to beginning field activities. A fresh air calibration was done to calibrate the oxygen (O_2) sensor. Each catch basin was assessed for methane concentrations by lowering the sample tubing connected to the GEM5000 sample pump into each catch basin's surface grate. The area beneath the guard shack was monitored from the access point near the subfloor of the structure. Assessment of the area around the guard shack was biased to joints between the structure and the concrete.

No detections of methane were observed at any of the sample locations. Sample locations are provided on Figure 1; the data exported from the GEM5000 is attached and a summary of the sample results from each location is provided below.

Location	Time	CH_4 %	CO_2 %	O_2 %
Passive Vent-1	0815	0.0	0.1	20.9
Passive Vent-2	0820	0.0	0.1	20.9
Passive Vent-3	0826	0.0	0.1	20.9
Passive Vent-4	0830	0.0	0.1	20.9

Location	Time	CH_4 %	CO_2 %	O_2 %
Passive Vent-5	0852	0.0	0.1	20.4
Passive Vent-6	0854	0.0	0.1	20.4
Passive Vent-7	0855	0.0	0.1	17.4
Passive Vent-8	0857	0.0	0.1	13.3
Catch Basin 1	0914	0.0	0.1	20.7
Catch Basin 2	0913	0.0	0.1	20.6
Catch Basin 3	0909	0.0	0.1	20.6
Catch Basin 4	0908	0.0	0.1	20.6
Catch Basin 5	0906	0.0	0.1	20.5
Catch Basin 6	0901	0.0	0.1	20.5
Catch Basin 7	0858	0.0	0.1	20.4
Catch Basin 8	0850	0.0	0.1	20.4
Catch Basin 9	0919	0.0	0.1	20.7
Guard Shack 10	0942	0.0	0.1	20.9
Guard Shack 11	0940	0.0	0.1	20.9
Guard Shack 12	0941	0.0	0.1	20.9
Guard Shack 13	0942	0.0	0.1	20.9
Catch Basin 14	0933	0.0	0.1	20.9
Catch Basin 15	0931	0.0	0.1	20.9
Catch Basin 16	0928	0.0	0.1	20.8
Catch Basin 17	0926	0.0	0.1	20.8
Catch Basin 18	0924	0.0	0.1	20.8
Catch Basin 19	0922	0.0	0.1	20.8
Catch Basin 20	0921	0.0	0.1	20.7

Please do not hesitate to contact the undersigned at 419-724-5281 should you have any questions.

Sincerely,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

William W. Speiser, CESSWI
Project Manager

Thomas R. Covrett, CPG
Vice President

Enclosures: Figure 1 – Methane Assessment Sample Locations
GEM5000 Exported Data

Legend

- Passive Gas Vent
- Methane Sample Locations
- Stickney Ave Landfill Boundary
- Former XXKem Facility Boundary

REFERENCE
AERIAL IMAGERY DATED 2017, PROVIDED BY OGRIP, ACCESSED 11/08/2018.

Civil & Environmental Consultants, Inc.
4841 Monroe Street · Suite 103 · Toledo, Ohio 43623
(419) 724-5281 · (855) 274-2324
www.cecinc.com

STICKNEY AVE LANDFILL
CITY OF TOLEDO
TOLEDO, OHIO

METHANE ASSESSMENT SAMPLE LOCATIONS
(MAY 29, 2019)

DRAWN BY:	MTC	CHECKED BY:	WWS	APPROVED BY:	TRC*	FIGURE NO:	1
DATE:	6/18/2019	SCALE:	1 " = 325 '	PROJECT NO:	185-376		

* Hand signature on file

P:\2018\185-376\-GIS\Maps\185-376_Stickney_LF_Catch_Basin_Map.mxd

Stickney Avenue Landfill Methane Assessment
Conducted May 29, 2019 using a Landtec Gem5000 Gas Analyzer

Location	Time	CH4 %	CO2 %	O2 %	Balance	Relative Pressure	Notes
PV-1	815	0.0	0.1	20.9	79	0.02	Overgrown with poison ivy.
PV-2	820	0.0	0.1	20.9	79	0.03	Unable to open bung.
PV-3	826	0.0	0.1	20.9	79	0.03	Overgrown with poison ivy.
PV-4	830	0.0	0.1	20.9	79	0.00	Unable to open bung.
PV-5	852	0.0	0.1	20.4	79.5	0.01	
PV-6	854	0.0	0.1	20.4	79.5	0.02	
PV-7	855	0.0	0.1	17.4	82.5	0.02	
PV-8	857	0.0	0.1	13.3	86.6	0.02	
1	914	0.0	0.1	20.7	79.2	0.04	
2	913	0.0	0.1	20.6	79.3	0.01	
3	909	0.0	0.1	20.6	79.3	0.05	
4	908	0.0	0.1	20.6	79.3	0.02	
5	906	0.0	0.1	20.5	79.4	0.01	
6	901	0.0	0.1	20.5	79.4	0.03	
7	858	0.0	0.1	20.4	79.5	0.04	
8	850	0.0	0.1	20.4	79.5	0.05	
9	919	0.0	0.1	20.7	79.2	0.02	
10	942	0.0	0.1	20.9	79	0.03	Recorded at East/ Northeast corner, from access point that went underneath the building. The access point is located near the front stairs of the building
11	940	0.0	0.1	20.9	79	0.01	North/ Northwest corner, in crack between corner of building and concrete sidewalk
12	941	0.0	0.1	20.9	79	0.04	South/ Southwest corner, in crack between building and concrete sidewalk
13	942	0.0	0.1	20.9	79	0.06	South side of building, on cement ramp in crack between building and concrete ramp/ sidewalk
14	933	0.0	0.1	20.9	79	0.05	
15	931	0.0	0.1	20.9	79	0.01	
16	928	0.0	0.1	20.8	79.1	0.02	
17	926	0.0	0.1	20.8	79.1	0.02	
18	924	0.0	0.1	20.8	79.1	0.01	
19	922	0.0	0.1	20.8	79.1	0.01	
20	921	0.0	0.1	20.7	79.2	0.02	

Notes: Signed in at Stickney Ave. Gatehouse - 0815
Took photos of landfill from Barringer electric - Started gas readings at Passive Vent 1 (PV-1) near Barringer Electric (See map)
Recorded four measurements at the gatehouse - gatehouse measurements are in GREEN

September 4, 2019

Mr. Scott Lockhart
City of Toledo, Department of Public Service
Solid Waste Division
3962 Hoffman Road
Toledo, Ohio 43611

Dear Mr. Lockhart:

Subject: Stickney Avenue Landfill Methane Assessment
CEC Project 185-376

In response to a request made by the Ohio Environmental Protection Agency (Ohio EPA) during their site inspection in May 2018, Civil & Environmental Consultants, Inc. (CEC) conducted a methane assessment of 16 storm water catch basins between the Stickney Avenue Landfill and the Fiat Chrysler Automobiles (FCA) facility. The area around and beneath the guard shack located on the former XXKem facility was included in the assessment, as were eight passive vents. The assessment procedures and results are provided below.

CEC conducted the methane assessment on September 4, 2019 using a Landtec GEM5000 Gas Analyzer, which was calibrated using a gas reference standard of 15% methane (CH_4), 15% carbon dioxide (CO_2), and Nitrogen (N_2) prior to beginning field activities. A fresh air calibration was done to calibrate the oxygen (O_2) sensor. Each catch basin was assessed for methane concentrations by lowering the sample tubing connected to the GEM5000 sample pump into each catch basin's surface grate. The area beneath the guard shack was monitored from the access point near the subfloor of the structure. Assessment of the area around the guard shack was biased to joints between the structure and the concrete.

No detections of methane were observed at any of the sample locations. Sample locations are provided on Figure 1; the data exported from the GEM5000 is attached and a summary of the sample results from each location is provided below.

Location	Time	CH_4 %	CO_2 %	O_2 %
Passive Vent-1	--	--	--	--
Passive Vent-2	1544	0.0	0.1	19.6
Passive Vent-3	1540	0.0	0.9	19.1
Passive Vent-4	1055	0.0	0.1	19.2

Location	Time	CH_4 %	CO_2 %	O_2 %
Passive Vent-5	1047	0.0	0.3	18.9
Passive Vent-6	1046	0.0	0.1	19.2
Passive Vent-7	1044	0.0	4.4	14.1
Passive Vent-8	1041	0.0	8.3	10.1
Passive Vent-?	1537	0.0	4.9	15.3
Catch Basin 1	1023	0.0	0.1	20.3
Catch Basin 2	1025	0.0	0.1	20.3
Catch Basin 3	1027	0.0	0.1	20.2
Catch Basin 4	1030	0.0	0.1	20.2
Catch Basin 5	1032	0.0	0.0	20.2
Catch Basin 6	1036	0.0	0.0	20.2
Catch Basin 7	1038	0.0	0.1	20.3
Catch Basin 8	1050	0.0	0.1	20.3
Catch Basin 9	1122	0.0	0.2	20.7
Guard Shack 10	1016	0.0	0.0	20.5
Guard Shack 11	1018	0.0	0.0	20.4
Guard Shack 12	1019	0.0	0.0	20.6
Guard Shack 13	1021	0.0	0.0	20.4
Catch Basin 14	1104	0.0	0.0	20.2
Catch Basin 15	1108	0.0	0.1	20.4
Catch Basin 16	1110	0.0	0.1	20.5
Catch Basin 17	1113	0.0	0.1	20.5
Catch Basin 18	1115	0.0	0.2	20.5
Catch Basin 19	1118	0.0	0.1	20.6
Catch Basin 20	1119	0.0	0.0	20.6

Please do not hesitate to contact the undersigned at 419-724-5281 should you have any questions.

Sincerely,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC

William W. Speiser, CESSWI
Project Manager

Thomas R. Covrett, CPG
Vice President

Enclosures: Figure 1 – Methane Assessment Sample Locations
GEM5000 Exported Data

Legend

- Passive Gas Vent
- Methane Sample Locations
- Stickney Ave Landfill Boundary
- Former XXKem Facility Boundary

REFERENCE
AERIAL IMAGERY DATED 2017, PROVIDED BY OGRIP, ACCESSED 11/08/2018.

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CITY OF TOLEDO
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METHANE ASSESSMENT SAMPLE LOCATIONS
(MAY 29, 2019)

DRAWN BY:	MTC	CHECKED BY:	WWS	APPROVED BY:	TRC*	FIGURE NO:	1
DATE:	6/18/2019	SCALE:	1 " = 325 '	PROJECT NO:	185-376		

* Hand signature on file

P:\2018\185-376\-GIS\Maps\185-376_Stickney_LF_Catch_Basin_Map.mxd

Stickney Avenue Landfill Methane Assessment
Conducted September 4, 2019 using a Landtec Gem5000 Gas Analyzer

Location	Time	CH4 %	CO2 %	O2 %	Balance	Relative Pressure	Notes
PV-1	--	--	--	--	--	--	Probe is disrepair, unable to take reading
PV-2	1544	0.0	0.1	19.6	80.3	0.02	Overgrown with poison ivy.
PV-3	1540	0.0	0.9	19.1	80	0.01	Overgrown with poison ivy.
PV-4	1055	0.0	0.1	19.2	80.7	0.00	Overgrown with poison ivy.
PV-5	1047	0.0	0.3	18.9	80.8	0.01	
PV-6	1046	0.0	0.1	19.2	80.7	0.01	
PV-7	1044	0.0	4.4	14.1	81.5	0.01	
PV-8	1041	0.0	8.3	10.1	81.6	0.03	
PV-?	1537	0.0	4.9	15.3	79.8	0.01	
1	1023	0.0	0.1	20.3	79.6	0.01	
2	1025	0.0	0.1	20.3	79.6	0.02	
3	1027	0.0	0.1	20.2	79.7	0.02	
4	1030	0.0	0.1	20.2	79.7	0.02	
5	1032	0.0	0.0	20.2	79.8	0.01	
6	1036	0.0	0.0	20.2	79.8	0.01	
7	1038	0.0	0.1	20.3	79.6	0.03	
8	1050	0.0	0.1	20.3	79.6	0.04	
9	1122	0.0	0.2	20.7	79.1	0.01	
10	1016	0.0	0.0	20.5	79.5	0.00	Recorded at East/ Northeast corner, from access point that went underneath the building. The access point is located near the front stairs of the building
11	1018	0.0	0.0	20.4	79.6	0.00	North/ Northwest corner, in crack between corner of building and concrete sidewalk
12	1019	0.0	0.0	20.6	79.4	0.00	South/ Southwest corner, in crack between building and concrete sidewalk
13	1021	0.0	0.0	20.4	79.6	0.00	South side of building, on cement ramp in crack between building and concrete ramp/ sidewalk
14	1104	0.0	0.0	20.2	79.8	0.02	
15	1108	0.0	0.1	20.4	79.5	0.03	
16	1110	0.0	0.1	20.5	79.4	0.03	
17	1113	0.0	0.1	20.5	79.4	0.01	
18	1115	0.0	0.2	20.5	79.3	0.01	
19	1118	0.0	0.1	20.6	79.3	0.01	
20	1119	0.0	0.0	20.6	79.4	0.02	

Notes: Signed in at Stickney Ave. Gatehouse - 0815
Took photos of landfill from Barringer electric - Started gas readings at Passive Vent 1 (PV-1) near Barringer Electric (See map)
Recorded four measurements at the gatehouse - gatehouse measurements are in GREEN

November 14, 2019

Mr. Scott Lockhart
City of Toledo, Department of Public Service
Solid Waste Division
3962 Hoffman Road
Toledo, Ohio 43611

Dear Mr. Lockhart:

Subject: Stickney Avenue Landfill Methane Assessment
CEC Project 185-376

In response to a request made by the Ohio Environmental Protection Agency (Ohio EPA) during their site inspection in May 2018, Civil & Environmental Consultants, Inc. (CEC) conducted a methane assessment of 16 storm water catch basins between the Stickney Avenue Landfill and the Fiat Chrysler Automobiles (FCA) facility. The area around and beneath the guard shack located on the former XXKem facility was included in the assessment, as were eight passive vents. The assessment procedures and results are provided below.

CEC conducted the methane assessment on November 14, 2019 using a Landtec GEM5000 Gas Analyzer, which was calibrated using a gas reference standard of 15% methane (CH_4), 15% carbon dioxide (CO_2), and Nitrogen (N_2) prior to beginning field activities. A fresh air calibration was done to calibrate the oxygen (O_2) sensor. Each catch basin was assessed for methane concentrations by lowering the sample tubing connected to the GEM5000 sample pump into each catch basin's surface grate. The area beneath the guard shack was monitored from the access point near the subfloor of the structure. Assessment of the area around the guard shack was biased to joints between the structure and the concrete.

No detections of methane were observed at any of the sample locations. Sample locations are provided on Figure 1; the data exported from the GEM5000 is attached and a summary of the sample results from each location is provided below.

Location	Time	CH_4 %	CO_2 %	O_2 %
Passive Vent-1	1315	--	--	--
Passive Vent-2	1318	0.0	0.2	20.4
Passive Vent-3	1320	0.0	0.2	20.4
Passive Vent-4	1322	0.0	0.1	20.5

Location	Time	CH_4 %	CO_2 %	O_2 %
Passive Vent-5	1418	--	--	--
Passive Vent-6	1422	0.0	0.3	20.7
Passive Vent-7	1426	0.0	2.4	18.9
Passive Vent-8	1431	0.0	7.7	12.8
Catch Basin 1	1446	0.0	0.2	20.8
Catch Basin 2	1445	0.0	0.2	20.8
Catch Basin 3	1443	0.0	0.2	20.8
Catch Basin 4	1441	0.0	0.2	20.8
Catch Basin 5	1440	0.0	0.2	20.8
Catch Basin 6	1439	0.0	0.2	20.8
Catch Basin 7	1437	0.0	0.1	20.3
Catch Basin 8	1435	0.0	0.2	17.6
Catch Basin 9	1500	0.0	0.2	20.7
Guard Shack 10	1440	0.0	0.0	20.5
Guard Shack 11	1441	0.0	0.0	20.4
Guard Shack 12	1443	0.0	0.0	20.6
Guard Shack 13	1445	0.0	0.0	20.4
Catch Basin 14	1513	0.0	0.2	20.8
Catch Basin 15	1512	0.0	0.2	20.5
Catch Basin 16	1510	0.0	0.1	20.7
Catch Basin 17	1508	0.0	0.2	20.8
Catch Basin 18	1506	0.0	0.2	20.5
Catch Basin 19	1504	0.0	0.2	20.8
Catch Basin 20	1502	0.0	0.0	20.6

Please do not hesitate to contact the undersigned at 419-724-5281 should you have any questions.

Sincerely,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC

William W. Speiser, CESSWI
Project Manager

Thomas R. Covrett, CPG
Vice President

Enclosures: Figure 1 – Methane Assessment Sample Locations
GEM5000 Exported Data

Legend

- Passive Gas Vent
- Methane Sample Locations
- Stickney Ave Landfill Boundary
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METHANE ASSESSMENT SAMPLE LOCATIONS
(MAY 29, 2019)

DRAWN BY:	MTC	CHECKED BY:	WWS	APPROVED BY:	TRC*	FIGURE NO:	1
DATE:	6/18/2019	SCALE:	1 " = 325 '	PROJECT NO:	185-376		

* Hand signature on file

P:\2018\185-376\-GIS\Maps\185-376_Stickney_LF_Catch_Basin_Map.mxd

Stickney Avenue Landfill Methane Assessment
Conducted November 14, 2019 using a Landtec Gem5000 Gas Analyzer

Location	Time	CH4 %	CO2 %	O2 %	Balance	Relative Pressure	Notes
PV-1	1315	--	--	--	--	--	Probe demolished, unable to measure reading.
PV-2	1318	0.0	0.2	20.4	79.4	0.00	Passive vent removed, measured from remaining open ended stick-up.
PV-3	1320	0.0	0.2	20.4	79.4	0.00	Passive vent removed, measured from remaining open ended stick-up.
PV-4	1322	0.0	0.1	20.5	79.4	0.00	Passive vent removed, measured from remaining open ended stick-up.
PV-5	1418	--	--	--	--	--	Bad air valve. Probe flooded. Depth to Water: 4.90', Total Depth: 13.35' *
PV-6	1422	0.0	0.3	20.7	79.0	0.01	Probe flooded. Depth to Water: 5.50', Total Depth: 15.50' *
PV-7	1426	0.0	2.4	18.9	78.7	0.01	Probe flooded. Depth to Water: 0.20', Total Depth: 15.01' *
PV-8	1431	0.0	7.7	12.8	79.5	0.01	Unable to open cleanout to measure Depth to Water and Total Depth.
1	1446	0.0	0.2	20.8	79.0	0.01	
2	1445	0.0	0.2	20.8	79.0	0.02	
3	1443	0.0	0.2	20.8	79.0	0.02	
4	1441	0.0	0.2	20.8	79.0	0.02	
5	1440	0.0	0.2	20.8	79.0	0.01	
6	1439	0.0	0.2	20.8	79.0	0.01	
7	1437	0.0	0.1	20.3	79.6	0.02	
8	1435	0.0	0.2	17.6	82.2	0.01	
9	1500	0.0	0.2	20.7	79.1	0.01	
10	1440	0.0	0.0	20.5	79.5	0.00	Recorded at East/ Northeast corner, from access point that went underneath the building. The access point is located near the front stairs of the building
11	1441	0.0	0.0	20.4	79.6	0.00	North/ Northwest corner, in crack between corner of building and concrete sidewalk
12	1443	0.0	0.0	20.6	79.4	0.00	South/ Southwest corner, in crack between building and concrete sidewalk
13	1445	0.0	0.0	20.4	79.6	0.00	South side of building, on cement ramp in crack between building and concrete ramp/ sidewalk
14	1513	0.0	0.2	20.8	79.0	0.02	
15	1512	0.0	0.2	20.5	79.3	0.03	
16	1510	0.0	0.1	20.7	79.2	0.03	
17	1508	0.0	0.2	20.8	79.0	0.01	
18	1506	0.0	0.2	20.5	79.3	0.01	
19	1504	0.0	0.2	20.8	79.0	0.01	
20	1502	0.0	0.0	20.6	79.4	0.02	

Notes: Signed in at Hoffman Road Gatehouse - 1230 * Depths measured from estimated ground surface.
Took photos of landfill from Barringer electric - Started gas readings at Passive Vent 1 (PV-1) near Barringer Electric (See map)
Recorded four measurements at the gatehouse - gatehouse measurements are in GREEN

APPENDIX D
ANNUAL INSPECTION FORMS – STICKNEY AVENUE LANDFILL

FIGURE 3-1
LANDFILL INSPECTION FORM
STICKNEY/TYLER LANDFILLS
TOLEDO, OHIO

Today's Date: 11-12-19

Your name: Michael Cline, John Dilworth

Are you completing this form for: ☒ **Stickney Avenue Landfill** ☐ **Tyler Street Landfill**

(Please use a separate form for each landfill)

Item	Yes or No	Recommended Corrective Action And Schedule for Completion
SECURITY		
1. Is perimeter fencing intact:	Yes	
2. Are posted signs present and in good condition:	Yes	
3. Were gates locked and locks intact:	Yes	
4. Are gates and locks easy to open?	Yes	
ACCESS ROAD		
5. Does access road have rock surface layer? (List any areas requiring placement of additional rock.)	Yes	Majority of site is paved asphalt, Areas not paved have grass and store paths.
6. Is access road and adjacent turf free of ruts? (List any areas requiring repair with rock or topsoil)	Yes	

Note: Inspection took place during snowy conditions.

FIGURE 3-1
LANDFILL INSPECTION FORM
STICKNEY/TYLER LANDFILLS
TOLEDO, OHIO

Item	Yes or No	Recommended Corrective Action And Schedule for Completion
7. Are grassed areas adjacent to access road free of ruts? (List any areas requiring grading, topsoil or seeding)	Yes	
VEGETATION		
8. Is this vegetation on the top and side slopes free from bare spots and of sufficient density to protect cover system?	Yes	
9. Is the pavement on the parking surface in good repair ?	Yes	
10. Are the perimeter trees free from observable stress and fallen limbs?	Yes	
11. Is the surface free of any evidence of rodents or burrowing animals?	Yes	
12. Is the surface free of woody vegetation other than perimeter trees?	Yes	

FIGURE 3-1
LANDFILL INSPECTION FORM
STICKNEY/TYLER LANDFILLS
TOLEDO, OHIO

Item	Yes or No	Recommended Corrective Action And Schedule for Completion
13. Are the slopes or perimeter features free of any evidence of gas migration (stressed vegetation)?	Yes	
14. Are the slopes or perimeter features free of any evidence of leachate migration (excessive riprap staining or surface water discoloration)?	Yes	
DRAINAGE AND EROSION CONTROL		
15. Are drainage ways free from obstruction?	Yes	
16. Are erosion control materials intact?	Yes	
17. Are all surfaces free of erosion rills?	Yes	
SETTLEMENT CONTROL		
18. Are surface slopes uniform without local depressions or ponded areas?	Yes	

FIGURE 3-1
LANDFILL INSPECTION FORM
STICKNEY/TYLER LANDFILLS
TOLEDO, OHIO

Item	Yes or No	Recommended Corrective Action And Schedule for Completion
RIVERBANK STABILITY		
19. Does slope area appear to be stable and free of localized settlement or slumps?	Yes	
20. Is berm in place at top of slope and free of erosion or washouts?	Yes	
21. Are underdrain outlet pipes (500-foot intervals) intact and drain freely?	Yes	
22. Are underdrain outlet Pipe markers present?	Yes	
23. Are slope monitoring points intact and appear to be in normal alignment?	Yes	
24. Are letdown channels intact and free of erosion, damage or debris?	Yes	
25. Is riprap intact and free of localized depressions or voids in riprap slope cover?	Yes	

FIGURE 3-1
LANDFILL INSPECTION FORM
STICKNEY/TYLER LANDFILLS
TOLEDO, OHIO

Item	Yes or No	Recommended Corrective Action And Schedule for Completion
26. Is riprap berm at bottom of riprap slope intact and free of erosion or undercutting?	Yes	
27. Is riprap surface free of debris and excessive woody vegetation?	Yes	

Description of recommended action: (attach additional pages as required)

Item Number	Description

FIGURE 3-3
GAS MONITORING WELL INSPECTION FORM
STICKNEY/TYLER LANDFILLS

Name: Mike Cline, John Dilworth Affiliation: Civil & Environmental Consultants, Inc.

Date: 11/12 - 11/13/2019 Time: 1000

Location/Identification	Vents	Probes
1. Is the probe/vent accessible?	5. Is the vent damaged and need repair?	7. Are the probes and/or casings damaged and need repair?
2. Is the probe in low spot or standing water?	6. Are the vent sampling ports damaged and need repair?	8. Are probe casings visible?
3. Is probe/vent free of obstruction?		9. Is probe casing subject to being submerged?
4. Is the probe/vent labeled inside and out?		

Well Probe/Vent I.D.	Inspected	Requires Action	Items/Problems Requiring Action (list number from above)
S-GP-1S	☒	☐	N/A
S-GP-1D	☒	☐	N/A
S-GP-1A	☒	☐	N/A
S-GP-2S	☒	☐	N/A
S-GP-2D	☒	☐	N/A
S-GP-2A	☒	☐	N/A
S-GP-10S	☐	☐	Could Not Locate (CNL)
S-GP-10D	☐	☐	CNL
S-GP-11S	☐	☐	CNL
S-GP-11D	☐	☐	CNL
S-GP-12	☒	☐	N/A
S-GP-14	☐	☐	CNL
S-GP-15	☐	☐	CLL
BE-BP-01	☒	☐	N/A
BE-BP-02	☒	☐	N/A
T-GP-01S	☒	☐	N/A
T-GP-01D	☒	☐	N/A
T-GP-02S	☒	☐	N/A
T-GP-02D	☒	☐	N/A
T-GP-03S	☒	☐	N/A
T-GP-03D	☒	☐	N/A

T-GP-07S	☐	☐	CNL
T-GP-07D	☐	☐	CNL
T-GP-07A	☒	☐	N/A
T-GP-10S	☐	☐	CNL
T-GP-10D	☐	☐	CNL
T-GP-11S	☐	☐	CNL
T-GP-11D	☐	☐	CNL
T-GP-12S	☐	☐	CNL
T-GP-12D	☐	☐	CNL
T-GP-15	☒	☐	N/A
Horizontal Well	☒	☐	Not Running
Pre-System	☒	☐	Not Running
Btwn GACs	☒	☐	Not Running
Post - Sys	☒	☐	Not Running
	☐	☐	
	☐	☐	

Attach a detailed description of recommended actions at specific locations below:

Tyler gas system not running upon arrival. For gas probes that could not be located, punch bar samples were collected to check for gas migration.

FIGURE 3-2
MONITORING WELL INSPECTION FORM
STICKNEY/TYLER LANDFILLS

Name: Mike Cline, John Dilworth Affiliation: Civil & Environmental Consultants, Inc.

Date: 11/12-11/13/2019 Time: 1000

Location/Identification	Surface Seal	External Casing	Internal Casing
1. Is the well accessible:	5. Is surface seal damaged?	8. Is casing in good condition?	11. Is the internal casing at least 1 foot above ground?
2. Is the well protected from traffic?	6. Is the seal secure against the casing and ground?	9. Is casing locked?	12. Is internal riser within 2 inches of top cap?
3. Is the well in low spot or standing water?		10. Is lock in good condition?	13. Is casing free of debris, kinks, bends?
4. Is the well labeled inside and out?	7. Is the seal sloped away from the wellhead?		14. Is cap in good condition?

Well I.D.	Inspected	Requires Action	Items/Problems Requiring Action (list number from above)
SMW-21 LP	☒	☐	N/A
SMW-24LP	☒	☐	N/A
SMW-27LP	☒	☐	N/A
SMW-30LP	☒	☐	N/A
SMW-33LP	☒	☐	N/A
SMW-35LP	☒	☐	N/A
SMW-36LP	☒	☐	N/A
SMW-37LP	☒	☐	N/A
TMW-19LP	☒	☐	N/A
TMW-21LP	☒	☐	N/A
TMW-23LP	☒	☐	N/A
TMW-25LP	☒	☐	N/A
TMW-27LP	☒	☐	N/A
TMW-29LP	☒	☐	N/A
TMW-31LP	☒	☐	N/A
TMW-33LP	☒	☐	#3
TMW-35LP	☒	☐	N/A
	☐	☐	

Attach a detailed description of recommended actions at specific locations :

• T-MW-33LP: Ponded water around well pad.

APPENDIX E
FIELD EQUIPMENT CALIBRATION RECORD AND FIELD DATA SHEETS – TYLER STREET LANDFILL

GROUNDWATER MONITORING WELL FIELD DATA SHEET

MONITORING POINT: T-MW-19-LP
DETECTION:
ASSESSMENT:

FACILITY INFORMATION

NAME: Tyler Street Landfill
ADDRESS: Tyler Street, Toledo, OH
CONTACT: Scott Lockhart / Ryan Murphy
PROJECT NUMBER: 185-376
TELEPHONE: (419) 936-2640

MONITORING WELL DATA

COORDINATES: N/A N
N/A E
CONDITION OF WELL: Good
No Evidence of Tampering
GROUND SURFACE ELEVATION: N/A
TOTAL DEPTH (FROM GROUND SURFACE): N/A
SCREENED INTERVAL (INCLUDING SAND PACK): N/A
SCREENED FORMATION: N/A
CASING MATERIAL/DIAMETER: 2" PVC
TOP OF CASING ELEVATION: N/A
TOTAL DEPTH (FROM TOP OF CASING): N/A
SCREENED DEPTH (SCREEN ONLY): N/A

WEATHER CONDITIONS

WEATHER: Partly Cloudy
BAROMETRIC PRESSURE: 29.82" Hg
WIND DIRECTION: 0-5 mph E-NE
TEMPERATURE (°F): 34

FIELD MEASURED PARAMETERS

PERSONNEL PRESENT: John Dilworth, Mike Cline
MEASURED TOTAL DEPTH (FROM TOC): -
VOLUME OF STATIC WATER: -
STATIC WATER LEVEL (FROM TOC): 6.24
GROUNDWATER ELEVATION: -

PURGING DATA

DATE OF PURGING: 11/14/19
PURGING METHOD: Low Flow - Dedicated Bladder Pump
PURGING RATE: 400mL/min
TIME OF PURGING: 1240
VOLUME PURGED: 3,600 mL

LOW FLOW READINGS

	Initial	1	2	3	4	5	6/Final
Time	1240	1243	1246	1249			1249
pH	6.66	6.68	6.68	6.68			6.68
Temp. °C	13.2	13.3	13.3	13.3			13.3
Spc.Cond. uS/cm	3279	3366	3342	3313			3313
Redox Pot. mV	-79.7	-119.9	-128.9	-137.4			-137.4
D.O. mg/L	0.42	0.05	0.05	0.05			0.05
Turbidity NTU	302.14	179.12	186.72	181.66			181.66
Water Level*	6.24	6.31	6.31	6.31			6.31

* measurement from top of casing

VOLUME TO PURGE CALCULATION TABLE

Well casing Diameter (in.)	Gallons Per Foot of Depth	Feet of Standing Water	3 Well Volumes	Total Volume to Purge (Gal.)
1	0.041	x	x 3	
2	0.163	x	x 3	
4	0.653	x	x 3	
6	1.469	x	x 3	

SAMPLING DATA

DATE/TIME OF SAMPLING: 11/14/19 1253
SAMPLING METHOD: Low Flow - Dedicated Bladder Pump
SAMPLING RATE (IF USING DEDICATED PUMP): 100mL/min
STATIC WATER LEVEL (AFTER SAMPLING): 6.31

NOTES

10/5 @ 30 psi = 400mL/min

EXPLOSIVE GAS READING PRIOR TO STATIC WATER LEVEL: %CH4: 17.3 %LEL: >100

GROUNDWATER MONITORING WELL FIELD DATA SHEET

MONITORING POINT: T-MW-21-LP
DETECTION:
ASSESSMENT:

FACILITY INFORMATION

NAME: Tyler Street Landfill
ADDRESS: Tyler Street, Toledo, OH
CONTACT: Scott Lockhart / Ryan Murphy
PROJECT NUMBER: 185-376
TELEPHONE: (419) 936-2640

MONITORING WELL DATA

COORDINATES: N/A N
N/A E
CONDITION OF WELL: Good
No Evidence
GROUND SURFACE ELEVATION: N/A
CASING MATERIAL/DIAMETER: 2" PVC
TOTAL DEPTH (FROM GROUND SURFACE): N/A
TOP OF CASING ELEVATION: N/A
SCREENED INTERVAL (INCLUDING SAND PACK): N/A
TOTAL DEPTH (FROM TOP OF CASING): N/A
SCREENED FORMATION: N/A
SCREENED DEPTH (SCREEN ONLY): N/A

WEATHER CONDITIONS

WEATHER: Overcast
WIND DIRECTION: 0-5 mph E-NE
BAROMETRIC PRESSURE: 29.52" Hg
TEMPERATURE (°F): 17

FIELD MEASURED PARAMETERS

PERSONNEL PRESENT: M. Cline / J. Dilworth
MEASURED TOTAL DEPTH (FROM TOC): —
STATIC WATER LEVEL (FROM TOC): BTOP*
VOLUME OF STATIC WATER: —
GROUNDWATER ELEVATION: —

PURGING DATA

DATE OF PURGING: 11/13/19
PURGING METHOD: Low Flow - Dedicated Bladder Pump
TIME OF PURGING: 1147
PURGING RATE: 300 mL/min
VOLUME PURGED: 3,600 mL

LOW FLOW READINGS

	Initial	1	2	3	4	5	6/Final
Time	1147	1150	1153	1156	1159	—	1159
pH	6.83	6.82	6.82	6.82	6.82	—	6.82
Temp. °C	12.4	12.6	12.5	12.5	12.5	—	12.5
Spc.Cond. uS/cm	1759	2044	2143	2162	2170	—	2170
Redox Pot. mV	95.9	34.8	7.5	-19.4	-30.1	—	-30.1
D.O. mg/L	4.11	3.21	2.74	2.10	1.89	—	1.89
Turbidity NTU	46.7	8.11	7.66	7.12	7.70	—	7.70
Water Level*	BTOP	BTOP	BTOP	BTOP	BTOP	BTOP	BTOP

* measurement from top of casing

VOLUME TO PURGE CALCULATION TABLE

Well casing Diameter (In.)	Gallons Per Foot of Depth	Feet of Standing Water	3 Well Volumes	Total Volume to Purge (Gal.)
1	0.041	x	x 3	
2	0.163	x	x 3	
4	0.653	x	x 3	
6	1.469	x	x 3	

SAMPLING DATA

DATE/TIME OF SAMPLING: 11/13/19 1204
SAMPLING RATE (IF USING DEDICATED PUMP): 100 mL/min
SAMPLING METHOD: Low Flow - Dedicated Bladder Pump
STATIC WATER LEVEL (AFTER SAMPLING): BTOP

NOTES

* BTOP - Below Top of Pump
4 cpm 7.5/7.5 @ 25 psi = 300 mL/min

EXPLOSIVE GAS READING PRIOR TO STATIC WATER LEVEL: %CH4: 1.3 %LEL: 26%

GROUNDWATER MONITORING WELL FIELD DATA SHEET

MONITORING POINT: T-MW-23-LP
DETECTION:
ASSESSMENT:

FACILITY INFORMATION

NAME: Tyler Street Landfill
ADDRESS: Tyler Street, Toledo, OH
CONTACT: Scott Lockhart / Ryan Murphy
PROJECT NUMBER: 185-376
TELEPHONE: (419) 936-2640

MONITORING WELL DATA

COORDINATES: N/A N
N/A E
GROUND SURFACE ELEVATION: N/A
TOTAL DEPTH (FROM GROUND SURFACE): N/A
SCREENED INTERVAL (INCLUDING SAND PACK): N/A
SCREENED FORMATION: N/A
CONDITION OF WELL: good
no evidence of tampering
CASING MATERIAL/DIAMETER: 2" PVC
TOP OF CASING ELEVATION: N/A
TOTAL DEPTH (FROM TOP OF CASING): N/A
SCREENED DEPTH (SCREEN ONLY): N/A

WEATHER CONDITIONS

WEATHER: P. cloudy
BAROMETRIC PRESSURE: 30.41" Hg
WIND DIRECTION: S 9 mph
TEMPERATURE (°F): 19°

FIELD MEASURED PARAMETERS

PERSONNEL PRESENT: John Dilworth
MEASURED TOTAL DEPTH (FROM TOC): -
VOLUME OF STATIC WATER: -
STATIC WATER LEVEL (FROM TOC): 13.31
GROUNDWATER ELEVATION: -

PURGING DATA

DATE OF PURGING: 11-13-19
PURGING METHOD: Low Flow - Dedicated Bladder Pump
PURGING RATE: 300 mL/min
TIME OF PURGING: 1154
VOLUME PURGED: 4,500 mL

LOW FLOW READINGS

	Initital	1	2	3	4	5	6/Final
Time	1154	1157	1200	1203	1206	1209	1209
pH	7.14	6.81	6.79	6.77	6.77	6.76	6.76
Temp. °C	18.0	19.3	19.5	19.7	19.7	19.8	19.8
Spc.Cond. uS/cm	3999	3898	3883	3901	3920	3928	3928
Redox Pot. mV	-39.2	-89.0	-93.2	-110.5	-118.6	-124.6	-124.6
D.O. mg/L	0.92	0.26	0.18	0.08	0.06	0.04	0.04
Turbidity NTU	19.68	10.67	11.43	20.47	16.01	18.79	18.79
Water Level*	13.31	13.52	13.56	13.56	13.56	13.56	13.56

* measurement from top of casing

VOLUME TO PURGE CALCULATION TABLE

Well casing Diameter (in.)	Gallons Per Foot of Depth	Feet of Standing Water	3 Well Volumes	Total Volume to Purge (Gal.)
1	0.041	x	x 3	
2	0.163	x	x 3	
4	0.653	x	x 3	
6	1.469	x	x 3	

SAMPLING DATA

DATE/TIME OF SAMPLING: 11-13-19/1212, spike @ 1217
SAMPLING METHOD: Low Flow - Dedicated Bladder Pump
SAMPLING RATE (IF USING DEDICATED PUMP): 100 mL/min
STATIC WATER LEVEL (AFTER SAMPLING): 13.56

NOTES

23 psi @ 10/5 ≈ 300 mL/min
DUP
MS/MSD @ 1217 → taken here

EXPLOSIVE GAS READING PRIOR TO STATIC WATER LEVEL: %CH4: 1.6 %LEL: 32%

GROUNDWATER MONITORING WELL FIELD DATA SHEET

MONITORING POINT: T-MW-25-LP
DETECTION:
ASSESSMENT:

FACILITY INFORMATION

NAME: Tyler Street Landfill
ADDRESS: Tyler Street, Toledo, OH
CONTACT: Scott Lockhart / Ryan Murphy
PROJECT NUMBER: 185-376
TELEPHONE: (419) 936-2640

MONITORING WELL DATA

COORDINATES: N/A N
N/A E
GROUND SURFACE ELEVATION: N/A
TOTAL DEPTH (FROM GROUND SURFACE): N/A
SCREENED INTERVAL (INCLUDING SAND PACK): N/A
SCREENED FORMATION: N/A
CONDITION OF WELL: good
no evidence of tampering
CASING MATERIAL/DIAMETER: 2" PVC
TOP OF CASING ELEVATION: N/A
TOTAL DEPTH (FROM TOP OF CASING): N/A
SCREENED DEPTH (SCREEN ONLY): N/A

WEATHER CONDITIONS

WEATHER: P. cloudy
BAROMETRIC PRESSURE: 30.41 "Hg
WIND DIRECTION: S 9mph
TEMPERATURE (°F): 19

FIELD MEASURED PARAMETERS

PERSONNEL PRESENT: John Dilworth
MEASURED TOTAL DEPTH (FROM TOC): –
VOLUME OF STATIC WATER: –
STATIC WATER LEVEL (FROM TOC): 11.56
GROUNDWATER ELEVATION: –

PURGING DATA

DATE OF PURGING: 11-13-19
PURGING METHOD: Low Flow - Dedicated Bladder Pump
PURGING RATE: 250 mL/min
TIME OF PURGING: 1238
VOLUME PURGED: 4,500 mL

LOW FLOW READINGS

	Initial	1	2	3	4	5	6/Final
Time	1238	1241	1244	1247	1250	1253	1256
pH	7.41	7.08	6.90	6.91	7.02	6.95	6.98
Temp. °C	13.3	13.4	13.1	13.1	13.0	12.9	12.9
Spc.Cond. uS/cm	5920	6080	6075	6070	6079	6084	6081
Redox Pot. mV	-63.4	-113.6	-125.7	-127.0	-118.7	-120.4	-120.8
D.O. mg/L	0.91	0.14	0.03	0.03	0.01	0.04	0.03
Turbidity NTU	21.43	11.73	12.01	22.18	15.07	17.63	17.17
Water Level*	11.56	BTOP	BTOP	BTOP	BTOP	BTOP	BTOP

* measurement from top of casing

VOLUME TO PURGE CALCULATION TABLE

Well casing Diameter (in.)	Gallons Per Foot of Depth	Feet of Standing Water	3 Well Volumes	Total Volume to Purge (Gal.)
1	0.041	x	x 3	
2	0.163	x	x 3	
4	0.653	x	x 3	
6	1.469	x	x 3	

SAMPLING DATA

DATE/TIME OF SAMPLING: 11-13-19/1257
SAMPLING METHOD: Low Flow - Dedicated Bladder Pump
SAMPLING RATE (IF USING DEDICATED PUMP): 100 mL/min
STATIC WATER LEVEL (AFTER SAMPLING): BTOP

NOTES

21 psi @ 10/5 ≈ 250 mL/min

EXPLOSIVE GAS READING PRIOR TO STATIC WATER LEVEL: %CH4: 3.7% %LEL: 74%

GROUNDWATER MONITORING WELL FIELD DATA SHEET

MONITORING POINT: T-MW-27-LP
DETECTION:
ASSESSMENT:

FACILITY INFORMATION

NAME: Tyler Street Landfill
ADDRESS: Tyler Street, Toledo, OH
CONTACT: Scott Lockhart / Ryan Murphy
PROJECT NUMBER: 185-376
TELEPHONE: (419) 936-2640

MONITORING WELL DATA

COORDINATES: N/A N; N/A E
CONDITION OF WELL: Good
No Evidence of Tampering
GROUND SURFACE ELEVATION: N/A
CASING MATERIAL/DIAMETER:
TOTAL DEPTH (FROM GROUND SURFACE): N/A
TOP OF CASING ELEVATION: N/A
SCREENED INTERVAL (INCLUDING SAND PACK): N/A
TOTAL DEPTH (FROM TOP OF CASING): N/A
SCREENED FORMATION: N/A
SCREENED DEPTH (SCREEN ONLY): N/A

WEATHER CONDITIONS

WEATHER: Partly Cloudy
WIND DIRECTION: 5-10 mph S
BAROMETRIC PRESSURE: 30.41" Hg
TEMPERATURE (°F): 19

FIELD MEASURED PARAMETERS

PERSONNEL PRESENT:
MEASURED TOTAL DEPTH (FROM TOC): —
STATIC WATER LEVEL (FROM TOC): 10.47
VOLUME OF STATIC WATER: —
GROUNDWATER ELEVATION: —

PURGING DATA

DATE OF PURGING: 11/13/19
PURGING METHOD: Low Flow - Dedicated Bladder Pump
TIME OF PURGING: 1240
PURGING RATE: 500 mL/min
VOLUME PURGED: 4,500 mL

LOW FLOW READINGS

	Initial	1	2	3	4	5	6/Final
Time	1240	1243	1246	1249			1249
pH	7.12	7.11	7.11	7.11			7.11
Temp. °C	12.6	12.6	12.6	12.6			12.6
Spc.Cond. uS/cm	5169	5273	5237	5248			5248
Redox Pot. mV	84.4	62.3	16.0	10.2			10.2
D.O. mg/L	1.31	1.05	0.82	0.79			0.79
Turbidity NTU	18.62	7.98	4.91	4.87			4.87
Water Level*	10.47	10.53	10.53	10.53			10.53

* measurement from top of casing

VOLUME TO PURGE CALCULATION TABLE

Well casing Diameter (in.)	Gallons Per Foot of Depth	Feet of Standing Water	3 Well Volumes	Total Volume to Purge (Gal.)
1	0.041	x	x 3	
2	0.163	x	x 3	
4	0.653	x	x 3	
6	1.469	x	x 3	

SAMPLING DATA

DATE/TIME OF SAMPLING: 11/13/19 1255
SAMPLING RATE (IF USING DEDICATED PUMP): 100 mL/min
SAMPLING METHOD: Low Flow - Dedicated Bladder Pump
STATIC WATER LEVEL (AFTER SAMPLING): 10.53

NOTES

- 4 cpm 7.5/7.5 @ 25 psi = 500 mL/min
- Used Airline adaptor to operate pump
- Field Blank (FB) collected ~~here~~ here @ 1310

EXPLOSIVE GAS READING PRIOR TO STATIC WATER LEVEL: %CH4: 0.0 %LEL: 0

GROUNDWATER MONITORING WELL FIELD DATA SHEET

MONITORING POINT: T-MW-29-LP
DETECTION:
ASSESSMENT:

FACILITY INFORMATION

NAME: Tyler Street Landfill
ADDRESS: Tyler Street, Toledo, OH
CONTACT: Scott Lockhart / Ryan Murphy
PROJECT NUMBER: 185-376
TELEPHONE: (419) 936-2640

MONITORING WELL DATA

COORDINATES: N/A N; N/A E
CONDITION OF WELL: good; no evidence of tampering
GROUND SURFACE ELEVATION: N/A
CASING MATERIAL/DIAMETER: 2" PVC
TOTAL DEPTH (FROM GROUND SURFACE): N/A
TOP OF CASING ELEVATION: N/A
SCREENED INTERVAL (INCLUDING SAND PACK): N/A
TOTAL DEPTH (FROM TOP OF CASING): N/A
SCREENED FORMATION: N/A
SCREENED DEPTH (SCREEN ONLY): N/A

WEATHER CONDITIONS

WEATHER: overcast
WIND DIRECTION: S 9mph
BAROMETRIC PRESSURE: 29.52 "Hg
TEMPERATURE (°F): 19

FIELD MEASURED PARAMETERS

PERSONNEL PRESENT: John Dilworth
MEASURED TOTAL DEPTH (FROM TOC): –
STATIC WATER LEVEL (FROM TOC): [redacted] BTOP*
VOLUME OF STATIC WATER: –
GROUNDWATER ELEVATION: –

PURGING DATA

DATE OF PURGING: 11-13-19
PURGING METHOD: Low Flow - Dedicated Bladder Pump
TIME OF PURGING: 1332
PURGING RATE: 400 mL/min
VOLUME PURGED: 7,200 mL

LOW FLOW READINGS

	Initital	1	2	3	4	5	6/Final
Time	1332	1335	1338	1341	1344	1347	1350
pH	7.49	7.55	7.28	7.18	7.16	7.15	7.17
Temp. °C	12.5	12.7	12.7	12.8	12.8	12.8	12.8
Spc.Cond. uS/cm	6619	6572	6582	6613	6629	6644	6655
Redox Pot. mV	-67.4	-80.7	-94.3	-108.9	-115.2	-114.5	-111.2
D.O. mg/L	0.25	1.33	0.07	0.01	0.01	0.04	0.08
Turbidity NTU	205.62	49.27	61.73	58.17	66.83	65.33	68.36
Water Level*	[redacted] BTOP	[redacted] BTOP	[redacted] BTOP	BTOP	BTOP	BTOP	BTOP

* measurement from top of casing

VOLUME TO PURGE CALCULATION TABLE

Well casing Diameter (in.)	Gallons Per Foot of Depth	Feet of Standing Water	3 Well Volumes	Total Volume to Purge (Gal.)
1	0.041	x	x 3	
2	0.163	x	x 3	
4	0.653	x	x 3	
6	1.469	x	x 3	

SAMPLING DATA

DATE/TIME OF SAMPLING: 11-13-19 / 1355
SAMPLING RATE (IF USING DEDICATED PUMP): 100 mL/min
SAMPLING METHOD: Low Flow - Dedicated Bladder Pump
STATIC WATER LEVEL (AFTER SAMPLING): BTOP

NOTES

30 psi @ 10/5 = 400 mL/min
* Below top of pump (BTOP)

EXPLOSIVE GAS READING PRIOR TO STATIC WATER LEVEL: %CH4: 0.0 %LEL: Ø

GROUNDWATER MONITORING WELL FIELD DATA SHEET

MONITORING POINT: T-MW-31-LP
DETECTION:
ASSESSMENT:

FACILITY INFORMATION

NAME: Tyler Street Landfill
ADDRESS: Tyler Street, Toledo, OH
CONTACT: Scott Lockhart / Ryan Murphy
PROJECT NUMBER: 185-376
TELEPHONE: (419) 936-2640

MONITORING WELL DATA

COORDINATES: N/A N
N/A E
CONDITION OF WELL: Good
No Evidence
GROUND SURFACE ELEVATION: N/A
TOTAL DEPTH (FROM GROUND SURFACE): N/A
SCREENED INTERVAL (INCLUDING SAND PACK): N/A
SCREENED FORMATION: N/A
CASING MATERIAL/DIAMETER:
TOP OF CASING ELEVATION: N/A
TOTAL DEPTH (FROM TOP OF CASING): N/A
SCREENED DEPTH (SCREEN ONLY): N/A

WEATHER CONDITIONS

WEATHER: Overcast
BAROMETRIC PRESSURE: 29.52" Hg
WIND DIRECTION: 0-5 mph E-NE
TEMPERATURE (°F): 15

FIELD MEASURED PARAMETERS

PERSONNEL PRESENT: M. Cline / J. Dilworth
MEASURED TOTAL DEPTH (FROM TOC): —
VOLUME OF STATIC WATER: —
STATIC WATER LEVEL (FROM TOC): 15.17
GROUNDWATER ELEVATION: —

PURGING DATA

DATE OF PURGING: 11/13/19
PURGING METHOD: Low Flow - Dedicated Bladder Pump
PURGING RATE: 400 mL/min
TIME OF PURGING: 1334
VOLUME PURGED: 3,600 mL

LOW FLOW READINGS

	Initial	1	2	3	4	5	6/Final
Time	1334	1337	1340	1343			1348
pH	6.76	6.75	6.75	6.75			6.75
Temp. °C	12.5	12.4	12.4	12.4			12.4
Spc.Cond. uS/cm	3613	3632	3643	3648			3648
Redox Pot. mV	99.2	80.8	40.5	21.7			21.7
D.O. mg/L	2.16	2.63	1.03	0.89			0.89
Turbidity NTU	31.28	29.14	27.72	25.42			25.42
Water Level*	15.17	15.44	15.44	15.44			15.44

* measurement from top of casing

VOLUME TO PURGE CALCULATION TABLE

Well casing Diameter (in.)	Gallons Per Foot of Depth	Feet of Standing Water	3 Well Volumes	Total Volume to Purge (Gal.)
1	0.041	x	x 3	
2	0.163	x	x 3	
4	0.653	x	x 3	
6	1.469	x	x 3	

SAMPLING DATA

DATE/TIME OF SAMPLING: 11/13/19 1349
SAMPLING METHOD: Low Flow - Dedicated Bladder Pump
SAMPLING RATE (IF USING DEDICATED PUMP): 100 mL/min
STATIC WATER LEVEL (AFTER SAMPLING): 15.44

NOTES

.4 cpm 7.5/7.5 @ 30 psi = 400 mL/min

EXPLOSIVE GAS READING PRIOR TO STATIC WATER LEVEL: %CH4: 3.5 %LEL: 70%

GROUNDWATER MONITORING WELL FIELD DATA SHEET

MONITORING POINT: T-MW-33-LP
DETECTION:
ASSESSMENT:

FACILITY INFORMATION

NAME: Tyler Street Landfill
ADDRESS: Tyler Street, Toledo, OH
CONTACT: Scott Lockhart / Ryan Murphy
PROJECT NUMBER: 185-376
TELEPHONE: (419) 936-2640

MONITORING WELL DATA

COORDINATES: N/A N
N/A E
CONDITION OF WELL: good
standing water near well, no evidence of tampering
GROUND SURFACE ELEVATION: N/A
CASING MATERIAL/DIAMETER: 2" PVC
TOTAL DEPTH (FROM GROUND SURFACE): N/A
TOP OF CASING ELEVATION: N/A
SCREENED INTERVAL (INCLUDING SAND PACK): N/A
TOTAL DEPTH (FROM TOP OF CASING): N/A
SCREENED FORMATION: N/A
SCREENED DEPTH (SCREEN ONLY): N/A

WEATHER CONDITIONS

WEATHER: overcast
WIND DIRECTION: S 9 mph
BAROMETRIC PRESSURE: 30.41" Hg
TEMPERATURE (°F): 19

FIELD MEASURED PARAMETERS

PERSONNEL PRESENT: John Dilworth
MEASURED TOTAL DEPTH (FROM TOC): –
STATIC WATER LEVEL (FROM TOC): 16.44
VOLUME OF STATIC WATER: –
GROUNDWATER ELEVATION: –

PURGING DATA

DATE OF PURGING: 11-13-19
PURGING METHOD: Low Flow - Dedicated Bladder Pump
TIME OF PURGING: 1412
PURGING RATE: 400 mL/min
VOLUME PURGED: 7,200 mL

LOW FLOW READINGS

	Initital	1	2	3	4	5	6/Final
Time	1412	1415	1418	1421	1424	1427	1430
pH	6.87	6.79	6.83	6.80	6.76	6.76	6.76
Temp. °C	19.6	19.6	19.8	20.2	20.5	20.5	20.6
Spc.Cond. uS/cm	4344	4437	4563	4575	4623	4621	4647
Redox Pot. mV	-71.8	-86.7	-75.2	-77.7	-98.2	-99.9	-107.2
D.O. mg/L	0.27	0.08	0.24	0.12	0.01	0.01	0.01
Turbidity NTU	124.25*	105.38*	104.76*	97.50*	87.38*	88.29*	91.05*
Water Level*	16.44	16.67	16.67	16.67	16.67	16.67	16.67

* measurement from top of casing

VOLUME TO PURGE CALCULATION TABLE

Well casing Diameter (in.)	Gallons Per Foot of Depth	Feet of Standing Water	3 Well Volumes	Total Volume to Purge (Gal.)
1	0.041	x	x 3	
2	0.163	x	x 3	
4	0.653	x	x 3	
6	1.469	x	x 3	

SAMPLING DATA

DATE/TIME OF SAMPLING: 11-13-19 / 1436
SAMPLING RATE (IF USING DEDICATED PUMP): 100 mL/min
SAMPLING METHOD: Low Flow - Dedicated Bladder Pump
STATIC WATER LEVEL (AFTER SAMPLING): 16.67

NOTES

30 psi 10/5 ≈ 400 mL/min * black particles in purge H_2O
* dirt on concrete pad

EXPLOSIVE GAS READING PRIOR TO STATIC WATER LEVEL: %CH4: 0.5 %LEL: 10%

GROUNDWATER MONITORING WELL FIELD DATA SHEET

MONITORING POINT: T-MW-35-LP
DETECTION:
ASSESSMENT:

FACILITY INFORMATION

NAME: Tyler Street Landfill
ADDRESS: Tyler Street, Toledo, OH
CONTACT: Scott Lockhart / Ryan Murphy
PROJECT NUMBER: 185-376
TELEPHONE: (419) 936-2640

MONITORING WELL DATA

COORDINATES: N/A N
N/A E
CONDITION OF WELL: Good
No Evidence of Tampering
GROUND SURFACE ELEVATION: N/A
CASING MATERIAL/DIAMETER:
TOTAL DEPTH (FROM GROUND SURFACE): N/A
TOP OF CASING ELEVATION: N/A
SCREENED INTERVAL (INCLUDING SAND PACK): N/A
TOTAL DEPTH (FROM TOP OF CASING): N/A
SCREENED FORMATION: N/A
SCREENED DEPTH (SCREEN ONLY): N/A

WEATHER CONDITIONS

WEATHER: Overcast
WIND DIRECTION: 0-5mph E-NE
BAROMETRIC PRESSURE: 29.52" Hg
TEMPERATURE (°F): 14

FIELD MEASURED PARAMETERS

PERSONNEL PRESENT: M. Cline / J. Dilworth
MEASURED TOTAL DEPTH (FROM TOC): —
STATIC WATER LEVEL (FROM TOC): DRY
VOLUME OF STATIC WATER: —
GROUNDWATER ELEVATION: —

PURGING DATA

DATE OF PURGING: 11/13/19
PURGING METHOD: Low Flow - Dedicated Bladder Pump
TIME OF PURGING: 1034
PURGING RATE: No Flow- Well Dry
VOLUME PURGED: DRY

LOW FLOW READINGS

	Initial	1	2	3	4	5	6/Final
Time	1034						
pH							
Temp. °C							
Spc.Cond. uS/cm							
Redox Pot. mV							
D.O. mg/L							
Turbidity NTU							
Water Level*							

DRY

* measurement from top of casing

VOLUME TO PURGE CALCULATION TABLE

Well casing Diameter (in.)	Gallons Per Foot of Depth	Feet of Standing Water	3 Well Volumes	Total Volume to Purge (Gal.)
1	0.041	x	x 3	
2	0.163	x	x 3	
4	0.653	x	x 3	
6	1.469	x	x 3	

SAMPLING DATA

DATE/TIME OF SAMPLING: No Sample - Well Dry
SAMPLING RATE (IF USING DEDICATED PUMP): —
SAMPLING METHOD: Low Flow - Dedicated Bladder Pump
STATIC WATER LEVEL (AFTER SAMPLING): —

NOTES

Well Dry - Unable to Purge or Sample

EXPLOSIVE GAS READING PRIOR TO STATIC WATER LEVEL: %CH4: 0 %LEL: 0

Calibration Record

Site: Tyler Steet Landfill

	1	2	3	4	5	6
Instrument	YSI ProDSS	YSI ProPlus	LaMotte 2020	YSI ProDSS		
Date:	11/13/19	11/13/19	11/13/19	11/14/19		
Time:	1100	1100	1100	1230		
pH 4:	4.00	4.00	—	4.00		
pH 7:	7.01	7.00	—	7.00		
pH 10:	10.02	10.01	—	10.01		
Cond. 1413:	1413	1412	—	1414		
Turb. (0.0/~~10.0~~ 20.0/100)	0.0/20.2/101.2	—	0.0/20.1/100.3	0.0/20.4/101.0		
ORP	240.1	239.8	—	240.0		
DO	99.2	99.0	—	99.0		

Notes:

Landtec GEM 5000

Calibration Date/Time: 11/13/19 1110

Calibration Standard: 4% O_2, 15% CH_4, 15% CO_2

APPENDIX F
LABORATORY ANALYTICAL REPORTS AND SUPPORTING DOCUMENTATION – TYLER STREET LANDFILL

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

December 02, 2019

Wes Speiser
Civil and Environmental Consultants
4841 Monroe Street
Suite 103
Toledo, OH 43623

RE: Project: Tyler Landfill
Pace Project No.: 50241620

Dear Wes Speiser:
Enclosed are the analytical results for sample(s) received by the laboratory on November 14, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Chris Boyle
chris.boyle@pacelabs.com
(317)228-3100
Project Manager

Enclosures

cc: Michael Cline, Civil & Environmental Consultants, Inc.

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(317)228-3100

CERTIFICATIONS

Project:	Tyler Landfill
Pace Project No.:	50241620

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Certification #: 200074
Indiana Certification #: C-49-06
Kansas/NELAP Certification #: E-10177
Kentucky UST Certification #: 80226
Kentucky WW Certification #: 98019
Michigan Department of Environmental Quality, Laboratory #9050
Ohio VAP Certification #: CL0065
Oklahoma Certification #: 9204
Texas Certification #: T104704355
West Virginia Certification #: 330
Wisconsin Certification #: 999788130
USDA Soil Permit #: P330-19-00257

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SAMPLE SUMMARY

Project: Tyler Landfill
Pace Project No.: 50241620

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50241620001	**T-MW21-LP**	Water	11/13/19 12:04	11/14/19 09:00
50241620002	**T-MW23-LP**	Water	11/13/19 12:12	11/14/19 09:00
50241620003	**T-MW25-LP**	Water	11/13/19 12:57	11/14/19 09:00
50241620004	**T-MW27-LP**	Water	11/13/19 12:55	11/14/19 09:00
50241620005	**T-MW29-LP**	Water	11/13/19 13:55	11/14/19 09:00
50241620006	**T-MW31-LP**	Water	11/13/19 13:49	11/14/19 09:00
50241620007	**T-MW33-LP**	Water	11/13/19 14:36	11/14/19 09:00
50241620008	**DUP**	Water	11/13/19 08:00	11/14/19 09:00
50241620009	**FB**	Water	11/13/19 13:10	11/14/19 09:00

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SAMPLE ANALYTE COUNT

Project: Tyler Landfill
Pace Project No.: 50241620

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50241620001	**T-MW21-LP**	EPA 8081	KAV	4	PASI-I
		EPA 8082	KAV	8	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 8270 by SIM 40E	GRM	12	PASI-I
50241620002	**T-MW23-LP**	EPA 8081	KAV	4	PASI-I
		EPA 8082	KAV	8	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 8270 by SIM 40E	GRM	12	PASI-I
50241620003	**T-MW25-LP**	EPA 8081	KAV	4	PASI-I
		EPA 8082	KAV	8	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 8270 by SIM 40E	GRM	12	PASI-I
50241620004	**T-MW27-LP**	EPA 8081	KAV	4	PASI-I
		EPA 8082	KAV	8	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 8270 by SIM 40E	GRM	12	PASI-I
50241620005	**T-MW29-LP**	EPA 8081	KAV	4	PASI-I
		EPA 8082	KAV	8	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 8270 by SIM 40E	GRM	12	PASI-I
50241620006	**T-MW31-LP**	EPA 8081	KAV	4	PASI-I
		EPA 8082	KAV	8	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 8270 by SIM 40E	GRM	12	PASI-I
50241620007	**T-MW33-LP**	EPA 8081	KAV	4	PASI-I
		EPA 8082	KAV	8	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 8270 by SIM 40E	GRM	12	PASI-I
50241620008	**DUP**	EPA 8081	KAV	4	PASI-I
		EPA 8082	KAV	8	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 8270 by SIM 40E	GRM	12	PASI-I
50241620009	**FB**	EPA 8081	KAV	4	PASI-I
		EPA 8082	KAV	8	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 8270 by SIM 40E	GRM	12	PASI-I

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ANALYTICAL RESULTS

Project: Tyler Landfill
Pace Project No.: 50241620

Sample: T-MW21-LP **Lab ID: 50241620001** Collected: 11/13/19 12:04 Received: 11/14/19 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.82**	Std. Units			1		11/13/19 12:04		
Field Temperature	**12.5**	deg C			1		11/13/19 12:04		
Field Specific Conductance	**2170**	umhos/cm			1		11/13/19 12:04		
Oxygen, Dissolved	**1.89**	mg/L			1		11/13/19 12:04	7782-44-7	
REDOX	**-30.1**	mV			1		11/13/19 12:04		
Field Turbidity	**7.7**	NTU			1		11/13/19 12:04		
8081 GCS Pest RV Waters	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	ND	ug/L	0.050	0.049	1	11/20/19 07:59	11/21/19 04:40	309-00-2	
4,4'-DDT	ND	ug/L	0.10	0.040	1	11/20/19 07:59	11/21/19 04:40	50-29-3	
Heptachlor	ND	ug/L	0.050	0.042	1	11/20/19 07:59	11/21/19 04:40	76-44-8	
Surrogates									
Decachlorobiphenyl (S)	56	%.	14-122		1	11/20/19 07:59	11/21/19 04:40	2051-24-3	
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.10	0.072	1	11/20/19 07:59	11/20/19 15:42	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.10	0.087	1	11/20/19 07:59	11/20/19 15:42	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.10	0.077	1	11/20/19 07:59	11/20/19 15:42	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.10	0.077	1	11/20/19 07:59	11/20/19 15:42	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/L	0.10	0.064	1	11/20/19 07:59	11/20/19 15:42	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.18**	ug/L	0.10	0.081	1	11/20/19 07:59	11/20/19 15:42	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.10	0.071	1	11/20/19 07:59	11/20/19 15:42	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	84	%.	10-148		1	11/20/19 07:59	11/20/19 15:42	877-09-8	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	2.0	0.079	1	11/21/19 19:30	11/22/19 08:35	7439-97-6	
8270 PAH by 3511	Analytical Method: EPA 8270 by SIM 40E Preparation Method: EPA 3511								
Acenaphthene	**0.59J**	ug/L	1.0	0.017	1	11/18/19 13:40	11/18/19 23:05	83-32-9	
Benzo(a)anthracene	ND	ug/L	0.10	0.063	1	11/18/19 13:40	11/18/19 23:05	56-55-3	
Benzo(a)pyrene	ND	ug/L	0.10	0.026	1	11/18/19 13:40	11/18/19 23:05	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.10	0.044	1	11/18/19 13:40	11/18/19 23:05	205-99-2	
Benzo(k)fluoranthene	ND	ug/L	0.10	0.095	1	11/18/19 13:40	11/18/19 23:05	207-08-9	
Chrysene	ND	ug/L	0.50	0.038	1	11/18/19 13:40	11/18/19 23:05	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.10	0.056	1	11/18/19 13:40	11/18/19 23:05	53-70-3	
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.10	0.028	1	11/18/19 13:40	11/18/19 23:05	193-39-5	
Naphthalene	ND	ug/L	1.0	0.023	1	11/18/19 13:40	11/18/19 23:05	91-20-3	
Pyrene	ND	ug/L	1.0	0.011	1	11/18/19 13:40	11/18/19 23:05	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	85	%.	55-118		1	11/18/19 13:40	11/18/19 23:05	321-60-8	
p-Terphenyl-d14 (S)	116	%.	56-128		1	11/18/19 13:40	11/18/19 23:05	1718-51-0	

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(317)228-3100

ANALYTICAL RESULTS

Project: Tyler Landfill
Pace Project No.: 50241620

Sample: T-MW23-LP **Lab ID: 50241620002** Collected: 11/13/19 12:12 Received: 11/14/19 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.76**	Std. Units			1		11/13/19 12:12		
Field Temperature	**19.8**	deg C			1		11/13/19 12:12		
Field Specific Conductance	**3928**	umhos/cm			1		11/13/19 12:12		
Oxygen, Dissolved	**0.04**	mg/L			1		11/13/19 12:12	7782-44-7	
REDOX	**-124.6**	mV			1		11/13/19 12:12		
Field Turbidity	**18.79**	NTU			1		11/13/19 12:12		
8081 GCS Pest RV Waters	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	ND	ug/L	0.050	0.049	1	11/20/19 07:59	11/21/19 04:53	309-00-2	
4,4'-DDT	ND	ug/L	0.10	0.040	1	11/20/19 07:59	11/21/19 04:53	50-29-3	
Heptachlor	ND	ug/L	0.050	0.042	1	11/20/19 07:59	11/21/19 04:53	76-44-8	
Surrogates									
Decachlorobiphenyl (S)	43	%.	14-122		1	11/20/19 07:59	11/21/19 04:53	2051-24-3	
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.10	0.072	1	11/20/19 07:59	11/20/19 15:56	12674-11-2	R1
PCB-1221 (Aroclor 1221)	ND	ug/L	0.10	0.087	1	11/20/19 07:59	11/20/19 15:56	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.10	0.077	1	11/20/19 07:59	11/20/19 15:56	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.10	0.077	1	11/20/19 07:59	11/20/19 15:56	53469-21-9	
PCB-1248 (Aroclor 1248)	**0.33**	ug/L	0.10	0.064	1	11/20/19 07:59	11/20/19 15:56	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.17**	ug/L	0.10	0.081	1	11/20/19 07:59	11/20/19 15:56	11097-69-1	
PCB-1260 (Aroclor 1260)	**0.098J**	ug/L	0.10	0.071	1	11/20/19 07:59	11/20/19 15:56	11096-82-5	R1
Surrogates									
Tetrachloro-m-xylene (S)	72	%.	10-148		1	11/20/19 07:59	11/20/19 15:56	877-09-8	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**0.096J**	ug/L	2.0	0.079	1	11/21/19 19:30	11/22/19 08:38	7439-97-6	
8270 PAH by 3511	Analytical Method: EPA 8270 by SIM 40E Preparation Method: EPA 3511								
Acenaphthene	**3.2**	ug/L	1.0	0.017	1	11/18/19 13:40	11/18/19 23:16	83-32-9	
Benzo(a)anthracene	ND	ug/L	0.10	0.063	1	11/18/19 13:40	11/18/19 23:16	56-55-3	
Benzo(a)pyrene	ND	ug/L	0.10	0.026	1	11/18/19 13:40	11/18/19 23:16	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.10	0.044	1	11/18/19 13:40	11/18/19 23:16	205-99-2	
Benzo(k)fluoranthene	ND	ug/L	0.10	0.095	1	11/18/19 13:40	11/18/19 23:16	207-08-9	
Chrysene	ND	ug/L	0.50	0.038	1	11/18/19 13:40	11/18/19 23:16	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.10	0.056	1	11/18/19 13:40	11/18/19 23:16	53-70-3	
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.10	0.028	1	11/18/19 13:40	11/18/19 23:16	193-39-5	
Naphthalene	ND	ug/L	1.0	0.023	1	11/18/19 13:40	11/18/19 23:16	91-20-3	
Pyrene	**0.28J**	ug/L	1.0	0.011	1	11/18/19 13:40	11/18/19 23:16	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	76	%.	55-118		1	11/18/19 13:40	11/18/19 23:16	321-60-8	
p-Terphenyl-d14 (S)	103	%.	56-128		1	11/18/19 13:40	11/18/19 23:16	1718-51-0	

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ANALYTICAL RESULTS

Project: Tyler Landfill
Pace Project No.: 50241620

Sample: T-MW25-LP **Lab ID: 50241620003** Collected: 11/13/19 12:57 Received: 11/14/19 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.98**	Std. Units			1		11/13/19 12:57		
Field Temperature	**12.9**	deg C			1		11/13/19 12:57		
Field Specific Conductance	**6081**	umhos/cm			1		11/13/19 12:57		
Oxygen, Dissolved	**0.03**	mg/L			1		11/13/19 12:57	7782-44-7	
REDOX	**-120.8**	mV			1		11/13/19 12:57		
Field Turbidity	**17.17**	NTU			1		11/13/19 12:57		
8081 GCS Pest RV Waters	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	ND	ug/L	0.048	0.047	1	11/20/19 07:59	11/21/19 05:06	309-00-2	
4,4'-DDT	ND	ug/L	0.095	0.038	1	11/20/19 07:59	11/21/19 05:06	50-29-3	
Heptachlor	ND	ug/L	0.048	0.040	1	11/20/19 07:59	11/21/19 05:06	76-44-8	
Surrogates									
Decachlorobiphenyl (S)	25	%.	14-122		1	11/20/19 07:59	11/21/19 05:06	2051-24-3	
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.095	0.069	1	11/20/19 07:59	11/20/19 16:39	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.095	0.083	1	11/20/19 07:59	11/20/19 16:39	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.095	0.073	1	11/20/19 07:59	11/20/19 16:39	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.095	0.074	1	11/20/19 07:59	11/20/19 16:39	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/L	0.095	0.061	1	11/20/19 07:59	11/20/19 16:39	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/L	0.095	0.077	1	11/20/19 07:59	11/20/19 16:39	11097-69-1	
PCB-1260 (Aroclor 1260)	**0.081J**	ug/L	0.095	0.068	1	11/20/19 07:59	11/20/19 16:39	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	57	%.	10-148		1	11/20/19 07:59	11/20/19 16:39	877-09-8	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	2.0	0.079	1	11/21/19 19:30	11/22/19 08:45	7439-97-6	
8270 PAH by 3511	Analytical Method: EPA 8270 by SIM 40E Preparation Method: EPA 3511								
Acenaphthene	**2.2**	ug/L	1.0	0.017	1	11/18/19 13:40	11/18/19 23:49	83-32-9	
Benzo(a)anthracene	**0.29**	ug/L	0.10	0.063	1	11/18/19 13:40	11/18/19 23:49	56-55-3	
Benzo(a)pyrene	**0.22**	ug/L	0.10	0.026	1	11/18/19 13:40	11/18/19 23:49	50-32-8	
Benzo(b)fluoranthene	**0.25**	ug/L	0.10	0.044	1	11/18/19 13:40	11/18/19 23:49	205-99-2	
Benzo(k)fluoranthene	**0.22**	ug/L	0.10	0.095	1	11/18/19 13:40	11/18/19 23:49	207-08-9	
Chrysene	**0.22J**	ug/L	0.50	0.038	1	11/18/19 13:40	11/18/19 23:49	218-01-9	
Dibenz(a,h)anthracene	**0.23**	ug/L	0.10	0.056	1	11/18/19 13:40	11/18/19 23:49	53-70-3	
Indeno(1,2,3-cd)pyrene	**0.21**	ug/L	0.10	0.028	1	11/18/19 13:40	11/18/19 23:49	193-39-5	
Naphthalene	ND	ug/L	1.0	0.023	1	11/18/19 13:40	11/18/19 23:49	91-20-3	
Pyrene	**0.43J**	ug/L	1.0	0.011	1	11/18/19 13:40	11/18/19 23:49	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	63	%.	55-118		1	11/18/19 13:40	11/18/19 23:49	321-60-8	
p-Terphenyl-d14 (S)	91	%.	56-128		1	11/18/19 13:40	11/18/19 23:49	1718-51-0	

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ANALYTICAL RESULTS

Project: Tyler Landfill
Pace Project No.: 50241620

Sample: T-MW27-LP **Lab ID: 50241620004** Collected: 11/13/19 12:55 Received: 11/14/19 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**7.11**	Std. Units			1		11/13/19 12:55		
Field Temperature	**12.6**	deg C			1		11/13/19 12:55		
Field Specific Conductance	**5248**	umhos/cm			1		11/13/19 12:55		
Oxygen, Dissolved	**0.79**	mg/L			1		11/13/19 12:55	7782-44-7	
REDOX	**10.2**	mV			1		11/13/19 12:55		
Field Turbidity	**4.87**	NTU			1		11/13/19 12:55		
8081 GCS Pest RV Waters	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	ND	ug/L	0.048	0.047	1	11/20/19 07:59	11/21/19 05:18	309-00-2	
4,4'-DDT	ND	ug/L	0.095	0.038	1	11/20/19 07:59	11/21/19 05:18	50-29-3	
Heptachlor	ND	ug/L	0.048	0.040	1	11/20/19 07:59	11/21/19 05:18	76-44-8	
Surrogates									
Decachlorobiphenyl (S)	37	%.	14-122		1	11/20/19 07:59	11/21/19 05:18	2051-24-3	
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.095	0.069	1	11/20/19 07:59	11/20/19 16:53	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.095	0.083	1	11/20/19 07:59	11/20/19 16:53	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.095	0.073	1	11/20/19 07:59	11/20/19 16:53	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.095	0.074	1	11/20/19 07:59	11/20/19 16:53	53469-21-9	
PCB-1248 (Aroclor 1248)	**0.11**	ug/L	0.095	0.061	1	11/20/19 07:59	11/20/19 16:53	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/L	0.095	0.077	1	11/20/19 07:59	11/20/19 16:53	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.095	0.068	1	11/20/19 07:59	11/20/19 16:53	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	79	%.	10-148		1	11/20/19 07:59	11/20/19 16:53	877-09-8	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	2.0	0.079	1	11/21/19 19:30	11/22/19 08:47	7439-97-6	
8270 PAH by 3511	Analytical Method: EPA 8270 by SIM 40E Preparation Method: EPA 3511								
Acenaphthene	**2.8**	ug/L	1.0	0.017	1	11/18/19 13:40	11/19/19 00:00	83-32-9	
Benzo(a)anthracene	ND	ug/L	0.10	0.063	1	11/18/19 13:40	11/19/19 00:00	56-55-3	
Benzo(a)pyrene	ND	ug/L	0.10	0.026	1	11/18/19 13:40	11/19/19 00:00	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.10	0.044	1	11/18/19 13:40	11/19/19 00:00	205-99-2	
Benzo(k)fluoranthene	ND	ug/L	0.10	0.095	1	11/18/19 13:40	11/19/19 00:00	207-08-9	
Chrysene	ND	ug/L	0.50	0.038	1	11/18/19 13:40	11/19/19 00:00	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.10	0.056	1	11/18/19 13:40	11/19/19 00:00	53-70-3	
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.10	0.028	1	11/18/19 13:40	11/19/19 00:00	193-39-5	
Naphthalene	ND	ug/L	1.0	0.023	1	11/18/19 13:40	11/19/19 00:00	91-20-3	
Pyrene	**0.31J**	ug/L	1.0	0.011	1	11/18/19 13:40	11/19/19 00:00	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	64	%.	55-118		1	11/18/19 13:40	11/19/19 00:00	321-60-8	
p-Terphenyl-d14 (S)	96	%.	56-128		1	11/18/19 13:40	11/19/19 00:00	1718-51-0	

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ANALYTICAL RESULTS

Project: Tyler Landfill
Pace Project No.: 50241620

Sample: T-MW29-LP **Lab ID: 50241620005** Collected: 11/13/19 13:55 Received: 11/14/19 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**7.17**	Std. Units			1		11/13/19 13:55		
Field Temperature	**12.8**	deg C			1		11/13/19 13:55		
Field Specific Conductance	**6655**	umhos/cm			1		11/13/19 13:55		
Oxygen, Dissolved	**0.08**	mg/L			1		11/13/19 13:55	7782-44-7	
REDOX	**-111.2**	mV			1		11/13/19 13:55		
Field Turbidity	**68.36**	NTU			1		11/13/19 13:55		
8081 GCS Pest RV Waters	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	ND	ug/L	0.048	0.047	1	11/20/19 07:59	11/21/19 05:31	309-00-2	
4,4'-DDT	ND	ug/L	0.095	0.038	1	11/20/19 07:59	11/21/19 05:31	50-29-3	
Heptachlor	ND	ug/L	0.048	0.040	1	11/20/19 07:59	11/21/19 05:31	76-44-8	
Surrogates									
Decachlorobiphenyl (S)	19	%.	14-122		1	11/20/19 07:59	11/21/19 05:31	2051-24-3	
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.095	0.069	1	11/20/19 07:59	11/20/19 17:07	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.095	0.083	1	11/20/19 07:59	11/20/19 17:07	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.095	0.073	1	11/20/19 07:59	11/20/19 17:07	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.095	0.074	1	11/20/19 07:59	11/20/19 17:07	53469-21-9	
PCB-1248 (Aroclor 1248)	**0.63**	ug/L	0.095	0.061	1	11/20/19 07:59	11/20/19 17:07	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.23**	ug/L	0.095	0.077	1	11/20/19 07:59	11/20/19 17:07	11097-69-1	
PCB-1260 (Aroclor 1260)	**0.15**	ug/L	0.095	0.068	1	11/20/19 07:59	11/20/19 17:07	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	29	%.	10-148		1	11/20/19 07:59	11/20/19 17:07	877-09-8	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**0.13J**	ug/L	2.0	0.079	1	11/21/19 19:30	11/22/19 08:57	7439-97-6	
8270 PAH by 3511	Analytical Method: EPA 8270 by SIM 40E Preparation Method: EPA 3511								
Acenaphthene	**0.44J**	ug/L	1.0	0.017	1	11/19/19 10:40	11/19/19 16:45	83-32-9	
Benzo(a)anthracene	ND	ug/L	0.10	0.063	1	11/19/19 10:40	11/19/19 16:45	56-55-3	
Benzo(a)pyrene	ND	ug/L	0.10	0.026	1	11/19/19 10:40	11/19/19 16:45	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.10	0.044	1	11/19/19 10:40	11/19/19 16:45	205-99-2	
Benzo(k)fluoranthene	ND	ug/L	0.10	0.095	1	11/19/19 10:40	11/19/19 16:45	207-08-9	
Chrysene	ND	ug/L	0.50	0.038	1	11/19/19 10:40	11/19/19 16:45	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.10	0.056	1	11/19/19 10:40	11/19/19 16:45	53-70-3	
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.10	0.028	1	11/19/19 10:40	11/19/19 16:45	193-39-5	
Naphthalene	**9.6**	ug/L	1.0	0.023	1	11/19/19 10:40	11/19/19 16:45	91-20-3	
Pyrene	**0.16J**	ug/L	1.0	0.011	1	11/19/19 10:40	11/19/19 16:45	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	59	%.	55-118		1	11/19/19 10:40	11/19/19 16:45	321-60-8	
p-Terphenyl-d14 (S)	57	%.	56-128		1	11/19/19 10:40	11/19/19 16:45	1718-51-0	

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ANALYTICAL RESULTS

Project: Tyler Landfill
Pace Project No.: 50241620

Sample: T-MW31-LP **Lab ID: 50241620006** Collected: 11/13/19 13:49 Received: 11/14/19 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.75**	Std. Units			1		11/13/19 13:49		
Field Temperature	**12.4**	deg C			1		11/13/19 13:49		
Field Specific Conductance	**3648**	umhos/cm			1		11/13/19 13:49		
Oxygen, Dissolved	**0.89**	mg/L			1		11/13/19 13:49	7782-44-7	
REDOX	**21.7**	mV			1		11/13/19 13:49		
Field Turbidity	**25.42**	NTU			1		11/13/19 13:49		
8081 GCS Pest RV Waters	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	ND	ug/L	0.048	0.047	1	11/20/19 07:59	11/21/19 05:43	309-00-2	
4,4'-DDT	ND	ug/L	0.095	0.038	1	11/20/19 07:59	11/21/19 05:43	50-29-3	
Heptachlor	ND	ug/L	0.048	0.040	1	11/20/19 07:59	11/21/19 05:43	76-44-8	
Surrogates									
Decachlorobiphenyl (S)	39	%.	14-122		1	11/20/19 07:59	11/21/19 05:43	2051-24-3	
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.095	0.069	1	11/20/19 07:59	11/20/19 17:22	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.095	0.083	1	11/20/19 07:59	11/20/19 17:22	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.095	0.073	1	11/20/19 07:59	11/20/19 17:22	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.095	0.074	1	11/20/19 07:59	11/20/19 17:22	53469-21-9	
PCB-1248 (Aroclor 1248)	**0.25**	ug/L	0.095	0.061	1	11/20/19 07:59	11/20/19 17:22	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.11**	ug/L	0.095	0.077	1	11/20/19 07:59	11/20/19 17:22	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.095	0.068	1	11/20/19 07:59	11/20/19 17:22	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	84	%.	10-148		1	11/20/19 07:59	11/20/19 17:22	877-09-8	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**0.083J**	ug/L	2.0	0.079	1	11/21/19 19:30	11/22/19 08:59	7439-97-6	
8270 PAH by 3511	Analytical Method: EPA 8270 by SIM 40E Preparation Method: EPA 3511								
Acenaphthene	**0.44J**	ug/L	1.0	0.017	1	11/19/19 10:40	11/19/19 16:56	83-32-9	
Benzo(a)anthracene	ND	ug/L	0.10	0.063	1	11/19/19 10:40	11/19/19 16:56	56-55-3	
Benzo(a)pyrene	ND	ug/L	0.10	0.026	1	11/19/19 10:40	11/19/19 16:56	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.10	0.044	1	11/19/19 10:40	11/19/19 16:56	205-99-2	
Benzo(k)fluoranthene	ND	ug/L	0.10	0.095	1	11/19/19 10:40	11/19/19 16:56	207-08-9	
Chrysene	ND	ug/L	0.50	0.038	1	11/19/19 10:40	11/19/19 16:56	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.10	0.056	1	11/19/19 10:40	11/19/19 16:56	53-70-3	
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.10	0.028	1	11/19/19 10:40	11/19/19 16:56	193-39-5	
Naphthalene	ND	ug/L	1.0	0.023	1	11/19/19 10:40	11/19/19 16:56	91-20-3	
Pyrene	**0.15J**	ug/L	1.0	0.011	1	11/19/19 10:40	11/19/19 16:56	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	71	%.	55-118		1	11/19/19 10:40	11/19/19 16:56	321-60-8	
p-Terphenyl-d14 (S)	95	%.	56-128		1	11/19/19 10:40	11/19/19 16:56	1718-51-0	

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ANALYTICAL RESULTS

Project: Tyler Landfill
Pace Project No.: 50241620

Sample: T-MW33-LP **Lab ID: 50241620007** Collected: 11/13/19 14:36 Received: 11/14/19 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.76**	Std. Units			1		11/13/19 14:36		
Field Temperature	**20.6**	deg C			1		11/13/19 14:36		
Field Specific Conductance	**4647**	umhos/cm			1		11/13/19 14:36		
Oxygen, Dissolved	**0.01**	mg/L			1		11/13/19 14:36	7782-44-7	
REDOX	**-107.2**	mV			1		11/13/19 14:36		
Field Turbidity	**91.05**	NTU			1		11/13/19 14:36		
8081 GCS Pest RV Waters	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	ND	ug/L	0.048	0.047	1	11/20/19 07:59	11/22/19 19:34	309-00-2	
4,4'-DDT	ND	ug/L	0.095	0.038	1	11/20/19 07:59	11/22/19 19:34	50-29-3	
Heptachlor	ND	ug/L	0.048	0.040	1	11/20/19 07:59	11/22/19 19:34	76-44-8	
Surrogates									
Decachlorobiphenyl (S)	41	%.	14-122		1	11/20/19 07:59	11/22/19 19:34	2051-24-3	
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.095	0.069	1	11/20/19 07:59	11/20/19 17:36	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.095	0.083	1	11/20/19 07:59	11/20/19 17:36	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.095	0.073	1	11/20/19 07:59	11/20/19 17:36	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.095	0.074	1	11/20/19 07:59	11/20/19 17:36	53469-21-9	
PCB-1248 (Aroclor 1248)	**3.0**	ug/L	0.095	0.061	1	11/20/19 07:59	11/20/19 17:36	12672-29-6	
PCB-1254 (Aroclor 1254)	**1.9**	ug/L	0.095	0.077	1	11/20/19 07:59	11/20/19 17:36	11097-69-1	
PCB-1260 (Aroclor 1260)	**0.44**	ug/L	0.095	0.068	1	11/20/19 07:59	11/20/19 17:36	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	75	%.	10-148		1	11/20/19 07:59	11/20/19 17:36	877-09-8	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**1.0J**	ug/L	2.0	0.079	1	11/21/19 19:30	11/22/19 09:02	7439-97-6	
8270 PAH by 3511	Analytical Method: EPA 8270 by SIM 40E Preparation Method: EPA 3511								
Acenaphthene	**0.21J**	ug/L	1.0	0.017	1	11/19/19 10:40	11/19/19 17:07	83-32-9	
Benzo(a)anthracene	ND	ug/L	0.10	0.063	1	11/19/19 10:40	11/19/19 17:07	56-55-3	
Benzo(a)pyrene	ND	ug/L	0.10	0.026	1	11/19/19 10:40	11/19/19 17:07	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.10	0.044	1	11/19/19 10:40	11/19/19 17:07	205-99-2	
Benzo(k)fluoranthene	ND	ug/L	0.10	0.095	1	11/19/19 10:40	11/19/19 17:07	207-08-9	
Chrysene	ND	ug/L	0.50	0.038	1	11/19/19 10:40	11/19/19 17:07	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.10	0.056	1	11/19/19 10:40	11/19/19 17:07	53-70-3	
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.10	0.028	1	11/19/19 10:40	11/19/19 17:07	193-39-5	
Naphthalene	ND	ug/L	1.0	0.023	1	11/19/19 10:40	11/19/19 17:07	91-20-3	
Pyrene	ND	ug/L	1.0	0.011	1	11/19/19 10:40	11/19/19 17:07	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	75	%.	55-118		1	11/19/19 10:40	11/19/19 17:07	321-60-8	
p-Terphenyl-d14 (S)	98	%.	56-128		1	11/19/19 10:40	11/19/19 17:07	1718-51-0	

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ANALYTICAL RESULTS

Project: Tyler Landfill
Pace Project No.: 50241620

Sample: DUP **Lab ID: 50241620008** Collected: 11/13/19 08:00 Received: 11/14/19 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.76**	Std. Units			1		11/13/19 12:12		
Field Temperature	**19.8**	deg C			1		11/13/19 12:12		
Field Specific Conductance	**3928**	umhos/cm			1		11/13/19 12:12		
Oxygen, Dissolved	**0.04**	mg/L			1		11/13/19 12:12	7782-44-7	
REDOX	**-124.6**	mV			1		11/13/19 12:12		
Field Turbidity	**18.79**	NTU			1		11/13/19 12:12		
8081 GCS Pest RV Waters	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	ND	ug/L	0.050	0.049	1	11/20/19 07:59	11/21/19 06:09	309-00-2	
4,4'-DDT	ND	ug/L	0.10	0.040	1	11/20/19 07:59	11/21/19 06:09	50-29-3	
Heptachlor	ND	ug/L	0.050	0.042	1	11/20/19 07:59	11/21/19 06:09	76-44-8	
Surrogates									
Decachlorobiphenyl (S)	34	%.	14-122		1	11/20/19 07:59	11/21/19 06:09	2051-24-3	
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.10	0.072	1	11/20/19 07:59	11/20/19 17:50	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.10	0.087	1	11/20/19 07:59	11/20/19 17:50	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.10	0.077	1	11/20/19 07:59	11/20/19 17:50	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.10	0.077	1	11/20/19 07:59	11/20/19 17:50	53469-21-9	
PCB-1248 (Aroclor 1248)	**0.34**	ug/L	0.10	0.064	1	11/20/19 07:59	11/20/19 17:50	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.16**	ug/L	0.10	0.081	1	11/20/19 07:59	11/20/19 17:50	11097-69-1	
PCB-1260 (Aroclor 1260)	**0.085J**	ug/L	0.10	0.071	1	11/20/19 07:59	11/20/19 17:50	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	69	%.	10-148		1	11/20/19 07:59	11/20/19 17:50	877-09-8	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**0.082J**	ug/L	2.0	0.079	1	11/21/19 19:30	11/22/19 09:04	7439-97-6	
8270 PAH by 3511	Analytical Method: EPA 8270 by SIM 40E Preparation Method: EPA 3511								
Acenaphthene	**2.9**	ug/L	1.0	0.017	1	11/19/19 10:40	11/19/19 17:18	83-32-9	
Benzo(a)anthracene	ND	ug/L	0.10	0.063	1	11/19/19 10:40	11/19/19 17:18	56-55-3	
Benzo(a)pyrene	ND	ug/L	0.10	0.026	1	11/19/19 10:40	11/19/19 17:18	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.10	0.044	1	11/19/19 10:40	11/19/19 17:18	205-99-2	
Benzo(k)fluoranthene	ND	ug/L	0.10	0.095	1	11/19/19 10:40	11/19/19 17:18	207-08-9	
Chrysene	ND	ug/L	0.50	0.038	1	11/19/19 10:40	11/19/19 17:18	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.10	0.056	1	11/19/19 10:40	11/19/19 17:18	53-70-3	
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.10	0.028	1	11/19/19 10:40	11/19/19 17:18	193-39-5	
Naphthalene	ND	ug/L	1.0	0.023	1	11/19/19 10:40	11/19/19 17:18	91-20-3	
Pyrene	**0.25J**	ug/L	1.0	0.011	1	11/19/19 10:40	11/19/19 17:18	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	59	%.	55-118		1	11/19/19 10:40	11/19/19 17:18	321-60-8	
p-Terphenyl-d14 (S)	102	%.	56-128		1	11/19/19 10:40	11/19/19 17:18	1718-51-0	

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ANALYTICAL RESULTS

Project: Tyler Landfill
Pace Project No.: 50241620

Sample: FB **Lab ID: 50241620009** Collected: 11/13/19 13:10 Received: 11/14/19 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pest RV Waters	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	ND	ug/L	0.048	0.047	1	11/20/19 07:59	11/21/19 06:21	309-00-2	
4,4'-DDT	ND	ug/L	0.095	0.038	1	11/20/19 07:59	11/21/19 06:21	50-29-3	
Heptachlor	ND	ug/L	0.048	0.040	1	11/20/19 07:59	11/21/19 06:21	76-44-8	
Surrogates									
Decachlorobiphenyl (S)	78	%.	14-122		1	11/20/19 07:59	11/21/19 06:21	2051-24-3	
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.095	0.069	1	11/20/19 07:59	11/20/19 18:05	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.095	0.083	1	11/20/19 07:59	11/20/19 18:05	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.095	0.073	1	11/20/19 07:59	11/20/19 18:05	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.095	0.074	1	11/20/19 07:59	11/20/19 18:05	53469-21-9	
PCB-1248 (Aroclor 1248)	**1.8**	ug/L	0.095	0.061	1	11/20/19 07:59	11/20/19 18:05	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.73**	ug/L	0.095	0.077	1	11/20/19 07:59	11/20/19 18:05	11097-69-1	
PCB-1260 (Aroclor 1260)	**0.28**	ug/L	0.095	0.068	1	11/20/19 07:59	11/20/19 18:05	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	97	%.	10-148		1	11/20/19 07:59	11/20/19 18:05	877-09-8	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	2.0	0.079	1	11/21/19 19:30	11/22/19 09:07	7439-97-6	
8270 PAH by 3511	Analytical Method: EPA 8270 by SIM 40E Preparation Method: EPA 3511								
Acenaphthene	ND	ug/L	1.0	0.017	1	11/19/19 10:40	11/19/19 17:29	83-32-9	
Benzo(a)anthracene	ND	ug/L	0.10	0.063	1	11/19/19 10:40	11/19/19 17:29	56-55-3	
Benzo(a)pyrene	ND	ug/L	0.10	0.026	1	11/19/19 10:40	11/19/19 17:29	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.10	0.044	1	11/19/19 10:40	11/19/19 17:29	205-99-2	
Benzo(k)fluoranthene	ND	ug/L	0.10	0.095	1	11/19/19 10:40	11/19/19 17:29	207-08-9	
Chrysene	ND	ug/L	0.50	0.038	1	11/19/19 10:40	11/19/19 17:29	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.10	0.056	1	11/19/19 10:40	11/19/19 17:29	53-70-3	
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.10	0.028	1	11/19/19 10:40	11/19/19 17:29	193-39-5	
Naphthalene	ND	ug/L	1.0	0.023	1	11/19/19 10:40	11/19/19 17:29	91-20-3	
Pyrene	ND	ug/L	1.0	0.011	1	11/19/19 10:40	11/19/19 17:29	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	93	%.	55-118		1	11/19/19 10:40	11/19/19 17:29	321-60-8	
p-Terphenyl-d14 (S)	117	%.	56-128		1	11/19/19 10:40	11/19/19 17:29	1718-51-0	

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QUALITY CONTROL DATA

Project: Tyler Landfill
Pace Project No.: 50241620

QC Batch: 534108 | Analysis Method: EPA 7470
QC Batch Method: EPA 7470 | Analysis Description: 7470 Mercury
Associated Lab Samples: 50241620001, 50241620002, 50241620003, 50241620004, 50241620005, 50241620006, 50241620007, 50241620008, 50241620009

METHOD BLANK: 2464842 | Matrix: Water
Associated Lab Samples: 50241620001, 50241620002, 50241620003, 50241620004, 50241620005, 50241620006, 50241620007, 50241620008, 50241620009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	2.0	0.079	11/22/19 07:56	

LABORATORY CONTROL SAMPLE: 2464843

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.6	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2464844 2464845

Parameter	Units	50241614005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	0.44J	5	5	4.8	4.8	88	87	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2464846 2464847

Parameter	Units	50241620002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	0.096J	5	5	5.0	4.7	97	92	75-125	6	20	

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QUALITY CONTROL DATA

Project: Tyler Landfill
Pace Project No.: 50241620

QC Batch: 534145 | Analysis Method: EPA 8081
QC Batch Method: EPA 3510 | Analysis Description: 8081 GCS Pesticides
Associated Lab Samples: 50241620001, 50241620002, 50241620003, 50241620004, 50241620005, 50241620006, 50241620007, 50241620008, 50241620009

METHOD BLANK: 2464972 | Matrix: Water
Associated Lab Samples: 50241620001, 50241620002, 50241620003, 50241620004, 50241620005, 50241620006, 50241620007, 50241620008, 50241620009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
4,4'-DDT	ug/L	ND	0.095	0.038	11/21/19 03:50	
Aldrin	ug/L	ND	0.048	0.047	11/21/19 03:50	
Heptachlor	ug/L	ND	0.048	0.040	11/21/19 03:50	
Decachlorobiphenyl (S)	%.	47	14-122		11/21/19 03:50	

LABORATORY CONTROL SAMPLE: 2464973

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4,4'-DDT	ug/L	2	1.9	96	31-192	
Aldrin	ug/L	1	0.92	92	10-166	
Heptachlor	ug/L	1	0.89	89	10-170	
Decachlorobiphenyl (S)	%.			42	14-122	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2464974 2464975

Parameter	Units	50241620002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
4,4'-DDT	ug/L	ND	2	2	1.6	1.6	80	78	24-178	3	20	
Aldrin	ug/L	ND	1	1	0.71	0.78	71	78	10-155	10	20	
Heptachlor	ug/L	ND	1	1	0.71	0.77	71	77	10-160	9	20	
Decachlorobiphenyl (S)	%.						32	36	14-122			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Tyler Landfill
Pace Project No.: 50241620

QC Batch: 534122 | Analysis Method: EPA 8082
QC Batch Method: EPA 3510 | Analysis Description: 8082 GCS PCB Mod
Associated Lab Samples: 50241620001, 50241620002, 50241620003, 50241620004, 50241620005, 50241620006, 50241620007, 50241620008, 50241620009

METHOD BLANK: 2464905 | Matrix: Water
Associated Lab Samples: 50241620001, 50241620002, 50241620003, 50241620004, 50241620005, 50241620006, 50241620007, 50241620008, 50241620009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	ND	0.10	0.072	11/20/19 11:35	
PCB-1221 (Aroclor 1221)	ug/L	ND	0.10	0.087	11/20/19 11:35	
PCB-1232 (Aroclor 1232)	ug/L	ND	0.10	0.077	11/20/19 11:35	
PCB-1242 (Aroclor 1242)	ug/L	ND	0.10	0.077	11/20/19 11:35	
PCB-1248 (Aroclor 1248)	ug/L	ND	0.10	0.064	11/20/19 11:35	
PCB-1254 (Aroclor 1254)	ug/L	ND	0.10	0.081	11/20/19 11:35	
PCB-1260 (Aroclor 1260)	ug/L	ND	0.10	0.071	11/20/19 11:35	
Tetrachloro-m-xylene (S)	%.	115	10-148		11/20/19 11:35	

LABORATORY CONTROL SAMPLE: 2464906

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	5	5.1	102	45-157	
PCB-1260 (Aroclor 1260)	ug/L	5	4.7	95	42-155	
Tetrachloro-m-xylene (S)	%.			81	10-148	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2464992 2464993

Parameter	Units	50241620002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/L	ND	5	5	5.3	3.8	106	75	27-174	34	20	R1
PCB-1260 (Aroclor 1260)	ug/L	0.098J	5	5	3.0	2.1	57	40	10-157	34	20	R1
Tetrachloro-m-xylene (S)	%.						72	51	10-148			

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QUALITY CONTROL DATA

Project: Tyler Landfill
Pace Project No.: 50241620

QC Batch: 533693 | Analysis Method: EPA 8270 by SIM 40E
QC Batch Method: EPA 3511 | Analysis Description: 8270 Water PAH 40 by SIM MSSV
Associated Lab Samples: 50241620001, 50241620002, 50241620003, 50241620004

METHOD BLANK: 2463182 | Matrix: Water
Associated Lab Samples: 50241620001, 50241620002, 50241620003, 50241620004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthene	ug/L	ND	1.0	0.017	11/18/19 20:31	
Benzo(a)anthracene	ug/L	ND	0.10	0.063	11/18/19 20:31	
Benzo(a)pyrene	ug/L	ND	0.10	0.026	11/18/19 20:31	
Benzo(b)fluoranthene	ug/L	ND	0.10	0.044	11/18/19 20:31	
Benzo(k)fluoranthene	ug/L	ND	0.10	0.095	11/18/19 20:31	
Chrysene	ug/L	ND	0.50	0.038	11/18/19 20:31	
Dibenz(a,h)anthracene	ug/L	ND	0.10	0.056	11/18/19 20:31	
Indeno(1,2,3-cd)pyrene	ug/L	ND	0.10	0.028	11/18/19 20:31	
Naphthalene	ug/L	ND	1.0	0.023	11/18/19 20:31	
Pyrene	ug/L	ND	1.0	0.011	11/18/19 20:31	
2-Fluorobiphenyl (S)	%.	86	55-118		11/18/19 20:31	
p-Terphenyl-d14 (S)	%.	138	56-128		11/18/19 20:31	S3

LABORATORY CONTROL SAMPLE: 2463183

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/L	25	23.4	94	62-109	
Benzo(a)anthracene	ug/L	25	29.5	118	53-138	
Benzo(a)pyrene	ug/L	25	27.9	112	57-150	
Benzo(b)fluoranthene	ug/L	25	31.1	125	62-138	
Benzo(k)fluoranthene	ug/L	25	29.0	116	50-151	
Chrysene	ug/L	25	25.9	104	45-144	
Dibenz(a,h)anthracene	ug/L	25	25.8	103	43-149	
Indeno(1,2,3-cd)pyrene	ug/L	25	26.2	105	44-147	
Naphthalene	ug/L	25	21.8	87	58-111	
Pyrene	ug/L	25	27.2	109	57-131	
2-Fluorobiphenyl (S)	%.			101	55-118	
p-Terphenyl-d14 (S)	%.			118	56-128	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2463184 2463185

Parameter	Units	50241620002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acenaphthene	ug/L	3.2	25	25	22.2	22.4	76	77	54-111	1	20	
Benzo(a)anthracene	ug/L	ND	25	25	29.3	29.8	117	119	65-126	1	20	
Benzo(a)pyrene	ug/L	ND	25	25	25.2	25.3	101	101	66-137	1	20	
Benzo(b)fluoranthene	ug/L	ND	25	25	26.3	26.4	105	106	58-138	1	20	
Benzo(k)fluoranthene	ug/L	ND	25	25	24.5	25.0	98	100	57-142	2	20	

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QUALITY CONTROL DATA

Project: Tyler Landfill
Pace Project No.: 50241620

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2463184 2463185

Parameter	Units	50241620002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chrysene	ug/L	ND	25	25	23.9	23.4	95	93	53-134	2	20	
Dibenz(a,h)anthracene	ug/L	ND	25	25	22.6	23.2	90	93	55-135	2	20	
Indeno(1,2,3-cd)pyrene	ug/L	ND	25	25	23.0	23.5	92	94	52-136	2	20	
Naphthalene	ug/L	ND	25	25	19.6	20.5	78	82	50-116	5	20	
Pyrene	ug/L	0.28J	25	25	26.0	26.0	103	103	57-127	0	20	
2-Fluorobiphenyl (S)	%.						71	75	55-118			
p-Terphenyl-d14 (S)	%.						96	99	56-128			

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QUALITY CONTROL DATA

Project: Tyler Landfill
Pace Project No.: 50241620

QC Batch: 533885 | Analysis Method: EPA 8270 by SIM 40E
QC Batch Method: EPA 3511 | Analysis Description: 8270 Water PAH 40 by SIM MSSV
Associated Lab Samples: 50241620005, 50241620006, 50241620007, 50241620008, 50241620009

METHOD BLANK: 2463838 | Matrix: Water
Associated Lab Samples: 50241620005, 50241620006, 50241620007, 50241620008, 50241620009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthene	ug/L	ND	1.0	0.017	11/19/19 14:01	
Benzo(a)anthracene	ug/L	ND	0.10	0.063	11/19/19 14:01	
Benzo(a)pyrene	ug/L	ND	0.10	0.026	11/19/19 14:01	
Benzo(b)fluoranthene	ug/L	ND	0.10	0.044	11/19/19 14:01	
Benzo(k)fluoranthene	ug/L	ND	0.10	0.095	11/19/19 14:01	
Chrysene	ug/L	ND	0.50	0.038	11/19/19 14:01	
Dibenz(a,h)anthracene	ug/L	ND	0.10	0.056	11/19/19 14:01	
Indeno(1,2,3-cd)pyrene	ug/L	ND	0.10	0.028	11/19/19 14:01	
Naphthalene	ug/L	ND	1.0	0.023	11/19/19 14:01	
Pyrene	ug/L	ND	1.0	0.011	11/19/19 14:01	
2-Fluorobiphenyl (S)	%.	105	55-118		11/19/19 14:01	
p-Terphenyl-d14 (S)	%.	113	56-128		11/19/19 14:01	

LABORATORY CONTROL SAMPLE: 2463839

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/L	25	21.6	86	62-109	
Benzo(a)anthracene	ug/L	25	27.5	110	53-138	
Benzo(a)pyrene	ug/L	25	27.6	110	57-150	
Benzo(b)fluoranthene	ug/L	25	26.5	106	62-138	
Benzo(k)fluoranthene	ug/L	25	25.8	103	50-151	
Chrysene	ug/L	25	24.0	96	45-144	
Dibenz(a,h)anthracene	ug/L	25	25.9	104	43-149	
Indeno(1,2,3-cd)pyrene	ug/L	25	25.9	104	44-147	
Naphthalene	ug/L	25	20.9	84	58-111	
Pyrene	ug/L	25	22.5	90	57-131	
2-Fluorobiphenyl (S)	%.			100	55-118	
p-Terphenyl-d14 (S)	%.			98	56-128	

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(317)228-3100

QUALIFIERS

Project: Tyler Landfill
Pace Project No.: 50241620

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-I	Pace Analytical Services - Indianapolis

BATCH QUALIFIERS

Batch: 534122

[1]

ANALYTE QUALIFIERS

R1	RPD value was outside control limits.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Tyler Landfill
Pace Project No.: 50241620

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50241620001	**T-MW21-LP**		533875		
50241620002	**T-MW23-LP**		533875		
50241620003	**T-MW25-LP**		533875		
50241620004	**T-MW27-LP**		533875		
50241620005	**T-MW29-LP**		533875		
50241620006	**T-MW31-LP**		533875		
50241620007	**T-MW33-LP**		533875		
50241620008	**DUP**		533875		
50241620001	**T-MW21-LP**	EPA 3510	534145	EPA 8081	534228
50241620002	**T-MW23-LP**	EPA 3510	534145	EPA 8081	534228
50241620003	**T-MW25-LP**	EPA 3510	534145	EPA 8081	534228
50241620004	**T-MW27-LP**	EPA 3510	534145	EPA 8081	534228
50241620005	**T-MW29-LP**	EPA 3510	534145	EPA 8081	534228
50241620006	**T-MW31-LP**	EPA 3510	534145	EPA 8081	534228
50241620007	**T-MW33-LP**	EPA 3510	534145	EPA 8081	534228
50241620008	**DUP**	EPA 3510	534145	EPA 8081	534228
50241620009	**FB**	EPA 3510	534145	EPA 8081	534228
50241620001	**T-MW21-LP**	EPA 3510	534122	EPA 8082	534227
50241620002	**T-MW23-LP**	EPA 3510	534122	EPA 8082	534227
50241620003	**T-MW25-LP**	EPA 3510	534122	EPA 8082	534227
50241620004	**T-MW27-LP**	EPA 3510	534122	EPA 8082	534227
50241620005	**T-MW29-LP**	EPA 3510	534122	EPA 8082	534227
50241620006	**T-MW31-LP**	EPA 3510	534122	EPA 8082	534227
50241620007	**T-MW33-LP**	EPA 3510	534122	EPA 8082	534227
50241620008	**DUP**	EPA 3510	534122	EPA 8082	534227
50241620009	**FB**	EPA 3510	534122	EPA 8082	534227
50241620001	**T-MW21-LP**	EPA 7470	534108	EPA 7470	534752
50241620002	**T-MW23-LP**	EPA 7470	534108	EPA 7470	534752
50241620003	**T-MW25-LP**	EPA 7470	534108	EPA 7470	534752
50241620004	**T-MW27-LP**	EPA 7470	534108	EPA 7470	534752
50241620005	**T-MW29-LP**	EPA 7470	534108	EPA 7470	534752
50241620006	**T-MW31-LP**	EPA 7470	534108	EPA 7470	534752
50241620007	**T-MW33-LP**	EPA 7470	534108	EPA 7470	534752
50241620008	**DUP**	EPA 7470	534108	EPA 7470	534752
50241620009	**FB**	EPA 7470	534108	EPA 7470	534752
50241620001	**T-MW21-LP**	EPA 3511	533693	EPA 8270 by SIM 40E	533763
50241620002	**T-MW23-LP**	EPA 3511	533693	EPA 8270 by SIM 40E	533763
50241620003	**T-MW25-LP**	EPA 3511	533693	EPA 8270 by SIM 40E	533763
50241620004	**T-MW27-LP**	EPA 3511	533693	EPA 8270 by SIM 40E	533763
50241620005	**T-MW29-LP**	EPA 3511	533885	EPA 8270 by SIM 40E	533977
50241620006	**T-MW31-LP**	EPA 3511	533885	EPA 8270 by SIM 40E	533977
50241620007	**T-MW33-LP**	EPA 3511	533885	EPA 8270 by SIM 40E	533977
50241620008	**DUP**	EPA 3511	533885	EPA 8270 by SIM 40E	533977
50241620009	**FB**	EPA 3511	533885	EPA 8270 by SIM 40E	533977

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Civil & Environmental Consultants - Toledo	Report To:	Wes Speiser	Attention:	
Address:	4841 Monroe Street	Copy To:		Company Name:	
	Toledo, OH 43623			Address:	
Email:	wspeiser@cecinc.com	Purchase Order #:		Pace Quote:	
Phone:	(419)378-1943 Fax:	Project Name:	Tyler Landfill	Pace Project Manager:	chris.boyle@pacelabs.com,
Requested Due Date:		Project #:		Pace Profile #:	7607 / 1

Regulatory Agency
State / Location
OH

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Mercury, Total	Pesticide by 8081	PCB by 8082	SVOC by 8270	Residual Chlorine (Y/N)	50241620
1	T-MW21-LP	WT	G	11-13-19	1204	—	—		7	6		1							X	X	X	X		001
2	T-MW23-LP	WT	G	11-13-19	1212	—	—		7	6		1							X	X	X	X		002
3	T-MW25-LP	WT	G	11-13-19	1257	—	—		7	6		1							X	X	X	X		003
4	T-MW27-LP	WT	G	11-13-19	1255	—	—		7	6		1							X	X	X	X		004
5	T-MW29-LP	WT	G	11-13-19	1355	—	—		7	6		1							X	X	X	X		005
6	T-MW31-LP	WT	G	11-13-19	1349	—	—		7	6		1							X	X	X	X		006
7	T-MW33-LP	WT	G	11-13-19	1436	—	—		7	6		1							X	X	X	X		007
8	MS/MSD	WT	G	11-13-19	1217	—	—		7	6		1							X	X	X	X		~~008~~
9	DUP	WT	G	11-13-19	—	—	—		7	6		1							X	X	X	X		008
10																								009
11																								
12																								

Requested Analysis Filtered (Y/N): N N N N

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	[signature] CEC	11-13-19	1930	Fedex	11-13-19	1930				
	2D Fedex	11-14-19	900	[signature]	11-14-19	900	1.7 / 5.7	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: John Dilworth / Mike Cline

SIGNATURE of SAMPLER: [signature]

DATE Signed: 11-13-19

Pace Analytical

SAMPLE CONDITION UPON RECEIPT FORM

Project #: 50241620

Date/Time and Initials of person examining contents: KS 11-14-19 1100

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other _____

Tracking #: 1250 8112 7672

Custody Seal on Cooler/Box Present: ☑ Yes ☐ No **Seals Intact:** ☑ Yes ☐ No

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

Thermometer: 1 2 3 4 5 6 A B C D E F Ice Type: ☑ Wet ☐ Blue ☐ None | Samples collected today and on ice: ☐ Yes ☐ No ☑ N/A

Cooler Temperature: 1.7 | 1.7, 5.7 | 5.7 Ice Visible in Sample Containers?: ☐ Yes ☑ No ☐ N/A

(Initial/Corrected) Temp should be above freezing to 6°C If temp. is Over 6°C or under 0°C, was the PM Notified?: ☐ Yes ☐ No ☑ N/A

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
Are samples from West Virginia? Document any containers out of temp.		✓	All containers needing acid/base pres. Have been checked?: **exceptions: VOA, coliform, LLHg, O&G, and any container with a septum cap or preserved with HCl.** All containers needing preservation are found to be in compliance with EPA recommendation (<2, >9, >12) unless otherwise noted.	✓		
USDA Regulated Soils? (ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓				
Chain of Custody Present:	✓		Circle: HNO3 H2SO4 NaOH NaOH/ZnAc			
Chain of Custody Filled Out:	Xrj	✓	Dissolved Metals field filtered?:			✓
Short Hold Time Analysis (<72hr)?: Analysis:		✓	Headspace Wisconsin Sulfide			✓
Time 5035A TC placed in Freezer or Short Holds To Lab:				Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
			Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Rush TAT Requested:	✓		Headspace in VOA Vials (>6mm):			✓
Containers Intact?:	✓		Trip Blank Present?:		✓	
Sample Labels (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID		✓	Trip Blank Custody Seals?:		✓	
Extra labels on Terracore Vials (soils only)?	NA					

Comments: FB included not on coc date 11-13-19 time 1310

COC PAGE ____ of ____

Sample Container Count

WO# : 50241620

50241620

Sample Line Item	WGFU	SBS DI BK Kit R	DG9H VG9H	VOA VIALS (>6mm)	VG9U	DG9U	DG9T	AG0U	AG1H	AG1U	AG3S	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H					Matrix	pH <2	pH >9	pH>12
1								6								1										WP	✓		
2																													
3																													
4																													
5																													
6																													
7																													
8																													
9								6																					
10								6									FB	11-13-19	1310										
11																													
12																													

Container Codes

Glass

DG9B	40mL Na Bisulfate amber vial	AG0U	100mL unpres amber glass
DG9H	40mL HCl amber voa vial	AG1H	1L HCl amber glass
DG9M	40mL MeOH clear vial	AG1S	1L H2SO4 amber glass
DG9P	40mL TSP amber vial	AG1T	1L Na Thiosulfate amber glass
DG9S	40mL H2SO4 amber vial	AG1U	1liter unpres amber glass
DG9T	40mL Na Thio amber vial	AG2N	500mL HNO3 amber glass
DG9U	40mL unpreserved **amber** vial	AG2S	500mL H2SO4 amber glass
VG9H	40mL HCl clear vial	AG2U	500mL unpres amber glass
VG9T	40mL Na Thio. clear vial	AG3S	250mL H2SO4 amber glass
VG9U	40mL unpreserved **clear** vial	AG3U	250mL unpres amber glass
VGFX	40mL w/hexane wipe vial	BG1H	1L HCl clear glass
VSG	Headspace septa vial & HCl	BG1S	1L H2SO4 clear glass
WGKU	8oz unpreserved clear jar	BG1T	1L Na Thiosulfate clear glass
WGFU	4oz clear soil jar	BG1U	1L unpreserved glass
JGFU	4oz unpreserved amber wide	BG3H	250mL HCl Clear Glass
CG3H	250mL clear glass HCl	BG3U	250mL Unpres Clear Glass

Plastic / Misc.

BP1A	1L NaOH, Asc Acid plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2A	500mL NaOH, Asc Acid plastic
BP2N	500mL HNO3 plastic
BP2O	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic (field filtered)
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Ac plastic

AF	Air Filter
C	Air Cassettes
R	Terra core kit
SP5T	120mL Coliform Na Thiosulfate
U	Summa Can
ZPLC	Ziploc Bag

WT	Water
SL	Solid
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

December 06, 2019

Wes Speiser
Civil and Environmental Consultants
4841 Monroe Street
Suite 103
Toledo, OH 43623

RE: Project: Tyler Landfill
Pace Project No.: 50241883

Dear Wes Speiser:
Enclosed are the analytical results for sample(s) received by the laboratory on November 15, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Chris Boyle
chris.boyle@pacelabs.com
(317)228-3100
Project Manager

Enclosures

cc: Michael Cline, Civil & Environmental Consultants, Inc.

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CERTIFICATIONS

Project:	Tyler Landfill
Pace Project No.:	50241883

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Certification #: 200074
Indiana Certification #: C-49-06
Kansas/NELAP Certification #: E-10177
Kentucky UST Certification #: 80226
Kentucky WW Certification #: 98019
Michigan Department of Environmental Quality, Laboratory #9050
Ohio VAP Certification #: CL0065
Oklahoma Certification #: 9204
Texas Certification #: T104704355
West Virginia Certification #: 330
Wisconsin Certification #: 999788130
USDA Soil Permit #: P330-19-00257

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SAMPLE SUMMARY

Project: Tyler Landfill
Pace Project No.: 50241883

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50241883001	**T-MW-19LP**	Water	11/14/19 12:53	11/15/19 08:40

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SAMPLE ANALYTE COUNT

Project: Tyler Landfill
Pace Project No.: 50241883

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50241883001	**T-MW-19LP**	EPA 8081	KAV	4	PASI-I
		EPA 8082	RID	8	PASI-I
		EPA 7470	ILP	1	PASI-I
		EPA 8270 by SIM 40E	GRM	12	PASI-I

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ANALYTICAL RESULTS

Project: Tyler Landfill
Pace Project No.: 50241883

Sample: T-MW-19LP **Lab ID: 50241883001** Collected: 11/14/19 12:53 Received: 11/15/19 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pest RV Waters	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
Aldrin	ND	ug/L	0.077	0.075	1	11/20/19 15:45	11/20/19 21:57	309-00-2	
4,4'-DDT	ND	ug/L	0.15	0.062	1	11/20/19 15:45	11/20/19 21:57	50-29-3	
Heptachlor	ND	ug/L	0.077	0.065	1	11/20/19 15:45	11/20/19 21:57	76-44-8	
Surrogates									
Decachlorobiphenyl (S)	25	%.	14-122		1	11/20/19 15:45	11/20/19 21:57	2051-24-3	
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.10	0.072	1	12/02/19 13:31	12/03/19 00:51	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.10	0.087	1	12/02/19 13:31	12/03/19 00:51	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.10	0.077	1	12/02/19 13:31	12/03/19 00:51	11141-16-5	
PCB-1242 (Aroclor 1242)	**5.3**	ug/L	0.10	0.077	1	12/02/19 13:31	12/03/19 00:51	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/L	0.10	0.064	1	12/02/19 13:31	12/03/19 00:51	12672-29-6	
PCB-1254 (Aroclor 1254)	**1.9**	ug/L	0.10	0.081	1	12/02/19 13:31	12/03/19 00:51	11097-69-1	
PCB-1260 (Aroclor 1260)	**0.96**	ug/L	0.10	0.071	1	12/02/19 13:31	12/03/19 00:51	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	35	%.	10-148		1	12/02/19 13:31	12/03/19 00:51	877-09-8	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**1.2J**	ug/L	2.0	0.079	1	11/26/19 01:13	11/26/19 10:35	7439-97-6	
8270 PAH by 3511	Analytical Method: EPA 8270 by SIM 40E Preparation Method: EPA 3511								
Acenaphthene	**0.20J**	ug/L	1.0	0.017	1	11/20/19 10:56	11/20/19 19:49	83-32-9	
Benzo(a)anthracene	**0.073J**	ug/L	0.10	0.063	1	11/20/19 10:56	11/20/19 19:49	56-55-3	
Benzo(a)pyrene	ND	ug/L	0.10	0.026	1	11/20/19 10:56	11/20/19 19:49	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.10	0.044	1	11/20/19 10:56	11/20/19 19:49	205-99-2	
Benzo(k)fluoranthene	ND	ug/L	0.10	0.095	1	11/20/19 10:56	11/20/19 19:49	207-08-9	
Chrysene	**0.085J**	ug/L	0.50	0.038	1	11/20/19 10:56	11/20/19 19:49	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.10	0.056	1	11/20/19 10:56	11/20/19 19:49	53-70-3	
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.10	0.028	1	11/20/19 10:56	11/20/19 19:49	193-39-5	
Naphthalene	**0.85J**	ug/L	1.0	0.023	1	11/20/19 10:56	11/20/19 19:49	91-20-3	
Pyrene	ND	ug/L	1.0	0.011	1	11/20/19 10:56	11/20/19 19:49	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	67	%.	55-118		1	11/20/19 10:56	11/20/19 19:49	321-60-8	
p-Terphenyl-d14 (S)	71	%.	56-128		1	11/20/19 10:56	11/20/19 19:49	1718-51-0	

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QUALITY CONTROL DATA

Project: Tyler Landfill
Pace Project No.: 50241883

QC Batch: 534391 | Analysis Method: EPA 7470
QC Batch Method: EPA 7470 | Analysis Description: 7470 Mercury
Associated Lab Samples: 50241883001

METHOD BLANK: 2466153 | Matrix: Water
Associated Lab Samples: 50241883001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	2.0	0.079	11/26/19 09:29	

LABORATORY CONTROL SAMPLE: 2466154

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.9	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2466155 2466156

Parameter	Units	50241695002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.0	5.0	99	100	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Tyler Landfill
Pace Project No.: 50241883

QC Batch: 534337 | Analysis Method: EPA 8081
QC Batch Method: EPA 3510 | Analysis Description: 8081 GCS Pesticides
Associated Lab Samples: 50241883001

METHOD BLANK: 2465820 | Matrix: Water
Associated Lab Samples: 50241883001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
4,4'-DDT	ug/L	ND	0.10	0.040	11/20/19 21:19	
Aldrin	ug/L	ND	0.050	0.049	11/20/19 21:19	
Heptachlor	ug/L	ND	0.050	0.042	11/20/19 21:19	
Decachlorobiphenyl (S)	%.	66	14-122		11/20/19 21:19	

LABORATORY CONTROL SAMPLE: 2465821

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4,4'-DDT	ug/L	2	2.2	109	31-192	
Aldrin	ug/L	1	1.1	109	10-166	
Heptachlor	ug/L	1	1.0	105	10-170	
Decachlorobiphenyl (S)	%.			62	14-122	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2465822 2465823

Parameter	Units	50241938002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
4,4'-DDT	ug/L	ND	2	2	2.1	1.9	105	97	24-178	7	20	
Aldrin	ug/L	ND	1	1	1.0	0.86	101	86	10-155	16	20	
Heptachlor	ug/L	ND	1	1	0.97	0.82	97	82	10-160	17	20	
Decachlorobiphenyl (S)	%.						102	93	14-122			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Tyler Landfill
Pace Project No.: 50241883

QC Batch: 536073 | Analysis Method: EPA 8082
QC Batch Method: EPA 3510 | Analysis Description: 8082 GCS PCB Mod
Associated Lab Samples: 50241883001

METHOD BLANK: 2473805 | Matrix: Water
Associated Lab Samples: 50241883001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	ND	0.10	0.072	12/02/19 20:48	
PCB-1221 (Aroclor 1221)	ug/L	ND	0.10	0.087	12/02/19 20:48	
PCB-1232 (Aroclor 1232)	ug/L	ND	0.10	0.077	12/02/19 20:48	
PCB-1242 (Aroclor 1242)	ug/L	ND	0.10	0.077	12/02/19 20:48	
PCB-1248 (Aroclor 1248)	ug/L	ND	0.10	0.064	12/02/19 20:48	
PCB-1254 (Aroclor 1254)	ug/L	ND	0.10	0.081	12/02/19 20:48	
PCB-1260 (Aroclor 1260)	ug/L	ND	0.10	0.071	12/02/19 20:48	
Tetrachloro-m-xylene (S)	%.	52	10-148		12/02/19 20:48	

LABORATORY CONTROL SAMPLE: 2473806

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	5	4.0	81	45-157	
PCB-1260 (Aroclor 1260)	ug/L	5	4.2	84	42-155	
Tetrachloro-m-xylene (S)	%.			42	10-148	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2473807 2473808

Parameter	Units	50242081002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/L	ND	5	5	3.2	4.9	65	99	27-174	41	20	R1
PCB-1260 (Aroclor 1260)	ug/L	ND	5	5	3.1	5.2	62	104	10-157	51	20	R1
Tetrachloro-m-xylene (S)	%.						39	63	10-148			

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Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Tyler Landfill
Pace Project No.: 50241883

QC Batch: 534190
QC Batch Method: EPA 3511
Analysis Method: EPA 8270 by SIM 40E
Analysis Description: 8270 Water PAH 40 by SIM MSSV
Associated Lab Samples: 50241883001

METHOD BLANK: 2465142
Matrix: Water
Associated Lab Samples: 50241883001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthene	ug/L	ND	1.0	0.017	11/20/19 18:32	
Benzo(a)anthracene	ug/L	ND	0.10	0.063	11/20/19 18:32	
Benzo(a)pyrene	ug/L	ND	0.10	0.026	11/20/19 18:32	
Benzo(b)fluoranthene	ug/L	ND	0.10	0.044	11/20/19 18:32	
Benzo(k)fluoranthene	ug/L	ND	0.10	0.095	11/20/19 18:32	
Chrysene	ug/L	ND	0.50	0.038	11/20/19 18:32	
Dibenz(a,h)anthracene	ug/L	ND	0.10	0.056	11/20/19 18:32	
Indeno(1,2,3-cd)pyrene	ug/L	ND	0.10	0.028	11/20/19 18:32	
Naphthalene	ug/L	ND	1.0	0.023	11/20/19 18:32	
Pyrene	ug/L	ND	1.0	0.011	11/20/19 18:32	
2-Fluorobiphenyl (S)	%.	91	55-118		11/20/19 18:32	
p-Terphenyl-d14 (S)	%.	132	56-128		11/20/19 18:32	S3

LABORATORY CONTROL SAMPLE: 2465143

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/L	25	20.8	83	62-109	
Benzo(a)anthracene	ug/L	25	28.7	115	53-138	
Benzo(a)pyrene	ug/L	25	27.0	108	57-150	
Benzo(b)fluoranthene	ug/L	25	28.9	115	62-138	
Benzo(k)fluoranthene	ug/L	25	27.3	109	50-151	
Chrysene	ug/L	25	24.8	99	45-144	
Dibenz(a,h)anthracene	ug/L	25	27.7	111	43-149	
Indeno(1,2,3-cd)pyrene	ug/L	25	27.8	111	44-147	
Naphthalene	ug/L	25	19.7	79	58-111	
Pyrene	ug/L	25	27.0	108	57-131	
2-Fluorobiphenyl (S)	%.			91	55-118	
p-Terphenyl-d14 (S)	%.			112	56-128	

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: Tyler Landfill
Pace Project No.: 50241883

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-I	Pace Analytical Services - Indianapolis

ANALYTE QUALIFIERS

R1	RPD value was outside control limits.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Tyler Landfill
Pace Project No.: 50241883

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50241883001	**T-MW-19LP**	EPA 3510	534337	EPA 8081	534365
50241883001	**T-MW-19LP**	EPA 3510	536073	EPA 8082	536127
50241883001	**T-MW-19LP**	EPA 7470	534391	EPA 7470	535459
50241883001	**T-MW-19LP**	EPA 3511	534190	EPA 8270 by SIM 40E	534378

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Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A — Required Client Information:

Company:	Civil & Environmental Consultants - Toledo
Address:	4841 Monroe Street
	Toledo, OH 43623
Email:	wspeiser@cecinc.com
Phone:	(419)378-1943 Fax:
Requested Due Date:	

Section B — Required Project Information:

Report To:	Wes Speiser
Copy To:	
Purchase Order #:	
Project Name:	Tyler Landfill
Project #:	185-376

Section C — Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote:	
Pace Project Manager:	chris.boyle@pacelabs.com,
Pace Profile #:	7607 / 1

Regulatory Agency	
State / Location	
OH	

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test (Y/N): Mercury, Total	Pesticide by 8081	PCB by 8082	SVOC by 8270	Residual Chlorine (Y/N)	50241883
1	T-MW-19LP	WT	G	11/14/19	1253	—	—		7	6		1						X	X	X	X		001
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

Matrix codes: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature] / CEC	11/14/19	1730	FedEx	11/14/19	1730				
	FedEx	11/15/19	0840	[signature]	11/15/19	0840	4.8°	Y	Y	Y

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Michael Cline		
SIGNATURE of SAMPLER:	[signature]	DATE Signed:	11/14/19

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLE CONDITION UPON RECEIPT FORM

Pace Analytical

Project #: S0241883

Date/Time and Initials of person examining contents: MP 11/15/19 1505

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other _____

Tracking #: 7780 3979 7513

Custody Seal on Cooler/Box Present: ☐ Yes ☐ No **Seals Intact:** ☑ Yes ☐ No

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

Thermometer: 1 2 3 4 5 6 A B C D E F **Ice Type:** ☑ Wet ☐ Blue ☐ None | Samples collected today and on ice: ☐ Yes ☐ No ☑ N/A

Cooler Temperature: _____ Ice Visible in Sample Containers?: ☐ Yes ☑ No ☐ N/A

(Initial/Corrected) Temp should be above freezing to 6°C If temp. is Over 6°C or under 0°C, was the PM Notified?: ☐ Yes ☐ No ☑ N/A

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
Are samples from West Virginia? Document any containers out of temp.		✓	All containers needing acid/base pres. Have been checked?: **exceptions: VOA, coliform, LLHg, O&G, and any container with a septum cap or preserved with HCl.** All containers needing preservation are found to be in compliance with EPA recommendation (<2, >9, >12) unless otherwise noted. Circle: HNO3 H2SO4 NaOH NaOH/ZnAc	✓		
USDA Regulated Soils? (ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓				
Chain of Custody Present:	✓					
Chain of Custody Filled Out:	✓		Dissolved Metals field filtered?:			✓
Short Hold Time Analysis (<72hr)?: Analysis:		✓	Headspace Wisconsin Sulfide			✓
Time 5035A TC placed in Freezer or Short Holds To Lab:				Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
			Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Rush TAT Requested:		✓	Headspace in VOA Vials (>6mm):			✓
Containers Intact?:	✓		Trip Blank Present?:		✓	
Sample Labels (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Custody Seals?:		✓	
Extra labels on Terracore Vials (soils only)?		✓				

Comments:

COC PAGE 1 of 1

Sample Container Count

WO# : 50241883

50241883

Sample Line Item	WGFU	SBS DI BK Kit R	DG9H VG9H	VOA VIALS (>6mm)	VG9U	DG9U	DG9T	AG0U	AG1H	AG1U	AG3S	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H					Matrix	pH <2	pH >9	pH>12
1								6								1										WT			
2																													
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

Container Codes

Glass

DG9B	40mL Na Bisulfate amber vial	AG0U	100mL unpres amber glass
DG9H	40mL HCl amber voa vial	AG1H	1L HCl amber glass
DG9M	40mL MeOH clear vial	AG1S	1L H2SO4 amber glass
DG9P	40mL TSP amber vial	AG1T	1L Na Thiosulfate amber glass
DG9S	40mL H2SO4 amber vial	AG1U	1liter unpres amber glass
DG9T	40mL Na Thio amber vial	AG2N	500mL HNO3 amber glass
DG9U	40mL unpreserved **amber** vial	AG2S	500mL H2SO4 amber glass
VG9H	40mL HCl clear vial	AG2U	500mL unpres amber glass
VG9T	40mL Na Thio. clear vial	AG3S	250mL H2SO4 amber glass
VG9U	40mL unpreserved **clear** vial	AG3U	250mL unpres amber glass
VGFX	40mL w/hexane wipe vial	BG1H	1L HCl clear glass
VSG	Headspace septa vial & HCl	BG1S	1L H2SO4 clear glass
WGKU	8oz unpreserved clear jar	BG1T	1L Na Thiosulfate clear glass
WGFU	4oz clear soil jar	BG1U	1L unpreserved glass
JGFU	4oz unpreserved amber wide	BG3H	250mL HCl Clear Glass
CG3H	250mL clear glass HCl	BG3U	250mL Unpres Clear Glass

Plastic / Misc.

BP1A	1L NaOH, Asc Acid plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2A	500mL NaOH, Asc Acid plastic
BP2N	500mL HNO3 plastic
BP2O	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic (field filtered)
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Ac plastic

AF	Air Filter
C	Air Cassettes
R	Terra core kit
SP5T	120mL Coliform Na Thiosulfate
U	Summa Can
ZPLC	Ziploc Bag

WT	Water
SL	Solid
NAL	Non-aqueous liquid
WP	Wipe

APPENDIX G
METHANE MONITORING FIELD DATA SHEET
– TYLER STREET LANDFILL

CITY OF TOLEDO – TYLER STREET LANDFILL
TOLEDO, LUCAS COUNTY, OHIO 43612
METHANE MONITORING FIELD DATA SHEET

TESTING DONE BY: M. Cline, J. Dilworth DATE: 11/13/19
GAS INSTRUMENT TYPE: Landtec GEM MODEL NO.: 5000
DATE LAST CALIBRATED: 11/13/19 CALIBRATION GAS: 4% O_2, 15% CH_4 + CO_2
SAMPLING METHOD: Vacuum Pump
PRESSURE INSTRUMENT TYPE: Landtec GEM MODEL NO.: 5000
WATER LEVEL INSTRUMENT TYPE: Solinst MODEL NO.: Skinny Dipper

Probe Designation	Time of Sampling	Pressure[1]	Percent Combustible Gas[2]		%LEL[4]	Percent Gas[2]		Depth to Water[3]	Depth to Top of Screen[3,5]	Punch Bar Results[6]	
			Initial	Retest		O_2	CO_2			Percent Gas[2]	Percent LEL[4]
T-GP-01S	1556	-0.07	0	–	0	18.2	2.8	1.65	–	0	0
T-GP-01D	1602	0.00	0	–	0	18.2	2.5	5.54	–	0	0
T-GP-02S	1613	-1.47	0	–	0	3.4	13.3	Dry	–	0	0
T-GP-02D	1617	0.03	0	–	0	18.6	2.0	8.79	–	0	0
T-GP-03S	1806	-0.01	0	–	0	20.3	0.6	Dry	–	0	0
T-GP-03D	1810	0.04	0	–	0	6.8	14.9	~~2~~ Dry	–	0	0
T-GP-07S	1530	NA	NA	NA	NA	NA	NA	NA	–	0	0
T-GP-07D	1535	NA	NA	NA	NA	NA	NA	NA	–	0	0
T-GP-07A	1533	-0.02	0	–	0	10.3	9.1	Dry	–	0	0
T-GP-10S	1659	NA	NA	NA	NA	NA	NA	NA	–	0	0
T-GP-10D	1705	NA	NA	NA	NA	NA	NA	NA	–	0	0
T-GP-11S	1646	NA	NA	NA	NA	NA	NA	NA	–	0	0
T-GP-11D	1651	NA	NA	NA	NA	NA	NA	NA	–	0	0
T-GP-12S	1634	NA	NA	NA	NA	NA	NA	NA	–	0	0
T-GP-12D	1636	NA	NA	NA	NA	NA	NA	NA	–	0	0
T-GP-15	1520	-0.55	0	–	0	0.5	13.8	3.86	–	0	0
Horizon. Well	1815	0.00	52.1	52.0	>100	1.1	12.6	–	–	–	–
Pre-System	1817	0.03	43.8	43.2	>100	2.4	11.8	–	–	–	–
Btwn GACs	1821	0.02	42.9	43.1	>100	2.9	11.5	–	–	–	–
Post-System	1824	0.04	35.4	34.8	>100	3.9	10.2	–	–	–	–
T-GP-4S *	1732	0.16	8.5	8.2	>100	0	7.7	Dry	–	0	0
T-GP-4D *	1736	0.02	0	–	0	6.3	10.2	Dry	–	0	0
T-GP-9S *	1741	-0.54	11.0	10.9	>100	12.2	7.6	Dry	–	0	0
T-GP-9D *	1745	-0.01	0	–	0	18.6	4.80	12.38	–	0	0

NOTES:
1. All pressure readings are expressed as inches of H_2O.
2. All readings are 0-100% combustible gas by volume by air.
3. All depth measurements are expressed in feet.
4. (LEL) Lower Explosive Limit
5. Top of Screen depths from the top of casing as indicated on individual explosive gas probe log.
6. Punch bars performed within five feet of the gas probe whenever there is water in the gas probe or when the gas probe cannot be located.
7. * Located additional gas probes during event, probes to be added to next plan revision.

CLIMATOLOGICAL CONDITIONS

Ambient Barometric Pressure: 30.23 ↔ ↑ ↓
Observed Weather Conditions: Overcast, wind E-NE 0-5 mph
Relative Humidity: 64%
Ambient Temperature (°F): 23
COMMENTS: n/a = PROBE WAS NOT LOCATED

APPENDIX H
ANNUAL INSPECTION FORMS – TYLER STREET LANDFILL

FIGURE 3-1
LANDFILL INSPECTION FORM
STICKNEY/TYLER LANDFILLS
TOLEDO, OHIO

Today's Date: 11/13/19

Your name: Mike Cline, John Dilworth

Are you completing this form for: ☐ **Stickney Avenue Landfill**
☒ **Tyler Street Landfill**

(Please use a separate form for each landfill)

Item	Yes or No	Recommended Corrective Action And Schedule for Completion
SECURITY		
1. Is perimeter fencing intact:	Yes	
2. Are posted signs present and in good condition:	Yes	
3. Were gates locked and locks intact:	Yes	
4. Are gates and locks easy to open?	Yes	
ACCESS ROAD		
5. Does access road have rock surface layer? (List any areas requiring placement of additional rock.)	Yes	
6. Is access road and adjacent turf free of ruts? (List any areas requiring repair with rock or topsoil)	Yes	

Note: Inspection Occurred during snowy conditions.

FIGURE 3-1
LANDFILL INSPECTION FORM
STICKNEY/TYLER LANDFILLS
TOLEDO, OHIO

Item	Yes or No	Recommended Corrective Action And Schedule for Completion
7. Are grassed areas adjacent to access road free of ruts? (List any areas requiring grading, topsoil or seeding)	Yes	
VEGETATION		
8. Is this vegetation on the top and side slopes free from bare spots and of sufficient density to protect cover system?	Yes	
9. Is the pavement on the parking surface in good repair ?	N/A	
10. Are the perimeter trees free from observable stress and fallen limbs?	Yes	
11. Is the surface free of any evidence of rodents or burrowing animals?	Yes	
12. Is the surface free of woody vegetation other than perimeter trees?	Yes	

FIGURE 3-1
LANDFILL INSPECTION FORM
STICKNEY/TYLER LANDFILLS
TOLEDO, OHIO

Item	Yes or No	Recommended Corrective Action And Schedule for Completion
13. Are the slopes or perimeter features free of any evidence of gas migration (stressed vegetation)?	Yes	
14. Are the slopes or perimeter features free of any evidence of leachate migration (excessive riprap staining or surface water discoloration)?	Yes	
DRAINAGE AND EROSION CONTROL		
15. Are drainage ways free from obstruction?	Yes	Plants growing on riprap of some outlets.
16. Are erosion control materials intact?	Yes	
17. Are all surfaces free of erosion rills?	Yes	
SETTLEMENT CONTROL		
18. Are surface slopes uniform without local depressions or ponded areas?	No	Ponded water around T-MW-33LP

FIGURE 3-1
LANDFILL INSPECTION FORM
STICKNEY/TYLER LANDFILLS
TOLEDO, OHIO

Item	Yes or No	Recommended Corrective Action And Schedule for Completion
RIVERBANK STABILITY		
19. Does slope area appear to be stable and free of localized settlement or slumps?	Yes	
20. Is berm in place at top of slope and free of erosion or washouts?	Yes	
21. Are underdrain outlet pipes (500-foot intervals) intact and drain freely?	Yes	
22. Are underdrain outlet Pipe markers present?	Yes	
23. Are slope monitoring points intact and appear to be in normal alignment?	Yes	
24. Are letdown channels intact and free of erosion, damage or debris?	Yes	
25. Is riprap intact and free of localized depressions or voids in riprap slope cover?	Yes	

FIGURE 3-1
LANDFILL INSPECTION FORM
STICKNEY/TYLER LANDFILLS
TOLEDO, OHIO

Item	Yes or No	Recommended Corrective Action And Schedule for Completion
26. Is riprap berm at bottom of riprap slope intact and free of erosion or undercutting?	Yes	
27. Is riprap surface free of debris and excessive woody vegetation?	Yes	

Description of recommended action: (attach additional pages as required)

Item Number	Description

FIGURE 3-2
MONITORING WELL INSPECTION FORM
STICKNEY/TYLER LANDFILLS

Name: Mike Cline, John Dilworth Affiliation: Civil & Environmental Consultants, Inc.

Date: 11/12-11/13/2019 Time: 1000

Location/Identification	Surface Seal	External Casing	Internal Casing
1. Is the well accessible:	5. Is surface seal damaged?	8. Is casing in good condition?	11. Is the internal casing at least 1 foot above ground?
2. Is the well protected from traffic?	6. Is the seal secure against the casing and ground?	9. Is casing locked?	12. Is internal riser within 2 inches of top cap?
3. Is the well in low spot or standing water?		10. Is lock in good condition?	13. Is casing free of debris, kinks, bends?
4. Is the well labeled inside and out?	7. Is the seal sloped away from the wellhead?		14. Is cap in good condition?

Well I.D.	Inspected	Requires Action	Items/Problems Requiring Action (list number from above)
SMW-21 LP	☒	☐	N/A
SMW-24LP	☒	☐	N/A
SMW-27LP	☒	☐	N/A
SMW-30LP	☒	☐	N/A
SMW-33LP	☒	☐	N/A
SMW-35LP	☒	☐	N/A
SMW-36LP	☒	☐	N/A
SMW-37LP	☒	☐	N/A
TMW-19LP	☒	☐	N/A
TMW-21LP	☒	☐	N/A
TMW-23LP	☒	☐	N/A
TMW-25LP	☒	☐	N/A
TMW-27LP	☒	☐	N/A
TMW-29LP	☒	☐	N/A
TMW-31LP	☒	☐	N/A
TMW-33LP	☒	☐	#3
TMW-35LP	☒	☐	N/A
	☐	☐	

Attach a detailed description of recommended actions at specific locations :

• T-MW-33LP: Ponded water around well pad.

FIGURE 3-3
GAS MONITORING WELL INSPECTION FORM
STICKNEY/TYLER LANDFILLS

Name: Mike Cline, John Dilworth Affiliation: Civil & Environmental Consultants, Inc.

Date: 11/12 - 11/13/2019 Time: 1000

Location/Identification	Vents	Probes
1. Is the probe/vent accessible?	5. Is the vent damaged and need repair?	7. Are the probes and/or casings damaged and need repair?
2. Is the probe in low spot or standing water?	6. Are the vent sampling ports damaged and need repair?	8. Are probe casings visible?
3. Is probe/vent free of obstruction?		9. Is probe casing subject to being submerged?
4. Is the probe/vent labeled inside and out?		

Well Probe/Vent I.D.	Inspected	Requires Action	Items/Problems Requiring Action (list number from above)
S-GP-1S	☒	☐	N/A
S-GP-1D	☒	☐	N/A
S-GP-1A	☒	☐	N/A
S-GP-2S	☒	☐	N/A
S-GP-2D	☒	☐	N/A
S-GP-2A	☒	☐	N/A
S-GP-10S	☐	☐	Could Not Locate (CNL)
S-GP-10D	☐	☐	CNL
S-GP-11S	☐	☐	CNL
S-GP-11D	☐	☐	CNL
S-GP-12	☒	☐	N/A
S-GP-14	☐	☐	CNL
S-GP-15	☐	☐	CLL
BE-BP-01	☒	☐	N/A
BE-BP-02	☒	☐	N/A
T-GP-01S	☒	☐	N/A
T-GP-01D	☒	☐	N/A
T-GP-02S	☒	☐	N/A
T-GP-02D	☒	☐	N/A
T-GP-03S	☒	☐	N/A
T-GP-03D	☒	☐	N/A

T-GP-07S	☐	☐	CNL
T-GP-07D	☐	☐	CNL
T-GP-07A	☒	☐	N/A
T-GP-10S	☐	☐	CNL
T-GP-10D	☐	☐	CNL
T-GP-11S	☐	☐	CNL
T-GP-11D	☐	☐	CNL
T-GP-12S	☐	☐	CNL
T-GP-12D	☐	☐	CNL
T-GP-15	☒	☐	N/A
Horizontal Well	☒	☐	Not Running
Pre-System	☒	☐	Not Running
Btwn GACs	☒	☐	Not Running
Post - Sys	☒	☐	Not Running
	☐	☐	
	☐	☐	

Attach a detailed description of recommended actions at specific locations below:

Tyler gas system not running upon arrival. For gas probes that could not be located, punch bar samples were collected to check for gas migration.