September 18, 2017 Sigma Reference #16722

Ms. May Vang
Bureau of Remediation and Redevelopment
Wisconsin Department of Natural Resources
2300 North Martin Luther King, Jr. Drive
Milwaukee, WI 53212

RE: Site Investigation Work Plan
BMO Downtown Campus Parking Structure in Milwaukee, Wisconsin
Lot 2 of Certified Survey Map 8910
DNR BRRTS #02-41-579828
DNR FID #341288970

Dear May,

The Sigma Group, Inc. (Sigma) is pleased to provide this *Site Investigation Work Plan* to satisfy the requirements of the Wisconsin Department of Natural Resources (WDNR's) Responsible Party letter, dated July 21, 2017.

Background

Sigma completed Phase II Environmental Site Assessment (ESA) activities at the above referenced property (the "Site") in January and April, 2017, in order to assess potential environmental impacts associated with recognized environmental conditions identified in Sigma's Phase I ESA report completed for the Site in May 2017, and to characterize subsurface material for off-site disposal during earthwork activity associated with the construction of a new office building and parking garage. The results of Sigma's work identified Resource Conservation and Recovery Act (RCRA) metals soil contamination above actionable levels, as well as low-level detections of polycyclic aromatic hydrocarbons (PAHs), within the subsurface of the Site. As such, Sigma, on behalf of WWB Development, LLC, notified the Wisconsin Department of Natural Resources (WDNR) on July 5, 2017 (per s. 292.11, Wisconsin Statutes). Sigma's Phase II ESA report (dated May 31, 2017) for the Site is included as **Attachment 1**.

Given these conditions, Sigma presents the following scope of work to further investigate the degree and extent of the identified subsurface contamination, per NR 700 regulations.

Scope

In order to further define the degree and extent of the contamination identified at the Site, Sigma presents the following scope of work:

- Contact Diggers's Hotline to locate underground utilities in the work area (private utility locating services may also be utilized, if necessary);
- Advance 4 soil borings within the outdoor auto-banking area (refer to **Figure 1**) to an anticipated depth of approximately 8 to 12 feet below ground surface (bgs) in order to evaluate the degree and extent of the PAH (low-level) and lead impacts reported

within soil sample COMP-OUTDOOR, and to further characterize the subsurface material for off-site disposal during future construction;

- Advance 1 soil boring adjacent to soil boring/temporary well TW-1 (refer to **Figure 1**) to an anticipated depth of approximately 8 feet below ground surface (bgs) in order to verify the RCRA metals impacts reported within soil sample TW-1 (4 to 6 feet bgs), and to further characterize subsurface material for off-site disposal during future construction;
- Collect soil samples for laboratory analysis;
    - Soil samples (eight to ten) collected from the proposed borings within the outdoor auto-banking area will be submitted for lead and/or PAH analysis.
    - Up to two soil samples will be collected from the proposed boring adjacent to location TW-1 and submitted for RCRA metals analysis.
    - Soil samples may also be submitted for SPLP water leachability testing for select RCRA metals and/or PAHs, as necessary, to help determine off-site disposal options for impacted soil that may be excavated during construction.
    - All soil samples will be screened in the field with a calibrated photoionization detector to assess the presence of volatile organic compounds.
- Prepare a *Site Investigation Report* following the completed site investigation activities, which will include recommendations for additional work and/or remediation, as warranted.

Please note, due to the non-volatile nature of the reported soil contamination, investigation of the vapor intrusion pathway is not necessary at this time.

Schedule

Sigma will initiate work after Diggers Hotline has cleared site utilities and upon owner approval to proceed. Drilling dates will depend on subcontractor availability, however we anticipate the borehole installation to take no more than one to two days.

Please don't hesitate to contact us with any questions.

Sincerely,

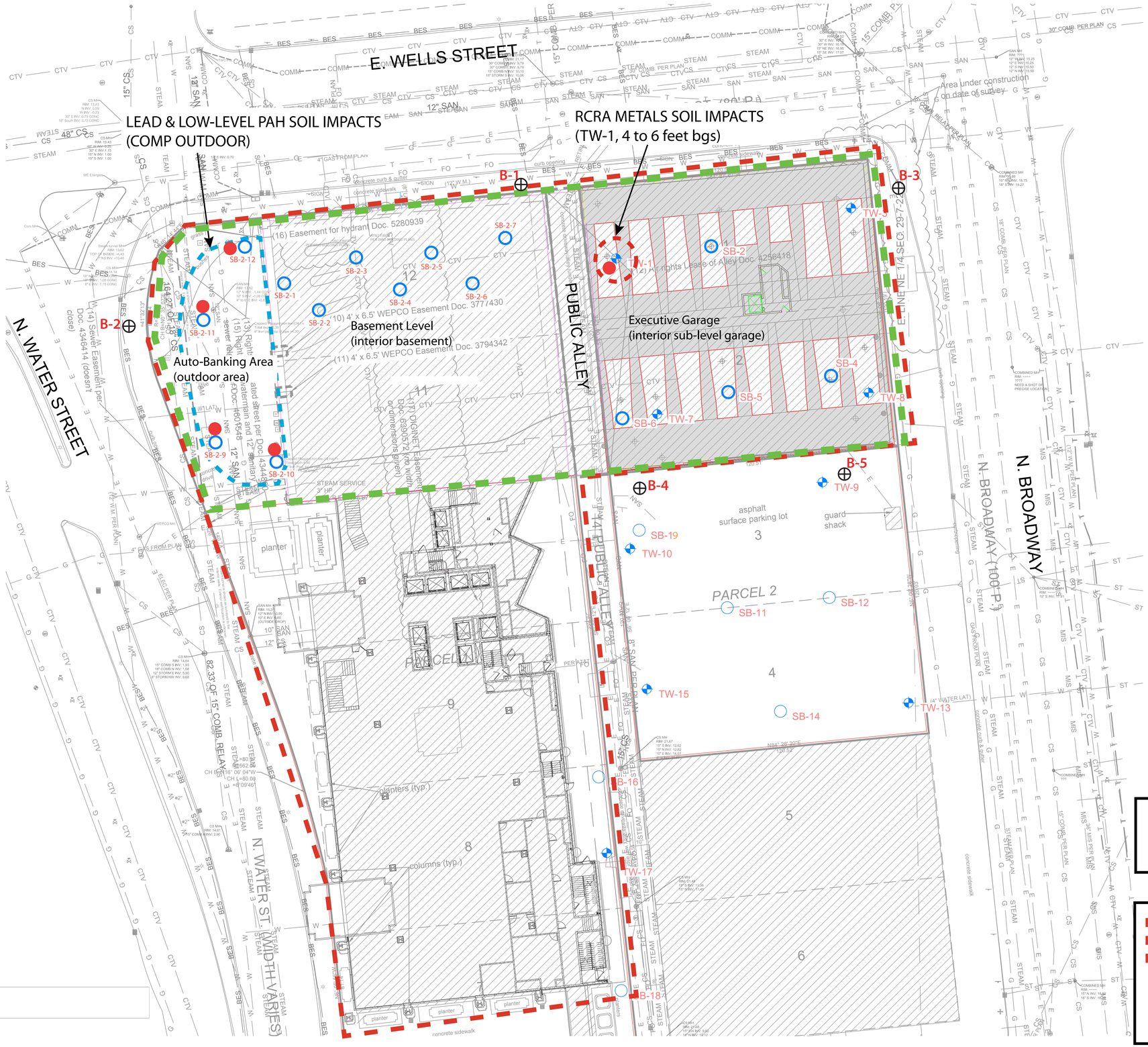
THE SIGMA GROUP, INC.

Cory Katzban, P.E.
Project Engineer

Joshua J. Neudorfer
Senior Consultant

Attachments:
Figure 1 – Site Plan Map
Attachment 1- Phase II Environmental Site Assessment Report

Cc: Tim Gasperetti – WWB Development, LLC (email via TGasperetti@irgens.com)
Rob Oldenburg – WWB Development, LLC (email via ROldenburg@irgens.com)
Chue Yee Yang – WDNR (email via ChueYee.Yang@wisconsin.gov)



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BMO TOWER
MILWAUKEE, WISCONSIN

Site Plan Map
(BMO Campus Parking Structure)

NO.	REVISION	DATE	BY
4.	Site Plan Map Update	6-7-2017	
3.	Site Plan Map Update	5-8-2017	
2.	REVISED BORING LOCATION	1-12-2017	
1.	REVISED BORING LOCATION	1-6-2017	

DRAWING NO.	Sigma Boring Fig.dwg
DRAWN BY:	PRF/CCK (Site Plan Map Update)
DATE:	12/22/16
PROJECT NO:	---
CHECKED BY:	---
APPROVED BY:	
FIGURE NO.:	1

ATTACHMENT 1

Phase II Environmental Site Assessment Report

May 31, 2017 Project Reference #16722-001/003

WWB Development, LLC
c/o Mr. Rob Oldenburg
Vice President, Development - Irgens
833 E. Michigan Street, Suite 400
Milwaukee, WI 53202

SUBJECT: Phase II Environmental Site Assessment Report
North New Construction Area
778 North Water Street
Milwaukee, Wisconsin

Dear Mr. Oldenburg:

On behalf of WWB Development, LLC (WWB), The Sigma Group, Inc. (Sigma) has completed Phase II Environmental Site Assessment (Phase II ESA) activities at the north end of the property located at 778 N. Water St., Milwaukee, Wisconsin (hereinafter "the Site"), shown on **Figure 1**. The Site, more specifically, refers to the underground parking garage ("executive garage") and the basement level and drive-up auto-banking areas of the 778 N. Water Street property as shown on **Figure 2**. The Phase II ESA included the completion of nineteen soil borings, four temporary wells, and the collection and laboratory analysis of twenty-eight soil samples and five shallow groundwater samples. Sigma has prepared this letter report to review and summarize the subsurface conditions encountered during the completion of these activities.

This report contains the following attachments:

Figure 1	Site Location Map
Figure 2	Site Plan Map – Phase II ESA
Table 1	Soil Analytical Results
Table 2	Groundwater Analytical Results
Appendix A	Soil Boring Logs, Monitoring Well Forms and Borehole Abandonment Forms
Appendix B	Soil and Groundwater Laboratory Reports and Chains of Custody (COC)

PROJECT OBJECTIVE
The objective of the Phase II ESA is to assess the condition of the property with respect to recognizable environmental conditions (RECs) identified by the Phase I Environmental Site Assessment (Phase I ESA) report[1] completed by Sigma in May, 2017 and to provide recommendations as they pertain to the future intended use and / or redevelopment of the Site. The Phase I identified the following RECs specific to the Site (778 N. Water Street):

[1] The Sigma Group, Inc. *AAI Phase I Environmental Site Assessment Report, 778 North Water Street & 769 North Broadway, Milwaukee, Wisconsin,* dated May 2017.

- The subject property (780 N. Water Street) was identified as a registered underground storage tank (UST) site with a 6,200-gallon unleaded gasoline UST closed/filled with inert material on November 28, 1990 and a 6,000-gallon unleaded gasoline UST closed/filled with inert material on December 16, 1991. No further information regarding the tank closures was available for review. A release from the UST systems could have negatively impacted the subject property via soil, groundwater and /or vapor migration.

- The subject property was identified in the Historical Auto Station database with the subject property historically occupied by Badger Auto Service Company Garage (777 N. Broadway) in 1935, 1941, 1947, 1952, 1958 and 1965 and Central Cadillac Company Auto (783 N. Broadway) in 1947. Additionally, a review of city directories and Sanborn Fire Insurance maps indicated that the subject property was historically utilized for printing operations. A release from historical operations (printing & automobile repair) could have negatively impacted the subject property via soil, groundwater and/or vapor.

- A review of Sanborn Fire Insurance maps indicated that two 280-gallon gasoline tanks were buried in the alley between the subject property parcels (1910 map) and three gasoline tanks were located on the western side of the subject property (1951 map). No further information regarding the tank systems was available for review. A release from the historical tank systems could have negatively impacted the subject property via soil, groundwater and/or vapor.

- During a site visit conducted by Sigma, a hydraulic lift was observed in the executive garage. The lift is no longer in service. The hydraulic fluid was removed from the lift in 2015; however, a release from historical operations could have negatively impacted the subject property via soil, groundwater and/or vapor.

- The sidewalk adjoining the subject property and the drive-up banking area were heated with a glycol based heating system. A release from the system could have negatively impacted the subject property via soil or groundwater

Additionally, RECs associated with off-site properties were identified during the preparation of the Phase I ESA. The RECs are as follows:

- A review of historical records indicated that 32 potential cleaner sites and 35 potential auto station sites were historically located within a 0.125-mile radius of the subject property. Based on the relative distance between the reported sites and the subject property, a release from off-site dry cleaning operations and/or off-site gas/service station operations could have negatively impacted the subject property via contaminated soil, groundwater and/or vapor migration.

PHASE II ESA SUMMARY

Sigma performed Phase II subsurface investigation activities, which included the collection of soil and groundwater samples to evaluate the current site conditions as they relate to the RECs identified during the Phase I ESA. The activities completed and presented below were limited to the Site (refer to **Figure 2**).

Soil Borings - On January 30, 2017, Sigma completed eight soil borings within the executive garage area. The soil borings were designated TW-1, SB-2, TW-3, SB-4, SB-6, SB-6, TW-7, and TW-8. Additionally, between April 13 and 14, 2017, Sigma completed eleven soil borings within the auto-banking area and lower basement level of the Site. The soil borings were designated SB-2-1, SB-2-2, SB-2-3, SB-2-4, SB-2-5, SB-2-6, SB-2-7, SB-2-9, SB-2-10, SB-2-11, and SB-2-12. One soil boring, SB-2-8, was proposed within the southern half of the basement level area however limited accessibility prevented drilling in this area. Therefore, soil boring SB-2-8 was not attempted. The approximate property boundaries and limits of investigation are illustrated on the attached **Figure 2**. Please note the soil boring locations were not surveyed and are approximate locations based on field measurements.

Soil borings within the executive garage and auto-banking areas were advanced to an approximate maximum depth of 8 to 12 feet below ground surface (bgs) using a hydraulic direct-push powered Geoprobe soil sampling apparatus. The lower basement level sub-slab soil borings were completed with hand-held drilling equipment and Geoprobe sampling rods. Single-use disposable acetate liners were placed in each sample spoon and used to extract a soil sample from the soil boring. The spoons were advanced to the select boring termination depth. The spoons were retrieved from the soil borings, the acetate liners were extracted from the spoons, and the liners cut open to allow the removal of the soil samples. Soil samples were collected continuously from the ground surface to the boring termination depth. Soil samples were described on the basis of grain size, color, stiffness or density, and other relevant characteristics, and classified in general accordance with the Unified Soil Classification System (USCS). All soil samples collected from the soil borings were field screened by visual and olfactory observations and by a calibrated photoionization detector (PID) to semi-qualitatively asses the presence of volatile organic compounds (VOCs). The PID field screening results were recorded on the soil boring logs. Open boreholes with no intended further use were abandoned with chipped bentonite and resurfaced with concrete to match the existing garage floor slab. A copy of the soil boring logs and borehole abandonment forms are provided in **Appendix A**.

A total of sixteen soil samples were collected from the executive garage area and placed in appropriate containers provided by the laboratory. The soil samples were submitted to Synergy Environmental Lab, Inc. (Synergy), located in Appleton, Wisconsin (Wisconsin lab certification #445037560) under a chain of custody form for analysis of volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), lead or Resource Conservation and Recovery Act (RCRA) metals, and three samples for polychlorinated biphenyls (PCBs). A total of twelve soil samples were collected from the basement level (7) and auto-banking (5) areas and placed in appropriate containers provided by the laboratory. The soil samples were submitted to Synergy and ALS Environmental Lab (Wisconsin lab certification #399084510) under a chain of custody form for analysis of VOCs, PAHs, lead or RCRA metals, and / or ethylene glycol (four samples from auto-banking area).

Groundwater Assessment – Following the completion of soil borings TW-1, TW-3, TW-7, and TW-8, Sigma converted the boreholes into temporary wells for the collection of groundwater samples for laboratory analysis. Note, a well screen was inserted into soil boring SB-5 for the collection of a groundwater sample, however the screen was immediately removed after sampling and SB-5 was subsequently abandoned. The groundwater samples were submitted to Synergy under a chain of custody form for analysis of VOCs, dissolved lead and PCBs (TW-7 only). Well construction forms are included in **Appendix A**.

PHASE II ESA RESULTS

The results of the soil and groundwater analyses completed during the Phase II ESA activities are discussed below. Soil and groundwater laboratory analytical results generated during the Phase II ESA are presented on **Table 1** and **Table 2**, respectively. The soil and groundwater laboratory reports and chains of custody are provided in **Appendix B**.

Site Geology - The Site is covered by concrete floor slabs (indoor locations) or concrete pavement (outdoor locations), generally underlain by a layer of brown sandy gravel extending approximately 5.5 to 8 feet or more bgs or building floor slab. Beneath the layer of sand and gravel fill are layers of generally undisturbed greyish silty clay continuing to the termination depth of the soil borings. Sandy gravel fill was observed within the auto-banking area of the Site. Soil descriptions are presented on the soil boring logs provided in **Appendix A**.

Note that during the initial drilling attempt at soil boring location SB-2, an unknown subsurface impediment forced a refusal at 4 feet below the executive garage floor slab.

Site Hydrogeology - Based on the depth to groundwater measurements and field observations conducted during the soil and groundwater sampling activities, the depth to groundwater and / or saturated conditions ranges from approximately 2 to 6 feet below the executive garage floor slab. Temporary wells were not surveyed for elevation, however, shallow groundwater flow direction across the Site is expected to be west-southwest toward the Milwaukee River.

Field Screening Results and Observations - PID field screening results are found in the soil boring logs provided in **Appendix A**. Most soil PID readings for samples collected from the soil borings were typically below 2 PID units and considered site background. Two soil samples had PID readings above background, SB-2 (6 to 8 feet bgs) at 13.1 units and SB-5 (0 to 2 feet bgs) at 19.8 units.

Soil Laboratory Analytical Results – In general, soil samples collected for laboratory analysis were chosen from select depth intervals within the unsaturated zone and under the following parameters:

- Samples that displayed the highest PID reading, staining or unusual odors;
- Samples within the top four feet of the soil column; and/or
- Samples collected just above the shallow groundwater interface.

The depths at which soil samples were collected and submitted for laboratory analysis are presented below:

Executive Garage (January 30, 2017)

- TW-1: 0 to 2 feet bgs in sandy gravel fill material; PID 0.8
- TW-1: 4 to 6 feet bgs in sandy gravel fill material; PID 1.1
- SB-2: 2 to 4 feet bgs in sandy gravel fill material; PID 1.1
- SB-2: 6 to 8 feet bgs in native gray silty clay; PID 13.1
- TW-3: 0 to 2 feet bgs in sandy gravel fill material; PID 0.7
- TW-3: 2 to 4 feet bgs in sandy gravel fill material; PID 1.2
- SB-4: 0 to 2 feet bgs in sandy gravel fill material; PID 1.5
- SB-4: 4 to 6 feet bgs in sandy gravel fill material; PID 1.2
- SB-5: 0 to 2 feet bgs in sandy gravel fill material; PID 19.8
- SB-5: 2 to 4 feet bgs in sandy gravel fill material; PID 1.7
- SB-6: 2 to 4 feet bgs in sandy gravel fill material; PID 1.5
- SB-6: 6 to 8 feet bgs in sandy gravel fill material; PID 1.9
- TW-7: 0 to 2 feet bgs in sandy gravel fill material; PID 0.7
- TW-7: 2 to 4 feet bgs in sandy gravel fill material; PID 0.9
- TW-8: 0 to 2 feet bgs in sandy gravel fill material; PID 0.9
- TW-8: 2 to 4 feet bgs in sandy gravel fill material; PID 0.6

Basement Level and Auto-Banking Areas (April 13-14, 2017)

- SB-2-1: 4 to 6 feet bgs in sandy gravel fill material; PID 0.0
- SB-2-2: 5 to 7 feet bgs in silty clay material; PID 0.0
- SB-2-3: 5 to 7 feet bgs in silty clay material; PID 0.0
- SB-2-4: 4 to 6 feet bgs in sandy gravel fill material; PID 0.0
- SB-2-5: 4 to 6 feet bgs in sandy gravel fill material; PID 0.0
- SB-2-6: 5 to 7 feet bgs in sandy gravel fill material; PID 0.0
- SB-2-7: 2 to 4 feet bgs in sandy gravel fill material; PID 0.0
- SB-2-9: 2 to 4 feet bgs in silty sand fill material; PID 0.1
- SB-2-10: 2 to 4 feet bgs in silty sand fill material; PID 0.1
- SB-2-11: 2 to 4 feet bgs in silty sand fill material; PID 0.1
- SB-2-12: 2 to 4 feet bgs in silty sand fill material; PID 0.1
- COMP-OUTDOOR: composite soil sample – soil collected from 2 to 8 feet bgs in silty sand fill material across the auto-banking area; PID 0.1

Executive Garage Soil Quality Results

The VOCs 1,2,4-trimethylbenzene and xylenes (total) were detected at concentrations greater than the laboratory limit of detection (LOD) within a shallow soil sample in the area of SB-5 (0 to 2 feet bgs), located within the south central portion of the executive garage.

PAHs including benzo(a)anthracene, chrysene, fluoranthene, 1-methylnaphthalene, 2-methylnaphthalene, phenanthrene, and pyrene were detected above the laboratory LODs in soil samples SB-2 (6 to 8 feet bgs) and / or SB-5 (0 to 2 feet bgs), located within the north central and south central areas of the executive garage, respectively.

Soil samples TW-1 (4 to 6 feet bgs, located in the northwest corner of the executive garage), SB-5 (2 to 4 feet bgs, located in the south central area of the executive garage) and TW-8 (2 to 4 feet bgs, located in the southeast corner of the executive garage) were analyzed for RCRA metals whereas the rest of the soil samples were only analyzed for

lead. All three soil samples analyzed for RCRA metals contained concentrations of arsenic greater than the Wisconsin Department of Natural Resources (WDNR) Ch. NR 720 non-industrial direct contact (Direct Contact) residual contaminant level (RCL). Soil sample TW-1 (4 to 6 feet bgs), located in the northwest corner of the executive garage, contained arsenic at an elevated concentration of 60.6 mg/kg. The same soil sample also contained concentrations of cadmium, lead, selenium, and silver greater than their respective WDNR NR 720 RCLs for protection of groundwater (Groundwater Pathway RCLs).

Soil samples SB-6 (2 to 4 and 6 to 8 feet bgs) and TW-7 (2 to 4 feet bgs) were analyzed for PCBs. No PCBs were present at concentrations greater than the laboratory LODs.

Basement Level and Auto-Banking Area Soil Quality Results
No VOCs were detected within the soil samples collected from the basement level or auto-banking drive areas of the Site.

Soil sample SB-2-1 (4 to 6 feet bgs), located on the west end of the subgrade basement, contained a concentration of the PAH fluoranthene reported above the laboratory LOD. Soil sample SB-2-5 (4 to 6 feet bgs), located in the northeast area of the subgrade basement, contained a concentration of the PAH benzo(a)anthracene reported above the laboratory LOD.

PAHs including anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene were detected above the laboratory LODs in soil sample COMP-OUTDOOR, which was a composite soil sample collected from soil boring locations SB-2-9, SB-2-10, SB-2-11, and SB-2-12 located within the auto banking area on the west side of the Site.

Concentrations of arsenic, barium, chromium, and lead were detected within sub-slab soil samples collected from the basement level area of the Site. Similar concentrations of these RCRA metals were detected within the COMP-OUTDOOR soil sample collected from the auto-banking area, with the exception of lead. The reported lead concentration detected within soil sample COMP-OUTDOOR was above the Groundwater Pathway RCL. Concentrations of cadmium, mercury and silver were also detected within soil sample COMP-OUTDOOR.

Ethylene glycol was not detected within the soil samples collected from the auto-banking area of the Site.

The laboratory analytical results for soil samples collected at the Site are summarized on **Table 1** and the soil laboratory reports and COCs are available in **Appendix B**.

Groundwater Laboratory Analytical Results – A total of five groundwater grab samples were collected at the Site from temporary wells TW-1, TW-3, TW-7, and TW-8, and soil boring SB-5. The samples were submitted for laboratory analysis of VOCs, dissolved lead (excluding SB-5), and PCBs (TW-7 only). One VOC constituent, p-isopropyltoluene, was detected within groundwater sample TW-3.

None of the groundwater samples submitted for laboratory analysis of dissolved lead and / or PCBs reported concentrations greater than laboratory LODs.

The laboratory analytical results for groundwater samples collected at the Site are summarized on **Table 2** and the groundwater laboratory report and COC are available in **Appendix B**.

CONCLUSIONS

Based on the information collected by Sigma during the completion of Phase II activities, the following conclusions are presented:

- Sub-slab soil at the Site is generally composed of silty sand and gravel fill material underlain by native silty clay.

- Shallow groundwater is present at depths ranging from approximately 2 to 6 feet below the executive garage floor slab. Shallow groundwater was not encountered during drilling activities within the auto-banking area (higher relative surface elevation).

- The interior sub-slab and auto-banking area soils across the Site do not appear to be impacted with VOCs, PAHs, PCBs and / or ethylene glycol at levels greater than laboratory detection limits or applicable WDNR RCLs. RCRA metals soil impacts were identified at soil boring location TW-1 (4 to 6 feet bgs) including an elevated arsenic concentration, and lead was detected within soil sample COMP-OUTDOOR at a concentration greater than the Groundwater Pathway RCL.

  The RCRA metals impacts reported in soil at location TW-1 (4 to 6 feet bgs) may pose a risk to human health or the environment. Additional site investigation activities may be required to verify and / or adequately define the degree and extent of the identified RCRA metals contamination.

  Based on the soil analytical results for soil sample COMP-OUTDOOR, soil impacted with lead concentrations greater than the Groundwater Pathway RCL appears to be present within the outdoor auto-banking area of the Site.

- Soil contamination identified in the above noted areas of the Site may be associated with reworked subgrade soils consisting of gravelly sand fill. The origin(s) of the fill appears to be generally undocumented, but placement at the Site likely predates the 1960s and existing structures. Historic construction / demolition debris (e.g. brick / asphalt fragments) may also be present within the reworked subgrade soils at the Site and could have contributed to the PAH and metals concentrations reported in select soil samples. Historic debris is commonly present in subgrade soils and fill ubiquitous throughout areas of downtown Milwaukee. Information available in the *Phase I ESA* report indicates occupancy of the Site dating back to 1894 with various redevelopments of the property since that time. The contaminated subgrade material observed at the Site was likely impacted and / or placed or reworked during the numerous redevelopments of the Site, prior to construction of the existing parking

structure and office building. Operations associated with historic site occupancy (Phase I ESA) may have also contributed to the identified impacts.

- The results of groundwater samples collected from temporary wells at the Site indicate that the groundwater does not appear to be impacted by VOCs, dissolved lead, or PCBs.

LIMITATIONS OF INVESTIGATION

This report was prepared under the constraint of cost, time, and scope of work, and reflects an assessment and evaluation that is based on data collected from potential areas of concern at the time of the evaluation. Our assessment was performed using the degree of care and skill ordinarily exercised, under similar circumstances, by professional consultants practicing in this or similar localities. No other warranty or guarantee, expressed or implied, is made as the conclusions and professional advice included in this report.

The findings of this report are valid as of the present date of the assessment. However, changes in the conditions of a property can occur with the passage of time, whether due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation, from the broadening of knowledge, or from other reasons. Accordingly, the findings of this report may be invalid wholly or partially by changes outside our control.

A subsurface exploration was performed and is presented in this report. However, subsurface exploration cannot totally reveal what is below the surface. Depending upon the sampling method and frequency, every soil condition may not be observed, and some materials or layers, which are present in the subsurface, may not be noted.
This report is issued with understanding that it is the responsibility of the owner(s) to ensure that the information and recommendations contained herein are brought to the attention of the appropriate regulatory agency(ies), if warranted.

CLOSING

If you have any questions or comments regarding the completed activities, please feel free to call us at (414) 643-4200.

Sincerely,

THE SIGMA GROUP, INC.

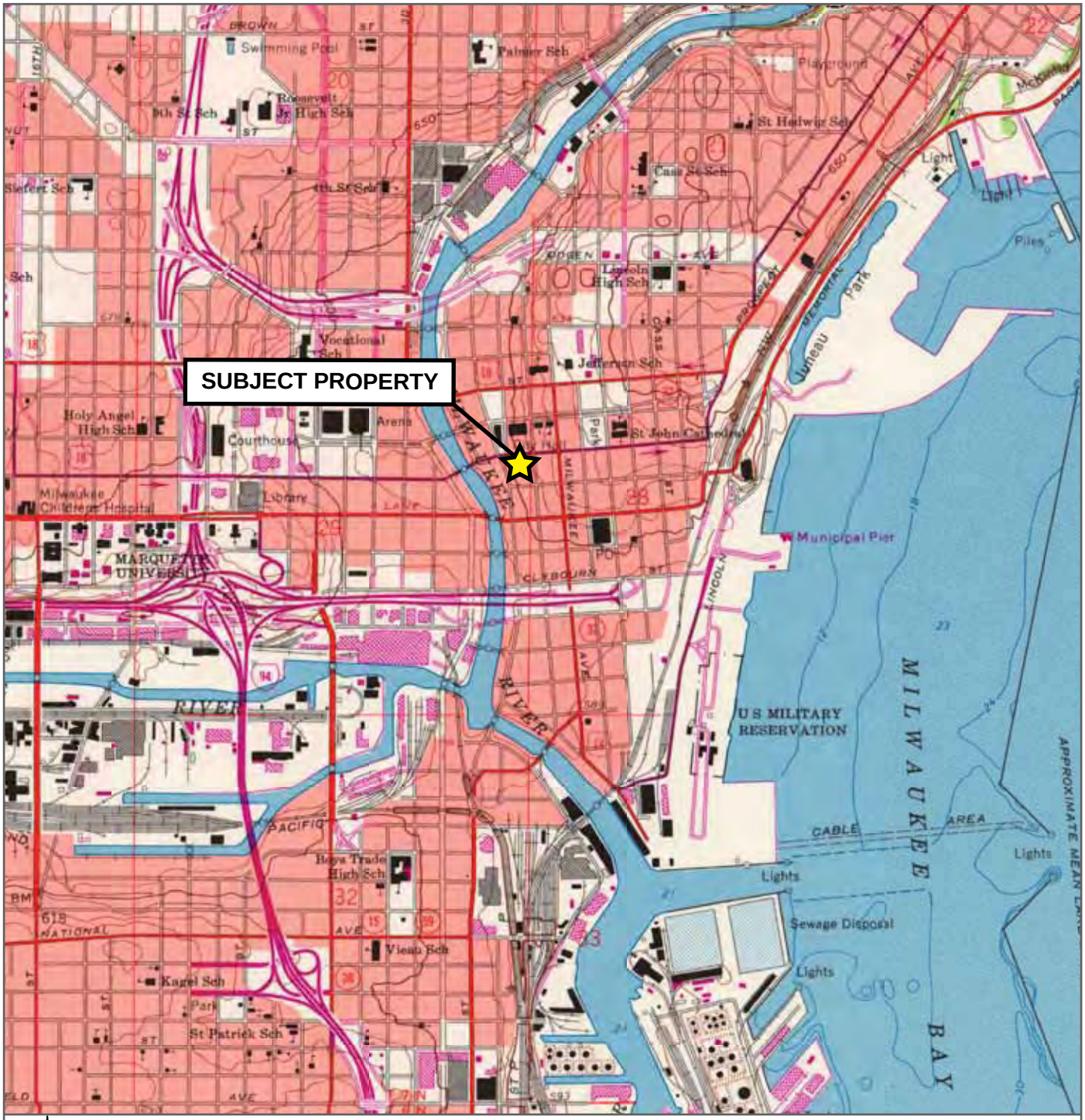
Cory Katzban, E.I.T.
Staff Engineer

Joshua Neudorfer
Senior Project Manager

Randy E. Boness, P.G.
Manager-Geosciences

Cc: Tim Gasperetti – Irgens Development (email via: TGasperetti@irgens.com)
John Ford – Irgens Development (email via: JFord@irgens.com)
Leah Ziemba – Michael Best & Friedrich (email via: lhziemba@michaelbest.com)

FIGURES



N

0 2,000 ft. 4,000 ft.

GRAPHIC SCALE

Located in the SE 1/4 of the NW 1/4 of Section 29, T07N, R22E
USGS Milwaukee Quadrangle (1958, photorevised 1971)
7.5 minute, 1 : 24,000 Topographic Map Collection

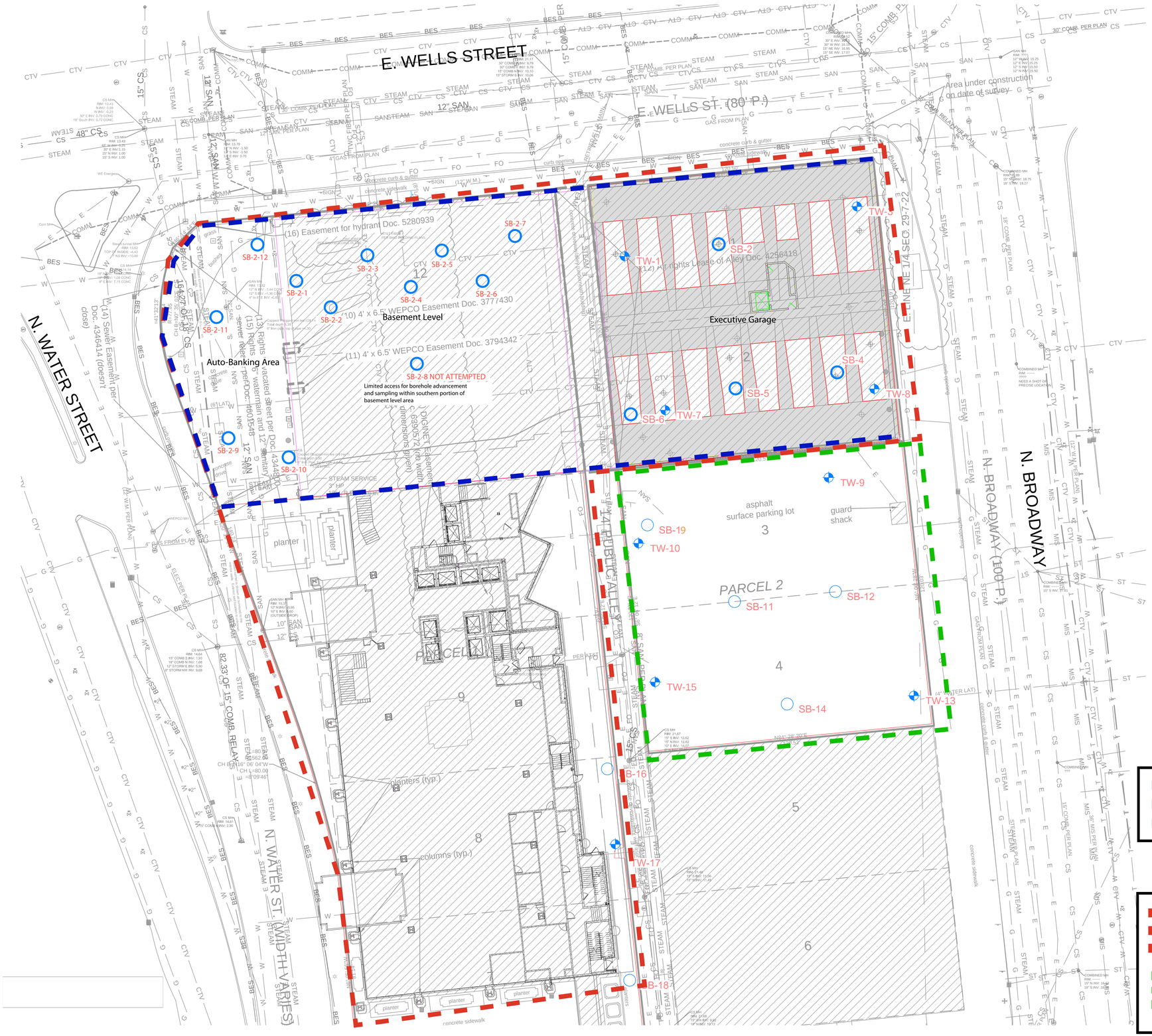
THE SIGMA GROUP
Single Source. Sound Solutions.

SITE LOCATION MAP

778 N WATER STREET
MILWAUKEE, WISCONSIN

FIGURE
1

Project : 16722 | Directory: CAD | Filename: Figure 1 Site Location Map | Created By: SVK | Date: 02/16/2017



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LEGEND:

- TW — SOIL BOREHOLE / TEMP WELL
- SB — SOIL BOREHOLE

LOCATIONS APPROXIMATE BASED ON FIELD MEASUREMENTS

GRAPHIC SCALE
0 20' 40'

SOIL BORING TABLE - DETAILS
Phase II ESA - North New Construction
Irgens-BMO Downtown
Sigma Project No. 16722

BOREHOLE DETAILS			
BORING	**COMPLETED DEPTH**	**DIAMETER**	**Notes**
TW-1	8 ft	6" Core, 2.25" Borehole	No Fill. No Refusal
SB-2	8 ft	3" Core, 2.25" Borehole	No Fill. No Refusal
TW-3	8 ft	6" Core, 2.25" Borehole	No Fill. No Refusal
SB-4	8 ft	3" Core, 2.25" Borehole	No Fill. No Refusal
SB-5	8 ft	3" Core, 2.25" Borehole	No Fill. No Refusal
SB-6	12 ft	3" Core, 2.25" Borehole	No Fill. No Refusal
TW-7	8 ft	6" Core, 2.25" Borehole	No Fill. No Refusal
TW-8	8 ft	6" Core, 2.25" Borehole	No Fill. No Refusal
SB-2-1	8 ft	2" Core, 1.25" Borehole	Sand & Gravel Fill / Silty Clay
SB-2-2	8 ft	2" Core, 1.25" Borehole	Sand & Gravel Fill / Silty Clay
SB-2-3	8 ft	2" Core, 1.25" Borehole	Sand & Gravel Fill / Silty Clay
SB-2-4	8 ft	2" Core, 1.25" Borehole	Sand & Gravel Fill / Silty Clay
SB-2-5	8 ft	2" Core, 1.25" Borehole	Sand & Gravel Fill / Silty Clay
SB-2-6	8 ft	2" Core, 1.25" Borehole	Sand & Gravel Fill / Silty Clay
SB-2-7	8 ft	2" Core, 1.25" Borehole	Sand & Gravel Fill / Silty Clay
SB-2-8	NA	NA	Area Not Accessible
SB-2-9	8 ft	2.25" Borehole	Sand & Gravel Fill
SB-2-10	12 ft	2.25" Borehole	Sand & Gravel Fill
SB-2-11	8 ft	2.25" Borehole	Sand & Gravel Fill
SB-2-12	8 ft	2.25" Borehole	Sand & Gravel Fill

Limits of Phase II ESA Investigation - North

778 N Water Street Property

769 N Broadway Street Property

BMO TOWER
MILWAUKEE, WISCONSIN

Site Plan Map - Phase II ESA North New Construction

NO.	REVISION	DATE	BY
2.	Site Plan Map Update	5-8-2017	
2.	REVISED BORING LOCATION	1-12-2017	
1.	REVISED BORING LOCATION	1-6-2017	

DRAWING NO.	Sigma Boring Fig.dwg
DRAWN BY:	PRF/CCK (Site Plan Map Update)
DATE:	12/22/16
PROJECT NO:	- - -
CHECKED BY:	- - -
APPROVED BY:	
FIGURE NO.:	2

TABLES

Table 1
Soil Analytical Results
WWB Development LLC - BMO Site - 778 N Water Street & 769 N. Broadway Street, Milwaukee, Wisconsin
Sigma Project No. 16722

Soil Sample Location:		TW-1		SB-2		TW-3		SB-4		SB-5		SB-6		TW-7		TW-8		Groundwater Pathway RCL [4]	Non-Industrial Direct Contact RCL [5]	Industrial Direct Contact RCL [6]	Background Threshold Value [7]
Sample Depth (feet bgs):		0 - 2	4 - 6	2 - 4	6 - 8	0 - 2	2 - 4	0 - 2	4 - 6	0 - 2	2 - 4	2 - 4	6 - 8	0 - 2	2 - 4	0 - 2	2 - 4				
Sample Collection Date:		1/30/17																			
Depth to Groundwater (feet bgs):		5		4.5+/-		3		2+/-		4		6.5+/-		6.5		0-1					
Unsaturated/Smear Zone (U) or Saturated (S):		U	U	U	S	U	U/S	U	S	U	U	U	U/S	U	U	U/S	S				
Organic Vapor Monitor	ppm	0.8	1.1	1.1	13.1	0.7	1.2	1.5	1.2	19.8	1.7	1.5	1.9	0.7	09	0.9	0.6	NS	NS	NS	NS
Detected VOCs																					
1,2,4-Trimethylbenzene	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	**0.083**	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	1.3821	219	219	NS
Xylenes (total)	mg/kg	<0.116	<0.116	<0.116	<0.116	<0.116	<0.116	<0.116	<0.116	**0.102 J**	<0.116	<0.116	<0.116	<0.116	<0.116	<0.116	<0.116	3.96	260	260	NS
PAHs																					
Acenaphthene	mg/kg	<0.0135	<0.0135	<0.0135	<0.0135	<0.0135	<0.0135	<0.0135	<0.0135	<0.0135	<0.0135	<0.0135	<0.0135	<0.0135	<0.0135	<0.0135	<0.0135	NS	3,590	45,200	NS
Acenaphthylene	mg/kg	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	NS	NS	NS	NS
Anthracene	mg/kg	<0.0124	<0.0124	<0.0124	<0.0124	<0.0124	<0.0124	<0.0124	<0.0124	<0.0124	<0.0124	<0.0124	<0.0124	<0.0124	<0.0124	<0.0124	<0.0124	196.9492	17,900	100,000	NS
Benzo(a)anthracene	mg/kg	<0.0116	<0.0116	<0.0116	<0.0116	<0.0116	<0.0116	<0.0116	<0.0116	**0.0118 J**	<0.0116	<0.0116	<0.0116	<0.0116	<0.0116	<0.0116	<0.0116	NS	1.14	20.8	NS
Benzo(a)pyrene	mg/kg	<0.0113	<0.0113	<0.0113	<0.0113	<0.0113	<0.0113	<0.0113	<0.0113	<0.0113	<0.0113	<0.0113	<0.0113	<0.0113	<0.0113	<0.0113	<0.0113	0.47	0.115	2.11	NS
Benzo(b)fluoranthene	mg/kg	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	0.4793	1.15	21.1	NS
Benzo(ghi)perylene	mg/kg	<0.0114	<0.0114	<0.0114	<0.0114	<0.0114	<0.0114	<0.0114	<0.0114	<0.0114	<0.0114	<0.0114	<0.0114	<0.0114	<0.0114	<0.0114	<0.0114	NS	NS	NS	NS
Benzo(k)fluoranthene	mg/kg	<0.0117	<0.0117	<0.0117	<0.0117	<0.0117	<0.0117	<0.0117	<0.0117	<0.0117	<0.0117	<0.0117	<0.0117	<0.0117	<0.0117	<0.0117	<0.0117	NS	11.5	211	NS
Chrysene	mg/kg	<0.0138	<0.0138	<0.0138	<0.0138	<0.0138	<0.0138	<0.0138	<0.0138	**0.015 J**	<0.0138	<0.0138	<0.0138	<0.0138	<0.0138	<0.0138	<0.0138	0.1446	115	2,110	NS
Dibenzo(a,h)anthracene	mg/kg	<0.0142	<0.0142	<0.0142	<0.0142	<0.0142	<0.0142	<0.0142	<0.0142	<0.0142	<0.0142	<0.0142	<0.0142	<0.0142	<0.0142	<0.0142	<0.0142	NS	0.115	2.11	NS
Fluoranthene	mg/kg	<0.0131	<0.0131	<0.0131	<0.0131	<0.0131	<0.0131	<0.0131	<0.0131	**0.0273 J**	<0.0131	<0.0131	<0.0131	<0.0131	<0.0131	<0.0131	<0.0131	88.8778	2,390	30,100	NS
Fluorene	mg/kg	<0.0135	<0.0135	<0.0135	<0.0135	<0.0135	<0.0135	<0.0135	<0.0135	<0.0135	<0.0135	<0.0135	<0.0135	<0.0135	<0.0135	<0.0135	<0.0135	14.8299	2,390	30,100	NS
Indeno(1,2,3-cd)pyrene	mg/kg	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	NS	1.15	21.1	NS
1-Methylnaphthalene	mg/kg	<0.0143	<0.0143	<0.0143	**0.0211 J**	<0.0143	<0.0143	<0.0143	<0.0143	**0.017 J**	<0.0143	<0.0143	<0.0143	<0.0143	<0.0143	<0.0143	<0.0143	NS	17.6	72.7	NS
2-Methylnaphthalene	mg/kg	<0.0119	<0.0119	<0.0119	<0.0119	<0.0119	<0.0119	<0.0119	<0.0119	**0.0148 J**	<0.0119	<0.0119	<0.0119	<0.0119	<0.0119	<0.0119	<0.0119	NS	239	3,010	NS
Naphthalene	mg/kg	<0.0122	<0.0122	<0.0122	<0.0122	<0.0122	<0.0122	<0.0122	<0.0122	<0.0122	<0.0122	<0.0122	<0.0122	<0.0122	<0.0122	<0.0122	<0.0122	0.6582	5.52	24.1	NS
Phenanthrene	mg/kg	<0.0109	<0.0109	<0.0109	**0.0128 J**	<0.0109	<0.0109	<0.0109	<0.0109	**0.0168 J**	<0.0109	<0.0109	<0.0109	<0.0109	<0.0109	<0.0109	<0.0109	NS	NS	NS	NS
Pyrene	mg/kg	<0.0126	<0.0126	<0.0126	<0.0126	<0.0126	<0.0126	<0.0126	<0.0126	**0.0245 J**	<0.0126	<0.0126	<0.0126	<0.0126	<0.0126	<0.0126	<0.0126	54.5455	1,790	22,600	NS
RCRA Metals																					
Arsenic	mg/kg	NA	{[60.6]}	NA	NA	NA	NA	NA	NA	NA	{[3.91]}	NA	NA	NA	NA	NA	{[3.08]}	0.584	0.677	3	8
Barium	mg/kg	NA	**132**	NA	NA	NA	NA	NA	NA	NA	**21.8**	NA	NA	NA	NA	NA	**15.8**	164.8	15,300	100,000	364
Cadmium	mg/kg	NA	**1.33**	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	NA	NA	NA	NA	<0.02	0.752	71.1	985	1
Chromium	mg/kg	NA	**20.7**	NA	NA	NA	NA	NA	NA	NA	**8.21**	NA	NA	NA	NA	NA	**7.22**	360,000	NS	NS	44
Lead	mg/kg	**5.22**	**65.5**	**3.45**	**8.83**	**3.69**	**3.82**	**3.64**	**4.67**	**1.3**	**9.45**	**4.62**	**6.04**	**4.8**	**2.14**	**3.52**	**4.86**	27	400	800	52
Mercury	mg/kg	NA	<0.0131	NA	NA	NA	NA	NA	NA	NA	<0.0131	NA	NA	NA	NA	NA	<0.0131	0.208	3.13	3.13	NS
Selenium	mg/kg	NA	**54**	NA	NA	NA	NA	NA	NA	NA	<0.52	NA	NA	NA	NA	NA	<0.52	0.52	391	5,840	NS
Silver	mg/kg	NA	**15.2**	NA	NA	NA	NA	NA	NA	NA	<0.57	NA	NA	NA	NA	NA	<0.57	0.8491	391	5,840	NS
PCBs																					
PCB-1016	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0035	<0.0035	NA	<0.0035	NA	NA	0.0094	4.11	28	NS
PCB-1221	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0054	<0.0054	NA	<0.0054	NA	NA	0.0094	0.213	0.883	NS
PCB-1232	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0042	<0.0042	NA	<0.0042	NA	NA	0.0094	0.19	0.792	NS
PCB-1242	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0032	<0.0032	NA	<0.0032	NA	NA	0.0094	0.235	0.972	NS
PCB-1248	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0032	<0.0032	NA	<0.0032	NA	NA	0.0094	0.236	0.975	NS
PCB-1254	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0047	<0.0047	NA	<0.0047	NA	NA	0.0094	0.239	0.988	NS
PCB-1260	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0049	<0.0049	NA	<0.0049	NA	NA	0.0094	0.243	1	NS

Notes:
1. Unsaturated/smear zone versus satured soil conditions based on: (1) measured water levels in adjacent/nearby monitoring wells, or (2) soil moisture conditions recorded on soil boring logs during drilling.
2. Analytical units: mg/kg = milligrams per kilogram (equivalent to parts per million, ppm)
3. NA = not analyzed

4. Groundwater Pathway RCL = Residual Contaminant Level for protection of groundwater as presented on the WDNR's RCL Spreadsheet (dated May 2017) referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 2014
5. Non-Industrial Direct Contact RCL = Residual Contaminant Level for protection of direct contact at a non-industrial property as presented on the WDNR's RCL Spreadsheet (dated May 2017) with default input parameters as referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 2014
6. Industrial Direct Contact RCL = Residual Contaminant Level for protection of direct contact at an industrial property as presented on the WDNR's RCL Spreadsheet (dated May 2017) with default input parameters as referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 2014
7. Background Threshold Value = Non-outlier trace element maximum levels in Wisconsin surface soils from USGS report "Distribution and Variation of Arsenic in Wisconsin Surface Soils, With Data on Other Trace Elements" (revised February 2013).
8. NS = no standard established
9. Laboratory flags: "J" = Analyte detected between Limit of Detection and Limit of Quantitation
10. Exceedances:
    BOLD = Concentration exceeds Groundwater Pathway RCL
    [ ] = Concentration exceeds Non-Industrial Direct Contact RCL (any depth)
    { } = Concentration exceeds Industrial Direct Contact RCL (any depth)
    BOLD = Detected compound

Table 1 (cont'd)
Soil Analytical Results
WWB Development LLC - BMO Site - 770 N Water Street Basement and Outdoor, Milwaukee, Wisconsin
Sigma Project No. 16722

Soil Sample Location:		SB-2-1	SB-2-2	SB-2-3	SB-2-4	SB-2-5	SB-2-6	SB-2-7	COMP OUTDOOR	Groundwater Pathway RCL [4]	Non-Industrial Direct Contact RCL [5]	Industrial Direct Contact RCL [6]	Background Threshold Value [7]
Sample Depth (feet bgs):		4-6	5-7	5-7	4-6	4-6	5-7	2-4	~2-8				
Sample Collection Date:		4/14/17							4/13/17				
Depth to Groundwater (feet bgs):		NA											
Unsaturated/Smear Zone (U) or Saturated (S):		U	U	U	U	U	U	U	U				
Organic Vapor Monitor	ppm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	NS	NS	NS	NS
Detected VOCs		**Not Detected**											
PAHs													
Acenaphthene	mg/kg	<0.0151	<0.0151	<0.0151	<0.0151	<0.0151	<0.0151	<0.0151	<0.0151	NS	3,590	45,200	NS
Acenaphthylene	mg/kg	<0.0159	<0.0159	<0.0159	<0.0159	<0.0159	<0.0159	<0.0159	<0.0159	NS	NS	NS	NS
Anthracene	mg/kg	<0.0109	<0.0109	<0.0109	<0.0109	<0.0109	<0.0109	<0.0109	**0.0151 J**	196.9492	17,900	100,000	NS
Benzo(a)anthracene	mg/kg	<0.0116	<0.0116	<0.0116	<0.0116	**0.0145 J**	<0.0116	<0.0116	**0.05**	NS	1.14	20.8	NS
Benzo(a)pyrene	mg/kg	<0.0113	<0.0113	<0.0113	<0.0113	<0.0113	<0.0113	<0.0113	**0.055**	0.47	0.115	2.11	NS
Benzo(b)fluoranthene	mg/kg	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	**0.117**	0.4793	1.15	21.1	NS
Benzo(ghi)perylene	mg/kg	<0.0114	<0.0114	<0.0114	<0.0114	<0.0114	<0.0114	<0.0114	**0.054**	NS	NS	NS	NS
Benzo(k)fluoranthene	mg/kg	<0.0147	<0.0147	<0.0147	<0.0147	<0.0147	<0.0147	<0.0147	**0.108**	NS	11.5	211	NS
Chrysene	mg/kg	<0.0121	<0.0121	<0.0121	<0.0121	<0.0121	<0.0121	<0.0121	**0.056**	0.1446	115	2,110	NS
Dibenzo(a,h)anthracene	mg/kg	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	NS	0.115	2.11	NS
Fluoranthene	mg/kg	**0.0197 J**	<0.0147	<0.0147	<0.0147	<0.0147	<0.0147	<0.0147	**0.114**	88.8778	2,390	30,100	NS
Fluorene	mg/kg	<0.0179	<0.0179	<0.0179	<0.0179	<0.0179	<0.0179	<0.0179	<0.0179	14.8299	2,390	30,100	NS
Indeno(1,2,3-cd)pyrene	mg/kg	<0.0114	<0.0114	<0.0114	<0.0114	<0.0114	<0.0114	<0.0114	**0.051**	NS	1.15	21.1	NS
1-Methylnaphthalene	mg/kg	<0.0203	<0.0203	<0.0203	<0.0203	<0.0203	<0.0203	<0.0203	<0.0203	NS	17.6	72.7	NS
2-Methylnaphthalene	mg/kg	<0.0113	<0.0113	<0.0113	<0.0113	<0.0113	<0.0113	<0.0113	<0.0113	NS	239	3,010	NS
Naphthalene	mg/kg	<0.0153	<0.0153	<0.0153	<0.0153	<0.0153	<0.0153	<0.0153	<0.0153	0.6582	5.52	24.1	NS
Phenanthrene	mg/kg	<0.0111	<0.0111	<0.0111	<0.0111	<0.0111	<0.0111	<0.0111	**0.056**	NS	NS	NS	NS
Pyrene	mg/kg	<0.0153	<0.0153	<0.0153	<0.0153	<0.0153	<0.0153	<0.0153	**0.097**	54.5455	1,790	22,600	NS
RCRA Metals													
Arsenic	mg/kg	**[1.97]**	NA	NA	**[2.65]**	**[2.43]**	NA	NA	**{[3.4]}**	0.584	0.677	3	8
Barium	mg/kg	**50.0**	NA	NA	**14.4**	**12.8**	NA	NA	**52**	164.8	15,300	100,000	364
Cadmium	mg/kg	<0.08	NA	NA	<0.08	<0.08	NA	NA	**0.070 J**	0.752	71.1	985	1
Chromium	mg/kg	**19.4**	NA	NA	**7.59**	**6.23**	NA	NA	**6.4**	360,000	NS	NS	44
Lead	mg/kg	**7.94**	**4.86**	**7.01**	**5.24**	**5.24**	**5.03**	**3.06**	**350**	27	400	800	52
Mercury	mg/kg	<0.019	NA	NA	<0.019	<0.019	NA	NA	**0.065**	0.208	3.13	3.13	NS
Selenium	mg/kg	<0.52	NA	NA	<0.52	<0.52	NA	NA	<0.51	0.52	391	5,840	NS
Silver	mg/kg	<0.57	NA	NA	<0.57	<0.57	NA	NA	**0.031 J**	0.8491	391	5,840	NS

Notes:
1. Unsaturated/smear zone versus satured soil conditions based on: (1) measured water levels in adjacent/nearby monitoring wells, or (2) soil moisture conditions recorded on soil boring logs during drilling.
2. Analytical units: mg/kg = milligrams per kilogram (equivalent to parts per million, ppm)
3. NA = not analyzed

4. Groundwater Pathway RCL = Residual Contaminant Level for protection of groundwater as presented on the WDNR's RCL Spreadsheet (dated May 2017) referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 2014

5. Non-Industrial Direct Contact RCL = Residual Contaminant Level for protection of direct contact at a non-industrial property as presented on the WDNR's RCL Spreadsheet (dated May 2017) with default input parameters as referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 2014

6. Industrial Direct Contact RCL = Residual Contaminant Level for protection of direct contact at an industrial property as presented on the WDNR's RCL Spreadsheet (dated May 2017) with default input parameters as referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 2014

7. Background Threshold Value = Non-outlier trace element maximum levels in Wisconsin surface soils from USGS report "Distribution and Variation of Arsenic in Wisconsin Surface Soils, With Data on Other Trace Elements" (revised February 2013).
8. NS = no standard established
9. Laboratory flags: "J" = Analyte detected between Limit of Detection and Limit of Quantitation
10. Exceedances:
BOLD = Concentration exceeds Groundwater Pathway RCL
[ ] = Concentration exceeds Non-Industrial Direct Contact RCL (any depth)
{ } = Concentration exceeds Industrial Direct Contact RCL (any depth)
BOLD = Detected compound
11. Comp outdoor = composite sample of soil collected from outdoor borings within auto-banking drive area

Table 1 (cont'd)
Soil Analytical Results
WWB Development LLC - BMO Site - 770 N Water Street Basement and Outdoor, Milwaukee, Wisconsin
Sigma Project No. 16722

Soil Sample Location:		SB-2-9	SB-2-10	SB-2-11	SB-2-12	Groundwater Pathway RCL [4]	Non-Industrial Direct Contact RCL [5]	Industrial Direct Contact RCL [6]	Background Threshold Value [7]
Sample Depth (feet bgs):		2-4	2-4	2-4	2-4				
Sample Collection Date:		4/13/17							
Unsaturated/Smear Zone (U) or Saturated (S):		U	U	U	U				
Organic Vapor Monitor	ppm	0.1	0.1	0.1	0.1	NS	NS	NS	NS
Organic Compounds									
Ethylene Glycol	mg/kg	<1.3	<1.3	<1.4	<1.3	2.8279	122,000	1,230,000	NS

Notes:

1. Unsaturated/smear zone versus satured soil conditions based on: (1) measured water levels in adjacent/nearby monitoring wells, or (2) soil moisture conditions recorded on soil boring logs during drilling.
2. Analytical units: mg/kg = milligrams per kilogram (equivalent to parts per million, ppm)
3. NA = not analyzed

4. Groundwater Pathway RCL = Residual Contaminant Level for protection of groundwater as presented on the WDNR's RCL Spreadsheet (dated May 2017) referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 2014

5. Non-Industrial Direct Contact RCL = Residual Contaminant Level for protection of direct contact at a non-industrial property as presented on the WDNR's RCL Spreadsheet (dated May 2017) with default input parameters as referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 2014

6. Industrial Direct Contact RCL = Residual Contaminant Level for protection of direct contact at an industrial property as presented on the WDNR's RCL Spreadsheet (dated May 2017) with default input parameters as referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 2014

7. Background Threshold Value = Non-outlier trace element maximum levels in Wisconsin surface soils from USGS report "Distribution and Variation of Arsenic in Wisconsin Surface Soils, With Data on Other Trace Elements" (revised February 2013).
8. NS = no standard established
9. Laboratory flags: "J" = Analyte detected between Limit of Detection and Limit of Quantitation
10. Exceedances:
    BOLD = Concentration exceeds Groundwater Pathway RCL
    [ ] = Concentration exceeds Non-Industrial Direct Contact RCL (any depth)
    { } = Concentration exceeds Industrial Direct Contact RCL (any depth)
    BOLD = Detected compound

Table 2
Groundwater Analytical Results

WWB Development LLC - BMO Site - 778 N Water Street & 769 N Broadway Street, Milwaukee, Wisconsin

Sigma Project No. 16722

Well Location:		TW-1	TW-3	SB-5	TW-7	TW-8	NR 140 ES	NR 140 PAL
Date:		1/30/17	1/30/17	1/30/17	1/30/17	1/30/17		
Water Elevation* (feet MSL):		NA	NA	NA	NA	NA		
VOCs								
Benzene	µg/L	<0.17	<0.17	<1.7	<1.7	<1.7	5	0.5
Ethylbenzene	µg/L	<0.2	<0.2	<2	<2	<2	700	140
Methyl-tert-butyl-ether	µg/L	<0.82	<0.82	<8.2	<8.2	<8.2	60	12
Toluene	µg/L	<0.67	<0.67	<6.7	<6.7	<6.7	800	160
1,2,4-Trimethylbenzene	µg/L	<1.14	<1.14	<11.4	<11.4	<11.4	NS	NS
1,3,5-Trimethylbenzene	µg/L	<0.91	<0.91	<9.1	<9.1	<9.1	NS	NS
Total Trimethylbenzene	µg/L	<2.05	<2.05	<20.5	<20.5	<20.5	480	96
Xylenes, Total	µg/L	<1.95	<1.95	<19.5	<19.5	<19.5	2,000	400
Bromobenzene	µg/L	<0.43	<0.43	<4.3	<4.3	<4.3	NS	NS
Bromodichloromethane	µg/L	<0.31	<0.31	<3.1	<3.1	<3.1	0.6	0.06
Bromoform	µg/L	<0.49	<0.49	<4.9	<4.9	<4.9	4.4	0.44
tert-Butylbenzene	µg/L	<0.39	<0.39	<3.9	<3.9	<3.9	NS	NS
sec-Butylbenzene	µg/L	<0.24	<0.24	<2.4	<2.4	<2.4	NS	NS
n-Butylbenzene	µg/L	<0.34	<0.34	<3.4	<3.4	<3.4	NS	NS
Carbon Tetrachloride	µg/L	<0.21	<0.21	<2.1	<2.1	<2.1	5	0.5
Chlorobenzene	µg/L	<0.27	<0.27	<2.7	<2.7	<2.7	NS	NS
Chloroethane	µg/L	<0.5	<0.5	<5	<5	<5	400	80
Chloroform	µg/L	<0.96	<0.96	<9.6	<9.6	<9.6	6	0.6
Chloromethane	µg/L	<0.13	<0.13	<13	<13	<13	30	3
2-Chlorotoluene	µg/L	<0.39	<0.39	<3.6	<3.6	<3.6	NS	NS
4-Chlorotoluene	µg/L	<0.35	<0.35	<3.5	<3.5	<3.5	NS	NS
1,2-Dibromo-3-Chloropropane	µg/L	<1.88	<1.88	<18.8	<18.8	<18.8	0.2	0.02
Dibromochloromethane	µg/L	<0.45	<0.45	<4.5	<4.5	<4.5	60	6
1,4-Dichlorobenzene	µg/L	<0.42	<0.42	<4.2	<4.2	<4.2	75	15
1,3-Dichlorobenzene	µg/L	<0.45	<0.45	<4.5	<4.5	<4.5	600	120
1,2-Dichlorobenzene	µg/L	<0.34	<0.34	<3.4	<3.4	<3.4	600	60
Dichlorodifluoromethane	µg/L	<0.38	<0.38	<3.8	<3.8	<3.8	1,000	200
1,2-Dichloroethane	µg/L	<0.45	<0.45	<4.5	<4.5	<4.5	5	0.5
1,1-Dichloroethane	µg/L	<0.42	<0.42	<4.2	<4.2	<4.2	850	85
1,1-Dichloroethene	µg/L	<0.46	<0.46	<4.6	<4.6	<4.6	7	0.7
cis-1,2-Dichloroethene	µg/L	<0.41	<0.41	<4.1	<4.1	<4.1	70	7
trans-1,2-Dichloroethene	µg/L	<0.35	<0.35	<3.5	<3.5	<3.5	100	20
1,2-Dichloropropane	µg/L	<0.39	<0.39	<3.9	<3.9	<3.9	5	0.5
2,2-Dichloropropane	µg/L	<0.47	<0.47	<4.7	<4.7	<4.7	NS	NS
1,3-Dichloropropane	µg/L	<0.49	<0.49	<4.9	<4.9	<4.9	NS	NS
Di-isopropyl ether	µg/L	<0.26	<0.26	<2.6	<2.6	<2.6	NS	NS
EDB (1,2-Dibromoethane)	µg/L	<0.34	<0.34	<3.4	<3.4	<3.4	0.05	0.005
Hexachlorobutadiene	µg/L	<1.47	<1.47	<14.7	<14.7	<14.7	NS	NS
Isopropylbenzene	µg/L	<0.29	<0.29	<2.9	<2.9	<2.9	NS	NS
p-Isopropyltoluene	µg/L	<0.28	**0.42 J**	<2.8	<2.8	<2.8	NS	NS
Methylene Chloride	µg/L	<0.94	<0.94	<9.4	<9.4	<9.4	5	0.5
Naphthalene	µg/L	<2.17	<2.17	<21.7	<21.7	<21.7	100	10
n-Propylbenzene	µg/L	<0.19	<0.19	<1.9	<1.9	<1.9	NS	NS
1,1,2,2-Tetrachloroethane	µg/L	<0.69	<0.69	<6.9	<6.9	<6.9	0.2	0.02
1,1,1,2-Tetrachloroethane	µg/L	<0.47	<0.47	<4.7	<4.7	<4.7	70	7
Tetrachloroethene	µg/L	<0.48	<0.48	<4.8	<4.8	<4.8	5	0.5
1,2,4-Trichlorobenzene	µg/L	<1.29	<1.29	<12.9	<12.9	<12.9	70	14
1,2,3-Trichlorobenzene	µg/L	<0.83	<0.83	<8.3	<8.3	<8.3	NS	NS
1,1,1-Trichloroethane	µg/L	<0.35	<0.35	<3.5	<3.5	<3.5	200	40
1,1,2-Trichloroethane	µg/L	<0.65	<0.65	<6.5	<6.5	<6.5	5	0.5
Trichloroethene (TCE)	µg/L	<0.45	<0.45	<4.5	<4.5	<4.5	5	0.5
Trichlorofluoromethane	µg/L	<0.64	<0.64	<6.4	<6.4	<6.4	3,490	698
Vinyl Chloride	µg/L	<0.19	<0.19	<1.9	<1.9	<1.9	0.2	0.02
Dissolved Metals								
Lead	µg/L	<0.8	<0.8	NA	<4	<0.8	15	1.5
PCBs								
PCB-1016	µg/L	NA	NA	NA	<0.1	NA	0.03	0.003
PCB-1221	µg/L	NA	NA	NA	<0.243	NA	0.03	0.003
PCB-1232	µg/L	NA	NA	NA	<0.14	NA	0.03	0.003
PCB-1242	µg/L	NA	NA	NA	<0.047	NA	0.03	0.003
PCB-1248	µg/L	NA	NA	NA	<0.086	NA	0.03	0.003
PCB-1254	µg/L	NA	NA	NA	<0.047	NA	0.03	0.003
PCB-1260	µg/L	NA	NA	NA	<0.12	NA	0.03	0.003

Notes:
1. NR 140 ES = Wisconsin Administrative Code, Chapter NR 140 Enforcement Standard
2. NR 140 PAL = Wisconsin Administrative Code, Chapter NR 140 Preventive Action Limit
3. NS = no standard
4. µg/L = micrograms per liter (equivalent to parts per billion, ppb)
5. NA = Not Analyzed

6. Laboratory flags: "J" = Analyte detected between Limit of Detection and Limit of Quantitation. Enter other flags as necessary
7. Trip blank results: 1/30/17: No trip blank submitted

8. Equipment blank results: 1/30/17: No equipmemt blank submitted

9. Exceedances: **BOLD** = Concentration exceeds NR 140 ES
ITALICS = Concentration exceeds NR 140 PAL

10. Special notes: * = monitoring well screen submerged below water table
** = not a statistically valid PAL exceedance per NR 140.14(3)(c)

APPENDIX A

SOIL BORING LOGS, WELL CONSTRUCTION & BOREHOLE ABANDONMENT FORMS

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Irgens - BMO		TW-01

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Fischer Horizon Construction and Exploration	1/30/2017	1/30/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
NA	NA	TW-1	Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SE 1/4 of NE 1/4 of Section 29, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 GP	48 26	PUSH	0.5	SANDY GRAVEL, brown, loose, moist, well graded.				0.8						Lab sample (0-2') for VOCs, PAHs, and Lead
			1.0											
			1.5											
			2.0					0.7						
			2.5		GW									
			3.0											
			3.5											
2 GP	48 23	PUSH	4.0					1.1						Lab sample (4-6') for VOCs, PAHs, and RCRA Metals.
			4.5											
			5.0	Wet at 5'										
			5.5											
			6.0					1.0						
			6.5		GW									
			7.0											
			7.5											
			8.0	EOB at 8' bgs. 1" Temporary monitoring well installed.										End of Boring

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [signature] Firm The Sigma Group, Inc.
1300 W Canal Street Milwaukee, WI 53233
Tel: 414-643-4200
Fax: 414-643-4210

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Irgens - BMO		SB-02

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Fischer Horizon Construction and Exploration	1/30/2017	1/30/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
NA	NA		Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SE 1/4 of NE 1/4 of Section 29, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 GP	48 12	PUSH	0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0	SANDY GRAVEL, light to dark brown, loose, moist, well graded.	GW			0.8 1.1						Lab sample (2-4') for VOCs, PAHs, and Lead
2 GP	48 37	PUSH	4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0	Wet at 4.5'	GW			0.7						
				SILTY CLAY, gray, dense, damp, trace gravel. 2" layer of coarse gravel at 7'.	CL-MI			13.1						Lab sample (6-8') for VOCs, PAHs, and Lead
				EOB at 8' bgs.										End of Boring

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 414-643-4200
	The Sigma Group, Inc. 1300 W Canal Street Milwaukee, WI 53233	Fax: 414-643-4210

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Irgens - BMO		TW-03

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Fischer Horizon Construction and Exploration	1/30/2017	1/30/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
NA	NA	TW-3	Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SE 1/4 of NE 1/4 of Section 29, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 GP	48 21	PUSH	0.5	SANDY GRAVEL, brown, loose, moist, well graded.				0.7						Lab sample (0-2') for VOCs, PAHs, and Lead
			1.0											
			1.5		GW									
			2.0					1.2						Lab sample (2-4') for VOCs, PAHs, and Lead
			2.5											
			3.0	Wet at 3'										
			3.5											
2 GP	48 2	PUSH	4.0					0.6						
			4.5											
			5.0											
			5.5		GW									
			6.0											
			6.5											
			7.0											
			7.5											
			8.0	EOB at 8' bgs. 1" Temporary monitoring well installed.										End of Boring

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 414-643-4200
	The Sigma Group, Inc. 1300 W Canal Street Milwaukee, WI 53233	Fax: 414-643-4210

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Irgens - BMO		SB-04

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Fischer Horizon Construction and Exploration	1/30/2017	1/30/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
NA	NA		Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SE 1/4 of NE 1/4 of Section 29, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 GP	48 31	PUSH	0.5	SANDY GRAVEL, brown, loose, moist, well graded.				1.5						Lab sample (0-2') for VOCs, PAHs, and Lead
			1.0		GW									
			1.5											
			2.0	Wet at 2'				1.1						
			2.5											
			3.0											
			3.5											
2 GP	48 48	PUSH	4.0					1.2						Lab sample (4-6') for VOCs, PAHs, and Lead
			4.5		GW									
			5.0											
			5.5											
			6.0					1.0						
			6.5											
			7.0											
			7.5	SILTY CLAY, grayish brown, dense, damp, with gravel.	CL-ML									
			8.0	EOB at 8' bgs.										End of Boring

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 414-643-4200
	The Sigma Group, Inc. 1300 W Canal Street Milwaukee, WI 53233	Fax: 414-643-4210

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Irgens - BMO		SB-05

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Fischer Horizon Construction and Exploration	1/30/2017	1/30/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
NA	NA		Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SE 1/4 of NE 1/4 of Section 29, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 GP	48 16	PUSH	0.5	SANDY GRAVEL, light brown, loose, moist, well graded.				19.8						Lab sample (0-2') for VOCs, PAHs, and Lead
			1.0											
			1.5											
			2.0		GW			1.7						Lab sample (2-4') for VOCs, PAHs, and RCRA Metals.
			2.5											
			3.0											
			3.5											
2 GP	48 48	PUSH	4.0	Wet at 4'				0.8						
			4.5											
			5.0											
			5.5		GW									
			6.0					1.6						
			6.5											
			7.0	SILTY CLAY, grayish brown, dense, damp, with gravel.										
			7.5		CL-ML									
			8.0	EOB at 8' bgs.										End of Boring

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 414-643-4200
	The Sigma Group, Inc. 1300 W Canal Street Milwaukee, WI 53233	Fax: 414-643-4210

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Irgens - BMO		SB-06

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Fischer Horizon Construction and Exploration	1/30/2017	1/30/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
NA	NA		Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SE 1/4 of NE 1/4 of Section 29, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 GP	48 22	PUSH	1	SANDY GRAVEL, light brown, loose, moist, well graded.				1.3						
			2											
			3		GW			1.5						Lab sample (2-4') for VOCs, PAHs, PCBs, and Lead
2 GP	48 12	PUSH	4					1.6						
			5											
			6	Wet at 6'				1.9						Lab sample (6-8') for VOCs, PAHs, PCBs, and Lead
			7											
3 GP	48 48	PUSH	8		GW			0.6						
			9											
			10	SILTY CLAY, grayish brown, soft, wet.				1.0						
			11		CL-ML									
			12	EOB at 12' bgs.										End of Boring

I hereby certify that the information on this form is true and correct to the best of my knowledge.

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	The Sigma Group, Inc. 1300 W Canal Street Milwaukee, WI 53233	Fax: 414-643-4210

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Irgens - BMO		TW-07

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Fischer Horizon Construction and Exploration	1/30/2017	1/30/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
NA	NA	TW-7	Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SE 1/4 of NE 1/4 of Section 29, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 GP	48 10	PUSH	0.5	SANDY GRAVEL, brown, loose, moist, well graded.				0.7						Lab sample (0-2') for VOCs, PAHs, and Lead
			1.0											
			1.5											
			2.0					0.9						Lab sample (2-4') for VOCs, PAHs, PCBs, and Lead
			2.5											
			3.0		GW									
			3.5											
2 GP	48 48	PUSH	4.0					0.7						
			4.5											
			5.0											
			5.5											
			6.0					1.1						
			6.5	SILTY CLAY, gray, trace gravel, soft, wet.										
			7.0		CL-ML									
			7.5											
			8.0	EOB at 8' bgs. 1" Temporary monitoring well installed.										End of Boring

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 414-643-4200
	The Sigma Group, Inc. 1300 W Canal Street Milwaukee, WI 53233	Fax: 414-643-4210

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Irgens - BMO		TW-08

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Fischer Horizon Construction and Exploration	1/30/2017	1/30/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
NA	NA	TW-8	Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SE 1/4 of NE 1/4 of Section 29, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 GP	48 33	PUSH	0.5	SANDY GRAVEL, brown, loose, wet, well graded.				0.9						Lab sample (0-2') for VOCs, PAHs, and Lead
			1.0											
			1.5											
			2.0					0.6						Lab sample (2-4') for VOCs, PAHs, and RCRA Metals.
			2.5		GW									
			3.0											
			3.5											
2 GP	48 48	PUSH	4.0					0.5						
			4.5											
			5.0											
			5.5	SILTY CLAY, grayish brown, trace gravel, dense, wet.										
			6.0		CL-ML			0.5						
			6.5											
			7.0	No gravel.										
			7.5		CL-ML									
			8.0	EOB at 8' bgs. 1" Temporary monitoring well installed.										End of Boring

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 414-643-4200
	The Sigma Group, Inc. 1300 W Canal Street Milwaukee, WI 53233	Fax: 414-643-4210

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Irgens - BMO		SB-02-01

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Fischer Horizon Construction and Exploration	4/14/2017	4/14/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
NA	NA		Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SE 1/4 of NE 1/4 of Section 29, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 GP	48 / 20	PUSH	0.5	CONCRETE. 6" thick.				0.0						Composite Sample (0-4') for Waste Characterizatic
			1.0	SANDY GRAVEL, tan and brown, dry, loose, well graded, reworked soil/fill material.										
			1.5											
			2.0					0.0						
			2.5		GW									
			3.0											
			3.5											
2 GP	48 / 46	PUSH	4.0					0.0						Lab Sample (4-6') for VOCs, PAHs, and RCRA Metals.
			4.5											
			5.0	SILTY CLAY, dark brown, wet, stiff.										
			5.5											
			6.0					0.0						
			6.5		CL-ML									
			7.0											
			7.5											
			8.0	EOB at 8' bgs. Abandoned with bentonite and patched with concrete.										End of Boring

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel / Fax
	The Sigma Group, Inc. 1300 W Canal Street Milwaukee, WI 53233	Tel: 414-643-4200 Fax: 414-643-4210

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Irgens - BMO		SB-02-02

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Fischer Horizon Construction and Exploration	4/14/2017	4/14/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
NA	NA		Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SE 1/4 of NE 1/4 of Section 29, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 GP	48 / 24	PUSH	0.5	CONCRETE. 6" thick.				0.0						Composite Sample (0-4') for Waste Characterizatic
			1.0	SANDY GRAVEL, tan and brown, dry, loose, well graded, reworked soil/fill material.										
			1.5											
			2.0					0.0						
			2.5											
			3.0		GW									
			3.5											
2 GP	48 / 48	PUSH	4.0					0.0						
			4.5											
			5.0											
			5.5	SILTY CLAY, dark brown, wet, medium soft.										
			6.0					0.0						Lab Sample (5-7') for VOCs, PAHs, and Lead.
			6.5		CL-ML									
			7.0											
			7.5											
			8.0	EOB at 8' bgs. Abandoned with bentonite and patched with concrete.										End of Boring.

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel / Fax
Steven N. Hunt	The Sigma Group, Inc. 1300 W Canal Street Milwaukee, WI 53233	Tel: 414-643-4200 Fax: 414-643-4210

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Irgens - BMO		SB-02-03

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Fischer Horizon Construction and Exploration	4/14/2017	4/14/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
NA	NA		Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SE 1/4 of NE 1/4 of Section 29, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 GP	48 24	PUSH	0.5	CONCRETE. 6" thick.				0.0						Composite Sample (0-4') for Waste Characterizatic
			1.0	SANDY GRAVEL, tan and brown, dry, loose, well graded, reworked soil/fill material.										
			1.5											
			2.0					0.0						
			2.5		GW									
			3.0											
			3.5											
2 GP	48 48	PUSH	4.0					0.0						
			4.5											
			5.0	Wet at 5'.	GW									
			5.5	SILTY CLAY, dark brown, wet, medium stiff.										
			6.0					0.0						Lab Sample (5-7') for VOCs, PAHs, and Lead.
			6.5		CL-ML									
			7.0											
			7.5											
			8.0	EOB at 8' bgs. Abandoned with bentonite and patched with concrete.										End of Boring.

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 414-643-4200
	The Sigma Group, Inc. 1300 W Canal Street Milwaukee, WI 53233	Fax: 414-643-4210

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Irgens - BMO		SB-02-04

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Fischer Horizon Construction and Exploration	4/14/2017	4/14/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
NA	NA		Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SE 1/4 of NE 1/4 of Section 29, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 GP	48 / 24	PUSH	0.5	CONCRETE. 6" thick.				0.0						Composite Sample (0-4') for Waste Characterizatic
			1.0	SANDY GRAVEL, tan and brown, dry, loose, well graded, reworked soil/fill material.										
			1.5											
			2.0					0.0						
			2.5											
			3.0		GW									
			3.5											
2 GP	48 / 39	PUSH	4.0					0.0						Lab Sample (4-6') for VOCs, PAHs, and RCRA Metals.
			4.5											
			5.0											
			5.5	Wet at 5.5'.	GW									
			6.0	SAND, with some silt and gravel, tan and brown, wet, loose, well graded, reworked soil/fill material.				0.0						
			6.5											
			7.0		SW									
			7.5											
			8.0	EOB at 8' bgs. Abandoned with bentonite and patched with concrete.										End of Boring.

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [signature] Firm The Sigma Group, Inc. 1300 W Canal Street Milwaukee, WI 53233 Tel: 414-643-4200 Fax: 414-643-4210

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Irgens - BMO		SB-02-05

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Fischer Horizon Construction and Exploration	4/14/2017	4/14/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
NA	NA		Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SE 1/4 of NE 1/4 of Section 29, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 GP	48 24	PUSH	0.5	CONCRETE. 6" thick.				0.0						Composite Sample (0-4') for Waste Characterizatic
			1.0	SANDY GRAVEL, tan and brown, dry, loose, well graded, reworked soil/fill material.										
			1.5											
			2.0					0.0						
			2.5											
			3.0											
			3.5											
2 GP	48 44	PUSH	4.0		GW			0.0						Lab Sample (4-6') for VOCs, PAHs, and RCRA Metals.
			4.5											
			5.0											
			5.5											
			6.0					0.0						
			6.5											
			7.0											
			7.5											
			8.0	EOB at 8' bgs. Abandoned with bentonite and patched with concrete.										End of Boring.

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel / Fax
	The Sigma Group, Inc. 1300 W Canal Street Milwaukee, WI 53233	Tel: 414-643-4200 Fax: 414-643-4210

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Irgens - BMO		SB-02-06

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Fischer Horizon Construction and Exploration	4/14/2017	4/14/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
NA	NA		Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SE 1/4 of NE 1/4 of Section 29, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 GP	48 19	PUSH	0.5	CONCRETE. 6" thick.				0.0						Composite Sample (0-4') for Waste Characterizatic
			1.0	SANDY GRAVEL, tan and brown, dry, loose, well graded, reworked soil/fill material.										
			1.5											
			2.0					0.0						
			2.5											
			3.0											
			3.5											
2 GP	48 29	PUSH	4.0		GW			0.0						
			4.5											
			5.0											
			5.5											
			6.0					0.0						Lab Sample (5-7') for VOCs, PAHs, and Lead.
			6.5											
			7.0											
			7.5											
			8.0	EOB at 8' bgs. Abandoned with bentonite and patched with concrete.										End of Boring.

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 414-643-4200
	The Sigma Group, Inc. 1300 W Canal Street Milwaukee, WI 53233	Fax: 414-643-4210

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Irgens - BMO		SB-02-07

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Fischer Horizon Construction and Exploration	4/14/2017	4/14/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
NA	NA		Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SE 1/4 of NE 1/4 of Section 29, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 GP	48 / 24	PUSH	0.5	CONCRETE. 6" thick.				0.0						Composite Sample (0-4') for Waste Characterizatic
			1.0	SANDY GRAVEL, tan and brown, dry, loose, well graded, reworked soil/fill material.										
			1.5											
			2.0					0.0						Lab Sample (2-4') for VOCs, PAHs, and Lead.
			2.5											
			3.0		GW									
			3.5											
2 GP	48 / 44	PUSH	4.0					0.0						
			4.5											
			5.0											
			5.5	SILTY SAND, with trace clay, brown, dry, loose.	SM									
			6.0	SILTY CLAY, with trace gravel and sand, brown, dry, stiff.				0.0						
			6.5											
			7.0		CL-ML									
			7.5											
			8.0	EOB at 8' bgs. Abandoned with bentonite and patched with concrete.										End of Boring.

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm The Sigma Group, Inc.
1300 W Canal Street Milwaukee, WI 53233
Tel: 414-643-4200
Fax: 414-643-4210

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Irgens - BMO		SB-02-09

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Josh Bartolomey The Sigma Group	4/13/2017	4/13/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
NA	NA		Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SE 1/4 of NE 1/4 of Section 29, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 GP	48 19	PUSH	0.5	CONCRETE. 6" thick.				0.1						
			1.0	SANGY GRAVEL, white to yellow brown, well graded, dry, loose.										
			1.5	SILTY SAND, with some sand and gravel, brown, black, red, yellow, white, well graded, stiff to loose, damp. Reworked soil/fill material.										
			2.0					0.1						Lab Sample (2-4') for Ethylene Glycol.
			2.5											
			3.0											
			3.5											
2 GP	48 31	PUSH	4.0					0.1						
			4.5		SM									
			5.0											
			5.5											
			6.0					0.1						
			6.5											
			7.0											
			7.5											
			8.0	EOB at 8' bgs. Abandoned with bentonite and patched with concrete.										End of Boring.

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel / Fax
	The Sigma Group, Inc. 1300 W Canal Street Milwaukee, WI 53233	Tel: 414-643-4200 Fax: 414-643-4210

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Irgens - BMO		SB-02-10

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Josh Bartolomey The Sigma Group	4/13/2017	4/13/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
NA	NA		Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SE 1/4 of NE 1/4 of Section 29, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 GP	48 13	PUSH	1	CONCRETE. 1' thick.				0.1						
			2	SANGY GRAVEL, white to yellow brown, well graded, dry, loose.										
			3	SILTY SAND, with some sand and gravel, brown, black, red, yellow, white, well graded, stiff to loose, damp. Reworked soil/fill material.				0.1						Lab Sample (2-4') for Ethylene Glycol.
2 GP	48 16	PUSH	4					0.1						Composite Sample (4-8') for VOCs, PAHs, and RCRA Metals.
			5											
			6					0.1						
			7		SM									
3 GP	48 8	PUSH	8					0.1						
			9											
			10					0.1						
			11											
			12	EOB at 12' bgs. Abandoned with bentonite and patched with concrete.										End of Boring.

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 414-643-4200
	The Sigma Group, Inc. 1300 W Canal Street Milwaukee, WI 53233	Fax: 414-643-4210

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Irgens - BMO		SB-02-11

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Josh Bartolomey The Sigma Group	4/13/2017	4/13/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
NA	NA		Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SE 1/4 of NE 1/4 of Section 29, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 GP	48 19	PUSH	0.5	CONCRETE. 6" thick.				0.1						
			1.0	SANGY GRAVEL, white to yellow brown, well graded, dry, loose.										
			1.5	SILTY SAND, with some sand and gravel, brown, black, red, yellow, white, well graded, stiff to loose, wet. Reworked soil/fill material.				0.1						Lab Sample (2-4') for Ethylene Glycol.
			2.0											
			2.5											
			3.0											
			3.5											
2 GP	48 23	PUSH	4.0		SM			0.1						
			4.5											
			5.0											
			5.5											
			6.0					0.1						
			6.5											
			7.0											
			7.5											
			8.0	EOB at 8' bgs. Abandoned with bentonite and patched with concrete.										End of Boring

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel: 414-643-4200
	The Sigma Group, Inc. 1300 W Canal Street Milwaukee, WI 53233	Fax: 414-643-4210

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Irgens - BMO		SB-02-12

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Josh Bartolomey The Sigma Group	4/13/2017	4/13/2017	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
NA	NA		Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
SE 1/4 of NE 1/4 of Section 29, T 7 N, R 22 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Milwaukee	41	Milwaukee

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 GP	48 13	PUSH	0.5	CONCRETE. 6" thick.				0.1						
			1.0	SANGY GRAVEL, white to yellow brown, well graded, dry, loose.										
			1.5	SILTY SAND, with some sand and gravel, brown, black, red, yellow, white, well graded, stiff to loose, damp. Reworked soil/fill material.										
			2.0					0.1						Lab Sample (2-4') for Ethylene Glycol.
			2.5											
			3.0											
			3.5											
2 GP	48 16	PUSH	4.0					0.1						Composite Sample (4-8') for VOCs, PAHs, and RCRA Metals.
			4.5		SM									
			5.0											
			5.5											
			6.0					0.1						
			6.5											
			7.0											
			7.5											
			8.0	EOB at 8' bgs. Abandoned with bentonite and patched with concrete.										End of Boring.

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel:
	The Sigma Group, Inc. 1300 W Canal Street Milwaukee, WI 53233	Tel: 414-643-4200 Fax: 414-643-4210

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

Notice: Please complete Form 3300-5 and return it to the appropriate DNR office and bureau. Completion of this report is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis Stats , and ch NR 141, Wis. Adm. Code In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See the instructions for more information.

Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other

(1) GENERAL INFORMATION

WI Unique Well No.	DNR Well ID No.	County
NA	NA	Milwaukee

Common Well Name SB-02 Gov't Lot (if applicable)

Grid Location SE 1/4 of NE 1/4 of Sec. 29 ; T. 7 N; R. 22 ☒ E ☐ W

ft. ☐ N. ☐ S., ft. ☐ E ☐ W.

Local Grid Origin ☐ (estimated: ☐) or Well Location ☐

Lat ° ' " Long ° ' " or

State Plane ft. N. ft. E. S ☐ C ☐ N ☐ Zone

Reason For Abandonment	WI Unique Well No. of Replacement Well
No Further Use	

(2) FACILITY /OWNER INFORMATION

Facility Name: Irgens - BMO

Facility ID	License/Permit/Monitoring No.

Street Address of Well: 778 N Water Street

City, Village, or Town: Milwaukee

Present Well Owner	Original Owner

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date 1/30/17

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☒ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface)

Casing Diameter (in.)

Casing Depth (ft.)

Lower Drillhole Diameter (in.) 2.3

Was Well Annular Space Grouted? ☐ Yes ☐ No ☐ Unknown

If Yes, To What Depth? Feet

Depth to Water (Feet)

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☒ No	
Was Casing Cut Off Below Surface?	☐ Yes	☒ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☒ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)		Mix Ratio or Mud Weight
Concrete	Surface	0.5		
Bentonite	0.5	8.0		

(6) Comments

(7) Name of Person or Firm Doing Sealing Work: Horizon Construction and Exploration

Date of Abandonment: 1/30/17

Signature of Person Doing Work

Date Signed: 2/20/17

Street or Route: 764 Tower Drive

Telephone Number: 262-692-3347

City, State, Zip Code: Fredonia, WI 53021

FOR DNR OR COUNTY USE ONLY

Date Received	Noted By

Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other

(1) GENERAL INFORMATION

WI Unique Well No.	DNR Well ID No.	County
NA	NA	Milwaukee

Common Well Name: SB-04 Gov't Lot (if applicable)

Grid Location: SE 1/4 of NE 1/4 of Sec. 29 ; T. 7 N; R 22 ☒ E ☐ W

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin ☐ (estimated: ☐) or Well Location ☐

Lat ° ' " Long ° ' " or

State Plane _____ ft. N. _____ ft. E. S ☐ C ☐ N ☐ Zone

Reason For Abandonment	WI Unique Well No. of Replacement Well
No Further Use	

(2) FACILITY /OWNER INFORMATION

Facility Name: Irgens - BMO

Facility ID	License/Permit/Monitoring No.

Street Address of Well: 778 N Water Street

City, Village, or Town: Milwaukee

Present Well Owner	Original Owner

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 1/30/17

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☒ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface) _____ Casing Diameter (in.) _____

Casing Depth (ft.) _____

Lower Drillhole Diameter (in.) 2.3

Was Well Annular Space Grouted? ☐ Yes ☐ No ☐ Unknown

If Yes, To What Depth? _____ Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☒ No	
Was Casing Cut Off Below Surface?	☐ Yes	☒ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☒ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)		Mix Ratio or Mud Weight
Concrete	Surface	0.5		
Bentonite	0.5	8.0		

(6) Comments

(7) Name of Person or Firm Doing Sealing Work: Horizon Construction and Exploration

Date of Abandonment: 1/30/17

Signature of Person Doing Work: [signature]

Date Signed: 2/20/17

Street or Route: 764 Tower Drive

Telephone Number: 262-692-3347

City, State, Zip Code: Fredonia, WI 53021

FOR DNR OR COUNTY USE ONLY

Date Received	Noted By

Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other

(1) GENERAL INFORMATION

WI Unique Well No.	DNR Well ID No.	County
NA	NA	Milwaukee

Common Well Name SB-05 Gov't Lot (if applicable)

Grid Location SE 1/4 of NE 1/4 of Sec. 29 ; T. 7 N; R. 22 ☒ E ☐ W

_____ ft. ☐ N. ☐ S, _____ ft. ☐ E. ☐ W.

Local Grid Origin ☐ (estimated: ☐) or Well Location ☐

Lat ° ' " Long ° ' " or

State Plane _____ ft. N. _____ ft. E. S ☐ C ☐ N ☐ Zone

Reason For Abandonment	WI Unique Well No. of Replacement Well
No Further Use	

(2) FACILITY /OWNER INFORMATION

Facility Name: Irgens - BMO

Facility ID	License/Permit/Monitoring No.

Street Address of Well: 778 N Water Street

City, Village, or Town: Milwaukee

Present Well Owner	Original Owner

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date 1/30/17

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☒ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface) _____ Casing Diameter (in.) _____

Casing Depth (ft.) _____

Lower Drillhole Diameter (in.) 2.3

Was Well Annular Space Grouted? ☐ Yes ☐ No ☐ Unknown

If Yes, To What Depth? _____ Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☒ Yes	☐ No	☐ Not Applicable
Screen Removed?	☒ Yes	☐ No	☐ Not Applicable
Casing Left in Place?	☐ Yes	☒ No	
Was Casing Cut Off Below Surface?	☐ Yes	☒ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☒ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)		Mix Ratio or Mud Weight
Concrete	Surface	0.5		
Bentonite	0.5	8.0		

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work	Date of Abandonment
Horizon Construction and Exploration	1/30/17
Signature of Person Doing Work	Date Signed
	2/20/17
Street or Route	Telephone Number
764 Tower Drive	262-692-3347
City, State, Zip Code	
Fredonia, WI 53021	

FOR DNR OR COUNTY USE ONLY

Date Received	Noted By

Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other

(1) GENERAL INFORMATION

WI Unique Well No.	DNR Well ID No.	County
NA	NA	Milwaukee

Common Well Name: SB-06 Gov't Lot (if applicable):

Grid Location: SE 1/4 of NE 1/4 of Sec. 29 ; T. 7 N; R. 22 ☒ E ☐ W

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin ☐ (estimated: ☐) or Well Location ☐

Lat ° ' " Long ° ' " or

State Plane _____ ft. N. _____ ft. E. S ☐ C ☐ N ☐ Zone

Reason For Abandonment	WI Unique Well No. of Replacement Well
No Further Use	

(2) FACILITY /OWNER INFORMATION

Facility Name: Irgens - BMO

Facility ID	License/Permit/Monitoring No.

Street Address of Well: 778 N Water Street

City, Village, or Town: Milwaukee

Present Well Owner	Original Owner

Street Address or Route of Owner:

City, State, Zip Code:

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 1/30/17

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☒ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): _____ Casing Diameter (in.): _____
Casing Depth (ft.): _____
Lower Drillhole Diameter (in.): 2.3

Was Well Annular Space Grouted? ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet
Depth to Water (Feet): _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☒ No	

Was Casing Cut Off Below Surface?	☐ Yes	☒ No
Did Sealing Material Rise to Surface?	☒ Yes	☐ No
Did Material Settle After 24 Hours?	☐ Yes	☒ No
If Yes, Was Hole Retopped?	☐ Yes	☒ No

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☒ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)		Mix Ratio or Mud Weight
Concrete	Surface	0.5		
Bentonite	0.5	12.0		

(6) Comments:

(7) Name of Person or Firm Doing Sealing Work	Date of Abandonment
Horizon Construction and Exploration	1/30/17

Signature of Person Doing Work	Date Signed
[signature]	2/20/17

Street or Route	Telephone Number
764 Tower Drive	262-692-3347

City, State, Zip Code: Fredonia, WI 53021

FOR DNR OR COUNTY USE ONLY

Date Received	Noted By

Comments:

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000 Page 1 of 2

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No.	DNR Well ID No.	County
NA	NA	Milwaukee

Common Well Name SB-02-01 _____ Gov't Lot (if applicable)

Grid Location: SE 1/4 of NE 1/4 of Sec. 29 ; T. 7 N; R. 22 ☒ E ☐ W

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin ☐ (estimated: ☐) or Well Location ☐

Lat ° ' " Long ° ' "

State Plane _____ ft. N. _____ ft. E. S ☐ C ☐ N ☐ Zone

Reason For Abandonment	WI Unique Well No. of Replacement Well
No Further Use	

(2) FACILITY /OWNER INFORMATION

Facility Name: Irgens - BMO

Facility ID	License/Permit/Monitoring No.

Street Address of Well: 778 N Water Street

City, Village, or Town: Milwaukee

Present Well Owner	Original Owner

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date 4/14/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☒ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) _____ (From ground surface)
Casing Diameter (in.) _____
Casing Depth (ft.) _____
Lower Drillhole Diameter (in.) 1.3

Was Well Annular Space Grouted? ☐ Yes ☒ No ☐ Unknown
If Yes, To What Depth? _____ Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☒ No	
Was Casing Cut Off Below Surface?	☐ Yes	☒ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☒ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)		Mix Ratio or Mud Weight
Concrete	Surface	0.5		
Bentonite	0.5	8.0		

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work	Date of Abandonment
Horizon Construction and Exploration	4/14/17

Signature of Person Doing Work _____ Date Signed 4/18/17

Street or Route	Telephone Number
764 Tower Drive	262-692-3347

City, State, Zip Code
Fredonia, WI 53021

FOR DNR OR COUNTY USE ONLY

Date Received	Noted By

Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000 Page 1 of 2

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No.	DNR Well ID No.	County
NA	NA	Milwaukee

Common Well Name: SB-02-02 _____ Gov't Lot (if applicable)

Grid Location: SE 1/4 of NE 1/4 of Sec. 29 ; T. 7 N; R. 22 ☒ E ☐ W

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin ☐ (estimated: ☐) or Well Location ☐

Lat ° ' " Long ° ' " or

State Plane _____ ft. N. _____ ft. E. S ☐ C ☐ N ☐ Zone

Reason For Abandonment	WI Unique Well No. of Replacement Well
No Further Use	

(2) FACILITY /OWNER INFORMATION

Facility Name: Irgens - BMO

Facility ID	License/Permit/Monitoring No.

Street Address of Well: 778 N Water Street

City, Village, or Town: Milwaukee

Present Well Owner	Original Owner

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/14/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☒ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface) _____ Casing Diameter (in.) _____

Casing Depth (ft.) _____

Lower Drillhole Diameter (in.) 1.3

Was Well Annular Space Grouted? ☐ Yes ☒ No ☐ Unknown

If Yes, To What Depth? _____ Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☒ No	
Was Casing Cut Off Below Surface?	☐ Yes	☒ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☒ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)		Mix Ratio or Mud Weight
Concrete	Surface	0.5		
Bentonite	0.5	8.0		

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work	Date of Abandonment
Horizon Construction and Exploration	4/14/17

Signature of Person Doing Work	Date Signed
[signature]	4/18/17

Street or Route	Telephone Number
764 Tower Drive	262-692-3347

City, State, Zip Code: Fredonia, WI 53021

FOR DNR OR COUNTY USE ONLY

Date Received	Noted By

Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No.	DNR Well ID No.	County
NA	NA	Milwaukee

Common Well Name SB-02-03 _____ Gov't Lot (if applicable)

Grid Location: SE 1/4 of NE 1/4 of Sec 29 ; T 7 N; R 22 ☒ E ☐ W

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin ☐ (estimated: ☐) or Well Location ☐

Lat ° ' " Long ° ' " or

State Plane _____ ft. N. _____ ft. E. S ☐ C ☐ N ☐ Zone

Reason For Abandonment	WI Unique Well No. of Replacement Well
No Further Use	

(2) FACILITY /OWNER INFORMATION

Facility Name: Irgens - BMO

Facility ID	License/Permit/Monitoring No.

Street Address of Well: 778 N Water Street

City, Village, or Town: Milwaukee

Present Well Owner	Original Owner

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date 4/14/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☒ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) _____ (From ground surface)
Casing Diameter (in.) _____
Casing Depth (ft.) _____
Lower Drillhole Diameter (in.) 1.3

Was Well Annular Space Grouted? ☐ Yes ☒ No ☐ Unknown
If Yes, To What Depth? _____ Feet
Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☒ No	

Was Casing Cut Off Below Surface?	☐ Yes	☒ No
Did Sealing Material Rise to Surface?	☒ Yes	☐ No
Did Material Settle After 24 Hours?	☐ Yes	☒ No
If Yes, Was Hole Retopped?	☐ Yes	☒ No

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☒ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)		Mix Ratio or Mud Weight
Concrete	Surface	0.5		
Bentonite	0.5	8.0		

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work	Date of Abandonment
Horizon Construction and Exploration	4/14/17

Signature of Person Doing Work	Date Signed
[signature]	4/18/17

Street or Route	Telephone Number
764 Tower Drive	262-692-3347

City, State, Zip Code: Fredonia, WI 53021

FOR DNR OR COUNTY USE ONLY

Date Received	Noted By

Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000 Page 1 of 2

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No.	DNR Well ID No.	County
NA	NA	Milwaukee

Common Well Name SB-02-04 _____ Gov't Lot (if applicable)

Grid Location: SE 1/4 of NE 1/4 of Sec. 29 ; T. 7 N; R. 22 ☒ E ☐ W

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin ☐ (estimated: ☐) or Well Location ☐

Lat ° ' " Long ° ' "

State Plane _____ ft. N. _____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment	WI Unique Well No. of Replacement Well
No Further Use	

(2) FACILITY /OWNER INFORMATION

Facility Name: Irgens - BMO

Facility ID	License/Permit/Monitoring No.

Street Address of Well: 778 N Water Street

City, Village, or Town: Milwaukee

Present Well Owner	Original Owner

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date 4/14/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☒ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface) _____ Casing Diameter (in.) _____

Casing Depth (ft.) _____

Lower Drillhole Diameter (in.) 1.3

Was Well Annular Space Grouted? ☐ Yes ☒ No ☐ Unknown

If Yes, To What Depth? _____ Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☒ No	

Was Casing Cut Off Below Surface?	☐ Yes	☒ No
Did Sealing Material Rise to Surface?	☒ Yes	☐ No
Did Material Settle After 24 Hours?	☐ Yes	☒ No
If Yes, Was Hole Retopped?	☐ Yes	☒ No

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☒ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)		Mix Ratio or Mud Weight
Concrete	Surface	0.5		
Bentonite	0.5	8.0		

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work	Date of Abandonment
Horizon Construction and Exploration	4/14/17

Signature of Person Doing Work _____ Date Signed 4/18/17

Street or Route	Telephone Number
764 Tower Drive	262-692-3347

City, State, Zip Code: Fredonia, WI 53021

FOR DNR OR COUNTY USE ONLY

Date Received	Noted By

Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000 Page 1 of 2

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No.	DNR Well ID No.	County
NA	NA	Milwaukee

Common Well Name: SB-02-05 _____ Gov't Lot (if applicable)

Grid Location: SE 1/4 of NE 1/4 of Sec. 29 ; T. 7 N; R. 22 ☒ E ☐ W

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin ☐ (estimated: ☐) or Well Location ☐

Lat ° ' " Long ° ' " or

State Plane _____ ft. N. _____ ft. E. S ☐ C ☐ N ☐ Zone

Reason For Abandonment	WI Unique Well No. of Replacement Well
No Further Use	

(2) FACILITY /OWNER INFORMATION

Facility Name: Irgens - BMO

Facility ID	License/Permit/Monitoring No.

Street Address of Well: 778 N Water Street

City, Village, or Town: Milwaukee

Present Well Owner	Original Owner

Street Address or Route of Owner:

City, State, Zip Code:

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/14/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☒ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): _____ Casing Diameter (in.): _____

Casing Depth (ft.): _____

Lower Drillhole Diameter (in.): 1.3

Was Well Annular Space Grouted? ☐ Yes ☒ No ☐ Unknown

If Yes, To What Depth? _____ Feet

Depth to Water (Feet): _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☒ No	
Was Casing Cut Off Below Surface?	☐ Yes	☒ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☒ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)		Mix Ratio or Mud Weight
Concrete	Surface	0.5		
Bentonite	0.5	8.0		

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work	Date of Abandonment
Horizon Construction and Exploration	4/14/17

Signature of Person Doing Work: [signature] Date Signed: 4/18/17

Street or Route	Telephone Number
764 Tower Drive	262-692-3347

City, State, Zip Code: Fredonia, WI 53021

FOR DNR OR COUNTY USE ONLY

Date Received	Noted By

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State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000 Page 1 of 2

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No.	DNR Well ID No.	County
NA	NA	Milwaukee

Common Well Name: SB-02-06 _____ Gov't Lot (if applicable)

Grid Location: SE 1/4 of NE 1/4 of Sec. 29 ; T. 7 N; R. 22 ☒ E ☐ W

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin ☐ (estimated: ☐) or Well Location ☐

Lat ° ' " Long ° ' " or

State Plane _____ ft. N. _____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment	WI Unique Well No. of Replacement Well
No Further Use	

(2) FACILITY /OWNER INFORMATION

Facility Name: Irgens - BMO

Facility ID	License/Permit/Monitoring No.

Street Address of Well: 778 N Water Street

City, Village, or Town: Milwaukee

Present Well Owner	Original Owner

Street Address or Route of Owner:

City, State, Zip Code:

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/14/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☒ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) _____ (From ground surface)
Casing Diameter (in.) _____
Casing Depth (ft.) _____
Lower Drillhole Diameter (in.) 1.3

Was Well Annular Space Grouted? ☐ Yes ☒ No ☐ Unknown
If Yes, To What Depth? _____ Feet
Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☒ No	
Was Casing Cut Off Below Surface?	☐ Yes	☒ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☒ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)		Mix Ratio or Mud Weight
Concrete	Surface	0.5		
Bentonite	0.5	8.0		

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work	Date of Abandonment
Horizon Construction and Exploration	4/14/17

Signature of Person Doing Work: [signature] Date Signed: 9/18/17

Street or Route	Telephone Number
764 Tower Drive	262-692-3347

City, State, Zip Code: Fredonia, WI 53021

FOR DNR OR COUNTY USE ONLY

Date Received	Noted By

Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other

(1) GENERAL INFORMATION

WI Unique Well No.	DNR Well ID No.	County
NA	NA	Milwaukee

Common Well Name: SB-02-07 ____ Gov't Lot (if applicable)

Grid Location: SE 1/4 of NE 1/4 of Sec. 29 ; T. 7 N; R. 22 ☒ E ☐ W

____ ft. ☐ N ☐ S., ____ ft. ☐ E ☐ W

Local Grid Origin ☐ (estimated: ☐) or Well Location ☐

Lat ° ' " Long ° ' " or

State Plane ____ ft. N ____ ft. E. S ☐ C ☐ N ☐ Zone

Reason For Abandonment	WI Unique Well No. of Replacement Well
No Further Use	

(2) FACILITY /OWNER INFORMATION

Facility Name: Irgens - BMO

Facility ID	License/Permit/Monitoring No.

Street Address of Well: 778 N Water Street

City, Village, or Town: Milwaukee

Present Well Owner	Original Owner

Street Address or Route of Owner:

City, State, Zip Code:

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/14/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☒ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): ____ Casing Diameter (in.): ____
Casing Depth (ft.): ____
Lower Drillhole Diameter (in.): 1.3

Was Well Annular Space Grouted? ☐ Yes ☒ No ☐ Unknown
If Yes, To What Depth? ____ Feet
Depth to Water (Feet): ____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☒ No	
Was Casing Cut Off Below Surface?	☐ Yes	☒ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☒ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)		Mix Ratio or Mud Weight
Concrete	Surface	0.5		
Bentonite	0.5	8.0		

(6) Comments

(7) Name of Person or Firm Doing Sealing Work: Horizon Construction and Exploration
Date of Abandonment: 4/14/17

Signature of Person Doing Work: [signature] Date Signed: 4/18/17

Street or Route: 764 Tower Drive
Telephone Number: 262-692-3347

City, State, Zip Code: Fredonia, WI 53021

FOR DNR OR COUNTY USE ONLY

Date Received	Noted By

Comments:

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

Notice: Please complete Form 3300-5 and return it to the appropriate DNR office and bureau. Completion of this report is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See the instructions for more information.

Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other

(1) GENERAL INFORMATION

WI Unique Well No.	DNR Well ID No.	County
NA	NA	Milwaukee

Common Well Name: SB-02-09 Gov't Lot (if applicable)

Grid Location: SE 1/4 of NE 1/4 of Sec. 29 ; T. 7 N; R. 22 ☒ E ☐ W

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin ☐ (estimated: ☐) or Well Location ☐

Lat ° ' " Long ° ' "

State Plane _____ ft. N. _____ ft. E. S ☐ C ☐ N ☐ Zone

Reason For Abandonment	WI Unique Well No. of Replacement Well
No Further Use	

(2) FACILITY /OWNER INFORMATION

Facility Name: Irgens - BMO

Facility ID	License/Permit/Monitoring No.

Street Address of Well: 778 N Water Street

City, Village, or Town: Milwaukee

Present Well Owner	Original Owner

Street Address or Route of Owner:

City, State, Zip Code:

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/13/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☒ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) (From ground surface): _____ Casing Diameter (in.): _____

Casing Depth (ft.): _____

Lower Drillhole Diameter (in.): 2.3

Was Well Annular Space Grouted? ☐ Yes ☒ No ☐ Unknown

If Yes, To What Depth? _____ Feet

Depth to Water (Feet): _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☒ No	
Was Casing Cut Off Below Surface?	☐ Yes	☒ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☒ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)		Mix Ratio or Mud Weight
Concrete	Surface	0.5		
Bentonite	0.5	8.0		

(6) Comments: _____

(7) Name of Person or Firm Doing Sealing Work	Date of Abandonment
The Sigma Group	4/13/17

Signature of Person Doing Work: [signature] Date Signed: 4/18/17

Street or Route	Telephone Number
1300 W Canal Street	414-632-4200

City, State, Zip Code: Milwaukee, WI 53233

FOR DNR OR COUNTY USE ONLY

Date Received	Noted By

Comments:

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other

(1) GENERAL INFORMATION

WI Unique Well No.	DNR Well ID No.	County
NA	NA	Milwaukee

Common Well Name SB-02-10 _____ Gov't Lot (if applicable)

Grid Location: SE 1/4 of NE 1/4 of Sec. 29 ; T. 7 N; R. 22 ☒ E ☐ W

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin ☐ (estimated: ☐) or Well Location ☐

Lat ____ ° ____ ' ____ " Long ____ ° ____ ' ____ " or

State Plane _____ ft. N. _____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment	WI Unique Well No. of Replacement Well
No Further Use	

(2) FACILITY /OWNER INFORMATION

Facility Name: Irgens - BMO

Facility ID	License/Permit/Monitoring No.

Street Address of Well: 778 N Water Street

City, Village, or Town: Milwaukee

Present Well Owner	Original Owner

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/13/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☒ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) _____ (From ground surface)
Casing Diameter (in.) _____
Casing Depth (ft.) _____
Lower Drillhole Diameter (in.) 2.3

Was Well Annular Space Grouted? ☐ Yes ☒ No ☐ Unknown
If Yes, To What Depth? _____ Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☒ No	
Was Casing Cut Off Below Surface?	☐ Yes	☒ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☒ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)		Mix Ratio or Mud Weight
Concrete	Surface	0.5		
Bentonite	0.5	12.0		

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work	Date of Abandonment
The Sigma Group	4/13/17

Signature of Person Doing Work: [signature] Date Signed: 4/18/17

Street or Route	Telephone Number
1300 W Canal Street	414-632-4200

City, State, Zip Code: Milwaukee, WI 53233

FOR DNR OR COUNTY USE ONLY

Date Received	Noted By

Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No.	DNR Well ID No.	County
NA	NA	Milwaukee

Common Well Name SB-02-11 _____ Gov't Lot (if applicable)

Grid Location: SE 1/4 of NE 1/4 of Sec. 29 ; T. 7 N; R. 22 ☒ E ☐ W

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin ☐ (estimated: ☐) or Well Location ☐

Lat ___ ° ___ ' ___ " Long ___ ° ___ ' ___ "

State Plane _____ ft. N. _____ ft. E. ☐ S ☐ C ☐ N Zone

Reason For Abandonment	WI Unique Well No. of Replacement Well
No Further Use	

(2) FACILITY /OWNER INFORMATION

Facility Name: Irgens - BMO

Facility ID	License/Permit/Monitoring No.

Street Address of Well: 778 N Water Street

City, Village, or Town: Milwaukee

Present Well Owner	Original Owner

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: 4/13/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☒ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) _____ (From ground surface)
Casing Diameter (in.) _____
Casing Depth (ft.) _____
Lower Drillhole Diameter (in.) 2.3

Was Well Annular Space Grouted? ☐ Yes ☒ No ☐ Unknown
If Yes, To What Depth? _____ Feet
Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☒ No	
Was Casing Cut Off Below Surface?	☐ Yes	☒ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☒ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)		Mix Ratio or Mud Weight
Concrete	Surface	0.5		
Bentonite	0.5	8.0		

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work	Date of Abandonment
The Sigma Group	4/13/17

Signature of Person Doing Work _____ Date Signed 4/18/17

Street or Route: 1300 W Canal Street
Telephone Number: 414-632-4200
City, State, Zip Code: Milwaukee, WI 53233

FOR DNR OR COUNTY USE ONLY

Date Received	Noted By

Comments

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT
Form 3300-5 2/2000 Page 1 of 2

Notice: Please complete Form 3300-5 and return it to the appropriate DNR office and bureau. Completion of this report is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See the instructions for more information.

Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other _____

(1) GENERAL INFORMATION

WI Unique Well No.	DNR Well ID No.	County
NA	NA	Milwaukee

Common Well Name SB-02-12 _____ Gov't Lot (if applicable)

Grid Location: SE 1/4 of NE 1/4 of Sec 29 ; T 7 N; R 22 ☒ E ☐ W

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Local Grid Origin ☐ (estimated: ☐) or Well Location ☐

Lat ° ' " Long ° ' " or

State Plane _____ ft. N. _____ ft. E. S ☐ C ☐ N ☐ Zone

Reason For Abandonment	WI Unique Well No. of Replacement Well
No Further Use	

(2) FACILITY /OWNER INFORMATION

Facility Name: Irgens - BMO

Facility ID	License/Permit/Monitoring No.

Street Address of Well: 778 N Water Street

City, Village, or Town: Milwaukee

Present Well Owner	Original Owner

Street Address or Route of Owner

City, State, Zip Code

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date 4/13/2017

☐ Monitoring Well
☐ Water Well
☒ Drillhole / Borehole

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☒ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft) _____ (From ground surface) Casing Diameter (in.) _____
Casing Depth (ft.) _____
Lower Drillhole Diameter (in.) 2.3

Was Well Annular Space Grouted? ☐ Yes ☒ No ☐ Unknown
If Yes, To What Depth? _____ Feet

Depth to Water (Feet) _____

(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☒ No	
Was Casing Cut Off Below Surface?	☐ Yes	☒ No	
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☒ No	

Required Method of Placing Sealing Material
☐ Conductor Pipe - Gravity ☐ Conductor Pipe - Pumped
☒ Screened & Poured ☐ Other (Explain)
(Bentonite Chips)

Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☒ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Chips
☐ Granular Bentonite
☐ Bentonite-Cement Grout
☐ Bentonite - Sand Slurry

(5) Sealing Material Used	From (Ft.)	To (Ft.)		Mix Ratio or Mud Weight
Concrete	Surface	0.5		
Bentonite	0.5	8.0		

(6) Comments _____

(7) Name of Person or Firm Doing Sealing Work: The Sigma Group
Date of Abandonment: 4/13/17

Signature of Person Doing Work: [signature] Date Signed: 4/18/17

Street or Route: 1300 W Canal Street
Telephone Number: 414-632-4200

City, State, Zip Code: Milwaukee, WI 53233

FOR DNR OR COUNTY USE ONLY

Date Received	Noted By

Comments

State of Wisconsin
Department of Natural Resources

Route To: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☒ Other ☐

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Irgens - BMO	Local Grid Location of Well: ____ ft ☐ N. ☐ S. ____ ft ☐ E. ☐ W.	Well Name: TW-1
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat ° ' " Long. ° ' " or St. Plane ____ ft. N, ____ ft. E. S/C/N	Wis. Unique Well No.: NA / DNR Well Number: NA
Facility ID	Section Location of Waste/Source: SE 1/4 of NE 1/4 of Sec. 29, T. 7 N, R. 22 ☒ E ☐ W	Date Well Installed: 01/30/2017
Type of Well: Well Code 11/mw	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Well Installed By: (Person's Name and Firm): Dan Fischer; Horizon Construction and Exploration
Distance from Waste/Source ____ ft. / Enf. Stds. Apply ☐	Gov. Lot Number: ____	

A. Protective pipe, top elevation ____ ft. MSL

B. Well casing, top elevation ____ ft. MSL

C. Land surface elevation ____ ft. MSL

D. Surface seal, bottom ____ ft. MSL or 2.0 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☒ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50 / Hollow Stem Auger ☐ 41 / Geoprobe / Other ☒ __

15. Drilling fluid used: Water ☐ 02 Air ☐ 01 Drilling Mud ☐ 03 None ☒ 99

16. Drilling additives used? ☐ Yes ☒ No
Describe ____

17. Source of water (attach analysis, if required):
____

E. Bentonite seal, top ____ ft. MSL or 0.5 ft.

F. Fine sand, top ____ ft. MSL or ____ ft.

G. Filter pack, top ____ ft. MSL or 2.0 ft.

H. Screen joint, top ____ ft. MSL or 3.0 ft.

I. Well bottom ____ ft. MSL or 8.0 ft.

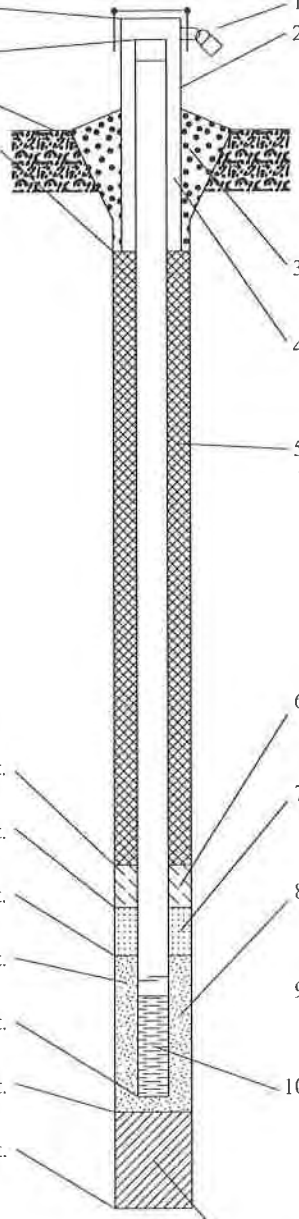
J. Filter pack, bottom ____ ft. MSL or 8.0 ft.

K. Borehole, bottom ____ ft. MSL or 8.0 ft.

L. Borehole, diameter 2.0 in.

M. O.D. well casing 1.00 in.

N. I.D. well casing 1.00 in.



1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 4.0 in.
b. Length: 1.0 ft.
c. Material: Steel ☒ 04 / ____ Other ☐ __
d. Additional protection? ☐ Yes ☒ No
If yes, describe ____

3. Surface seal: Bentonite ☐ 30 / Concrete ☒ 01 / ____ Other ☐ __

4. Material between well casing and protective pipe: Bentonite ☒ 30 / ____ Other ☐ __

5. Annular space seal: a. Granular/Chipped Bentonite ☐ 33
b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. ____ Lbs/gal mud weight . . . Bentonite slurry ☐ 31
d. ____ % Bentonite . . . Bentonite-cement grout ☐ 50
e. ____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 / Tremie pumped ☐ 02 / Gravity ☐ 08

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. ____ Other ☐ __

7. Fine sand material: Manufacturer, product name & mesh size
a. ____
b. Volume added ____ ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. ____
b. Volume added ____ ft^3

9. Well casing: Flush threaded PVC schedule 40 ☒ 23 / Flush threaded PVC schedule 80 ☐ 24 / ____ Other ☐ __

10. Screen material: PVC
a. Screen Type: Factory cut ☒ 11 / Continuous slot ☐ 01 / ____ Other ☐ __
b. Manufacturer ____
c. Slot size: 0.010 in.
d. Slotted length: 5.0 ft.

11. Backfill material (below filter pack): None ☒ 14 / ____ Other ☐ __

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: [signature] Firm: The Sigma Group, Inc. 1300 W Canal Street Milwaukee, WI 53233 Tel: 414-643-4200 Fax: 414-643-4210

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

Route To: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☒ Other ☐

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Irgens - BMO	Local Grid Location of Well: ____ ft. ☐ N. ☐ S. ____ ft. ☐ E. ☐ W	Well Name: TW-3
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No.: NA / DNR Well Number: NA
Facility ID	St. Plane ____ ft. N, ____ ft. E. S/C/N	Date Well Installed: 01/30/2017
Type of Well: Well Code 11/mw	Section Location of Waste/Source: SE 1/4 of NE 1/4 of Sec. 29, T. 7 N, R. 22 ☒ E ☐ W	Well Installed By: (Person's Name and Firm): Dan Fischer; Horizon Construction and Exploration
Distance from Waste/Source ____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number:

A. Protective pipe, top elevation ____ ft. MSL

B. Well casing, top elevation ____ ft. MSL

C. Land surface elevation ____ ft. MSL

D. Surface seal, bottom ____ ft. MSL or 2.0 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☒ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50; Hollow Stem Auger ☐ 41; Geoprobe; Other ☒

15. Drilling fluid used: Water ☐ 02; Air ☐ 01; Drilling Mud ☐ 03; None ☒ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe ____

17. Source of water (attach analysis, if required):

E. Bentonite seal, top ____ ft. MSL or 0.5 ft.

F. Fine sand, top ____ ft. MSL or ____ ft.

G. Filter pack, top ____ ft. MSL or 2.0 ft.

H. Screen joint, top ____ ft. MSL or 3.0 ft.

I. Well bottom ____ ft. MSL or 8.0 ft.

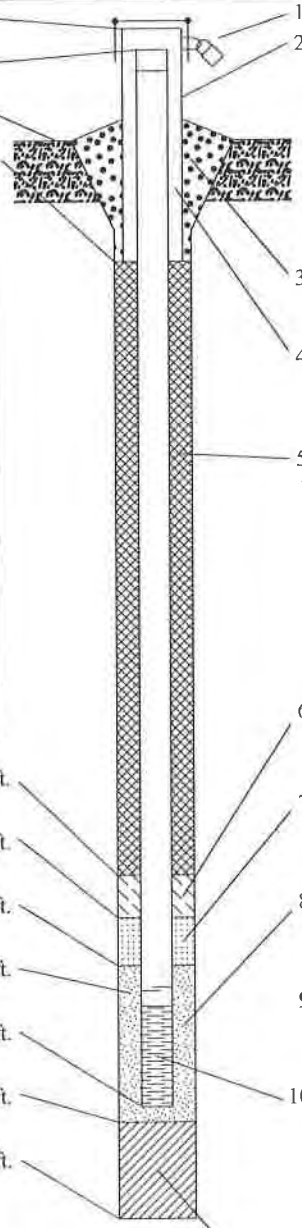
J. Filter pack, bottom ____ ft. MSL or 8.0 ft.

K. Borehole, bottom ____ ft. MSL or 8.0 ft.

L. Borehole, diameter 2.0 in.

M. O.D. well casing 1.00 in.

N. I.D. well casing 1.00 in.



1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 4.0 in.
b. Length: 0.5 ft.
c. Material: Steel ☒ 04; Other ☐
d. Additional protection? ☐ Yes ☒ No
If yes, describe: ____

3. Surface seal: Bentonite ☐ 30; Concrete ☒ 01; Other ☐

4. Material between well casing and protective pipe: Bentonite ☒ 30; Other ☐

5. Annular space seal: a. Granular/Chipped Bentonite ☐ 33
b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. ____ Lbs/gal mud weight . . . Bentonite slurry ☐ 31
d. ____ % Bentonite . . . Bentonite-cement grout ☐ 50
e. ____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01; Tremie pumped ☐ 02; Gravity ☐ 08

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. ____ Other ☐

7. Fine sand material: Manufacturer, product name & mesh size
a. ____
b. Volume added ____ ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. ____
b. Volume added ____ ft^3

9. Well casing: Flush threaded PVC schedule 40 ☒ 23; Flush threaded PVC schedule 80 ☐ 24; Other ☐

10. Screen material: PVC
a. Screen Type: Factory cut ☒ 11; Continuous slot ☐ 01; Other ☐
b. Manufacturer ____
c. Slot size: 0.010 in.
d. Slotted length: 5.0 ft

11. Backfill material (below filter pack): None ☒ 14; Other ☐

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: [signature] Firm: The Sigma Group, Inc. 1300 W Canal Street Milwaukee, WI 53233 Tel: 414-643-4200 Fax: 414-643-4210

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

Route To: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☒ Other ☐

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Irgens - BMO	Local Grid Location of Well: ____ ft. ☐ N. ☐ S. ____ ft. ☐ E. ☐ W.	Well Name: TW-7
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No.: NA / DNR Well Number: NA
Facility ID	St. Plane ____ ft. N, ____ ft. E. S/C/N	Date Well Installed: 01/30/2017
Type of Well: Well Code 11/mw	Section Location of Waste/Source: SE 1/4 of NE 1/4 of Sec. 29, T. 7 N, R. 22 ☒ E ☐ W	Well Installed By: (Person's Name and Firm): Dan Fischer; Horizon Construction and Exploration
Distance from Waste/Source ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number

A. Protective pipe, top elevation ____ ft. MSL

B. Well casing, top elevation ____ ft. MSL

C. Land surface elevation ____ ft. MSL

D. Surface seal, bottom ____ ft. MSL or 2.0 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☒ SW ☐ SP ☐
SM ☐ SC ☐ ML ☒ MH ☐ CL ☒ CH ☐
Bedrock ☐

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 5 0 / Hollow Stem Auger ☐ 4 1 / Geoprobe / Other ☒ ___

15. Drilling fluid used: Water ☐ 0 2 Air ☐ 0 1 Drilling Mud ☐ 0 3 None ☒ 9 9

16 Drilling additives used? ☐ Yes ☒ No

Describe ____

17. Source of water (attach analysis, if required):

E. Bentonite seal, top ____ ft. MSL or 0.5 ft.

F. Fine sand, top ____ ft. MSL or ____ ft.

G. Filter pack, top ____ ft. MSL or 2.0 ft.

H. Screen joint, top ____ ft. MSL or 3.0 ft.

I. Well bottom ____ ft. MSL or 8.0 ft.

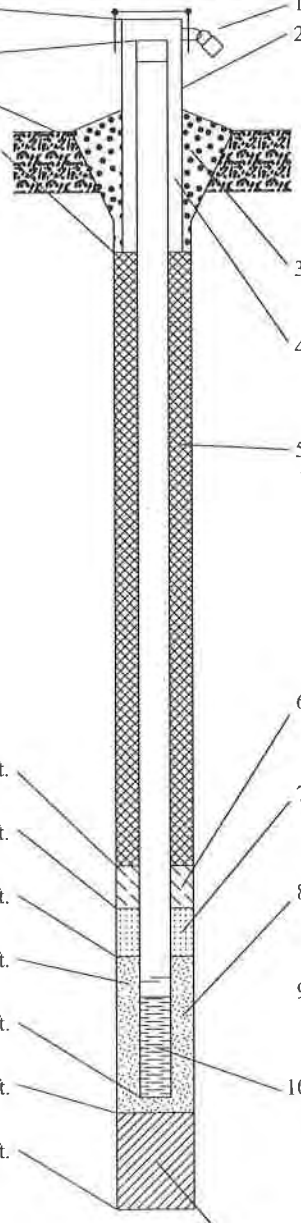
J. Filter pack, bottom ____ ft. MSL or 8.0 ft.

K. Borehole, bottom ____ ft. MSL or 8.0 ft.

L. Borehole, diameter 2.0 in.

M. O.D. well casing 1.00 in.

N. I.D. well casing 1.00 in.



1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 4.0 in.
b. Length: 0.5 ft.
c. Material: Steel ☒ 0 4 / Other ☐ ___

d. Additional protection? ☐ Yes ☒ No
If yes, describe: ____

3. Surface seal: Bentonite ☐ 3 0 / Concrete ☒ 0 1 / Other ☐ ___

4. Material between well casing and protective pipe: Bentonite ☒ 3 0 / Other ☐ ___

5. Annular space seal: a. Granular/Chipped Bentonite ☐ 3 3
b. ____Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 3 5
c. ____Lbs/gal mud weight . . . Bentonite slurry ☐ 3 1
d. ____% Bentonite . . . Bentonite-cement grout ☐ 5 0
e. ____Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 0 1 / Tremie pumped ☐ 0 2 / Gravity ☐ 0 8

6. Bentonite seal: a. Bentonite granules ☐ 3 3
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 3 2
c. ____ Other ☐ ___

7. Fine sand material: Manufacturer, product name & mesh size
a. ____
b. Volume added ____ ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. ____
b. Volume added ____ ft^3

9. Well casing: Flush threaded PVC schedule 40 ☒ 2 3 / Flush threaded PVC schedule 80 ☐ 2 4 / Other ☐ ___

10. Screen material: PVC
a. Screen Type: Factory cut ☒ 1 1 / Continuous slot ☐ 0 1 / Other ☐ ___
b. Manufacturer ____
c. Slot size: 0.010 in.
d. Slotted length: 5.0 ft.

11. Backfill material (below filter pack): None ☒ 1 4 / Other ☐ ___

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Diana Richert

Firm: The Sigma Group, Inc.
1300 W Canal Street Milwaukee, WI 53233

Tel: 414-643-4200
Fax: 414-643-4210

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

Route To: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☒ Other ☐

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Irgens - BMO	Local Grid Location of Well: ____ ft. ☐ N. ☐ S, ____ ft. ☐ E. ☐ W.	Well Name: TW-8
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat ___° ___' ___" Long. ___° ___' ___" or	Wis. Unique Well No.: NA / DNR Well Number: NA
Facility ID	St. Plane ____ ft. N, ____ ft. E. S/C/N	Date Well Installed: 01/30/2017
Type of Well: Well Code 11/mw	Section Location of Waste/Source: SE 1/4 of NE 1/4 of Sec. 29, T. 7 N, R. 22 ☒ E ☐ W	Well Installed By: (Person's Name and Firm): Dan Fischer; Horizon Construction and Exploration
Distance from Waste/Source ____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number

A. Protective pipe, top elevation ____ ft. MSL

B. Well casing, top elevation ____ ft. MSL

C. Land surface elevation ____ ft. MSL

D. Surface seal, bottom ____ ft. MSL or 2.0 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☒ SW ☐ SP ☐
SM ☐ SC ☐ ML ☒ MH ☐ CL ☒ CH ☐
Bedrock ☐

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 5 0 / Hollow Stem Auger ☐ 4 1 / Geoprobe / Other ☒ _ _

15. Drilling fluid used: Water ☐ 0 2 Air ☐ 0 1 Drilling Mud ☐ 0 3 None ☒ 9 9

16 Drilling additives used? ☐ Yes ☒ No

Describe ____

17. Source of water (attach analysis, if required):

E. Bentonite seal, top ____ ft. MSL or 0.5 ft.

F. Fine sand, top ____ ft. MSL or ____ ft.

G. Filter pack, top ____ ft. MSL or 2.0 ft.

H. Screen joint, top ____ ft. MSL or 3.0 ft.

I. Well bottom ____ ft. MSL or 8.0 ft.

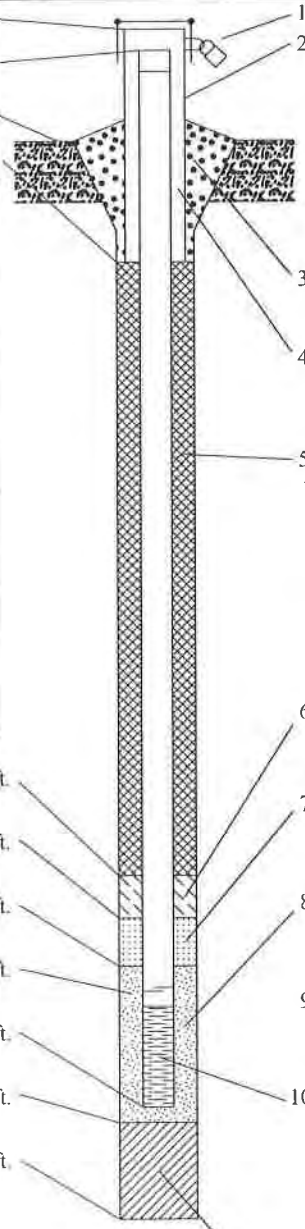
J. Filter pack, bottom ____ ft. MSL or 8.0 ft.

K. Borehole, bottom ____ ft. MSL or 8.0 ft.

L. Borehole, diameter 2.0 in.

M. O.D. well casing 1.00 in

N. I.D. well casing 1.00 in



1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 4.0 in.
b. Length: 0.5 ft.
c. Material: Steel ☒ 0 4 / ____ Other ☐ _ _
d. Additional protection? ☐ Yes ☒ No
If yes, describe: ____

3. Surface seal: Bentonite ☐ 3 0 / Concrete ☒ 0 1 / ____ Other ☐ _ _

4. Material between well casing and protective pipe: Bentonite ☒ 3 0 / ____ Other ☐ _ _

5. Annular space seal: a. Granular/Chipped Bentonite ☐ 3 3
b. ____Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 3 5
c. ____Lbs/gal mud weight . . . Bentonite slurry ☐ 3 1
d. ____% Bentonite . . . Bentonite-cement grout ☐ 5 0
e. ____Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 0 1 / Tremie pumped ☐ 0 2 / Gravity ☐ 0 8

6. Bentonite seal: a. Bentonite granules ☐ 3 3
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 3 2
c. ____ Other ☐ _ _

7. Fine sand material: Manufacturer, product name & mesh size
a. ____
b. Volume added ____ ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. ____
b. Volume added ____ ft^3

9. Well casing: Flush threaded PVC schedule 40 ☒ 2 3 / Flush threaded PVC schedule 80 ☐ 2 4 / ____ Other ☐ _ _

10. Screen material: PVC
a. Screen Type: Factory cut ☒ 1 1 / Continuous slot ☐ 0 1 / ____ Other ☐ _ _
b. Manufacturer ____
c. Slot size: 0.010 in.
d. Slotted length: 5.0 ft.

11. Backfill material (below filter pack): None ☒ 1 4 / ____ Other ☐ _ _

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: [signature] Firm: The Sigma Group, Inc., 1300 W Canal Street Milwaukee, WI 53233 Tel: 414-643-4200 Fax: 414-643-4210

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APPENDIX B

SOIL AND GROUNDWATER LABORATORY ANALYTICAL REPORTS AND CHAINS OF CUSTODY

Synergy Environmental Lab, INC.

1990 Prospect Ct., Appleton, WI 54914 *P 920-830-2455 * F 920-733-0631

CORY KATZBAN
THE SIGMA GROUP, INC.
1300 W. CANAL STREET
MILWAUKEE, WI 53233

Report Date *08-Feb-17*

Project Name IRGENS-BMO
Project # 16722-001

Invoice # E32409

Lab Code 5032409A
Sample ID TW-1 0-2'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	93.0	%			1	5021		2/1/2017	NJC	1
Inorganic										
Metals										
Lead, Total	5.22	mg/Kg	0.34	1.16	2	6010B		2/7/2017	CWT	1 46
Organic										
PAH SIM										
Acenaphthene	< 0.0135	mg/kg	0.0135	0.043	1	M8270C	2/2/2017	2/3/2017	NJC	1
Acenaphthylene	< 0.012	mg/kg	0.012	0.0381	1	M8270C	2/2/2017	2/3/2017	NJC	1
Anthracene	< 0.0124	mg/kg	0.0124	0.0395	1	M8270C	2/2/2017	2/3/2017	NJC	1
Benzo(a)anthracene	< 0.0116	mg/kg	0.0116	0.037	1	M8270C	2/2/2017	2/3/2017	NJC	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C	2/2/2017	2/3/2017	NJC	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.0414	1	M8270C	2/2/2017	2/3/2017	NJC	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.0363	1	M8270C	2/2/2017	2/3/2017	NJC	1
Benzo(k)fluoranthene	< 0.0117	mg/kg	0.0117	0.0371	1	M8270C	2/2/2017	2/3/2017	NJC	1
Chrysene	< 0.0138	mg/kg	0.0138	0.0439	1	M8270C	2/2/2017	2/3/2017	NJC	1
Dibenzo(a,h)anthracene	< 0.0142	mg/kg	0.0142	0.0453	1	M8270C	2/2/2017	2/3/2017	NJC	1
Fluoranthene	< 0.0131	mg/kg	0.0131	0.0418	1	M8270C	2/2/2017	2/3/2017	NJC	1
Fluorene	< 0.0135	mg/kg	0.0135	0.0431	1	M8270C	2/2/2017	2/3/2017	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.015	mg/kg	0.015	0.0476	1	M8270C	2/2/2017	2/3/2017	NJC	1
1-Methyl naphthalene	< 0.0143	mg/kg	0.0143	0.0456	1	M8270C	2/2/2017	2/3/2017	NJC	1
2-Methyl naphthalene	< 0.0119	mg/kg	0.0119	0.038	1	M8270C	2/2/2017	2/3/2017	NJC	1
Naphthalene	< 0.0122	mg/kg	0.0122	0.0387	1	M8270C	2/2/2017	2/3/2017	NJC	1
Phenanthrene	< 0.0109	mg/kg	0.0109	0.0347	1	M8270C	2/2/2017	2/3/2017	NJC	1
Pyrene	< 0.0126	mg/kg	0.0126	0.0401	1	M8270C	2/2/2017	2/3/2017	NJC	1
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409A
Sample ID TW-1 0-2'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		2/2/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		2/2/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		2/2/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		2/2/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		2/2/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		2/2/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		2/2/2017	CJR	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		2/2/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		2/2/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		2/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		2/2/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		2/2/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		2/2/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		2/2/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
2,2-Dichloropropane	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		2/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		2/2/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		2/2/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		2/2/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		2/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		2/2/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		2/2/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		2/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		2/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		2/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		2/2/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		2/2/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		2/2/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		2/2/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		2/2/2017	CJR	1
SUR - Toluene-d8	100	Rec %			1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409A
Sample ID TW-1 0-2'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
SUR - 1,2-Dichloroethane-d4	96	Rec %			1	8260B		2/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	105	Rec %			1	8260B		2/2/2017	CJR	1
SUR - Dibromofluoromethane	92	Rec %			1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409B
Sample ID TW-1 4-6'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	89.4	%			1	5021		2/1/2017	NJC	1
Inorganic										
Metals										
Arsenic, Total	60.6	mg/Kg	0.33	1.09	1	6010B		2/6/2017	CWT	1
Barium, Total	132	mg/Kg	0.21	0.7	1	6010B		2/6/2017	CWT	1
Cadmium, Total	1.33	mg/Kg	0.08	0.25	1	6010B		2/6/2017	CWT	1
Chromium, Total	20.7	mg/Kg	0.08	0.26	1	6010B		2/6/2017	CWT	1
Lead, Total	65.5	mg/Kg	0.17	0.58	1	6010B		2/6/2017	CWT	1
Mercury, Total	< 0.0131	mg/kg	0.0131	0.0435	1	7471		2/1/2017	CWT	1
Selenium, Total	54.0	mg/Kg	0.52	1.73	1	6010B		2/6/2017	CWT	1
Silver, Total	15.2	mg/Kg	0.57	1.89	1	6010B		2/6/2017	CWT	1
Organic										
PAH SIM										
Acenaphthene	< 0.0135	mg/kg	0.0135	0.043	1	M8270C	2/2/2017	2/3/2017	NJC	1
Acenaphthylene	< 0.012	mg/kg	0.012	0.0381	1	M8270C	2/2/2017	2/3/2017	NJC	1
Anthracene	< 0.0124	mg/kg	0.0124	0.0395	1	M8270C	2/2/2017	2/3/2017	NJC	1
Benzo(a)anthracene	< 0.0116	mg/kg	0.0116	0.037	1	M8270C	2/2/2017	2/3/2017	NJC	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C	2/2/2017	2/3/2017	NJC	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.0414	1	M8270C	2/2/2017	2/3/2017	NJC	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.0363	1	M8270C	2/2/2017	2/3/2017	NJC	1
Benzo(k)fluoranthene	< 0.0117	mg/kg	0.0117	0.0371	1	M8270C	2/2/2017	2/3/2017	NJC	1
Chrysene	< 0.0138	mg/kg	0.0138	0.0439	1	M8270C	2/2/2017	2/3/2017	NJC	1
Dibenzo(a,h)anthracene	< 0.0142	mg/kg	0.0142	0.0453	1	M8270C	2/2/2017	2/3/2017	NJC	1
Fluoranthene	< 0.0131	mg/kg	0.0131	0.0418	1	M8270C	2/2/2017	2/3/2017	NJC	1
Fluorene	< 0.0135	mg/kg	0.0135	0.0431	1	M8270C	2/2/2017	2/3/2017	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.015	mg/kg	0.015	0.0476	1	M8270C	2/2/2017	2/3/2017	NJC	1
1-Methyl naphthalene	< 0.0143	mg/kg	0.0143	0.0456	1	M8270C	2/2/2017	2/3/2017	NJC	1
2-Methyl naphthalene	< 0.0119	mg/kg	0.0119	0.038	1	M8270C	2/2/2017	2/3/2017	NJC	1
Naphthalene	< 0.0122	mg/kg	0.0122	0.0387	1	M8270C	2/2/2017	2/3/2017	NJC	1
Phenanthrene	< 0.0109	mg/kg	0.0109	0.0347	1	M8270C	2/2/2017	2/3/2017	NJC	1
Pyrene	< 0.0126	mg/kg	0.0126	0.0401	1	M8270C	2/2/2017	2/3/2017	NJC	1
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		2/2/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		2/2/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		2/2/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		2/2/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		2/2/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		2/2/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		2/2/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		2/2/2017	CJR	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		2/2/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		2/2/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		2/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		2/2/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409B
Sample ID TW-1 4-6'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		2/2/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		2/2/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		2/2/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
2,2-Dichloropropane	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		2/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		2/2/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		2/2/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		2/2/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		2/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		2/2/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		2/2/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		2/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		2/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		2/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		2/2/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		2/2/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		2/2/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		2/2/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		2/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	86	Rec %			1	8260B		2/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	113	Rec %			1	8260B		2/2/2017	CJR	1
SUR - Dibromofluoromethane	91	Rec %			1	8260B		2/2/2017	CJR	1
SUR - Toluene-d8	99	Rec %			1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409C
Sample ID SB-2 2-4'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	94.2	%			1	5021		2/1/2017	NJC	1
Inorganic										
Metals										
Lead, Total	3.45	mg/Kg	0.34	1.16	2	6010B		2/7/2017	CWT	1 49
Organic										
PAH SIM										
Acenaphthene	< 0.0135	mg/kg	0.0135	0.043	1	M8270C	2/2/2017	2/3/2017	NJC	1
Acenaphthylene	< 0.012	mg/kg	0.012	0.0381	1	M8270C	2/2/2017	2/3/2017	NJC	1
Anthracene	< 0.0124	mg/kg	0.0124	0.0395	1	M8270C	2/2/2017	2/3/2017	NJC	1
Benzo(a)anthracene	< 0.0116	mg/kg	0.0116	0.037	1	M8270C	2/2/2017	2/3/2017	NJC	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C	2/2/2017	2/3/2017	NJC	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.0414	1	M8270C	2/2/2017	2/3/2017	NJC	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.0363	1	M8270C	2/2/2017	2/3/2017	NJC	1
Benzo(k)fluoranthene	< 0.0117	mg/kg	0.0117	0.0371	1	M8270C	2/2/2017	2/3/2017	NJC	1
Chrysene	< 0.0138	mg/kg	0.0138	0.0439	1	M8270C	2/2/2017	2/3/2017	NJC	1
Dibenzo(a,h)anthracene	< 0.0142	mg/kg	0.0142	0.0453	1	M8270C	2/2/2017	2/3/2017	NJC	1
Fluoranthene	< 0.0131	mg/kg	0.0131	0.0418	1	M8270C	2/2/2017	2/3/2017	NJC	1
Fluorene	< 0.0135	mg/kg	0.0135	0.0431	1	M8270C	2/2/2017	2/3/2017	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.015	mg/kg	0.015	0.0476	1	M8270C	2/2/2017	2/3/2017	NJC	1
1-Methyl naphthalene	< 0.0143	mg/kg	0.0143	0.0456	1	M8270C	2/2/2017	2/3/2017	NJC	1
2-Methyl naphthalene	< 0.0119	mg/kg	0.0119	0.038	1	M8270C	2/2/2017	2/3/2017	NJC	1
Naphthalene	< 0.0122	mg/kg	0.0122	0.0387	1	M8270C	2/2/2017	2/3/2017	NJC	1
Phenanthrene	< 0.0109	mg/kg	0.0109	0.0347	1	M8270C	2/2/2017	2/3/2017	NJC	1
Pyrene	< 0.0126	mg/kg	0.0126	0.0401	1	M8270C	2/2/2017	2/3/2017	NJC	1
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		2/2/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		2/2/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		2/2/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		2/2/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		2/2/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		2/2/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		2/2/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		2/2/2017	CJR	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		2/2/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		2/2/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		2/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		2/2/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		2/2/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		2/2/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		2/2/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409C
Sample ID SB-2 2-4'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
2,2-Dichloropropane	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		2/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		2/2/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		2/2/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		2/2/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		2/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		2/2/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		2/2/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		2/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		2/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		2/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		2/2/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		2/2/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		2/2/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		2/2/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		2/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	90	Rec %			1	8260B		2/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	111	Rec %			1	8260B		2/2/2017	CJR	1
SUR - Dibromofluoromethane	93	Rec %			1	8260B		2/2/2017	CJR	1
SUR - Toluene-d8	100	Rec %			1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409D
Sample ID SB-2 6-8'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	82.1	%			1	5021		2/1/2017	NJC	1
Inorganic										
Metals										
Lead, Total	8.83	mg/Kg	0.17	0.58	1	6010B		2/7/2017	CWT	1
Organic										
PAH SIM										
Acenaphthene	< 0.0135	mg/kg	0.0135	0.043	1	M8270C	2/2/2017	2/4/2017	NJC	1
Acenaphthylene	< 0.012	mg/kg	0.012	0.0381	1	M8270C	2/2/2017	2/4/2017	NJC	1
Anthracene	< 0.0124	mg/kg	0.0124	0.0395	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(a)anthracene	< 0.0116	mg/kg	0.0116	0.037	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.0414	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.0363	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(k)fluoranthene	< 0.0117	mg/kg	0.0117	0.0371	1	M8270C	2/2/2017	2/4/2017	NJC	1
Chrysene	< 0.0138	mg/kg	0.0138	0.0439	1	M8270C	2/2/2017	2/4/2017	NJC	1
Dibenzo(a,h)anthracene	< 0.0142	mg/kg	0.0142	0.0453	1	M8270C	2/2/2017	2/4/2017	NJC	1
Fluoranthene	< 0.0131	mg/kg	0.0131	0.0418	1	M8270C	2/2/2017	2/4/2017	NJC	1
Fluorene	< 0.0135	mg/kg	0.0135	0.0431	1	M8270C	2/2/2017	2/4/2017	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.015	mg/kg	0.015	0.0476	1	M8270C	2/2/2017	2/4/2017	NJC	1
1-Methyl naphthalene	0.0211 "J"	mg/kg	0.0143	0.0456	1	M8270C	2/2/2017	2/4/2017	NJC	1
2-Methyl naphthalene	< 0.0119	mg/kg	0.0119	0.038	1	M8270C	2/2/2017	2/4/2017	NJC	1
Naphthalene	< 0.0122	mg/kg	0.0122	0.0387	1	M8270C	2/2/2017	2/4/2017	NJC	1
Phenanthrene	0.0128 "J"	mg/kg	0.0109	0.0347	1	M8270C	2/2/2017	2/4/2017	NJC	1
Pyrene	< 0.0126	mg/kg	0.0126	0.0401	1	M8270C	2/2/2017	2/4/2017	NJC	1
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		2/2/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		2/2/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		2/2/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		2/2/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		2/2/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		2/2/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		2/2/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		2/2/2017	CJR	4
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		2/2/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		2/2/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		2/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		2/2/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		2/2/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		2/2/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		2/2/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409D
Sample ID SB-2 6-8'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
2,2-Dichloropropane	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		2/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		2/2/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		2/2/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		2/2/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		2/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		2/2/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		2/2/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		2/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		2/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		2/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		2/2/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		2/2/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		2/2/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		2/2/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		2/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	103	Rec %			1	8260B		2/2/2017	CJR	1
SUR - Dibromofluoromethane	91	Rec %			1	8260B		2/2/2017	CJR	1
SUR - Toluene-d8	102	Rec %			1	8260B		2/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	94	Rec %			1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409E
Sample ID TW-3 0-2'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	94.3	%			1	5021		2/1/2017	NJC	1
Inorganic										
Metals										
Lead, Total	3.69	mg/Kg	0.17	0.58	1	6010B		2/7/2017	CWT	1
Organic										
PAH SIM										
Acenaphthene	< 0.0135	mg/kg	0.0135	0.043	1	M8270C	2/2/2017	2/4/2017	NJC	1
Acenaphthylene	< 0.012	mg/kg	0.012	0.0381	1	M8270C	2/2/2017	2/4/2017	NJC	1
Anthracene	< 0.0124	mg/kg	0.0124	0.0395	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(a)anthracene	< 0.0116	mg/kg	0.0116	0.037	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.0414	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.0363	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(k)fluoranthene	< 0.0117	mg/kg	0.0117	0.0371	1	M8270C	2/2/2017	2/4/2017	NJC	1
Chrysene	< 0.0138	mg/kg	0.0138	0.0439	1	M8270C	2/2/2017	2/4/2017	NJC	1
Dibenzo(a,h)anthracene	< 0.0142	mg/kg	0.0142	0.0453	1	M8270C	2/2/2017	2/4/2017	NJC	1
Fluoranthene	< 0.0131	mg/kg	0.0131	0.0418	1	M8270C	2/2/2017	2/4/2017	NJC	1
Fluorene	< 0.0135	mg/kg	0.0135	0.0431	1	M8270C	2/2/2017	2/4/2017	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.015	mg/kg	0.015	0.0476	1	M8270C	2/2/2017	2/4/2017	NJC	1
1-Methyl naphthalene	< 0.0143	mg/kg	0.0143	0.0456	1	M8270C	2/2/2017	2/4/2017	NJC	1
2-Methyl naphthalene	< 0.0119	mg/kg	0.0119	0.038	1	M8270C	2/2/2017	2/4/2017	NJC	1
Naphthalene	< 0.0122	mg/kg	0.0122	0.0387	1	M8270C	2/2/2017	2/4/2017	NJC	1
Phenanthrene	< 0.0109	mg/kg	0.0109	0.0347	1	M8270C	2/2/2017	2/4/2017	NJC	1
Pyrene	< 0.0126	mg/kg	0.0126	0.0401	1	M8270C	2/2/2017	2/4/2017	NJC	1
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		2/2/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		2/2/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		2/2/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		2/2/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		2/2/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		2/2/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		2/2/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		2/2/2017	CJR	4
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		2/2/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		2/2/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		2/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		2/2/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		2/2/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		2/2/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		2/2/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409E
Sample ID TW-3 0-2'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
2,2-Dichloropropane	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		2/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		2/2/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		2/2/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		2/2/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		2/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		2/2/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		2/2/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		2/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		2/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		2/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		2/2/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		2/2/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		2/2/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		2/2/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		2/2/2017	CJR	1
SUR - Toluene-d8	100	Rec %			1	8260B		2/2/2017	CJR	1
SUR - Dibromofluoromethane	95	Rec %			1	8260B		2/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	97	Rec %			1	8260B		2/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	108	Rec %			1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409F
Sample ID TW-3 2-4'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	89.8	%			1	5021		2/1/2017	NJC	1
Inorganic										
Metals										
Lead, Total	3.82	mg/Kg	0.17	0.58	1	6010B		2/7/2017	CWT	1
Organic										
PAH SIM										
Acenaphthene	< 0.0135	mg/kg	0.0135	0.043	1	M8270C	2/2/2017	2/4/2017	NJC	1
Acenaphthylene	< 0.012	mg/kg	0.012	0.0381	1	M8270C	2/2/2017	2/4/2017	NJC	1
Anthracene	< 0.0124	mg/kg	0.0124	0.0395	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(a)anthracene	< 0.0116	mg/kg	0.0116	0.037	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.0414	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.0363	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(k)fluoranthene	< 0.0117	mg/kg	0.0117	0.0371	1	M8270C	2/2/2017	2/4/2017	NJC	1
Chrysene	< 0.0138	mg/kg	0.0138	0.0439	1	M8270C	2/2/2017	2/4/2017	NJC	1
Dibenzo(a,h)anthracene	< 0.0142	mg/kg	0.0142	0.0453	1	M8270C	2/2/2017	2/4/2017	NJC	1
Fluoranthene	< 0.0131	mg/kg	0.0131	0.0418	1	M8270C	2/2/2017	2/4/2017	NJC	1
Fluorene	< 0.0135	mg/kg	0.0135	0.0431	1	M8270C	2/2/2017	2/4/2017	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.015	mg/kg	0.015	0.0476	1	M8270C	2/2/2017	2/4/2017	NJC	1
1-Methyl naphthalene	< 0.0143	mg/kg	0.0143	0.0456	1	M8270C	2/2/2017	2/4/2017	NJC	1
2-Methyl naphthalene	< 0.0119	mg/kg	0.0119	0.038	1	M8270C	2/2/2017	2/4/2017	NJC	1
Naphthalene	< 0.0122	mg/kg	0.0122	0.0387	1	M8270C	2/2/2017	2/4/2017	NJC	1
Phenanthrene	< 0.0109	mg/kg	0.0109	0.0347	1	M8270C	2/2/2017	2/4/2017	NJC	1
Pyrene	< 0.0126	mg/kg	0.0126	0.0401	1	M8270C	2/2/2017	2/4/2017	NJC	1
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		2/2/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		2/2/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		2/2/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		2/2/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		2/2/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		2/2/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		2/2/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		2/2/2017	CJR	4
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		2/2/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		2/2/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		2/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		2/2/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		2/2/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		2/2/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		2/2/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409F
Sample ID TW-3 2-4'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
2,2-Dichloropropane	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		2/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		2/2/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		2/2/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		2/2/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		2/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		2/2/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		2/2/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		2/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		2/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		2/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		2/2/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		2/2/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		2/2/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		2/2/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		2/2/2017	CJR	1
SUR - Toluene-d8	100	Rec %			1	8260B		2/2/2017	CJR	1
SUR - Dibromofluoromethane	98	Rec %			1	8260B		2/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	108	Rec %			1	8260B		2/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	105	Rec %			1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409G
Sample ID SB-4 0-2'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	91.6	%			1	5021		2/1/2017	NJC	1
Inorganic										
Metals										
Lead, Total	3.64	mg/Kg	0.17	0.58	1	6010B		2/7/2017	CWT	1
Organic										
PAH SIM										
Acenaphthene	< 0.0135	mg/kg	0.0135	0.043	1	M8270C	2/2/2017	2/4/2017	NJC	1
Acenaphthylene	< 0.012	mg/kg	0.012	0.0381	1	M8270C	2/2/2017	2/4/2017	NJC	1
Anthracene	< 0.0124	mg/kg	0.0124	0.0395	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(a)anthracene	< 0.0116	mg/kg	0.0116	0.037	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.0414	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.0363	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(k)fluoranthene	< 0.0117	mg/kg	0.0117	0.0371	1	M8270C	2/2/2017	2/4/2017	NJC	1
Chrysene	< 0.0138	mg/kg	0.0138	0.0439	1	M8270C	2/2/2017	2/4/2017	NJC	1
Dibenzo(a,h)anthracene	< 0.0142	mg/kg	0.0142	0.0453	1	M8270C	2/2/2017	2/4/2017	NJC	1
Fluoranthene	< 0.0131	mg/kg	0.0131	0.0418	1	M8270C	2/2/2017	2/4/2017	NJC	1
Fluorene	< 0.0135	mg/kg	0.0135	0.0431	1	M8270C	2/2/2017	2/4/2017	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.015	mg/kg	0.015	0.0476	1	M8270C	2/2/2017	2/4/2017	NJC	1
1-Methyl naphthalene	< 0.0143	mg/kg	0.0143	0.0456	1	M8270C	2/2/2017	2/4/2017	NJC	1
2-Methyl naphthalene	< 0.0119	mg/kg	0.0119	0.038	1	M8270C	2/2/2017	2/4/2017	NJC	1
Naphthalene	< 0.0122	mg/kg	0.0122	0.0387	1	M8270C	2/2/2017	2/4/2017	NJC	1
Phenanthrene	< 0.0109	mg/kg	0.0109	0.0347	1	M8270C	2/2/2017	2/4/2017	NJC	1
Pyrene	< 0.0126	mg/kg	0.0126	0.0401	1	M8270C	2/2/2017	2/4/2017	NJC	1
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		2/2/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		2/2/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		2/2/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		2/2/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		2/2/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		2/2/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		2/2/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		2/2/2017	CJR	4
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		2/2/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		2/2/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		2/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		2/2/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		2/2/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		2/2/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		2/2/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409G
Sample ID SB-4 0-2'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
2,2-Dichloropropane	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		2/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		2/2/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		2/2/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		2/2/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		2/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		2/2/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		2/2/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		2/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		2/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		2/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		2/2/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		2/2/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		2/2/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		2/2/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		2/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	104	Rec %			1	8260B		2/2/2017	CJR	1
SUR - Dibromofluoromethane	90	Rec %			1	8260B		2/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	89	Rec %			1	8260B		2/2/2017	CJR	1
SUR - Toluene-d8	104	Rec %			1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409H
Sample ID SB-4 4-6'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	87.3	%			1	5021		2/1/2017	NJC	1
Inorganic										
Metals										
Lead, Total	4.67	mg/Kg	0.34	1.16	2	6010B		2/7/2017	CWT	1 49
Organic										
PAH SIM										
Acenaphthene	< 0.0135	mg/kg	0.0135	0.043	1	M8270C	2/2/2017	2/4/2017	NJC	1
Acenaphthylene	< 0.012	mg/kg	0.012	0.0381	1	M8270C	2/2/2017	2/4/2017	NJC	1
Anthracene	< 0.0124	mg/kg	0.0124	0.0395	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(a)anthracene	< 0.0116	mg/kg	0.0116	0.037	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.0414	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.0363	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(k)fluoranthene	< 0.0117	mg/kg	0.0117	0.0371	1	M8270C	2/2/2017	2/4/2017	NJC	1
Chrysene	< 0.0138	mg/kg	0.0138	0.0439	1	M8270C	2/2/2017	2/4/2017	NJC	1
Dibenzo(a,h)anthracene	< 0.0142	mg/kg	0.0142	0.0453	1	M8270C	2/2/2017	2/4/2017	NJC	1
Fluoranthene	< 0.0131	mg/kg	0.0131	0.0418	1	M8270C	2/2/2017	2/4/2017	NJC	1
Fluorene	< 0.0135	mg/kg	0.0135	0.0431	1	M8270C	2/2/2017	2/4/2017	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.015	mg/kg	0.015	0.0476	1	M8270C	2/2/2017	2/4/2017	NJC	1
1-Methyl naphthalene	< 0.0143	mg/kg	0.0143	0.0456	1	M8270C	2/2/2017	2/4/2017	NJC	1
2-Methyl naphthalene	< 0.0119	mg/kg	0.0119	0.038	1	M8270C	2/2/2017	2/4/2017	NJC	1
Naphthalene	< 0.0122	mg/kg	0.0122	0.0387	1	M8270C	2/2/2017	2/4/2017	NJC	1
Phenanthrene	< 0.0109	mg/kg	0.0109	0.0347	1	M8270C	2/2/2017	2/4/2017	NJC	1
Pyrene	< 0.0126	mg/kg	0.0126	0.0401	1	M8270C	2/2/2017	2/4/2017	NJC	1
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		2/2/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		2/2/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		2/2/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		2/2/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		2/2/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		2/2/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		2/2/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		2/2/2017	CJR	4
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		2/2/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		2/2/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		2/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		2/2/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		2/2/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		2/2/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		2/2/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409H
Sample ID SB-4 4-6'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
2,2-Dichloropropane	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		2/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		2/2/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		2/2/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		2/2/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		2/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		2/2/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		2/2/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		2/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		2/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		2/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		2/2/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		2/2/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		2/2/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		2/2/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		2/2/2017	CJR	1
SUR - Toluene-d8	103	Rec %			1	8260B		2/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	93	Rec %			1	8260B		2/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	104	Rec %			1	8260B		2/2/2017	CJR	1
SUR - Dibromofluoromethane	93	Rec %			1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409I
Sample ID SB-5 0-2'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	89.3	%			1	5021		2/1/2017	NJC	1
Inorganic										
Metals										
Lead, Total	1.30	mg/Kg	0.17	0.58	1	6010B		2/7/2017	CWT	1
Organic										
PAH SIM										
Acenaphthene	< 0.0135	mg/kg	0.0135	0.043	1	M8270C	2/2/2017	2/4/2017	NJC	1
Acenaphthylene	< 0.012	mg/kg	0.012	0.0381	1	M8270C	2/2/2017	2/4/2017	NJC	1
Anthracene	< 0.0124	mg/kg	0.0124	0.0395	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(a)anthracene	0.0118 "J"	mg/kg	0.0116	0.037	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.0414	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.0363	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(k)fluoranthene	< 0.0117	mg/kg	0.0117	0.0371	1	M8270C	2/2/2017	2/4/2017	NJC	1
Chrysene	0.015 "J"	mg/kg	0.0138	0.0439	1	M8270C	2/2/2017	2/4/2017	NJC	1
Dibenzo(a,h)anthracene	< 0.0142	mg/kg	0.0142	0.0453	1	M8270C	2/2/2017	2/4/2017	NJC	1
Fluoranthene	0.0273 "J"	mg/kg	0.0131	0.0418	1	M8270C	2/2/2017	2/4/2017	NJC	1
Fluorene	< 0.0135	mg/kg	0.0135	0.0431	1	M8270C	2/2/2017	2/4/2017	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.015	mg/kg	0.015	0.0476	1	M8270C	2/2/2017	2/4/2017	NJC	1
1-Methyl naphthalene	0.017 "J"	mg/kg	0.0143	0.0456	1	M8270C	2/2/2017	2/4/2017	NJC	1
2-Methyl naphthalene	0.0148 "J"	mg/kg	0.0119	0.038	1	M8270C	2/2/2017	2/4/2017	NJC	1
Naphthalene	< 0.0122	mg/kg	0.0122	0.0387	1	M8270C	2/2/2017	2/4/2017	NJC	1
Phenanthrene	0.0168 "J"	mg/kg	0.0109	0.0347	1	M8270C	2/2/2017	2/4/2017	NJC	1
Pyrene	0.0245 "J"	mg/kg	0.0126	0.0401	1	M8270C	2/2/2017	2/4/2017	NJC	1
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		2/2/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		2/2/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		2/2/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		2/2/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		2/2/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		2/2/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		2/2/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		2/2/2017	CJR	4
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		2/2/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		2/2/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		2/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		2/2/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		2/2/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		2/2/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		2/2/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409I
Sample ID SB-5 0-2'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
2,2-Dichloropropane	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		2/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		2/2/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		2/2/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		2/2/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		2/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		2/2/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		2/2/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		2/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		2/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		2/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		2/2/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
1,2,4-Trimethylbenzene	0.083	mg/kg	0.025	0.08	1	8260B		2/2/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		2/2/2017	CJR	1
m&p-Xylene	0.102 "J"	mg/kg	0.072	0.23	1	8260B		2/2/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		2/2/2017	CJR	1
SUR - Dibromofluoromethane	90	Rec %			1	8260B		2/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	108	Rec %			1	8260B		2/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	91	Rec %			1	8260B		2/2/2017	CJR	1
SUR - Toluene-d8	101	Rec %			1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409J
Sample ID SB-5 2-4'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	89.6	%			1	5021		2/1/2017	NJC	1
Inorganic										
Metals										
Arsenic, Total	3.91	mg/Kg	0.33	1.09	1	6010B		2/6/2017	CWT	1
Barium, Total	21.8	mg/Kg	0.21	0.7	1	6010B		2/6/2017	CWT	1
Cadmium, Total	< 0.02	mg/Kg	0.08	0.25	1	6010B		2/6/2017	CWT	1
Chromium, Total	8.21	mg/Kg	0.08	0.26	1	6010B		2/6/2017	CWT	1
Lead, Total	9.45	mg/Kg	0.17	0.58	1	6010B		2/6/2017	CWT	1
Mercury, Total	< 0.0131	mg/kg	0.0131	0.0435	1	7471		2/1/2017	CWT	1
Selenium, Total	< 0.52	mg/Kg	0.52	1.73	1	6010B		2/6/2017	CWT	1
Silver, Total	< 0.57	mg/Kg	0.57	1.89	1	6010B		2/6/2017	CWT	1
Organic										
PAH SIM										
Acenaphthene	< 0.0135	mg/kg	0.0135	0.043	1	M8270C	2/2/2017	2/4/2017	NJC	1
Acenaphthylene	< 0.012	mg/kg	0.012	0.0381	1	M8270C	2/2/2017	2/4/2017	NJC	1
Anthracene	< 0.0124	mg/kg	0.0124	0.0395	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(a)anthracene	< 0.0116	mg/kg	0.0116	0.037	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.0414	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.0363	1	M8270C	2/2/2017	2/4/2017	NJC	1
Benzo(k)fluoranthene	< 0.0117	mg/kg	0.0117	0.0371	1	M8270C	2/2/2017	2/4/2017	NJC	1
Chrysene	< 0.0138	mg/kg	0.0138	0.0439	1	M8270C	2/2/2017	2/4/2017	NJC	1
Dibenzo(a,h)anthracene	< 0.0142	mg/kg	0.0142	0.0453	1	M8270C	2/2/2017	2/4/2017	NJC	1
Fluoranthene	< 0.0131	mg/kg	0.0131	0.0418	1	M8270C	2/2/2017	2/4/2017	NJC	1
Fluorene	< 0.0135	mg/kg	0.0135	0.0431	1	M8270C	2/2/2017	2/4/2017	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.015	mg/kg	0.015	0.0476	1	M8270C	2/2/2017	2/4/2017	NJC	1
1-Methyl naphthalene	< 0.0143	mg/kg	0.0143	0.0456	1	M8270C	2/2/2017	2/4/2017	NJC	1
2-Methyl naphthalene	< 0.0119	mg/kg	0.0119	0.038	1	M8270C	2/2/2017	2/4/2017	NJC	1
Naphthalene	< 0.0122	mg/kg	0.0122	0.0387	1	M8270C	2/2/2017	2/4/2017	NJC	1
Phenanthrene	< 0.0109	mg/kg	0.0109	0.0347	1	M8270C	2/2/2017	2/4/2017	NJC	1
Pyrene	< 0.0126	mg/kg	0.0126	0.0401	1	M8270C	2/2/2017	2/4/2017	NJC	1
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		2/2/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		2/2/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		2/2/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		2/2/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		2/2/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		2/2/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		2/2/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		2/2/2017	CJR	4
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		2/2/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		2/2/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		2/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		2/2/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409J
Sample ID SB-5 2-4'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		2/2/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		2/2/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		2/2/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
2,2-Dichloropropane	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		2/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		2/2/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		2/2/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		2/2/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		2/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		2/2/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		2/2/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		2/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		2/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		2/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		2/2/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		2/2/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		2/2/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		2/2/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		2/2/2017	CJR	1
SUR - Toluene-d8	104	Rec %			1	8260B		2/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	96	Rec %			1	8260B		2/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	108	Rec %			1	8260B		2/2/2017	CJR	1
SUR - Dibromofluoromethane	95	Rec %			1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409K
Sample ID SB-6 2-4'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	94.0	%			1	5021		2/1/2017	NJC	1
Inorganic										
Metals										
Lead, Total	4.62	mg/Kg	0.34	1.16	2	6010B		2/7/2017	CWT	1 49
Organic										
PAH SIM										
Acenaphthene	< 0.0135	mg/kg	0.0135	0.043	1	M8270C	2/6/2017	2/6/2017	NJC	1
Acenaphthylene	< 0.012	mg/kg	0.012	0.0381	1	M8270C	2/6/2017	2/6/2017	NJC	1
Anthracene	< 0.0124	mg/kg	0.0124	0.0395	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(a)anthracene	< 0.0116	mg/kg	0.0116	0.037	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.0414	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.0363	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(k)fluoranthene	< 0.0117	mg/kg	0.0117	0.0371	1	M8270C	2/6/2017	2/6/2017	NJC	1
Chrysene	< 0.0138	mg/kg	0.0138	0.0439	1	M8270C	2/6/2017	2/6/2017	NJC	1
Dibenzo(a,h)anthracene	< 0.0142	mg/kg	0.0142	0.0453	1	M8270C	2/6/2017	2/6/2017	NJC	1
Fluoranthene	< 0.0131	mg/kg	0.0131	0.0418	1	M8270C	2/6/2017	2/6/2017	NJC	1
Fluorene	< 0.0135	mg/kg	0.0135	0.0431	1	M8270C	2/6/2017	2/6/2017	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.015	mg/kg	0.015	0.0476	1	M8270C	2/6/2017	2/6/2017	NJC	1
1-Methyl naphthalene	< 0.0143	mg/kg	0.0143	0.0456	1	M8270C	2/6/2017	2/6/2017	NJC	1
2-Methyl naphthalene	< 0.0119	mg/kg	0.0119	0.038	1	M8270C	2/6/2017	2/6/2017	NJC	1
Naphthalene	< 0.0122	mg/kg	0.0122	0.0387	1	M8270C	2/6/2017	2/6/2017	NJC	1
Phenanthrene	< 0.0109	mg/kg	0.0109	0.0347	1	M8270C	2/6/2017	2/6/2017	NJC	1
Pyrene	< 0.0126	mg/kg	0.0126	0.0401	1	M8270C	2/6/2017	2/6/2017	NJC	1
PCB'S										
PCB-1016	< 0.0035	mg/kg	0.0035	0.0117	1	EPA 8082A		2/7/2017	ESC	1
PCB-1221	< 0.0054	mg/kg	0.0054	0.0179	1	EPA 8082A		2/7/2017	ESC	1
PCB-1232	< 0.0042	mg/kg	0.0042	0.0139	1	EPA 8082A		2/7/2017	ESC	1
PCB-1242	< 0.0032	mg/kg	0.0032	0.0106	1	EPA 8082A		2/7/2017	ESC	1
PCB-1248	< 0.0032	mg/kg	0.0032	0.0105	1	EPA 8082A		2/7/2017	ESC	1
PCB-1254	< 0.0047	mg/kg	0.0047	0.0157	1	EPA 8082A		2/7/2017	ESC	1
PCB-1260	< 0.0049	mg/kg	0.0049	0.0165	1	EPA 8082A		2/7/2017	ESC	1
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		2/2/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		2/2/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		2/2/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		2/2/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		2/2/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		2/2/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		2/2/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		2/2/2017	CJR	4
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		2/2/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		2/2/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		2/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409K
Sample ID SB-6 2-4'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		2/2/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		2/2/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		2/2/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
2,2-Dichloropropane	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		2/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		2/2/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		2/2/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		2/2/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		2/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		2/2/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		2/2/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		2/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		2/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		2/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		2/2/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		2/2/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		2/2/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		2/2/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		2/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	108	Rec %			1	8260B		2/2/2017	CJR	1
SUR - Dibromofluoromethane	92	Rec %			1	8260B		2/2/2017	CJR	1
SUR - Toluene-d8	99	Rec %			1	8260B		2/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	98	Rec %			1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409L
Sample ID SB-6 6-8'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	82.8	%			1	5021		2/1/2017	NJC	1
Inorganic										
Metals										
Lead, Total	6.04	mg/Kg	0.17	0.58	1	6010B		2/7/2017	CWT	1
Organic										
PAH SIM										
Acenaphthene	< 0.0135	mg/kg	0.0135	0.043	1	M8270C	2/6/2017	2/6/2017	NJC	1
Acenaphthylene	< 0.012	mg/kg	0.012	0.0381	1	M8270C	2/6/2017	2/6/2017	NJC	1
Anthracene	< 0.0124	mg/kg	0.0124	0.0395	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(a)anthracene	< 0.0116	mg/kg	0.0116	0.037	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.0414	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.0363	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(k)fluoranthene	< 0.0117	mg/kg	0.0117	0.0371	1	M8270C	2/6/2017	2/6/2017	NJC	1
Chrysene	< 0.0138	mg/kg	0.0138	0.0439	1	M8270C	2/6/2017	2/6/2017	NJC	1
Dibenzo(a,h)anthracene	< 0.0142	mg/kg	0.0142	0.0453	1	M8270C	2/6/2017	2/6/2017	NJC	1
Fluoranthene	< 0.0131	mg/kg	0.0131	0.0418	1	M8270C	2/6/2017	2/6/2017	NJC	1
Fluorene	< 0.0135	mg/kg	0.0135	0.0431	1	M8270C	2/6/2017	2/6/2017	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.015	mg/kg	0.015	0.0476	1	M8270C	2/6/2017	2/6/2017	NJC	1
1-Methyl naphthalene	< 0.0143	mg/kg	0.0143	0.0456	1	M8270C	2/6/2017	2/6/2017	NJC	1
2-Methyl naphthalene	< 0.0119	mg/kg	0.0119	0.038	1	M8270C	2/6/2017	2/6/2017	NJC	1
Naphthalene	< 0.0122	mg/kg	0.0122	0.0387	1	M8270C	2/6/2017	2/6/2017	NJC	1
Phenanthrene	< 0.0109	mg/kg	0.0109	0.0347	1	M8270C	2/6/2017	2/6/2017	NJC	1
Pyrene	< 0.0126	mg/kg	0.0126	0.0401	1	M8270C	2/6/2017	2/6/2017	NJC	1
PCB'S										
PCB-1016	< 0.0035	mg/kg	0.0035	0.0117	1	EPA 8082A		2/7/2017	ESC	1
PCB-1221	< 0.0054	mg/kg	0.0054	0.0179	1	EPA 8082A		2/7/2017	ESC	1
PCB-1232	< 0.0042	mg/kg	0.0042	0.0139	1	EPA 8082A		2/7/2017	ESC	1
PCB-1242	< 0.0032	mg/kg	0.0032	0.0106	1	EPA 8082A		2/7/2017	ESC	1
PCB-1248	< 0.0032	mg/kg	0.0032	0.0105	1	EPA 8082A		2/7/2017	ESC	1
PCB-1254	< 0.0047	mg/kg	0.0047	0.0157	1	EPA 8082A		2/7/2017	ESC	1
PCB-1260	< 0.0049	mg/kg	0.0049	0.0165	1	EPA 8082A		2/7/2017	ESC	1
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		2/2/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		2/2/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		2/2/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		2/2/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		2/2/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		2/2/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		2/2/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		2/2/2017	CJR	4
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		2/2/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		2/2/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		2/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409L
Sample ID SB-6 6-8'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		2/2/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		2/2/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		2/2/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
2,2-Dichloropropane	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		2/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		2/2/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		2/2/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		2/2/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		2/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		2/2/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		2/2/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		2/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		2/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		2/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		2/2/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		2/2/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		2/2/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		2/2/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		2/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	98	Rec %			1	8260B		2/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	110	Rec %			1	8260B		2/2/2017	CJR	1
SUR - Dibromofluoromethane	95	Rec %			1	8260B		2/2/2017	CJR	1
SUR - Toluene-d8	101	Rec %			1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409M
Sample ID TW-7 0-2'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	91.6	%			1	5021		2/1/2017	NJC	1
Inorganic										
Metals										
Lead, Total	4.80	mg/Kg	0.34	1.16	2	6010B		2/7/2017	CWT	1 49
Organic										
PAH SIM										
Acenaphthene	< 0.0135	mg/kg	0.0135	0.043	1	M8270C	2/6/2017	2/6/2017	NJC	1
Acenaphthylene	< 0.012	mg/kg	0.012	0.0381	1	M8270C	2/6/2017	2/6/2017	NJC	1
Anthracene	< 0.0124	mg/kg	0.0124	0.0395	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(a)anthracene	< 0.0116	mg/kg	0.0116	0.037	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.0414	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.0363	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(k)fluoranthene	< 0.0117	mg/kg	0.0117	0.0371	1	M8270C	2/6/2017	2/6/2017	NJC	1
Chrysene	< 0.0138	mg/kg	0.0138	0.0439	1	M8270C	2/6/2017	2/6/2017	NJC	1
Dibenzo(a,h)anthracene	< 0.0142	mg/kg	0.0142	0.0453	1	M8270C	2/6/2017	2/6/2017	NJC	1
Fluoranthene	< 0.0131	mg/kg	0.0131	0.0418	1	M8270C	2/6/2017	2/6/2017	NJC	1
Fluorene	< 0.0135	mg/kg	0.0135	0.0431	1	M8270C	2/6/2017	2/6/2017	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.015	mg/kg	0.015	0.0476	1	M8270C	2/6/2017	2/6/2017	NJC	1
1-Methyl naphthalene	< 0.0143	mg/kg	0.0143	0.0456	1	M8270C	2/6/2017	2/6/2017	NJC	1
2-Methyl naphthalene	< 0.0119	mg/kg	0.0119	0.038	1	M8270C	2/6/2017	2/6/2017	NJC	1
Naphthalene	< 0.0122	mg/kg	0.0122	0.0387	1	M8270C	2/6/2017	2/6/2017	NJC	1
Phenanthrene	< 0.0109	mg/kg	0.0109	0.0347	1	M8270C	2/6/2017	2/6/2017	NJC	1
Pyrene	< 0.0126	mg/kg	0.0126	0.0401	1	M8270C	2/6/2017	2/6/2017	NJC	1
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		2/2/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		2/2/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		2/2/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		2/2/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		2/2/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		2/2/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		2/2/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		2/2/2017	CJR	4
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		2/2/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		2/2/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		2/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		2/2/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		2/2/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		2/2/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		2/2/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409M
Sample ID TW-7 0-2'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
2,2-Dichloropropane	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		2/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		2/2/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		2/2/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		2/2/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		2/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		2/2/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		2/2/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		2/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		2/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		2/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		2/2/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		2/2/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		2/2/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		2/2/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		2/2/2017	CJR	1
SUR - Dibromofluoromethane	95	Rec %			1	8260B		2/2/2017	CJR	1
SUR - Toluene-d8	100	Rec %			1	8260B		2/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	102	Rec %			1	8260B		2/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	112	Rec %			1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409N
Sample ID TW-7 2-4'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	88.6	%			1	5021		2/1/2017	NJC	1
Inorganic										
Metals										
Lead, Total	2.14	mg/Kg	0.17	0.58	1	6010B		2/7/2017	CWT	1
Organic										
PAH SIM										
Acenaphthene	< 0.0135	mg/kg	0.0135	0.043	1	M8270C	2/6/2017	2/6/2017	NJC	1
Acenaphthylene	< 0.012	mg/kg	0.012	0.0381	1	M8270C	2/6/2017	2/6/2017	NJC	1
Anthracene	< 0.0124	mg/kg	0.0124	0.0395	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(a)anthracene	< 0.0116	mg/kg	0.0116	0.037	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.0414	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.0363	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(k)fluoranthene	< 0.0117	mg/kg	0.0117	0.0371	1	M8270C	2/6/2017	2/6/2017	NJC	1
Chrysene	< 0.0138	mg/kg	0.0138	0.0439	1	M8270C	2/6/2017	2/6/2017	NJC	1
Dibenzo(a,h)anthracene	< 0.0142	mg/kg	0.0142	0.0453	1	M8270C	2/6/2017	2/6/2017	NJC	1
Fluoranthene	< 0.0131	mg/kg	0.0131	0.0418	1	M8270C	2/6/2017	2/6/2017	NJC	1
Fluorene	< 0.0135	mg/kg	0.0135	0.0431	1	M8270C	2/6/2017	2/6/2017	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.015	mg/kg	0.015	0.0476	1	M8270C	2/6/2017	2/6/2017	NJC	1
1-Methyl naphthalene	< 0.0143	mg/kg	0.0143	0.0456	1	M8270C	2/6/2017	2/6/2017	NJC	1
2-Methyl naphthalene	< 0.0119	mg/kg	0.0119	0.038	1	M8270C	2/6/2017	2/6/2017	NJC	1
Naphthalene	< 0.0122	mg/kg	0.0122	0.0387	1	M8270C	2/6/2017	2/6/2017	NJC	1
Phenanthrene	< 0.0109	mg/kg	0.0109	0.0347	1	M8270C	2/6/2017	2/6/2017	NJC	1
Pyrene	< 0.0126	mg/kg	0.0126	0.0401	1	M8270C	2/6/2017	2/6/2017	NJC	1
PCB'S										
PCB-1016	< 0.0035	mg/kg	0.0035	0.0117	1	EPA 8082A		2/7/2017	ESC	1
PCB-1221	< 0.0054	mg/kg	0.0054	0.0179	1	EPA 8082A		2/7/2017	ESC	1
PCB-1232	< 0.0042	mg/kg	0.0042	0.0139	1	EPA 8082A		2/7/2017	ESC	1
PCB-1242	< 0.0032	mg/kg	0.0032	0.0106	1	EPA 8082A		2/7/2017	ESC	1
PCB-1248	< 0.0032	mg/kg	0.0032	0.0105	1	EPA 8082A		2/7/2017	ESC	1
PCB-1254	< 0.0047	mg/kg	0.0047	0.0157	1	EPA 8082A		2/7/2017	ESC	1
PCB-1260	< 0.0049	mg/kg	0.0049	0.0165	1	EPA 8082A		2/7/2017	ESC	1
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		2/2/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		2/2/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		2/2/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		2/2/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		2/2/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		2/2/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		2/2/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		2/2/2017	CJR	4
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		2/2/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		2/2/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		2/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409N
Sample ID TW-7 2-4'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		2/2/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		2/2/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		2/2/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
2,2-Dichloropropane	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		2/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		2/2/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		2/2/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		2/2/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		2/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		2/2/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		2/2/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		2/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		2/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		2/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		2/2/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		2/2/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		2/2/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		2/2/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		2/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	89	Rec %			1	8260B		2/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	105	Rec %			1	8260B		2/2/2017	CJR	1
SUR - Dibromofluoromethane	92	Rec %			1	8260B		2/2/2017	CJR	1
SUR - Toluene-d8	100	Rec %			1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409O
Sample ID TW-8 0-2'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	89.9	%			1	5021		2/1/2017	NJC	1
Inorganic										
Metals										
Lead, Total	3.52	mg/Kg	0.17	0.58	1	6010B		2/7/2017	CWT	1
Organic										
PAH SIM										
Acenaphthene	< 0.0135	mg/kg	0.0135	0.043	1	M8270C	2/6/2017	2/6/2017	NJC	1
Acenaphthylene	< 0.012	mg/kg	0.012	0.0381	1	M8270C	2/6/2017	2/6/2017	NJC	1
Anthracene	< 0.0124	mg/kg	0.0124	0.0395	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(a)anthracene	< 0.0116	mg/kg	0.0116	0.037	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.0414	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.0363	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(k)fluoranthene	< 0.0117	mg/kg	0.0117	0.0371	1	M8270C	2/6/2017	2/6/2017	NJC	1
Chrysene	< 0.0138	mg/kg	0.0138	0.0439	1	M8270C	2/6/2017	2/6/2017	NJC	1
Dibenzo(a,h)anthracene	< 0.0142	mg/kg	0.0142	0.0453	1	M8270C	2/6/2017	2/6/2017	NJC	1
Fluoranthene	< 0.0131	mg/kg	0.0131	0.0418	1	M8270C	2/6/2017	2/6/2017	NJC	1
Fluorene	< 0.0135	mg/kg	0.0135	0.0431	1	M8270C	2/6/2017	2/6/2017	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.015	mg/kg	0.015	0.0476	1	M8270C	2/6/2017	2/6/2017	NJC	1
1-Methyl naphthalene	< 0.0143	mg/kg	0.0143	0.0456	1	M8270C	2/6/2017	2/6/2017	NJC	1
2-Methyl naphthalene	< 0.0119	mg/kg	0.0119	0.038	1	M8270C	2/6/2017	2/6/2017	NJC	1
Naphthalene	< 0.0122	mg/kg	0.0122	0.0387	1	M8270C	2/6/2017	2/6/2017	NJC	1
Phenanthrene	< 0.0109	mg/kg	0.0109	0.0347	1	M8270C	2/6/2017	2/6/2017	NJC	1
Pyrene	< 0.0126	mg/kg	0.0126	0.0401	1	M8270C	2/6/2017	2/6/2017	NJC	1
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		2/2/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		2/2/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		2/2/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		2/2/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		2/2/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		2/2/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		2/2/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		2/2/2017	CJR	4
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		2/2/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		2/2/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		2/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		2/2/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		2/2/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		2/2/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		2/2/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409O
Sample ID TW-8 0-2'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
2,2-Dichloropropane	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		2/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		2/2/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		2/2/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		2/2/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		2/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		2/2/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		2/2/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		2/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		2/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		2/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		2/2/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		2/2/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		2/2/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		2/2/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		2/2/2017	CJR	1
SUR - Toluene-d8	101	Rec %			1	8260B		2/2/2017	CJR	1
SUR - Dibromofluoromethane	97	Rec %			1	8260B		2/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	115	Rec %			1	8260B		2/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	102	Rec %			1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409P
Sample ID TW-8 2-4'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	88.7	%			1	5021		2/1/2017	NJC	1
Inorganic										
Metals										
Arsenic, Total	3.08	mg/Kg	0.33	1.09	1	6010B		2/6/2017	CWT	1
Barium, Total	15.8	mg/Kg	0.21	0.7	1	6010B		2/6/2017	CWT	1
Cadmium, Total	< 0.02	mg/Kg	0.08	0.25	1	6010B		2/6/2017	CWT	1
Chromium, Total	7.22	mg/Kg	0.08	0.26	1	6010B		2/6/2017	CWT	1
Lead, Total	4.86	mg/Kg	0.17	0.58	1	6010B		2/6/2017	CWT	1
Mercury, Total	< 0.0131	mg/kg	0.0131	0.0435	1	7471		2/1/2017	CWT	1
Selenium, Total	< 0.52	mg/Kg	0.52	1.73	1	6010B		2/6/2017	CWT	1
Silver, Total	< 0.57	mg/Kg	0.57	1.89	1	6010B		2/6/2017	CWT	1
Organic										
PAH SIM										
Acenaphthene	< 0.0135	mg/kg	0.0135	0.043	1	M8270C	2/6/2017	2/6/2017	NJC	1
Acenaphthylene	< 0.012	mg/kg	0.012	0.0381	1	M8270C	2/6/2017	2/6/2017	NJC	1
Anthracene	< 0.0124	mg/kg	0.0124	0.0395	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(a)anthracene	< 0.0116	mg/kg	0.0116	0.037	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.0414	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.0363	1	M8270C	2/6/2017	2/6/2017	NJC	1
Benzo(k)fluoranthene	< 0.0117	mg/kg	0.0117	0.0371	1	M8270C	2/6/2017	2/6/2017	NJC	1
Chrysene	< 0.0138	mg/kg	0.0138	0.0439	1	M8270C	2/6/2017	2/6/2017	NJC	1
Dibenzo(a,h)anthracene	< 0.0142	mg/kg	0.0142	0.0453	1	M8270C	2/6/2017	2/6/2017	NJC	1
Fluoranthene	< 0.0131	mg/kg	0.0131	0.0418	1	M8270C	2/6/2017	2/6/2017	NJC	1
Fluorene	< 0.0135	mg/kg	0.0135	0.0431	1	M8270C	2/6/2017	2/6/2017	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.015	mg/kg	0.015	0.0476	1	M8270C	2/6/2017	2/6/2017	NJC	1
1-Methyl naphthalene	< 0.0143	mg/kg	0.0143	0.0456	1	M8270C	2/6/2017	2/6/2017	NJC	1
2-Methyl naphthalene	< 0.0119	mg/kg	0.0119	0.038	1	M8270C	2/6/2017	2/6/2017	NJC	1
Naphthalene	< 0.0122	mg/kg	0.0122	0.0387	1	M8270C	2/6/2017	2/6/2017	NJC	1
Phenanthrene	< 0.0109	mg/kg	0.0109	0.0347	1	M8270C	2/6/2017	2/6/2017	NJC	1
Pyrene	< 0.0126	mg/kg	0.0126	0.0401	1	M8270C	2/6/2017	2/6/2017	NJC	1
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		2/2/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		2/2/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		2/2/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		2/2/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		2/2/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		2/2/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		2/2/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		2/2/2017	CJR	4
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		2/2/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		2/2/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		2/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		2/2/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409P
Sample ID TW-8 2-4'
Sample Matrix Soil
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		2/2/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		2/2/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		2/2/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
2,2-Dichloropropane	< 0.037	mg/kg	0.037	0.12	1	8260B		2/2/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		2/2/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		2/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		2/2/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		2/2/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		2/2/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		2/2/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		2/2/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		2/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		2/2/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		2/2/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		2/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		2/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		2/2/2017	CJR	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		2/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		2/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		2/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		2/2/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		2/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		2/2/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		2/2/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		2/2/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		2/2/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		2/2/2017	CJR	1
SUR - Dibromofluoromethane	92	Rec %			1	8260B		2/2/2017	CJR	1
SUR - Toluene-d8	102	Rec %			1	8260B		2/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	105	Rec %			1	8260B		2/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	89	Rec %			1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409Q
Sample ID TW-1
Sample Matrix Water
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Lead, Dissolved	< 0.8	ug/L	0.8	2.6	1	7421		2/3/2017	CWT	1
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		2/2/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		2/2/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		2/2/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		2/2/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		2/2/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		2/2/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		2/2/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		2/2/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		2/2/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		2/2/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		2/2/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		2/2/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		2/2/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		2/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		2/2/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		2/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		2/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		2/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		2/2/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		2/2/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		2/2/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		2/2/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		2/2/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		2/2/2017	CJR	1
2,2-Dichloropropane	< 0.47	ug/l	0.47	1.49	1	8260B		2/2/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		2/2/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		2/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		2/2/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		2/2/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		2/2/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		2/2/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		2/2/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		2/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		2/2/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		2/2/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		2/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		2/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		2/2/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		2/2/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		2/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		2/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		2/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		2/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409Q
Sample ID TW-1
Sample Matrix Water
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		2/2/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		2/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		2/2/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		2/2/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		2/2/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		2/2/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		2/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	97	REC %			1	8260B		2/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	99	REC %			1	8260B		2/2/2017	CJR	1
SUR - Dibromofluoromethane	99	REC %			1	8260B		2/2/2017	CJR	1
SUR - Toluene-d8	99	REC %			1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409R
Sample ID TW-3
Sample Matrix Water
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Lead, Dissolved	< 0.8	ug/L	0.8	2.6	1	7421		2/3/2017	CWT	1
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		2/2/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		2/2/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		2/2/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		2/2/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		2/2/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		2/2/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		2/2/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		2/2/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		2/2/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		2/2/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		2/2/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		2/2/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		2/2/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		2/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		2/2/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		2/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		2/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		2/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		2/2/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		2/2/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		2/2/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		2/2/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		2/2/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		2/2/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		2/2/2017	CJR	1
2,2-Dichloropropane	< 0.47	ug/l	0.47	1.49	1	8260B		2/2/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		2/2/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		2/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		2/2/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		2/2/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		2/2/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		2/2/2017	CJR	1
p-Isopropyltoluene	0.42 "J"	ug/l	0.28	0.91	1	8260B		2/2/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		2/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		2/2/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		2/2/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		2/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		2/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		2/2/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		2/2/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		2/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		2/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		2/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		2/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409R
Sample ID TW-3
Sample Matrix Water
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		2/2/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		2/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		2/2/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		2/2/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		2/2/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		2/2/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		2/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	104	REC %			1	8260B		2/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	101	REC %			1	8260B		2/2/2017	CJR	1
SUR - Dibromofluoromethane	103	REC %			1	8260B		2/2/2017	CJR	1
SUR - Toluene-d8	100	REC %			1	8260B		2/2/2017	CJR	1

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409S
Sample ID TW-7
Sample Matrix Water
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Lead, Dissolved	< 4	ug/L	4	13	5	7421		2/3/2017	CWT	1 49
Organic										
PCB'S										
PCB-1016	< 0.1	ug/l	0.1	0.333	1	EPA 8082		2/6/2017	ESC	1
PCB-1221	< 0.243	ug/l	0.073	0.243	1	EPA 8082		2/6/2017	ESC	1
PCB-1232	< 0.14	ug/l	0.042	0.14	1	EPA 8082		2/6/2017	ESC	1
PCB-1242	< 0.047	ug/l	0.047	0.157	1	EPA 8082		2/6/2017	ESC	1
PCB-1248	< 0.086	ug/l	0.086	0.287	1	EPA 8082		2/6/2017	ESC	1
PCB-1254	< 0.047	ug/l	0.047	0.157	1	EPA 8082		2/6/2017	ESC	1
PCB-1260	< 0.12	ug/l	0.12	0.4	1	EPA 8082		2/6/2017	ESC	1
VOC's										
Benzene	< 1.7	ug/l	1.7	5.5	10	8260B		2/2/2017	CJR	1 49
Bromobenzene	< 4.3	ug/l	4.3	13.7	10	8260B		2/2/2017	CJR	1 49
Bromodichloromethane	< 3.1	ug/l	3.1	10	10	8260B		2/2/2017	CJR	1 49
Bromoform	< 4.9	ug/l	4.9	15.6	10	8260B		2/2/2017	CJR	1 49
tert-Butylbenzene	< 3.9	ug/l	3.9	12.3	10	8260B		2/2/2017	CJR	1 49
sec-Butylbenzene	< 2.4	ug/l	2.4	7.6	10	8260B		2/2/2017	CJR	1 49
n-Butylbenzene	< 3.4	ug/l	3.4	10.8	10	8260B		2/2/2017	CJR	1 49
Carbon Tetrachloride	< 2.1	ug/l	2.1	6.8	10	8260B		2/2/2017	CJR	1 49
Chlorobenzene	< 2.7	ug/l	2.7	8.6	10	8260B		2/2/2017	CJR	1 49
Chloroethane	< 5	ug/l	5	16	10	8260B		2/2/2017	CJR	1 49
Chloroform	< 9.6	ug/l	9.6	30.4	10	8260B		2/2/2017	CJR	1 49
Chloromethane	< 13	ug/l	13	41.5	10	8260B		2/2/2017	CJR	1 49
2-Chlorotoluene	< 3.6	ug/l	3.6	11.5	10	8260B		2/2/2017	CJR	1 49
4-Chlorotoluene	< 3.5	ug/l	3.5	11.1	10	8260B		2/2/2017	CJR	1 49
1,2-Dibromo-3-chloropropane	< 18.8	ug/l	18.8	59.8	10	8260B		2/2/2017	CJR	1 49
Dibromochloromethane	< 4.5	ug/l	4.5	14.4	10	8260B		2/2/2017	CJR	1 49
1,4-Dichlorobenzene	< 4.2	ug/l	4.2	13.4	10	8260B		2/2/2017	CJR	1 49
1,3-Dichlorobenzene	< 4.5	ug/l	4.5	14.3	10	8260B		2/2/2017	CJR	1 49
1,2-Dichlorobenzene	< 3.4	ug/l	3.4	10.9	10	8260B		2/2/2017	CJR	1 49
Dichlorodifluoromethane	< 3.8	ug/l	3.8	12	10	8260B		2/2/2017	CJR	1 49
1,2-Dichloroethane	< 4.5	ug/l	4.5	14.3	10	8260B		2/2/2017	CJR	1 49
1,1-Dichloroethane	< 4.2	ug/l	4.2	13.4	10	8260B		2/2/2017	CJR	1 49
1,1-Dichloroethene	< 4.6	ug/l	4.6	14.7	10	8260B		2/2/2017	CJR	1 49
cis-1,2-Dichloroethene	< 4.1	ug/l	4.1	12.9	10	8260B		2/2/2017	CJR	1 49
trans-1,2-Dichloroethene	< 3.5	ug/l	3.5	11.2	10	8260B		2/2/2017	CJR	1 49
1,2-Dichloropropane	< 3.9	ug/l	3.9	12.4	10	8260B		2/2/2017	CJR	1 49
2,2-Dichloropropane	< 4.7	ug/l	4.7	14.9	10	8260B		2/2/2017	CJR	1 49
1,3-Dichloropropane	< 4.9	ug/l	4.9	15.5	10	8260B		2/2/2017	CJR	1 49
Di-isopropyl ether	< 2.6	ug/l	2.6	8.3	10	8260B		2/2/2017	CJR	1 49
EDB (1,2-Dibromoethane)	< 3.4	ug/l	3.4	10.9	10	8260B		2/2/2017	CJR	1 49
Ethylbenzene	< 2	ug/l	2	6.3	10	8260B		2/2/2017	CJR	1 49
Hexachlorobutadiene	< 14.7	ug/l	14.7	46.8	10	8260B		2/2/2017	CJR	1 49
Isopropylbenzene	< 2.9	ug/l	2.9	9.3	10	8260B		2/2/2017	CJR	1 49
p-Isopropyltoluene	< 2.8	ug/l	2.8	9.1	10	8260B		2/2/2017	CJR	1 49
Methylene chloride	< 9.4	ug/l	9.4	29.8	10	8260B		2/2/2017	CJR	1 49
Methyl tert-butyl ether (MTBE)	< 8.2	ug/l	8.2	26	10	8260B		2/2/2017	CJR	1 49
Naphthalene	< 21.7	ug/l	21.7	69	10	8260B		2/2/2017	CJR	1 49
n-Propylbenzene	< 1.9	ug/l	1.9	6.2	10	8260B		2/2/2017	CJR	1 49

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409S
Sample ID TW-7
Sample Matrix Water
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2,2-Tetrachloroethane	< 6.9	ug/l	6.9	22.1	10	8260B		2/2/2017	CJR	1 49
1,1,1,2-Tetrachloroethane	< 4.7	ug/l	4.7	14.8	10	8260B		2/2/2017	CJR	1 49
Tetrachloroethene	< 4.8	ug/l	4.8	15.2	10	8260B		2/2/2017	CJR	1 49
Toluene	< 6.7	ug/l	6.7	21.3	10	8260B		2/2/2017	CJR	1 49
1,2,4-Trichlorobenzene	< 12.9	ug/l	12.9	41	10	8260B		2/2/2017	CJR	1 49
1,2,3-Trichlorobenzene	< 8.3	ug/l	8.3	26.3	10	8260B		2/2/2017	CJR	1 49
1,1,1-Trichloroethane	< 3.5	ug/l	3.5	11.1	10	8260B		2/2/2017	CJR	1 49
1,1,2-Trichloroethane	< 6.5	ug/l	6.5	20.6	10	8260B		2/2/2017	CJR	1 49
Trichloroethene (TCE)	< 4.5	ug/l	4.5	14.3	10	8260B		2/2/2017	CJR	1 49
Trichlorofluoromethane	< 6.4	ug/l	6.4	20.4	10	8260B		2/2/2017	CJR	1 49
1,2,4-Trimethylbenzene	< 11.4	ug/l	11.4	36.3	10	8260B		2/2/2017	CJR	1 49
1,3,5-Trimethylbenzene	< 9.1	ug/l	9.1	29	10	8260B		2/2/2017	CJR	1 49
Vinyl Chloride	< 1.9	ug/l	1.9	6.2	10	8260B		2/2/2017	CJR	1 49
m&p-Xylene	< 15.6	ug/l	15.6	49.5	10	8260B		2/2/2017	CJR	1 49
o-Xylene	< 3.9	ug/l	3.9	12.5	10	8260B		2/2/2017	CJR	1 49
SUR - 1,2-Dichloroethane-d4	99	REC %			10	8260B		2/2/2017	CJR	1 49
SUR - 4-Bromofluorobenzene	99	REC %			10	8260B		2/2/2017	CJR	1 49
SUR - Dibromofluoromethane	99	REC %			10	8260B		2/2/2017	CJR	1 49
SUR - Toluene-d8	100	REC %			10	8260B		2/2/2017	CJR	1 49

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409T
Sample ID TW-8
Sample Matrix Water
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Lead, Dissolved	< 0.8	ug/L	0.8	2.6	1	7421		2/3/2017	CWT	1
Organic										
VOC's										
Benzene	< 1.7	ug/l	1.7	5.5	10	8260B		2/2/2017	CJR	1 49
Bromobenzene	< 4.3	ug/l	4.3	13.7	10	8260B		2/2/2017	CJR	1 49
Bromodichloromethane	< 3.1	ug/l	3.1	10	10	8260B		2/2/2017	CJR	1 49
Bromoform	< 4.9	ug/l	4.9	15.6	10	8260B		2/2/2017	CJR	1 49
tert-Butylbenzene	< 3.9	ug/l	3.9	12.3	10	8260B		2/2/2017	CJR	1 49
sec-Butylbenzene	< 2.4	ug/l	2.4	7.6	10	8260B		2/2/2017	CJR	1 49
n-Butylbenzene	< 3.4	ug/l	3.4	10.8	10	8260B		2/2/2017	CJR	1 49
Carbon Tetrachloride	< 2.1	ug/l	2.1	6.8	10	8260B		2/2/2017	CJR	1 49
Chlorobenzene	< 2.7	ug/l	2.7	8.6	10	8260B		2/2/2017	CJR	1 49
Chloroethane	< 5	ug/l	5	16	10	8260B		2/2/2017	CJR	1 49
Chloroform	< 9.6	ug/l	9.6	30.4	10	8260B		2/2/2017	CJR	1 49
Chloromethane	< 13	ug/l	13	41.5	10	8260B		2/2/2017	CJR	1 49
2-Chlorotoluene	< 3.6	ug/l	3.6	11.5	10	8260B		2/2/2017	CJR	1 49
4-Chlorotoluene	< 3.5	ug/l	3.5	11.1	10	8260B		2/2/2017	CJR	1 49
1,2-Dibromo-3-chloropropane	< 18.8	ug/l	18.8	59.8	10	8260B		2/2/2017	CJR	1 49
Dibromochloromethane	< 4.5	ug/l	4.5	14.4	10	8260B		2/2/2017	CJR	1 49
1,4-Dichlorobenzene	< 4.2	ug/l	4.2	13.4	10	8260B		2/2/2017	CJR	1 49
1,3-Dichlorobenzene	< 4.5	ug/l	4.5	14.3	10	8260B		2/2/2017	CJR	1 49
1,2-Dichlorobenzene	< 3.4	ug/l	3.4	10.9	10	8260B		2/2/2017	CJR	1 49
Dichlorodifluoromethane	< 3.8	ug/l	3.8	12	10	8260B		2/2/2017	CJR	1 49
1,2-Dichloroethane	< 4.5	ug/l	4.5	14.3	10	8260B		2/2/2017	CJR	1 49
1,1-Dichloroethane	< 4.2	ug/l	4.2	13.4	10	8260B		2/2/2017	CJR	1 49
1,1-Dichloroethene	< 4.6	ug/l	4.6	14.7	10	8260B		2/2/2017	CJR	1 49
cis-1,2-Dichloroethene	< 4.1	ug/l	4.1	12.9	10	8260B		2/2/2017	CJR	1 49
trans-1,2-Dichloroethene	< 3.5	ug/l	3.5	11.2	10	8260B		2/2/2017	CJR	1 49
1,2-Dichloropropane	< 3.9	ug/l	3.9	12.4	10	8260B		2/2/2017	CJR	1 49
2,2-Dichloropropane	< 4.7	ug/l	4.7	14.9	10	8260B		2/2/2017	CJR	1 49
1,3-Dichloropropane	< 4.9	ug/l	4.9	15.5	10	8260B		2/2/2017	CJR	1 49
Di-isopropyl ether	< 2.6	ug/l	2.6	8.3	10	8260B		2/2/2017	CJR	1 49
EDB (1,2-Dibromoethane)	< 3.4	ug/l	3.4	10.9	10	8260B		2/2/2017	CJR	1 49
Ethylbenzene	< 2	ug/l	2	6.3	10	8260B		2/2/2017	CJR	1 49
Hexachlorobutadiene	< 14.7	ug/l	14.7	46.8	10	8260B		2/2/2017	CJR	1 49
Isopropylbenzene	< 2.9	ug/l	2.9	9.3	10	8260B		2/2/2017	CJR	1 49
p-Isopropyltoluene	< 2.8	ug/l	2.8	9.1	10	8260B		2/2/2017	CJR	1 49
Methylene chloride	< 9.4	ug/l	9.4	29.8	10	8260B		2/2/2017	CJR	1 49
Methyl tert-butyl ether (MTBE)	< 8.2	ug/l	8.2	26	10	8260B		2/2/2017	CJR	1 49
Naphthalene	< 21.7	ug/l	21.7	69	10	8260B		2/2/2017	CJR	1 49
n-Propylbenzene	< 1.9	ug/l	1.9	6.2	10	8260B		2/2/2017	CJR	1 49
1,1,2,2-Tetrachloroethane	< 6.9	ug/l	6.9	22.1	10	8260B		2/2/2017	CJR	1 49
1,1,1,2-Tetrachloroethane	< 4.7	ug/l	4.7	14.8	10	8260B		2/2/2017	CJR	1 49
Tetrachloroethene	< 4.8	ug/l	4.8	15.2	10	8260B		2/2/2017	CJR	1 49
Toluene	< 6.7	ug/l	6.7	21.3	10	8260B		2/2/2017	CJR	1 49
1,2,4-Trichlorobenzene	< 12.9	ug/l	12.9	41	10	8260B		2/2/2017	CJR	1 49
1,2,3-Trichlorobenzene	< 8.3	ug/l	8.3	26.3	10	8260B		2/2/2017	CJR	1 49
1,1,1-Trichloroethane	< 3.5	ug/l	3.5	11.1	10	8260B		2/2/2017	CJR	1 49
1,1,2-Trichloroethane	< 6.5	ug/l	6.5	20.6	10	8260B		2/2/2017	CJR	1 49

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409T
Sample ID TW-8
Sample Matrix Water
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Trichloroethene (TCE)	< 4.5	ug/l	4.5	14.3	10	8260B		2/2/2017	CJR	1 49
Trichlorofluoromethane	< 6.4	ug/l	6.4	20.4	10	8260B		2/2/2017	CJR	1 49
1,2,4-Trimethylbenzene	< 11.4	ug/l	11.4	36.3	10	8260B		2/2/2017	CJR	1 49
1,3,5-Trimethylbenzene	< 9.1	ug/l	9.1	29	10	8260B		2/2/2017	CJR	1 49
Vinyl Chloride	< 1.9	ug/l	1.9	6.2	10	8260B		2/2/2017	CJR	1 49
m&p-Xylene	< 15.6	ug/l	15.6	49.5	10	8260B		2/2/2017	CJR	1 49
o-Xylene	< 3.9	ug/l	3.9	12.5	10	8260B		2/2/2017	CJR	1 49
SUR - 1,2-Dichloroethane-d4	101	REC %			10	8260B		2/2/2017	CJR	1 49
SUR - 4-Bromofluorobenzene	101	REC %			10	8260B		2/2/2017	CJR	1 49
SUR - Dibromofluoromethane	100	REC %			10	8260B		2/2/2017	CJR	1 49
SUR - Toluene-d8	99	REC %			10	8260B		2/2/2017	CJR	1 49

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409U
Sample ID SB-5
Sample Matrix Water
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 1.7	ug/l	1.7	5.5	10	8260B		2/2/2017	CJR	1 49
Bromobenzene	< 4.3	ug/l	4.3	13.7	10	8260B		2/2/2017	CJR	1 49
Bromodichloromethane	< 3.1	ug/l	3.1	10	10	8260B		2/2/2017	CJR	1 49
Bromoform	< 4.9	ug/l	4.9	15.6	10	8260B		2/2/2017	CJR	1 49
tert-Butylbenzene	< 3.9	ug/l	3.9	12.3	10	8260B		2/2/2017	CJR	1 49
sec-Butylbenzene	< 2.4	ug/l	2.4	7.6	10	8260B		2/2/2017	CJR	1 49
n-Butylbenzene	< 3.4	ug/l	3.4	10.8	10	8260B		2/2/2017	CJR	1 49
Carbon Tetrachloride	< 2.1	ug/l	2.1	6.8	10	8260B		2/2/2017	CJR	1 49
Chlorobenzene	< 2.7	ug/l	2.7	8.6	10	8260B		2/2/2017	CJR	1 49
Chloroethane	< 5	ug/l	5	16	10	8260B		2/2/2017	CJR	1 49
Chloroform	< 9.6	ug/l	9.6	30.4	10	8260B		2/2/2017	CJR	1 49
Chloromethane	< 13	ug/l	13	41.5	10	8260B		2/2/2017	CJR	1 49
2-Chlorotoluene	< 3.6	ug/l	3.6	11.5	10	8260B		2/2/2017	CJR	1 49
4-Chlorotoluene	< 3.5	ug/l	3.5	11.1	10	8260B		2/2/2017	CJR	1 49
1,2-Dibromo-3-chloropropane	< 18.8	ug/l	18.8	59.8	10	8260B		2/2/2017	CJR	1 49
Dibromochloromethane	< 4.5	ug/l	4.5	14.4	10	8260B		2/2/2017	CJR	1 49
1,4-Dichlorobenzene	< 4.2	ug/l	4.2	13.4	10	8260B		2/2/2017	CJR	1 49
1,3-Dichlorobenzene	< 4.5	ug/l	4.5	14.3	10	8260B		2/2/2017	CJR	1 49
1,2-Dichlorobenzene	< 3.4	ug/l	3.4	10.9	10	8260B		2/2/2017	CJR	1 49
Dichlorodifluoromethane	< 3.8	ug/l	3.8	12	10	8260B		2/2/2017	CJR	1 49
1,2-Dichloroethane	< 4.5	ug/l	4.5	14.3	10	8260B		2/2/2017	CJR	1 49
1,1-Dichloroethane	< 4.2	ug/l	4.2	13.4	10	8260B		2/2/2017	CJR	1 49
1,1-Dichloroethene	< 4.6	ug/l	4.6	14.7	10	8260B		2/2/2017	CJR	1 49
cis-1,2-Dichloroethene	< 4.1	ug/l	4.1	12.9	10	8260B		2/2/2017	CJR	1 49
trans-1,2-Dichloroethene	< 3.5	ug/l	3.5	11.2	10	8260B		2/2/2017	CJR	1 49
1,2-Dichloropropane	< 3.9	ug/l	3.9	12.4	10	8260B		2/2/2017	CJR	1 49
2,2-Dichloropropane	< 4.7	ug/l	4.7	14.9	10	8260B		2/2/2017	CJR	1 49
1,3-Dichloropropane	< 4.9	ug/l	4.9	15.5	10	8260B		2/2/2017	CJR	1 49
Di-isopropyl ether	< 2.6	ug/l	2.6	8.3	10	8260B		2/2/2017	CJR	1 49
EDB (1,2-Dibromoethane)	< 3.4	ug/l	3.4	10.9	10	8260B		2/2/2017	CJR	1 49
Ethylbenzene	< 2	ug/l	2	6.3	10	8260B		2/2/2017	CJR	1 49
Hexachlorobutadiene	< 14.7	ug/l	14.7	46.8	10	8260B		2/2/2017	CJR	1 49
Isopropylbenzene	< 2.9	ug/l	2.9	9.3	10	8260B		2/2/2017	CJR	1 49
p-Isopropyltoluene	< 2.8	ug/l	2.8	9.1	10	8260B		2/2/2017	CJR	1 49
Methylene chloride	< 9.4	ug/l	9.4	29.8	10	8260B		2/2/2017	CJR	1 49
Methyl tert-butyl ether (MTBE)	< 8.2	ug/l	8.2	26	10	8260B		2/2/2017	CJR	1 49
Naphthalene	< 21.7	ug/l	21.7	69	10	8260B		2/2/2017	CJR	1 49
n-Propylbenzene	< 1.9	ug/l	1.9	6.2	10	8260B		2/2/2017	CJR	1 49
1,1,2,2-Tetrachloroethane	< 6.9	ug/l	6.9	22.1	10	8260B		2/2/2017	CJR	1 49
1,1,1,2-Tetrachloroethane	< 4.7	ug/l	4.7	14.8	10	8260B		2/2/2017	CJR	1 49
Tetrachloroethene	< 4.8	ug/l	4.8	15.2	10	8260B		2/2/2017	CJR	1 49
Toluene	< 6.7	ug/l	6.7	21.3	10	8260B		2/2/2017	CJR	1 49
1,2,4-Trichlorobenzene	< 12.9	ug/l	12.9	41	10	8260B		2/2/2017	CJR	1 49
1,2,3-Trichlorobenzene	< 8.3	ug/l	8.3	26.3	10	8260B		2/2/2017	CJR	1 49
1,1,1-Trichloroethane	< 3.5	ug/l	3.5	11.1	10	8260B		2/2/2017	CJR	1 49
1,1,2-Trichloroethane	< 6.5	ug/l	6.5	20.6	10	8260B		2/2/2017	CJR	1 49
Trichloroethene (TCE)	< 4.5	ug/l	4.5	14.3	10	8260B		2/2/2017	CJR	1 49
Trichlorofluoromethane	< 6.4	ug/l	6.4	20.4	10	8260B		2/2/2017	CJR	1 49
1,2,4-Trimethylbenzene	< 11.4	ug/l	11.4	36.3	10	8260B		2/2/2017	CJR	1 49
1,3,5-Trimethylbenzene	< 9.1	ug/l	9.1	29	10	8260B		2/2/2017	CJR	1 49

Project Name IRGENS-BMO **Invoice #** E32409
Project # 16722-001

Lab Code 5032409U
Sample ID SB-5
Sample Matrix Water
Sample Date 1/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Vinyl Chloride	< 1.9	ug/l	1.9	6.2	10	8260B		2/2/2017	CJR	1 49
m&p-Xylene	< 15.6	ug/l	15.6	49.5	10	8260B		2/2/2017	CJR	1 49
o-Xylene	< 3.9	ug/l	3.9	12.5	10	8260B		2/2/2017	CJR	1 49
SUR - Toluene-d8	98	REC %			10	8260B		2/2/2017	CJR	1 49
SUR - 1,2-Dichloroethane-d4	96	REC %			10	8260B		2/2/2017	CJR	1 49
SUR - 4-Bromofluorobenzene	101	REC %			10	8260B		2/2/2017	CJR	1 49
SUR - Dibromofluoromethane	101	REC %			10	8260B		2/2/2017	CJR	1 49

"J" Flag: Analyte detected between LOD and LOQ LOD Limit of Detection LOQ Limit of Quantitation

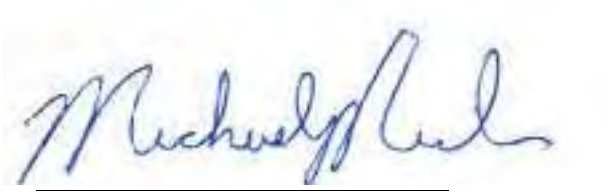
Code	*Comment*
1	Laboratory QC within limits.
4	The continuing calibration standard not within established limits.
46	Insufficient sample to reshoot.
49	Sample diluted to compensate for matrix interference.

CWT denotes sub contract lab - Certification #445126660

ESC denotes sub contract lab - Certification #998093910

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

Authorized Signature



CHAIN OF JSTODY RECORD

Synergy Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # Nº 315

Page 1 of 3

Sample Handling Request
X Rush Analysis Date Required 5 Day
(Rushes accepted only with prior authorization)
___ Normal Turn Around

Lab I.D. #

Account No. : | Quote No.:

Project #: 16722-001

Sampler: (signature) Steven Kitkert

Project (Name / Location): Irgens - BMO / Milwaukee, WI

Reports To: Cory Kateban	Invoice To:
Company The Sigma Group, Inc	Company
Address 1300 W. Canal St	Address
City State Zip Milwaukee, WI 53233	City State Zip
Phone 414-643-4200	Phone
FAX 414-643-4210	FAX

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	8-RCRA METALS	PID/FID
5032409A	TW-1 (0-2')	1/30	11am		X	N	3	Soil	NONE/Meth			X			X							X		0.8
B	TW-1 (4-6')		⊥																				X	1.1
C	SB-2 (2-4')		10am									X												1.1
D	SB-2 (6-8')		⊥																					13.1
E	TW-3 (0-2')		11:15a																					0.7
F	TW-3 (2-4')		⊥																					1.2
G	SB-4 (0-2')		9:30																					1.5
H	SB-4 (4-6')		⊥																					1.2
I	SB-5 (0-2')		9:15a																					19.8
J	SB-5 (2-4')	⊥	⊥		⊥	⊥	⊥	⊥	⊥														X	1.7

Analysis Requested / Other Analysis

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

Sample Integrity - To be completed by receiving lab.
Method of Shipment: SM
Temp. of Temp. Blank ___ °C On Ice: X
Cooler seal intact upon receipt: X Yes ___ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
	1200pm	1/31/17			

Received in Laboratory By: Time: 8:00 Date: 2/1/17

CHAIN OF CUSTODY RECORD

Synergy Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # No 3190

Page 2 of 3

Sample Handling Request
X Rush Analysis Date Required 5 Day
(Rushes accepted only with prior authorization)
___ Normal Turn Around

Lab I.D. #
Account No. : Quote No.:
Project #: 16722-001
Sampler: (signature) Steven Kikkert per

Project (Name / Location): Irgens - Bayo / Milwaukee, WI

Reports To: Cory Ketchum	Invoice To:
Company The Sigma Group, Inc	Company
Address 1300 W. Canal St	Address
City State Zip Milwaukee, WI 53233	City State Zip
Phone 414-643-4200	Phone
FAX 414-643-4210	FAX

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	8-RCRA METALS								PID/ FID
50324091k	SB-6 (2-4')	1/30/17	9am		X	N	4	Soil	NONE/MeOH			X			X	X						X									1.5
L	SB-6 (6-8')		1				4									X															1.9
M	TW-7 (0-2')		11:37				3																								0.7
N	TW-7 (2-4')		1				4									X															0.4
O	TW-8 (0-2')		11:25				3																								0.9
P	TW-8 (2-4')		1				3																X								0.6
Q	TW-1		1pm				4	GW	NONE/HCL			X																			–
R	TW-3		1:15p				4																								–
S	TW-7		1:30p				5									X															–
T	TW-8		1:45p				4																								–

Analysis Requested | **Other Analysis**

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

- Dissolved lead for GW
  * Samples not filtered, please filter in lab

Sample Integrity - To be completed by receiving lab.
Method of Shipment: Sun
Temp. of Temp. Blank ___ °C On Ice: X
Cooler seal intact upon receipt: X Yes ___ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
	12:00pm	1/31/17			

Received in Laboratory By: Time: 8:00 Date: 2/1/17

CHAIN OF JSTODY RECORD

Synergy Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # Nº 319

Page 3 of 3

Sample Handling Request 5
X Rush Analysis Date Required Day
(Rushes accepted only with prior authorization)
___ Normal Turn Around

Lab I.D. #	
Account No. :	Quote No.:
Project #: 16722-001	
Sampler: (signature) Steven K. Kkert per CoC	
Project (Name / Location): Ingers - BMO / Milwaukee, WI	

Reports To: Cory Katzban	Invoice To:
Company The Sigma Group, Inc	Company
Address 1300 W. Canal St	Address
City State Zip Milwaukee, WI 53233	City State Zip
Phone 414-643-4200	Phone
FAX 414-643-4210	FAX

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	8-RCRA METALS	PID/FID
5032409A	SB-5	11/30	2pm		X	N	3	GW	HCL													X		—

Analysis Requested | **Other Analysis**

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

Sample Integrity - To be completed by receiving lab.

Method of Shipment: Sm

Temp. of Temp. Blank ___ °C On Ice: X

Cooler seal intact upon receipt: X Yes ___ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
	12pm	11/31/17			

Received in Laboratory By: [signature] Time: 8:00 Date: 12/1/17

Synergy Environmental Lab, INC.

1990 Prospect Ct., Appleton, WI 54914 *P 920-830-2455 * F 920-733-0631

CORY KATZBAN
THE SIGMA GROUP, INC.
1300 W. CANAL STREET
MILWAUKEE, WI 53233

Report Date *21-Apr-17*

Project Name IRGENS-BMO **Invoice #** E32782
Project # 16722

Lab Code 5032782A
Sample ID SB-2-1 4-6
Sample Matrix Soil
Sample Date 4/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	86.8	%			1	5021		4/18/2017	NJC	1
Inorganic										
Metals										
Arsenic, Total	1.97	mg/Kg	0.33	1.09	1	6010B		4/19/2017	CWT	1
Barium, Total	50.0	mg/Kg	0.21	0.7	1	6010B		4/19/2017	CWT	1
Cadmium, Total	< 0.08	mg/Kg	0.08	0.25	1	6010B		4/19/2017	CWT	1
Chromium, Total	19.4	mg/Kg	0.08	0.26	1	6010B		4/19/2017	CWT	1
Lead, Total	7.94	mg/Kg	0.17	0.58	1	6010B		4/19/2017	CWT	1
Mercury, Total	< 0.019	mg/kg	0.019	0.064	1	7471		4/20/2017	CWT	1
Selenium, Total	< 0.52	mg/Kg	0.52	1.73	1	6010B		4/19/2017	CWT	1
Silver, Total	< 0.57	mg/Kg	0.57	1.89	1	6010B		4/19/2017	CWT	1
Organic										
PAH SIM										
Acenaphthene	< 0.0151	mg/kg	0.0151	0.0481	1	M8270C	4/20/2017	4/21/2017	NJC	1
Acenaphthylene	< 0.0159	mg/kg	0.0159	0.0508	1	M8270C	4/20/2017	4/21/2017	NJC	1
Anthracene	< 0.0109	mg/kg	0.0109	0.0345	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(a)anthracene	< 0.0116	mg/kg	0.0116	0.037	1	M8270C	4/20/2017	4/21/2017	NJC	2
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.041	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.036	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(k)fluoranthene	< 0.0147	mg/kg	0.0147	0.0469	1	M8270C	4/20/2017	4/21/2017	NJC	1
Chrysene	< 0.0121	mg/kg	0.0121	0.0383	1	M8270C	4/20/2017	4/21/2017	NJC	1
Dibenzo(a,h)anthracene	< 0.0078	mg/kg	0.0078	0.0251	1	M8270C	4/20/2017	4/21/2017	NJC	2
Fluoranthene	0.0197 "J"	mg/kg	0.0147	0.0469	1	M8270C	4/20/2017	4/21/2017	NJC	2
Fluorene	< 0.0179	mg/kg	0.0179	0.057	1	M8270C	4/20/2017	4/21/2017	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.0114	mg/kg	0.0114	0.0362	1	M8270C	4/20/2017	4/21/2017	NJC	2
1-Methyl naphthalene	< 0.0203	mg/kg	0.0203	0.0645	1	M8270C	4/20/2017	4/21/2017	NJC	1
2-Methyl naphthalene	< 0.0113	mg/kg	0.0113	0.0358	1	M8270C	4/20/2017	4/21/2017	NJC	1

Project Name IRGENS-BMO **Invoice #** E32782
Project # 16722

Lab Code 5032782A
Sample ID SB-2-1 4-6
Sample Matrix Soil
Sample Date 4/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Naphthalene	< 0.0153	mg/kg	0.0153	0.0486	1	M8270C	4/20/2017	4/21/2017	NJC	1
Phenanthrene	< 0.0111	mg/kg	0.0111	0.0352	1	M8270C	4/20/2017	4/21/2017	NJC	1
Pyrene	< 0.0153	mg/kg	0.0153	0.0487	1	M8270C	4/20/2017	4/21/2017	NJC	1
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		4/18/2017	TCC	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		4/18/2017	TCC	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		4/18/2017	TCC	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		4/18/2017	TCC	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		4/18/2017	TCC	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		4/18/2017	TCC	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		4/18/2017	TCC	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		4/18/2017	TCC	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		4/18/2017	TCC	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		4/18/2017	TCC	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		4/18/2017	TCC	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		4/18/2017	TCC	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		4/18/2017	TCC	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		4/18/2017	TCC	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		4/18/2017	TCC	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		4/18/2017	TCC	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		4/18/2017	TCC	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		4/18/2017	TCC	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		4/18/2017	TCC	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		4/18/2017	TCC	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		4/18/2017	TCC	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		4/18/2017	TCC	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		4/18/2017	TCC	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		4/18/2017	TCC	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		4/18/2017	TCC	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		4/18/2017	TCC	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		4/18/2017	TCC	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		4/18/2017	TCC	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		4/18/2017	TCC	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		4/18/2017	TCC	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		4/18/2017	TCC	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		4/18/2017	TCC	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		4/18/2017	TCC	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		4/18/2017	TCC	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		4/18/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		4/18/2017	TCC	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		4/18/2017	TCC	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		4/18/2017	TCC	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		4/18/2017	TCC	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		4/18/2017	TCC	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		4/18/2017	TCC	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		4/18/2017	TCC	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		4/18/2017	TCC	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		4/18/2017	TCC	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		4/18/2017	TCC	1

Project Name IRGENS-BMO **Invoice #** E32782
Project # 16722

Lab Code 5032782A
Sample ID SB-2-1 4-6
Sample Matrix Soil
Sample Date 4/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		4/18/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		4/18/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		4/18/2017	TCC	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		4/18/2017	TCC	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		4/18/2017	TCC	1
SUR - 4-Bromofluorobenzene	95	Rec %			1	8260B		4/18/2017	TCC	1
SUR - Dibromofluoromethane	94	Rec %			1	8260B		4/18/2017	TCC	1
SUR - Toluene-d8	99	Rec %			1	8260B		4/18/2017	TCC	1
SUR - 1,2-Dichloroethane-d4	103	Rec %			1	8260B		4/18/2017	TCC	1

Project Name IRGENS-BMO **Invoice #** E32782
Project # 16722

Lab Code 5032782B
Sample ID SB-2-2 5-7
Sample Matrix Soil
Sample Date 4/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	87.7	%			1	5021		4/18/2017	NJC	1
Inorganic										
Metals										
Lead, Total	4.86	mg/Kg	0.17	0.58	1	6010B		4/19/2017	CWT	1
Organic										
PAH SIM										
Acenaphthene	< 0.0151	mg/kg	0.0151	0.0481	1	M8270C	4/20/2017	4/21/2017	NJC	1
Acenaphthylene	< 0.0159	mg/kg	0.0159	0.0508	1	M8270C	4/20/2017	4/21/2017	NJC	1
Anthracene	< 0.0109	mg/kg	0.0109	0.0345	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(a)anthracene	< 0.0116	mg/kg	0.0116	0.037	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.041	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.036	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(k)fluoranthene	< 0.0147	mg/kg	0.0147	0.0469	1	M8270C	4/20/2017	4/21/2017	NJC	1
Chrysene	< 0.0121	mg/kg	0.0121	0.0383	1	M8270C	4/20/2017	4/21/2017	NJC	1
Dibenzo(a,h)anthracene	< 0.0078	mg/kg	0.0078	0.0251	1	M8270C	4/20/2017	4/21/2017	NJC	1
Fluoranthene	< 0.0147	mg/kg	0.0147	0.0469	1	M8270C	4/20/2017	4/21/2017	NJC	1
Fluorene	< 0.0179	mg/kg	0.0179	0.057	1	M8270C	4/20/2017	4/21/2017	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.0114	mg/kg	0.0114	0.0362	1	M8270C	4/20/2017	4/21/2017	NJC	1
1-Methyl naphthalene	< 0.0203	mg/kg	0.0203	0.0645	1	M8270C	4/20/2017	4/21/2017	NJC	1
2-Methyl naphthalene	< 0.0113	mg/kg	0.0113	0.0358	1	M8270C	4/20/2017	4/21/2017	NJC	1
Naphthalene	< 0.0153	mg/kg	0.0153	0.0486	1	M8270C	4/20/2017	4/21/2017	NJC	1
Phenanthrene	< 0.0111	mg/kg	0.0111	0.0352	1	M8270C	4/20/2017	4/21/2017	NJC	1
Pyrene	< 0.0153	mg/kg	0.0153	0.0487	1	M8270C	4/20/2017	4/21/2017	NJC	1
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		4/18/2017	TCC	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		4/18/2017	TCC	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		4/18/2017	TCC	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		4/18/2017	TCC	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		4/18/2017	TCC	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		4/18/2017	TCC	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		4/18/2017	TCC	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		4/18/2017	TCC	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		4/18/2017	TCC	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		4/18/2017	TCC	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		4/18/2017	TCC	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		4/18/2017	TCC	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		4/18/2017	TCC	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		4/18/2017	TCC	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		4/18/2017	TCC	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		4/18/2017	TCC	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		4/18/2017	TCC	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		4/18/2017	TCC	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		4/18/2017	TCC	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		4/18/2017	TCC	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		4/18/2017	TCC	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		4/18/2017	TCC	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		4/18/2017	TCC	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1

Project Name IRGENS-BMO **Invoice #** E32782
Project # 16722

Lab Code 5032782B
Sample ID SB-2-2 5-7
Sample Matrix Soil
Sample Date 4/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		4/18/2017	TCC	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		4/18/2017	TCC	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		4/18/2017	TCC	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		4/18/2017	TCC	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		4/18/2017	TCC	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		4/18/2017	TCC	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		4/18/2017	TCC	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		4/18/2017	TCC	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		4/18/2017	TCC	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		4/18/2017	TCC	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		4/18/2017	TCC	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		4/18/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		4/18/2017	TCC	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		4/18/2017	TCC	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		4/18/2017	TCC	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		4/18/2017	TCC	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		4/18/2017	TCC	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		4/18/2017	TCC	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		4/18/2017	TCC	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		4/18/2017	TCC	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		4/18/2017	TCC	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		4/18/2017	TCC	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		4/18/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		4/18/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		4/18/2017	TCC	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		4/18/2017	TCC	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		4/18/2017	TCC	1
SUR - Dibromofluoromethane	94	Rec %			1	8260B		4/18/2017	TCC	1
SUR - 4-Bromofluorobenzene	95	Rec %			1	8260B		4/18/2017	TCC	1
SUR - 1,2-Dichloroethane-d4	101	Rec %			1	8260B		4/18/2017	TCC	1
SUR - Toluene-d8	100	Rec %			1	8260B		4/18/2017	TCC	1

Project Name IRGENS-BMO **Invoice #** E32782
Project # 16722

Lab Code 5032782C
Sample ID SB-2-3 5-7
Sample Matrix Soil
Sample Date 4/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	82.4	%			1	5021		4/18/2017	NJC	1
Inorganic										
Metals										
Lead, Total	7.01	mg/Kg	0.17	0.58	1	6010B		4/19/2017	CWT	1
Organic										
PAH SIM										
Acenaphthene	< 0.0151	mg/kg	0.0151	0.0481	1	M8270C	4/20/2017	4/21/2017	NJC	1
Acenaphthylene	< 0.0159	mg/kg	0.0159	0.0508	1	M8270C	4/20/2017	4/21/2017	NJC	1
Anthracene	< 0.0109	mg/kg	0.0109	0.0345	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(a)anthracene	< 0.0116	mg/kg	0.0116	0.037	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.041	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.036	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(k)fluoranthene	< 0.0147	mg/kg	0.0147	0.0469	1	M8270C	4/20/2017	4/21/2017	NJC	1
Chrysene	< 0.0121	mg/kg	0.0121	0.0383	1	M8270C	4/20/2017	4/21/2017	NJC	1
Dibenzo(a,h)anthracene	< 0.0078	mg/kg	0.0078	0.0251	1	M8270C	4/20/2017	4/21/2017	NJC	1
Fluoranthene	< 0.0147	mg/kg	0.0147	0.0469	1	M8270C	4/20/2017	4/21/2017	NJC	1
Fluorene	< 0.0179	mg/kg	0.0179	0.057	1	M8270C	4/20/2017	4/21/2017	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.0114	mg/kg	0.0114	0.0362	1	M8270C	4/20/2017	4/21/2017	NJC	1
1-Methyl naphthalene	< 0.0203	mg/kg	0.0203	0.0645	1	M8270C	4/20/2017	4/21/2017	NJC	1
2-Methyl naphthalene	< 0.0113	mg/kg	0.0113	0.0358	1	M8270C	4/20/2017	4/21/2017	NJC	1
Naphthalene	< 0.0153	mg/kg	0.0153	0.0486	1	M8270C	4/20/2017	4/21/2017	NJC	1
Phenanthrene	< 0.0111	mg/kg	0.0111	0.0352	1	M8270C	4/20/2017	4/21/2017	NJC	1
Pyrene	< 0.0153	mg/kg	0.0153	0.0487	1	M8270C	4/20/2017	4/21/2017	NJC	1
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		4/18/2017	TCC	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		4/18/2017	TCC	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		4/18/2017	TCC	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		4/18/2017	TCC	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		4/18/2017	TCC	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		4/18/2017	TCC	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		4/18/2017	TCC	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		4/18/2017	TCC	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		4/18/2017	TCC	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		4/18/2017	TCC	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		4/18/2017	TCC	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		4/18/2017	TCC	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		4/18/2017	TCC	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		4/18/2017	TCC	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		4/18/2017	TCC	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		4/18/2017	TCC	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		4/18/2017	TCC	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		4/18/2017	TCC	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		4/18/2017	TCC	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		4/18/2017	TCC	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		4/18/2017	TCC	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		4/18/2017	TCC	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		4/18/2017	TCC	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1

Project Name IRGENS-BMO **Invoice #** E32782
Project # 16722

Lab Code 5032782C
Sample ID SB-2-3 5-7
Sample Matrix Soil
Sample Date 4/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		4/18/2017	TCC	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		4/18/2017	TCC	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		4/18/2017	TCC	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		4/18/2017	TCC	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		4/18/2017	TCC	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		4/18/2017	TCC	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		4/18/2017	TCC	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		4/18/2017	TCC	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		4/18/2017	TCC	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		4/18/2017	TCC	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		4/18/2017	TCC	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		4/18/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		4/18/2017	TCC	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		4/18/2017	TCC	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		4/18/2017	TCC	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		4/18/2017	TCC	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		4/18/2017	TCC	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		4/18/2017	TCC	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		4/18/2017	TCC	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		4/18/2017	TCC	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		4/18/2017	TCC	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		4/18/2017	TCC	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		4/18/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		4/18/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		4/18/2017	TCC	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		4/18/2017	TCC	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		4/18/2017	TCC	1
SUR - Toluene-d8	99	Rec %			1	8260B		4/18/2017	TCC	1
SUR - 1,2-Dichloroethane-d4	102	Rec %			1	8260B		4/18/2017	TCC	1
SUR - 4-Bromofluorobenzene	95	Rec %			1	8260B		4/18/2017	TCC	1
SUR - Dibromofluoromethane	93	Rec %			1	8260B		4/18/2017	TCC	1

Project Name IRGENS-BMO **Invoice #** E32782
Project # 16722

Lab Code 5032782D
Sample ID SB-2-4 4-6
Sample Matrix Soil
Sample Date 4/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	84.5	%			1	5021		4/18/2017	NJC	1
Inorganic										
Metals										
Arsenic, Total	2.65	mg/Kg	0.33	1.09	1	6010B		4/19/2017	CWT	1
Barium, Total	14.4	mg/Kg	0.21	0.7	1	6010B		4/19/2017	CWT	1
Cadmium, Total	< 0.08	mg/Kg	0.08	0.25	1	6010B		4/19/2017	CWT	1
Chromium, Total	7.59	mg/Kg	0.08	0.26	1	6010B		4/19/2017	CWT	1
Lead, Total	5.24	mg/Kg	0.17	0.58	1	6010B		4/19/2017	CWT	1
Mercury, Total	< 0.019	mg/kg	0.019	0.064	1	7471		4/20/2017	CWT	1
Selenium, Total	< 0.52	mg/Kg	0.52	1.73	1	6010B		4/19/2017	CWT	1
Silver, Total	< 0.57	mg/Kg	0.57	1.89	1	6010B		4/19/2017	CWT	1
Organic										
PAH SIM										
Acenaphthene	< 0.0151	mg/kg	0.0151	0.0481	1	M8270C	4/20/2017	4/21/2017	NJC	1
Acenaphthylene	< 0.0159	mg/kg	0.0159	0.0508	1	M8270C	4/20/2017	4/21/2017	NJC	1
Anthracene	< 0.0109	mg/kg	0.0109	0.0345	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(a)anthracene	< 0.0116	mg/kg	0.0116	0.037	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.041	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.036	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(k)fluoranthene	< 0.0147	mg/kg	0.0147	0.0469	1	M8270C	4/20/2017	4/21/2017	NJC	1
Chrysene	< 0.0121	mg/kg	0.0121	0.0383	1	M8270C	4/20/2017	4/21/2017	NJC	1
Dibenzo(a,h)anthracene	< 0.0078	mg/kg	0.0078	0.0251	1	M8270C	4/20/2017	4/21/2017	NJC	1
Fluoranthene	< 0.0147	mg/kg	0.0147	0.0469	1	M8270C	4/20/2017	4/21/2017	NJC	1
Fluorene	< 0.0179	mg/kg	0.0179	0.057	1	M8270C	4/20/2017	4/21/2017	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.0114	mg/kg	0.0114	0.0362	1	M8270C	4/20/2017	4/21/2017	NJC	1
1-Methyl naphthalene	< 0.0203	mg/kg	0.0203	0.0645	1	M8270C	4/20/2017	4/21/2017	NJC	1
2-Methyl naphthalene	< 0.0113	mg/kg	0.0113	0.0358	1	M8270C	4/20/2017	4/21/2017	NJC	1
Naphthalene	< 0.0153	mg/kg	0.0153	0.0486	1	M8270C	4/20/2017	4/21/2017	NJC	1
Phenanthrene	< 0.0111	mg/kg	0.0111	0.0352	1	M8270C	4/20/2017	4/21/2017	NJC	1
Pyrene	< 0.0153	mg/kg	0.0153	0.0487	1	M8270C	4/20/2017	4/21/2017	NJC	1
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		4/18/2017	TCC	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		4/18/2017	TCC	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		4/18/2017	TCC	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		4/18/2017	TCC	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		4/18/2017	TCC	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		4/18/2017	TCC	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		4/18/2017	TCC	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		4/18/2017	TCC	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		4/18/2017	TCC	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		4/18/2017	TCC	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		4/18/2017	TCC	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		4/18/2017	TCC	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		4/18/2017	TCC	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		4/18/2017	TCC	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		4/18/2017	TCC	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		4/18/2017	TCC	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		4/18/2017	TCC	1

Project Name IRGENS-BMO **Invoice #** E32782
Project # 16722

Lab Code 5032782D
Sample ID SB-2-4 4-6
Sample Matrix Soil
Sample Date 4/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		4/18/2017	TCC	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		4/18/2017	TCC	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		4/18/2017	TCC	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		4/18/2017	TCC	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		4/18/2017	TCC	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		4/18/2017	TCC	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		4/18/2017	TCC	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		4/18/2017	TCC	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		4/18/2017	TCC	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		4/18/2017	TCC	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		4/18/2017	TCC	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		4/18/2017	TCC	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		4/18/2017	TCC	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		4/18/2017	TCC	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		4/18/2017	TCC	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		4/18/2017	TCC	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		4/18/2017	TCC	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		4/18/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		4/18/2017	TCC	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		4/18/2017	TCC	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		4/18/2017	TCC	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		4/18/2017	TCC	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		4/18/2017	TCC	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		4/18/2017	TCC	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		4/18/2017	TCC	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		4/18/2017	TCC	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		4/18/2017	TCC	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		4/18/2017	TCC	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		4/18/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		4/18/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		4/18/2017	TCC	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		4/18/2017	TCC	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		4/18/2017	TCC	1
SUR - 4-Bromofluorobenzene	96	Rec %			1	8260B		4/18/2017	TCC	1
SUR - Dibromofluoromethane	97	Rec %			1	8260B		4/18/2017	TCC	1
SUR - Toluene-d8	96	Rec %			1	8260B		4/18/2017	TCC	1
SUR - 1,2-Dichloroethane-d4	103	Rec %			1	8260B		4/18/2017	TCC	1

Project Name IRGENS-BMO **Invoice #** E32782
Project # 16722

Lab Code 5032782E
Sample ID SB-2-5 4-6
Sample Matrix Soil
Sample Date 4/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	90.9	%			1	5021		4/18/2017	NJC	1
Inorganic										
Metals										
Arsenic, Total	2.43	mg/Kg	0.33	1.09	1	6010B		4/19/2017	CWT	1
Barium, Total	12.8	mg/Kg	0.21	0.7	1	6010B		4/19/2017	CWT	1
Cadmium, Total	< 0.08	mg/Kg	0.08	0.25	1	6010B		4/19/2017	CWT	1
Chromium, Total	6.23	mg/Kg	0.08	0.26	1	6010B		4/19/2017	CWT	1
Lead, Total	5.24	mg/Kg	0.17	0.58	1	6010B		4/19/2017	CWT	1
Mercury, Total	< 0.019	mg/kg	0.019	0.064	1	7471		4/20/2017	CWT	1
Selenium, Total	< 0.52	mg/Kg	0.52	1.73	1	6010B		4/19/2017	CWT	1
Silver, Total	< 0.57	mg/Kg	0.57	1.89	1	6010B		4/19/2017	CWT	1
Organic										
PAH SIM										
Acenaphthene	< 0.0151	mg/kg	0.0151	0.0481	1	M8270C	4/20/2017	4/21/2017	NJC	1
Acenaphthylene	< 0.0159	mg/kg	0.0159	0.0508	1	M8270C	4/20/2017	4/21/2017	NJC	1
Anthracene	< 0.0109	mg/kg	0.0109	0.0345	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(a)anthracene	0.0145 "J"	mg/kg	0.0116	0.037	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.041	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.036	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(k)fluoranthene	< 0.0147	mg/kg	0.0147	0.0469	1	M8270C	4/20/2017	4/21/2017	NJC	1
Chrysene	< 0.0121	mg/kg	0.0121	0.0383	1	M8270C	4/20/2017	4/21/2017	NJC	1
Dibenzo(a,h)anthracene	< 0.0078	mg/kg	0.0078	0.0251	1	M8270C	4/20/2017	4/21/2017	NJC	1
Fluoranthene	< 0.0147	mg/kg	0.0147	0.0469	1	M8270C	4/20/2017	4/21/2017	NJC	1
Fluorene	< 0.0179	mg/kg	0.0179	0.057	1	M8270C	4/20/2017	4/21/2017	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.0114	mg/kg	0.0114	0.0362	1	M8270C	4/20/2017	4/21/2017	NJC	1
1-Methyl naphthalene	< 0.0203	mg/kg	0.0203	0.0645	1	M8270C	4/20/2017	4/21/2017	NJC	1
2-Methyl naphthalene	< 0.0113	mg/kg	0.0113	0.0358	1	M8270C	4/20/2017	4/21/2017	NJC	1
Naphthalene	< 0.0153	mg/kg	0.0153	0.0486	1	M8270C	4/20/2017	4/21/2017	NJC	1
Phenanthrene	< 0.0111	mg/kg	0.0111	0.0352	1	M8270C	4/20/2017	4/21/2017	NJC	1
Pyrene	< 0.0153	mg/kg	0.0153	0.0487	1	M8270C	4/20/2017	4/21/2017	NJC	1
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		4/18/2017	TCC	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		4/18/2017	TCC	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		4/18/2017	TCC	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		4/18/2017	TCC	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		4/18/2017	TCC	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		4/18/2017	TCC	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		4/18/2017	TCC	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		4/18/2017	TCC	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		4/18/2017	TCC	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		4/18/2017	TCC	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		4/18/2017	TCC	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		4/18/2017	TCC	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		4/18/2017	TCC	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		4/18/2017	TCC	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		4/18/2017	TCC	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		4/18/2017	TCC	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		4/18/2017	TCC	1

Project Name IRGENS-BMO **Invoice #** E32782
Project # 16722

Lab Code 5032782E
Sample ID SB-2-5 4-6
Sample Matrix Soil
Sample Date 4/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		4/18/2017	TCC	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		4/18/2017	TCC	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		4/18/2017	TCC	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		4/18/2017	TCC	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		4/18/2017	TCC	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		4/18/2017	TCC	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		4/18/2017	TCC	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		4/18/2017	TCC	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		4/18/2017	TCC	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		4/18/2017	TCC	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		4/18/2017	TCC	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		4/18/2017	TCC	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		4/18/2017	TCC	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		4/18/2017	TCC	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		4/18/2017	TCC	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		4/18/2017	TCC	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		4/18/2017	TCC	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		4/18/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		4/18/2017	TCC	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		4/18/2017	TCC	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		4/18/2017	TCC	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		4/18/2017	TCC	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		4/18/2017	TCC	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		4/18/2017	TCC	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		4/18/2017	TCC	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		4/18/2017	TCC	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		4/18/2017	TCC	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		4/18/2017	TCC	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		4/18/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		4/18/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		4/18/2017	TCC	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		4/18/2017	TCC	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		4/18/2017	TCC	1
SUR - Dibromofluoromethane	94	Rec %			1	8260B		4/18/2017	TCC	1
SUR - Toluene-d8	99	Rec %			1	8260B		4/18/2017	TCC	1
SUR - 4-Bromofluorobenzene	97	Rec %			1	8260B		4/18/2017	TCC	1
SUR - 1,2-Dichloroethane-d4	105	Rec %			1	8260B		4/18/2017	TCC	1

Project Name IRGENS-BMO **Invoice #** E32782
Project # 16722

Lab Code 5032782F
Sample ID SB-2-6 5-7
Sample Matrix Soil
Sample Date 4/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	90.8	%			1	5021		4/18/2017	NJC	1
Inorganic										
Metals										
Lead, Total	5.03	mg/Kg	0.17	0.58	1	6010B		4/19/2017	CWT	1
Organic										
PAH SIM										
Acenaphthene	< 0.0151	mg/kg	0.0151	0.0481	1	M8270C	4/20/2017	4/21/2017	NJC	1
Acenaphthylene	< 0.0159	mg/kg	0.0159	0.0508	1	M8270C	4/20/2017	4/21/2017	NJC	1
Anthracene	< 0.0109	mg/kg	0.0109	0.0345	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(a)anthracene	< 0.0116	mg/kg	0.0116	0.037	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.041	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.036	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(k)fluoranthene	< 0.0147	mg/kg	0.0147	0.0469	1	M8270C	4/20/2017	4/21/2017	NJC	1
Chrysene	< 0.0121	mg/kg	0.0121	0.0383	1	M8270C	4/20/2017	4/21/2017	NJC	1
Dibenzo(a,h)anthracene	< 0.0078	mg/kg	0.0078	0.0251	1	M8270C	4/20/2017	4/21/2017	NJC	1
Fluoranthene	< 0.0147	mg/kg	0.0147	0.0469	1	M8270C	4/20/2017	4/21/2017	NJC	1
Fluorene	< 0.0179	mg/kg	0.0179	0.057	1	M8270C	4/20/2017	4/21/2017	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.0114	mg/kg	0.0114	0.0362	1	M8270C	4/20/2017	4/21/2017	NJC	1
1-Methyl naphthalene	< 0.0203	mg/kg	0.0203	0.0645	1	M8270C	4/20/2017	4/21/2017	NJC	1
2-Methyl naphthalene	< 0.0113	mg/kg	0.0113	0.0358	1	M8270C	4/20/2017	4/21/2017	NJC	1
Naphthalene	< 0.0153	mg/kg	0.0153	0.0486	1	M8270C	4/20/2017	4/21/2017	NJC	1
Phenanthrene	< 0.0111	mg/kg	0.0111	0.0352	1	M8270C	4/20/2017	4/21/2017	NJC	1
Pyrene	< 0.0153	mg/kg	0.0153	0.0487	1	M8270C	4/20/2017	4/21/2017	NJC	1
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		4/18/2017	TCC	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		4/18/2017	TCC	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		4/18/2017	TCC	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		4/18/2017	TCC	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		4/18/2017	TCC	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		4/18/2017	TCC	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		4/18/2017	TCC	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		4/18/2017	TCC	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		4/18/2017	TCC	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		4/18/2017	TCC	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		4/18/2017	TCC	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		4/18/2017	TCC	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		4/18/2017	TCC	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		4/18/2017	TCC	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		4/18/2017	TCC	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		4/18/2017	TCC	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		4/18/2017	TCC	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		4/18/2017	TCC	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		4/18/2017	TCC	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		4/18/2017	TCC	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		4/18/2017	TCC	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		4/18/2017	TCC	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		4/18/2017	TCC	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1

Project Name IRGENS-BMO **Invoice #** E32782
Project # 16722

Lab Code 5032782F
Sample ID SB-2-6 5-7
Sample Matrix Soil
Sample Date 4/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		4/18/2017	TCC	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		4/18/2017	TCC	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		4/18/2017	TCC	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		4/18/2017	TCC	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		4/18/2017	TCC	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		4/18/2017	TCC	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		4/18/2017	TCC	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		4/18/2017	TCC	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		4/18/2017	TCC	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		4/18/2017	TCC	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		4/18/2017	TCC	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		4/18/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		4/18/2017	TCC	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		4/18/2017	TCC	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		4/18/2017	TCC	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		4/18/2017	TCC	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		4/18/2017	TCC	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		4/18/2017	TCC	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		4/18/2017	TCC	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		4/18/2017	TCC	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		4/18/2017	TCC	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		4/18/2017	TCC	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		4/18/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		4/18/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		4/18/2017	TCC	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		4/18/2017	TCC	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		4/18/2017	TCC	1
SUR - 1,2-Dichloroethane-d4	105	Rec %			1	8260B		4/18/2017	TCC	1
SUR - 4-Bromofluorobenzene	95	Rec %			1	8260B		4/18/2017	TCC	1
SUR - Dibromofluoromethane	97	Rec %			1	8260B		4/18/2017	TCC	1
SUR - Toluene-d8	96	Rec %			1	8260B		4/18/2017	TCC	1

Project Name IRGENS-BMO **Invoice #** E32782
Project # 16722

Lab Code 5032782G
Sample ID SB-2-7 2-4
Sample Matrix Soil
Sample Date 4/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	85.1	%			1	5021		4/18/2017	NJC	1
Inorganic										
Metals										
Lead, Total	3.06	mg/Kg	0.17	0.58	1	6010B		4/19/2017	CWT	1
Organic										
PAH SIM										
Acenaphthene	< 0.0151	mg/kg	0.0151	0.0481	1	M8270C	4/20/2017	4/21/2017	NJC	1
Acenaphthylene	< 0.0159	mg/kg	0.0159	0.0508	1	M8270C	4/20/2017	4/21/2017	NJC	1
Anthracene	< 0.0109	mg/kg	0.0109	0.0345	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(a)anthracene	< 0.0116	mg/kg	0.0116	0.037	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.041	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.036	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(k)fluoranthene	< 0.0147	mg/kg	0.0147	0.0469	1	M8270C	4/20/2017	4/21/2017	NJC	1
Chrysene	< 0.0121	mg/kg	0.0121	0.0383	1	M8270C	4/20/2017	4/21/2017	NJC	1
Dibenzo(a,h)anthracene	< 0.0078	mg/kg	0.0078	0.0251	1	M8270C	4/20/2017	4/21/2017	NJC	1
Fluoranthene	< 0.0147	mg/kg	0.0147	0.0469	1	M8270C	4/20/2017	4/21/2017	NJC	1
Fluorene	< 0.0179	mg/kg	0.0179	0.057	1	M8270C	4/20/2017	4/21/2017	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.0114	mg/kg	0.0114	0.0362	1	M8270C	4/20/2017	4/21/2017	NJC	1
1-Methyl naphthalene	< 0.0203	mg/kg	0.0203	0.0645	1	M8270C	4/20/2017	4/21/2017	NJC	1
2-Methyl naphthalene	< 0.0113	mg/kg	0.0113	0.0358	1	M8270C	4/20/2017	4/21/2017	NJC	1
Naphthalene	< 0.0153	mg/kg	0.0153	0.0486	1	M8270C	4/20/2017	4/21/2017	NJC	1
Phenanthrene	< 0.0111	mg/kg	0.0111	0.0352	1	M8270C	4/20/2017	4/21/2017	NJC	1
Pyrene	< 0.0153	mg/kg	0.0153	0.0487	1	M8270C	4/20/2017	4/21/2017	NJC	1
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		4/18/2017	TCC	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		4/18/2017	TCC	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		4/18/2017	TCC	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		4/18/2017	TCC	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		4/18/2017	TCC	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		4/18/2017	TCC	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		4/18/2017	TCC	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		4/18/2017	TCC	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		4/18/2017	TCC	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		4/18/2017	TCC	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		4/18/2017	TCC	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		4/18/2017	TCC	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		4/18/2017	TCC	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		4/18/2017	TCC	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		4/18/2017	TCC	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		4/18/2017	TCC	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		4/18/2017	TCC	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		4/18/2017	TCC	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		4/18/2017	TCC	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		4/18/2017	TCC	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		4/18/2017	TCC	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		4/18/2017	TCC	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		4/18/2017	TCC	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1

Project Name IRGENS-BMO **Invoice #** E32782
Project # 16722

Lab Code 5032782G
Sample ID SB-2-7 2-4
Sample Matrix Soil
Sample Date 4/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		4/18/2017	TCC	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		4/18/2017	TCC	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		4/18/2017	TCC	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		4/18/2017	TCC	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		4/18/2017	TCC	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		4/18/2017	TCC	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		4/18/2017	TCC	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		4/18/2017	TCC	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		4/18/2017	TCC	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		4/18/2017	TCC	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		4/18/2017	TCC	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		4/18/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		4/18/2017	TCC	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		4/18/2017	TCC	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		4/18/2017	TCC	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		4/18/2017	TCC	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		4/18/2017	TCC	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		4/18/2017	TCC	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		4/18/2017	TCC	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		4/18/2017	TCC	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		4/18/2017	TCC	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		4/18/2017	TCC	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		4/18/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		4/18/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		4/18/2017	TCC	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		4/18/2017	TCC	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		4/18/2017	TCC	1
SUR - Toluene-d8	97	Rec %			1	8260B		4/18/2017	TCC	1
SUR - Dibromofluoromethane	99	Rec %			1	8260B		4/18/2017	TCC	1
SUR - 1,2-Dichloroethane-d4	106	Rec %			1	8260B		4/18/2017	TCC	1
SUR - 4-Bromofluorobenzene	94	Rec %			1	8260B		4/18/2017	TCC	1

Project Name IRGENS-BMO **Invoice #** E32782
Project # 16722

Lab Code 5032782H
Sample ID COMP OUTDOOR
Sample Matrix Soil
Sample Date 4/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	87.0	%			1	5021		4/18/2017	NJC	1
Organic										
PAH SIM										
Acenaphthene	< 0.0151	mg/kg	0.0151	0.0481	1	M8270C	4/20/2017	4/21/2017	NJC	1
Acenaphthylene	< 0.0159	mg/kg	0.0159	0.0508	1	M8270C	4/20/2017	4/21/2017	NJC	1
Anthracene	0.0151 "J"	mg/kg	0.0109	0.0345	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(a)anthracene	0.05	mg/kg	0.0116	0.037	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(a)pyrene	0.055	mg/kg	0.0113	0.0359	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(b)fluoranthene	0.117	mg/kg	0.013	0.041	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(g,h,i)perylene	0.054	mg/kg	0.0114	0.036	1	M8270C	4/20/2017	4/21/2017	NJC	1
Benzo(k)fluoranthene	0.108	mg/kg	0.0147	0.0469	1	M8270C	4/20/2017	4/21/2017	NJC	1
Chrysene	0.056	mg/kg	0.0121	0.0383	1	M8270C	4/20/2017	4/21/2017	NJC	1
Dibenzo(a,h)anthracene	< 0.0078	mg/kg	0.0078	0.0251	1	M8270C	4/20/2017	4/21/2017	NJC	1
Fluoranthene	0.114	mg/kg	0.0147	0.0469	1	M8270C	4/20/2017	4/21/2017	NJC	1
Fluorene	< 0.0179	mg/kg	0.0179	0.057	1	M8270C	4/20/2017	4/21/2017	NJC	1
Indeno(1,2,3-cd)pyrene	0.051	mg/kg	0.0114	0.0362	1	M8270C	4/20/2017	4/21/2017	NJC	1
1-Methyl naphthalene	< 0.0203	mg/kg	0.0203	0.0645	1	M8270C	4/20/2017	4/21/2017	NJC	1
2-Methyl naphthalene	< 0.0113	mg/kg	0.0113	0.0358	1	M8270C	4/20/2017	4/21/2017	NJC	1
Naphthalene	< 0.0153	mg/kg	0.0153	0.0486	1	M8270C	4/20/2017	4/21/2017	NJC	1
Phenanthrene	0.056	mg/kg	0.0111	0.0352	1	M8270C	4/20/2017	4/21/2017	NJC	1
Pyrene	0.097	mg/kg	0.0153	0.0487	1	M8270C	4/20/2017	4/21/2017	NJC	1
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.96	1	8260B		4/18/2017	TCC	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		4/18/2017	TCC	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		4/18/2017	TCC	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		4/18/2017	TCC	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		4/18/2017	TCC	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		4/18/2017	TCC	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		4/18/2017	TCC	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		4/18/2017	TCC	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		4/18/2017	TCC	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		4/18/2017	TCC	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		4/18/2017	TCC	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		4/18/2017	TCC	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		4/18/2017	TCC	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		4/18/2017	TCC	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		4/18/2017	TCC	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		4/18/2017	TCC	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		4/18/2017	TCC	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		4/18/2017	TCC	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		4/18/2017	TCC	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		4/18/2017	TCC	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		4/18/2017	TCC	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		4/18/2017	TCC	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		4/18/2017	TCC	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		4/18/2017	TCC	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		4/18/2017	TCC	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		4/18/2017	TCC	1

Project Name IRGENS-BMO **Invoice #** E32782
Project # 16722

Lab Code 5032782H
Sample ID COMP OUTDOOR
Sample Matrix Soil
Sample Date 4/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		4/18/2017	TCC	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		4/18/2017	TCC	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		4/18/2017	TCC	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		4/18/2017	TCC	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		4/18/2017	TCC	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		4/18/2017	TCC	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		4/18/2017	TCC	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		4/18/2017	TCC	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		4/18/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		4/18/2017	TCC	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		4/18/2017	TCC	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		4/18/2017	TCC	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		4/18/2017	TCC	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		4/18/2017	TCC	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		4/18/2017	TCC	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		4/18/2017	TCC	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		4/18/2017	TCC	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		4/18/2017	TCC	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		4/18/2017	TCC	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		4/18/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		4/18/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		4/18/2017	TCC	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		4/18/2017	TCC	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		4/18/2017	TCC	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		4/18/2017	TCC	1
SUR - Toluene-d8	95	Rec %			1	8260B		4/18/2017	TCC	1
SUR - 1,2-Dichloroethane-d4	87	Rec %			1	8260B		4/18/2017	TCC	1
SUR - 4-Bromofluorobenzene	88	Rec %			1	8260B		4/18/2017	TCC	1
SUR - Dibromofluoromethane	103	Rec %			1	8260B		4/18/2017	TCC	1

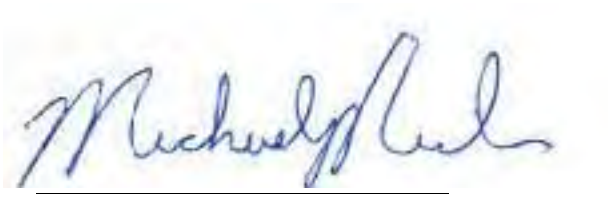
"J" Flag: Analyte detected between LOD and LOQ LOD Limit of Detection LOQ Limit of Quantitation

Code	*Comment*
1	Laboratory QC within limits.
2	Relative percent difference failed for laboratory spiked samples.

CWT denotes sub contract lab - Certification #445126660

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

Authorized Signature



CHAIN OF CUSTODY RECORD

Synergy Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # Nº 3170

Page 1 of 1

Sample Handling Request
X Rush Analysis Date Required ____
(Rushes accepted only with prior authorization)
____ Normal Turn Around

Lab I.D. #

Account No. : Quote No.: Standard

Project #: 16722

Sampler: (signature) Steven Kikkert

Project (Name / Location): Irgens - BMO

Reports To: Cory Katzban	Invoice To: SAME
Company The Sigma Group, Inc.	Company
Address 1300 W Canal St.	Address
City State Zip Milwaukee, WI 53233	City State Zip
Phone 414-643-4200	Phone
FAX 414-643-4210	FAX

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	8-RCRA METALS	PID/FID
503278 2A	SB-2-1 (4-6)	4/14	1:36		X	N	3	SOIL	MeOH/None						X							X	X	0
B	SB-2-2 (5-7')		1:24									X												0
C	SB-2-3 (5-7)		1:08									X												0
D	SB-2-4 (4-6')		1:26																				X	0
E	SB-2-5 (4-6')		11:08																				X	0
F	SB-2-6 (5-7')		10:14									X												0
G	SB-2-7 (2-4)		2:26									X												0
	~~SB-2-8~~																							
H	Comp Outdoor	4/13	2:00	X		N	2	SOIL	MeOH/None						X							X		0.1

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

5-Day Turn Around

cc: Steve Kikkert per conf on 4-18-17 JS

Sample Integrity - To be completed by receiving lab.

Method of Shipment: Sim

Temp. of Temp. Blank ____ °C On Ice: X

Cooler seal intact upon receipt: X Yes ____ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
Steven Kikkert	12:00	4/17			

Received in Laboratory By: Time: 8:00 Date: 4/18/17

21-Apr-2017

Cory Katzban
The Sigma Group
1300 W. Canal Street
Milwaukee, WI 53233

Re: **Irgens - BMO (16722)** Work Order: **1704959**

Dear Cory,

ALS Environmental received 7 samples on 18-Apr-2017 09:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 38.

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

Sincerely,

Electronically approved by: Bill Carey

Chad Whelton
Project Manager

Certificate No: WI: 399084510

Report of Laboratory Analysis

ALS Group, USA

Date: 21-Apr-17

Client: The Sigma Group
Project: Irgens - BMO (16722)
Work Order: **1704959**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1704959-01	SB-2-9 (2-4')	Soil		4/13/2017 11:08	4/18/2017 09:00	☐
1704959-02	SB-2-10 (2-4')	Soil		4/13/2017 11:38	4/18/2017 09:00	☐
1704959-03	SB-2-11 (2-4')	Soil		4/13/2017 12:05	4/18/2017 09:00	☐
1704959-04	SB-2-12 (2-4')	Soil		4/13/2017 12:34	4/18/2017 09:00	☐
1704959-05	Comp Outdoor	Soil		4/13/2017 14:00	4/18/2017 09:00	☐
1704959-06	Comp Indoor	Soil		4/14/2017 16:00	4/18/2017 09:00	☐
1704959-07	Comp Indoor	Tclp Extract		4/14/2017 16:00	4/18/2017 09:00	☐

Qualifier	Description
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
% of sample	Percent of Sample
°F	Degrees Fahrenheit
µg/Kg-dry	Micrograms per Kilogram Dry Weight
µg/L	Micrograms per Liter
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter
s.u.	Standard Units

Client: The Sigma Group
Project: Irgens - BMO (16722)
Work Order: 1704959

Case Narrative

Samples for the above noted Work Order were received on 4/18/2017. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting. A copy of the laboratory's scope of accreditation is available upon request.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics:
No other deviations or anomalies were noted.

Extractable Organics:
No other deviations or anomalies were noted.

Metals:
Batch 100784, Method HG_7471_S, Sample 1704959-05AMS: The MS recovery was above the upper control limit. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary: Hg

Batch 100784, Method HG_7471_S, Sample 1704959-05AMSD: The MSD recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: Hg

Batch 100819, Method ICP_6020_S, Sample 1704959-05AMS: The MS recovery was outside of the control limit; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required for this analyte: Pb

Batch 100819, Method ICP_6020_S, Sample 1704959-05AMS: The MS recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: Cr

Batch 100819, Method ICP_6020_S, Sample 1704959-05AMSD: The MSD recovery was

outside of the control limit; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required for this analyte: Pb

Batch 100819, Method ICP_6020_S, Sample 1704959-05AMSD: The RPD between the MS and MSD was outside the control limit. The corresponding result in the parent sample should be considered estimated for this analyte: Pb

Batch 100819, Method ICP_6020_S, Sample 1704959-05AMSD: The MSD recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: Cr

Wet Chemistry:
No other deviations or anomalies were noted.

ALS Group, USA

Date: *21-Apr-17*

Client: The Sigma Group
Project: Irgens - BMO (16722)
Sample ID: SB-2-9 (2-4')
Collection Date: 4/13/2017 11:08 AM

Work Order: 1704959
Lab ID: 1704959-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
ORGANIC COMPOUNDS BY GC-FID		Method: **SW8015M**					Analyst: **KYM**
Ethylene glycol	U		1.3	5.1	mg/Kg-dry	1	4/18/2017 16:29
MOISTURE		Method: **SW3550C**					Analyst: **EDL**
Moisture	**7.7**		**0.025**	**0.050**	**% of sample**	1	4/18/2017 14:35

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: The Sigma Group
Project: Irgens - BMO (16722)
Sample ID: SB-2-10 (2-4')
Collection Date: 4/13/2017 11:38 AM

Work Order: 1704959
Lab ID: 1704959-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
ORGANIC COMPOUNDS BY GC-FID		Method: **SW8015M**					Analyst: **KYM**
Ethylene glycol	U		1.3	5.1	mg/Kg-dry	1	4/18/2017 16:40
MOISTURE		Method: **SW3550C**					Analyst: **EDL**
Moisture	**6.4**		**0.025**	**0.050**	**% of sample**	1	4/18/2017 14:35

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: The Sigma Group
Project: Irgens - BMO (16722)
Sample ID: SB-2-11 (2-4')
Collection Date: 4/13/2017 12:05 PM

Work Order: 1704959
Lab ID: 1704959-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
ORGANIC COMPOUNDS BY GC-FID		Method: **SW8015M**					Analyst: **KYM**
Ethylene glycol	U		1.4	5.5	mg/Kg-dry	1	4/18/2017 16:50
MOISTURE		Method: **SW3550C**					Analyst: **EDL**
Moisture	**11**		**0.025**	**0.050**	**% of sample**	1	4/18/2017 14:35

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: The Sigma Group
Project: Irgens - BMO (16722)
Sample ID: SB-2-12 (2-4')
Collection Date: 4/13/2017 12:34 PM

Work Order: 1704959
Lab ID: 1704959-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
ORGANIC COMPOUNDS BY GC-FID		Method: **SW8015M**					Analyst: **KYM**
Ethylene glycol	U		1.3	5.1	mg/Kg-dry	1	4/18/2017 17:33
MOISTURE		Method: **SW3550C**					Analyst: **EDL**
Moisture	**6.9**		**0.025**	**0.050**	**% of sample**	1	4/18/2017 14:35

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: The Sigma Group
Project: Irgens - BMO (16722)
Sample ID: Comp Outdoor
Collection Date: 4/13/2017 02:00 PM

Work Order: 1704959
Lab ID: 1704959-05
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA		Method: **SW7471B**			Prep: SW7471 / 4/18/17		Analyst: **JJB**
Mercury	**0.065**		**0.0026**	**0.016**	**mg/Kg-dry**	1	4/19/2017 18:49
METALS BY ICP-MS		Method: **SW6020A**			Prep: SW3050B / 4/19/17		Analyst: **JF**
Arsenic	**3.4**		**0.25**	**1.7**	**mg/Kg-dry**	4	4/20/2017 00:45
Barium	**52**		**0.24**	**1.7**	**mg/Kg-dry**	4	4/20/2017 00:45
Cadmium	**0.070**	J	**0.014**	**0.69**	**mg/Kg-dry**	4	4/20/2017 00:45
Chromium	**6.4**		**0.082**	**1.7**	**mg/Kg-dry**	4	4/20/2017 00:45
Lead	**350**		**0.027**	**1.7**	**mg/Kg-dry**	4	4/20/2017 00:45
Selenium	U		0.51	1.7	mg/Kg-dry	4	4/20/2017 00:45
Silver	**0.031**	J	**0.014**	**1.7**	**mg/Kg-dry**	4	4/20/2017 00:45
MOISTURE		Method: **SW3550C**					Analyst: **EDL**
Moisture	**6.3**		**0.025**	**0.050**	**% of sample**	1	4/18/2017 14:35

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: The Sigma Group
Project: Irgens - BMO (16722)
Sample ID: Comp Indoor
Collection Date: 4/14/2017 04:00 PM

Work Order: 1704959
Lab ID: 1704959-06
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID		Method: **PUBL-SW-141**			Prep: PUBL-SW-141 / 4/19/17		Analyst: **IT**
DRO (C10-C28)	**11**		**0.53**	**5.3**	**mg/Kg-dry**	1	4/19/2017 16:28
PCBS		Method: **SW8082**			Prep: SW3546 / 4/19/17		Analyst: **EB**
Aroclor 1016	U		9.0	70	µg/Kg-dry	1	4/20/2017 20:12
Aroclor 1221	U		9.0	70	µg/Kg-dry	1	4/20/2017 20:12
Aroclor 1232	U		9.0	70	µg/Kg-dry	1	4/20/2017 20:12
Aroclor 1242	U		9.0	70	µg/Kg-dry	1	4/20/2017 20:12
Aroclor 1248	U		9.0	70	µg/Kg-dry	1	4/20/2017 20:12
Aroclor 1254	U		6.3	70	µg/Kg-dry	1	4/20/2017 20:12
Aroclor 1260	**43**	J	**6.3**	**70**	**µg/Kg-dry**	1	4/20/2017 20:12
Aroclor 1262	U		6.3	70	µg/Kg-dry	1	4/20/2017 20:12
Aroclor 1268	U		6.3	70	µg/Kg-dry	1	4/20/2017 20:12
Surr: Decachlorobiphenyl	*81.5*			*40-140*	*%REC*	1	4/20/2017 20:12
Surr: Tetrachloro-m-xylene	*78.5*			*45-124*	*%REC*	1	4/20/2017 20:12
CYANIDE, REACTIVE		Method: **SW7.3.3.2**					Analyst: **EE**
Cyanide, Reactive	U		19	110	mg/Kg-dry	1	4/20/2017 14:00
FLASHPOINT/IGNITABILITY ANALYSIS		Method: **SW1010A**					Analyst: **RZM**
Flashpoint/Ignitability	*>200*		1.00	1.00	°F	1	4/20/2017 09:25
MOISTURE		Method: **SW3550C**					Analyst: **EDL**
Moisture	**7.3**		**0.025**	**0.050**	**% of sample**	1	4/18/2017 16:28
PH		Method: **SW9045D**			Prep: EXTRACT / 4/19/17		Analyst: **RZM**
pH	**8.33**		**0.10**	**0.100**	**s.u.**	1	4/20/2017 10:00
SULFIDE, REACTIVE		Method: **SW7.3.4.2**					Analyst: **EE**
Sulfide, Reactive	U		40	110	mg/Kg-dry	1	4/20/2017 14:00

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *21-Apr-17*

Client: The Sigma Group
Project: Irgens - BMO (16722)
Sample ID: Comp Indoor
Collection Date: 4/14/2017 04:00 PM

Work Order: 1704959
Lab ID: 1704959-07
Matrix: TCLP EXTRACT

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY BY CVAA		Method: **SW7470A**			Prep: SW7470 / 4/19/17		Analyst: **JJB**
Mercury	U		0.00019	0.0020	mg/L	1	4/19/2017 18:22
TCLP METALS ANALYSIS BY ICP-MS		Method: **SW6020A**			Prep: SW3005A / 4/19/17		Analyst: **RH**
Arsenic	U		0.0087	0.050	mg/L	1	4/20/2017 15:42
Barium	**0.24**		**0.022**	**0.050**	**mg/L**	1	4/20/2017 15:42
Cadmium	**0.00083**	J	**0.00050**	**0.0020**	**mg/L**	1	4/20/2017 15:42
Chromium	U		0.0065	0.050	mg/L	1	4/20/2017 15:42
Copper	**0.0053**	J	**0.0028**	**0.050**	**mg/L**	1	4/20/2017 15:42
Lead	U		0.0033	0.050	mg/L	1	4/20/2017 15:42
Nickel	**0.028**	J	**0.0041**	**0.050**	**mg/L**	1	4/20/2017 15:42
Selenium	U		0.0090	0.050	mg/L	1	4/20/2017 15:42
Silver	U		0.00050	0.050	mg/L	1	4/20/2017 15:42
Zinc	**0.026**	J	**0.014**	**0.10**	**mg/L**	1	4/20/2017 15:42
TCLP SEMI-VOLATILE ORGANICS		Method: **SW8270D**			Prep: SW3510 / 4/19/17		Analyst: **RS**
1,4-Dichlorobenzene	U		6.4	100	µg/L	1	4/19/2017 18:50
2,4,5-Trichlorophenol	U		3.4	100	µg/L	1	4/19/2017 18:50
2,4,6-Trichlorophenol	U		5.0	100	µg/L	1	4/19/2017 18:50
2,4-Dinitrotoluene	U		8.4	100	µg/L	1	4/19/2017 18:50
Hexachloro-1,3-butadiene	U		5.6	100	µg/L	1	4/19/2017 18:50
Hexachlorobenzene	U		8.8	100	µg/L	1	4/19/2017 18:50
Hexachloroethane	U		4.2	100	µg/L	1	4/19/2017 18:50
m-Cresol	U		3.9	100	µg/L	1	4/19/2017 18:50
Nitrobenzene	U		5.2	100	µg/L	1	4/19/2017 18:50
o-Cresol	U		4.0	100	µg/L	1	4/19/2017 18:50
p-Cresol	U		3.9	100	µg/L	1	4/19/2017 18:50
Pentachlorophenol	U		19	100	µg/L	1	4/19/2017 18:50
Pyridine	U		2.0	200	µg/L	1	4/19/2017 18:50
Surr: 2,4,6-Tribromophenol	*63.2*			*38-115*	*%REC*	1	4/19/2017 18:50
Surr: 2-Fluorobiphenyl	*59.4*			*32-100*	*%REC*	1	4/19/2017 18:50
Surr: 2-Fluorophenol	*46.6*			*22-59*	*%REC*	1	4/19/2017 18:50
Surr: 4-Terphenyl-d14	*81.0*			*23-112*	*%REC*	1	4/19/2017 18:50
Surr: Nitrobenzene-d5	*61.8*			*31-93*	*%REC*	1	4/19/2017 18:50
Surr: Phenol-d6	*32.7*			*13-36*	*%REC*	1	4/19/2017 18:50
TCLP VOLATILE ORGANICS		Method: **SW8260B**			Leachate: SW1311 / 4/19/17		Analyst: **BG**
1,1-Dichloroethene	U		5.5	20	µg/L	20	4/19/2017 14:17
1,2-Dichloroethane	U		3.3	20	µg/L	20	4/19/2017 14:17
2-Butanone	U		12	100	µg/L	20	4/19/2017 14:17
Benzene	U		6.1	20	µg/L	20	4/19/2017 14:17

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: The Sigma Group
Project: Irgens - BMO (16722)
Sample ID: Comp Indoor
Collection Date: 4/14/2017 04:00 PM

Work Order: 1704959
Lab ID: 1704959-07
Matrix: TCLP EXTRACT

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	U		6.2	20	µg/L	20	4/19/2017 14:17
Chlorobenzene	U		5.4	20	µg/L	20	4/19/2017 14:17
Chloroform	U		5.1	20	µg/L	20	4/19/2017 14:17
Tetrachloroethene	U		5.5	20	µg/L	20	4/19/2017 14:17
Trichloroethene	U		6.0	20	µg/L	20	4/19/2017 14:17
Vinyl chloride	U		4.1	20	µg/L	20	4/19/2017 14:17
Surr: 1,2-Dichloroethane-d4	*100*			*70-130*	*%REC*	20	4/19/2017 14:17
Surr: 4-Bromofluorobenzene	*93.6*			*70-130*	*%REC*	20	4/19/2017 14:17
Surr: Dibromofluoromethane	*102*			*70-130*	*%REC*	20	4/19/2017 14:17
Surr: Toluene-d8	*91.5*			*70-130*	*%REC*	20	4/19/2017 14:17

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 21-Apr-17

Client: The Sigma Group

QC BATCH REPORT

Work Order: 1704959

Project: Irgens - BMO (16722)

Batch ID: **100789** Instrument ID **GC8** Method: **PUBL-SW-141**

MBLK	Sample ID: **DBLKS1-100789-100789**			Units: **mg/Kg**			Analysis Date: **4/19/2017 03:58 PM**			
Client ID:	Run ID: **GC8_170419A**			SeqNo: **4385694**			Prep Date: **4/19/2017**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	0.654	5.0								J

LCS	Sample ID: **DLCSS1-100789-100789**			Units: **mg/Kg**			Analysis Date: **4/19/2017 03:28 PM**			
Client ID:	Run ID: **GC8_170419A**			SeqNo: **4385693**			Prep Date: **4/19/2017**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	8.014	5.0	10	0	80.1	70-120	0			

LCSD	Sample ID: **DLCSDS1-100789-100789**			Units: **mg/Kg**			Analysis Date: **4/19/2017 04:57 PM**			
Client ID:	Run ID: **GC8_170419A**			SeqNo: **4385696**			Prep Date: **4/19/2017**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	7.18	5.0	10	0	71.8	70-120	8.014	11	20	

The following samples were analyzed in this batch: 1704959-06A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Sigma Group
Work Order: 1704959
Project: Irgens - BMO (16722)

QC BATCH REPORT

Batch ID: **100792** Instrument ID **GC14** Method: **SW8082**

MBLK Sample ID: **PBLKS1-100792-100792** Units: **µg/Kg** Analysis Date: **4/20/2017 07:00 PM**
Client ID: Run ID: **GC14_170421A** SeqNo: **4388485** Prep Date: **4/19/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	U	67								
Aroclor 1221	U	67								
Aroclor 1232	U	67								
Aroclor 1242	U	67								
Aroclor 1248	U	67								
Aroclor 1254	U	67								
Aroclor 1260	U	67								
Aroclor 1262	U	67								
Aroclor 1268	U	67								
Surr: Decachlorobiphenyl	*32.84*	0	*33.3*	0	*98.6*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*31.9*	0	*33.3*	0	*95.8*	*45-124*	0			

LCS Sample ID: **PLCSS1-100792-100792** Units: **µg/Kg** Analysis Date: **4/20/2017 07:14 PM**
Client ID: Run ID: **GC14_170421A** SeqNo: **4388486** Prep Date: **4/19/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	748	67	833	0	89.8	50-130	0			
Aroclor 1260	760.9	67	833	0	91.3	50-130	0			
Surr: Decachlorobiphenyl	*66.99*	0	*66.6*	0	*101*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*59.07*	0	*66.6*	0	*88.7*	*45-124*	0			

MS Sample ID: **1704899-02A MS** Units: **µg/Kg** Analysis Date: **4/20/2017 07:43 PM**
Client ID: Run ID: **GC14_170421A** SeqNo: **4388488** Prep Date: **4/19/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	792.6	65	811.4	0	97.7	40-140	0			
Aroclor 1260	792	65	811.4	0	97.6	40-140	0			
Surr: Decachlorobiphenyl	*33.57*	0	*32.44*	0	*103*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*30.4*	0	*32.44*	0	*93.7*	*45-124*	0			

MSD Sample ID: **1704899-02A MSD** Units: **µg/Kg** Analysis Date: **4/20/2017 07:57 PM**
Client ID: Run ID: **GC14_170421A** SeqNo: **4388489** Prep Date: **4/19/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	739.7	63	788.8	0	93.8	40-140	792.6	6.9	50	
Aroclor 1260	708.2	63	788.8	0	89.8	40-140	792	11.2	50	
Surr: Decachlorobiphenyl	*29.71*	0	*31.53*	0	*94.2*	*40-140*	33.57	*12.2*	*50*	
Surr: Tetrachloro-m-xylene	*28.95*	0	*31.53*	0	*91.8*	*45-124*	30.4	*4.88*	*50*	

The following samples were analyzed in this batch: 1704959-06A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Sigma Group
Work Order: 1704959
Project: Irgens - BMO (16722)

QC BATCH REPORT

Batch ID: **R210127** Instrument ID **GC11** Method: **SW8015M**

MBLK Sample ID: **MB-R210127-R210127** Units: **mg/Kg** Analysis Date: **4/18/2017 04:16 PM**
Client ID: Run ID: **GC11_170418B** SeqNo: **4385547** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylene glycol	U	5.0								

LCS Sample ID: **LCS-R210127-R210127** Units: **mg/Kg** Analysis Date: **4/18/2017 05:43 PM**
Client ID: Run ID: **GC11_170418B** SeqNo: **4385548** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylene glycol	413.1	5.0	500	0	82.6	50-150	0			

MS Sample ID: **1704959-01A MS** Units: **mg/Kg** Analysis Date: **4/18/2017 05:53 PM**
Client ID: **SB-2-9 (2-4')** Run ID: **GC11_170418B** SeqNo: **4385553** Prep Date: **4/18/2017** DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylene glycol	878.8	9.4	1000	0	87.9	50-150	0			

MSD Sample ID: **1704959-01A MSD** Units: **mg/Kg** Analysis Date: **4/18/2017 06:02 PM**
Client ID: **SB-2-9 (2-4')** Run ID: **GC11_170418B** SeqNo: **4385554** Prep Date: **4/18/2017** DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylene glycol	940.6	9.4	1000	0	94.1	50-150	878.8	6.79	30	

The following samples were analyzed in this batch: 1704959-01A 1704959-02A 1704959-03A 1704959-04A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Sigma Group
Work Order: 1704959
Project: Irgens - BMO (16722)

QC BATCH REPORT

Batch ID: **100784** Instrument ID **HG1** Method: **SW7471B**

MBLK Sample ID: **MBLK-100784-100784** Units: **mg/Kg** Analysis Date: **4/19/2017 06:35 PM**
Client ID: Run ID: **HG1_170419A** SeqNo: **4386151** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.020								

LCS Sample ID: **LCS-100784-100784** Units: **mg/Kg** Analysis Date: **4/19/2017 06:46 PM**
Client ID: Run ID: **HG1_170419A** SeqNo: **4386152** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1817	0.020	0.1665	0	109	80-120	0			

MS Sample ID: **1704959-05AMS** Units: **mg/Kg** Analysis Date: **4/19/2017 07:02 PM**
Client ID: **Comp Outdoor** Run ID: **HG1_170419A** SeqNo: **4386155** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.2115	0.015	0.1273	-0.0003102	166	75-125	0			S

MSD Sample ID: **1704959-05AMSD** Units: **mg/Kg** Analysis Date: **4/19/2017 07:04 PM**
Client ID: **Comp Outdoor** Run ID: **HG1_170419A** SeqNo: **4386156** Prep Date: **4/18/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1941	0.014	0.1201	-0.0003102	162	75-125	0.2115	8.56	35	S

The following samples were analyzed in this batch: 1704959-05A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Sigma Group
Work Order: 1704959
Project: Irgens - BMO (16722)

QC BATCH REPORT

Batch ID: **100806** Instrument ID **HG1** Method: **SW7470A** **(Dissolve)**

MBLK Sample ID: **MBLK-100732-100806** Units: **mg/L** Analysis Date: **4/19/2017 05:06 PM**
Client ID: Run ID: **HG1_170419A** SeqNo: **4386107** Prep Date: **4/19/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.00020								

MBLK Sample ID: **MBLK-100806-100806** Units: **mg/L** Analysis Date: **4/19/2017 05:12 PM**
Client ID: Run ID: **HG1_170419A** SeqNo: **4386109** Prep Date: **4/19/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.00020								

LCS Sample ID: **LCS-100732-100806** Units: **mg/L** Analysis Date: **4/19/2017 05:09 PM**
Client ID: Run ID: **HG1_170419A** SeqNo: **4386108** Prep Date: **4/19/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00201	0.00020	0.002	0	100	80-120	0			

LCS Sample ID: **LCS-100806-100806** Units: **mg/L** Analysis Date: **4/19/2017 05:14 PM**
Client ID: Run ID: **HG1_170419A** SeqNo: **4386110** Prep Date: **4/19/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00203	0.00020	0.002	0	102	80-120	0			

MS Sample ID: **1704959-07AMS** Units: **mg/L** Analysis Date: **4/19/2017 06:25 PM**
Client ID: **Comp Indoor** Run ID: **HG1_170419A** SeqNo: **4386134** Prep Date: **4/19/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0202	0.0020	0.02	0	101	75-125	0			

MSD Sample ID: **1704959-07AMSD** Units: **mg/L** Analysis Date: **4/19/2017 06:27 PM**
Client ID: **Comp Indoor** Run ID: **HG1_170419A** SeqNo: **4386135** Prep Date: **4/19/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0204	0.0020	0.02	0	102	75-125	0.0202	0.985	20	

The following samples were analyzed in this batch: 1704959-07A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Sigma Group
Work Order: 1704959
Project: Irgens - BMO (16722)

QC BATCH REPORT

Batch ID: **100795** Instrument ID **ICPMS2** Method: **SW6020A**

MBLK Sample ID: **MBLK-100795-100795** Units: **mg/L** Analysis Date: **4/20/2017 03:32 PM**
Client ID: Run ID: **ICPMS2_170420A** SeqNo: **4388969** Prep Date: **4/19/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.0050								
Barium	U	0.0050								
Cadmium	U	0.0020								
Chromium	U	0.0050								
Copper	U	0.0050								
Lead	U	0.0050								
Nickel	U	0.0050								
Selenium	U	0.0050								
Silver	U	0.0050								
Zinc	U	0.010								

LCS Sample ID: **LCS-100795-100795** Units: **mg/L** Analysis Date: **4/20/2017 03:37 PM**
Client ID: Run ID: **ICPMS2_170420A** SeqNo: **4388970** Prep Date: **4/19/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.1037	0.0050	0.1	0	104	80-120	0			
Barium	0.1028	0.0050	0.1	0	103	80-120	0			
Cadmium	0.1037	0.0020	0.1	0	104	80-120	0			
Chromium	0.1003	0.0050	0.1	0	100	80-120	0			
Copper	0.1061	0.0050	0.1	0	106	80-120	0			
Lead	0.1007	0.0050	0.1	0	101	80-120	0			
Nickel	0.104	0.0050	0.1	0	104	80-120	0			
Selenium	0.1034	0.0050	0.1	0	103	80-120	0			
Silver	0.09935	0.0050	0.1	0	99.4	80-120	0			
Zinc	0.1023	0.010	0.1	0	102	80-120	0			

MS Sample ID: **1704959-07AMS** Units: **mg/L** Analysis Date: **4/20/2017 03:47 PM**
Client ID: **Comp Indoor** Run ID: **ICPMS2_170420A** SeqNo: **4388972** Prep Date: **4/19/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	1.056	0.050	1	-0.0003776	106	75-125	0			
Barium	1.313	0.050	1	0.2408	107	75-125	0			
Cadmium	0.9869	0.020	1	0.0008301	98.6	75-125	0			
Chromium	0.9701	0.050	1	0.0001591	97	75-125	0			
Copper	1.031	0.050	1	0.005269	103	75-125	0			
Lead	1.004	0.050	1	0.0006229	100	75-125	0			
Nickel	1.03	0.050	1	0.0283	100	75-125	0			
Selenium	1.053	0.050	1	0.0003901	105	75-125	0			
Silver	0.9146	0.050	1	0.0001528	91.4	75-125	0			
Zinc	1.038	0.10	1	0.02592	101	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Sigma Group
Work Order: 1704959
Project: Irgens - BMO (16722)

QC BATCH REPORT

Batch ID: **100795** Instrument ID **ICPMS2** Method: **SW6020A**

MSD Sample ID: **1704959-07AMSD** Units: **mg/L** Analysis Date: **4/20/2017 03:52 PM**
Client ID: **Comp Indoor** Run ID: **ICPMS2_170420A** SeqNo: **4388973** Prep Date: **4/19/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	1.035	0.050	1	-0.0003776	104	75-125	1.056	2.01	20	
Barium	1.273	0.050	1	0.2408	103	75-125	1.313	3.09	20	
Cadmium	0.9625	0.020	1	0.0008301	96.2	75-125	0.9869	2.5	20	
Chromium	0.9623	0.050	1	0.0001591	96.2	75-125	0.9701	0.807	20	
Copper	1.022	0.050	1	0.005269	102	75-125	1.031	0.877	20	
Lead	1.009	0.050	1	0.0006229	101	75-125	1.004	0.497	20	
Nickel	1.029	0.050	1	0.0283	100	75-125	1.03	0.0971	20	
Selenium	1.044	0.050	1	0.0003901	104	75-125	1.053	0.858	20	
Silver	0.9051	0.050	1	0.0001528	90.5	75-125	0.9146	1.04	20	
Zinc	1.03	0.10	1	0.02592	100	75-125	1.038	0.774	20	

The following samples were analyzed in this batch: 1704959-07A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Sigma Group
Work Order: 1704959
Project: Irgens - BMO (16722)

QC BATCH REPORT

Batch ID: **100819** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK Sample ID: **MBLK-100819-100819** Units: **mg/Kg** Analysis Date: **4/19/2017 06:35 PM**
Client ID: Run ID: **ICPMS1_170419A** SeqNo: **4386374** Prep Date: **4/19/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.25								
Cadmium	U	0.10								
Chromium	0.02688	0.25								J
Lead	0.006595	0.25								J
Selenium	U	0.25								

LCS Sample ID: **LCS-100819-100819** Units: **mg/Kg** Analysis Date: **4/19/2017 06:41 PM**
Client ID: Run ID: **ICPMS1_170419A** SeqNo: **4386375** Prep Date: **4/19/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.742	0.25	5	0	94.8	80-120	0			
Cadmium	4.506	0.10	5	0	90.1	80-120	0			
Chromium	4.882	0.25	5	0	97.6	80-120	0			
Lead	5.785	0.25	5	0	116	80-120	0			

LCS Sample ID: **LCS-100819-100819** Units: **mg/Kg** Analysis Date: **4/20/2017 04:56 PM**
Client ID: Run ID: **ICPMS1_170420A** SeqNo: **4388646** Prep Date: **4/19/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	4.33	0.25	5	0	86.6	80-120	0			

MS Sample ID: **1704959-05AMS** Units: **mg/Kg** Analysis Date: **4/20/2017 12:51 AM**
Client ID: **Comp Outdoor** Run ID: **ICPMS1_170419A** SeqNo: **4386444** Prep Date: **4/19/2017** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.57	1.6	8.091	3.179	104	75-125	0			
Cadmium	7.757	0.65	8.091	0.06559	95.1	75-125	0			
Chromium	18.46	1.6	8.091	5.965	154	75-125	0			S
Lead	564.1	1.6	8.091	329.7	2900	75-125	0			SO
Selenium	7.896	1.6	8.091	0.3573	93.2	75-125	0			

MSD Sample ID: **1704959-05AMSD** Units: **mg/Kg** Analysis Date: **4/20/2017 12:57 AM**
Client ID: **Comp Outdoor** Run ID: **ICPMS1_170419A** SeqNo: **4386446** Prep Date: **4/19/2017** DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.84	1.6	8.078	3.179	107	75-125	11.57	2.32	20	
Cadmium	7.8	0.65	8.078	0.06559	95.7	75-125	7.757	0.545	20	
Chromium	18.58	1.6	8.078	5.965	156	75-125	18.46	0.659	20	S
Lead	329.6	1.6	8.078	329.7	-1.62	75-125	564.1	52.5	20	SRO
Selenium	8.191	1.6	8.078	0.3573	97	75-125	7.896	3.66	20	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Sigma Group
Work Order: 1704959
Project: Irgens - BMO (16722)

QC BATCH REPORT

Batch ID: **100819** Instrument ID **ICPMS1** Method: **SW6020A**

The following samples were analyzed in this batch: 1704959-05A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Sigma Group
Work Order: 1704959
Project: Irgens - BMO (16722)

QC BATCH REPORT

Batch ID: **100774** Instrument ID **SVMS5** Method: **SW8270D**

MBLK	Sample ID: **SBLKW1-100774-100774**				Units: **µg/L**			Analysis Date: **4/19/2017 03:44 PM**		
Client ID:		Run ID: **SVMS5_170419A**			SeqNo: **4387480**		Prep Date: **4/19/2017**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	U	5.0								
2,4,5-Trichlorophenol	U	5.0								
2,4,6-Trichlorophenol	U	5.0								
2,4-Dinitrotoluene	U	5.0								
Hexachloro-1,3-butadiene	U	5.0								
Hexachlorobenzene	U	5.0								
Hexachloroethane	U	5.0								
m-Cresol	U	5.0								
Nitrobenzene	U	5.0								
o-Cresol	U	5.0								
p-Cresol	U	5.0								
Pentachlorophenol	U	5.0								
Pyridine	U	10								
Surr: 2,4,6-Tribromophenol	*26.24*	0	*50*	0	*52.5*	*38-115*	0			
Surr: 2-Fluorobiphenyl	*27.88*	0	*50*	0	*55.8*	*32-100*	0			
Surr: 2-Fluorophenol	*20.46*	0	*50*	0	*40.9*	*22-59*	0			
Surr: 4-Terphenyl-d14	*33.99*	0	*50*	0	*68*	*23-112*	0			
Surr: Nitrobenzene-d5	*29.58*	0	*50*	0	*59.2*	*31-93*	0			
Surr: Phenol-d6	*12.6*	0	*50*	0	*25.2*	*13-36*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Sigma Group
Work Order: 1704959
Project: Irgens - BMO (16722)

QC BATCH REPORT

Batch ID: **100774** Instrument ID **SVMS5** Method: **SW8270D**

LCS Sample ID: **SLCSW1-100774-100774** Units: **µg/L** Analysis Date: **4/19/2017 04:07 PM**
Client ID: Run ID: **SVMS5_170419A** SeqNo: **4387481** Prep Date: **4/19/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	11.4	5.0	20	0	57	30-110	0			
2,4,5-Trichlorophenol	13.36	5.0	20	0	66.8	50-110	0			
2,4,6-Trichlorophenol	13.62	5.0	20	0	68.1	50-115	0			
2,4-Dinitrotoluene	13.68	5.0	20	0	68.4	50-120	0			
Hexachloro-1,3-butadiene	11.13	5.0	20	0	55.6	25-105	0			
Hexachlorobenzene	14.55	5.0	20	0	72.8	50-110	0			
Hexachloroethane	10.65	5.0	20	0	53.2	30-95	0			
m-Cresol	13.31	5.0	20	0	66.6	30-110	0			
Nitrobenzene	13.29	5.0	20	0	66.4	45-110	0			
o-Cresol	14.03	5.0	20	0	70.2	40-110	0			
p-Cresol	13.31	5.0	20	0	66.6	30-110	0			
Pentachlorophenol	10.5	5.0	20	0	52.5	40-115	0			
Pyridine	8.41	10	20	0	42	10-71	0			J
Surr: 2,4,6-Tribromophenol	*33.55*	0	*50*	0	*67.1*	*38-115*	0			
Surr: 2-Fluorobiphenyl	*35.15*	0	*50*	0	*70.3*	*32-100*	0			
Surr: 2-Fluorophenol	*23.34*	0	*50*	0	*46.7*	*22-59*	0			
Surr: 4-Terphenyl-d14	*37.82*	0	*50*	0	*75.6*	*23-112*	0			
Surr: Nitrobenzene-d5	*37.53*	0	*50*	0	*75.1*	*31-93*	0			
Surr: Phenol-d6	*16.15*	0	*50*	0	*32.3*	*13-36*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Sigma Group
Work Order: 1704959
Project: Irgens - BMO (16722)

QC BATCH REPORT

Batch ID: **100774** Instrument ID **SVMS5** Method: **SW8270D**

MS Sample ID: **1704833-02A MS** Units: **µg/L** Analysis Date: **4/19/2017 04:30 PM**
Client ID: Run ID: **SVMS5_170419A** SeqNo: **4387482** Prep Date: **4/19/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	238.2	100	400	0	59.6	30-110	0			
2,4,5-Trichlorophenol	263.8	100	400	11	63.2	50-110	0			
2,4,6-Trichlorophenol	284	100	400	7	69.2	50-115	0			
2,4-Dinitrotoluene	279.8	100	400	0	70	50-120	0			
Hexachloro-1,3-butadiene	234.6	100	400	0	58.6	25-105	0			
Hexachlorobenzene	268.2	100	400	0	67	50-110	0			
Hexachloroethane	228.8	100	400	0	57.2	30-95	0			
m-Cresol	354.8	100	400	80.2	68.6	30-110	0			
Nitrobenzene	250.2	100	400	0	62.6	45-110	0			
o-Cresol	311.8	100	400	0	78	40-110	0			
p-Cresol	354.8	100	400	80.2	68.6	30-110	0			
Pentachlorophenol	292	100	400	0	73	40-115	0			
Pyridine	214.2	200	400	0	53.6	10-80	0			
Surr: 2,4,6-Tribromophenol	*714.4*	0	*1000*	0	*71.4*	*38-115*	0			
Surr: 2-Fluorobiphenyl	*681*	0	*1000*	0	*68.1*	*32-100*	0			
Surr: 2-Fluorophenol	*477.2*	0	*1000*	0	*47.7*	*22-59*	0			
Surr: 4-Terphenyl-d14	*765.6*	0	*1000*	0	*76.6*	*23-112*	0			
Surr: Nitrobenzene-d5	*683.2*	0	*1000*	0	*68.3*	*31-93*	0			
Surr: Phenol-d6	*342.6*	0	*1000*	0	*34.3*	*13-36*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Sigma Group
Work Order: 1704959
Project: Irgens - BMO (16722)

QC BATCH REPORT

Batch ID: **100774** Instrument ID **SVMS5** Method: **SW8270D**

MSD Sample ID: **1704833-02A MSD** Units: **µg/L** Analysis Date: **4/19/2017 04:54 PM**

Client ID: Run ID: **SVMS5_170419A** SeqNo: **4387483** Prep Date: **4/19/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	228.8	100	400	0	57.2	30-110	238.2	4.03	30	
2,4,5-Trichlorophenol	265.8	100	400	11	63.7	50-110	263.8	0.755	30	
2,4,6-Trichlorophenol	278	100	400	7	67.8	50-115	284	2.14	30	
2,4-Dinitrotoluene	272.2	100	400	0	68	50-120	279.8	2.75	30	
Hexachloro-1,3-butadiene	227.8	100	400	0	57	25-105	234.6	2.94	30	
Hexachlorobenzene	256.2	100	400	0	64	50-110	268.2	4.58	30	
Hexachloroethane	221.4	100	400	0	55.4	30-95	228.8	3.29	30	
m-Cresol	361.4	100	400	80.2	70.3	30-110	354.8	1.84	30	
Nitrobenzene	239.6	100	400	0	59.9	45-110	250.2	4.33	30	
o-Cresol	314.6	100	400	0	78.6	40-110	311.8	0.894	30	
p-Cresol	361.4	100	400	80.2	70.3	30-110	354.8	1.84	30	
Pentachlorophenol	278.6	100	400	0	69.6	40-115	292	4.7	30	
Pyridine	216.8	200	400	0	54.2	10-80	214.2	1.21	30	
Surr: 2,4,6-Tribromophenol	*696.2*	0	*1000*	0	*69.6*	*38-115*	714.4	*2.58*	*0*	
Surr: 2-Fluorobiphenyl	*664*	0	*1000*	0	*66.4*	*32-100*	681	*2.53*	*0*	
Surr: 2-Fluorophenol	*486*	0	*1000*	0	*48.6*	*22-59*	477.2	*1.83*	*0*	
Surr: 4-Terphenyl-d14	*750.2*	0	*1000*	0	*75*	*23-112*	765.6	*2.03*	*0*	
Surr: Nitrobenzene-d5	*653*	0	*1000*	0	*65.3*	*31-93*	683.2	*4.52*	*0*	
Surr: Phenol-d6	*361.4*	0	*1000*	0	*36.1*	*13-36*	342.6	*5.34*	*0*	*S*

The following samples were analyzed in this batch: 1704959-07A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Sigma Group
Work Order: 1704959
Project: Irgens - BMO (16722)

QC BATCH REPORT

Batch ID: **R210106a** Instrument ID **VMS5** Method: **SW8260B**

MBLK Sample ID: **VBLKW1-170419-R210106a** Units: **µg/L** Analysis Date: **4/19/2017 12:58 PM**
Client ID: Run ID: **VMS5_170419A** SeqNo: **4386745** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	U	1.0								
1,2-Dichloroethane	U	1.0								
2-Butanone	U	5.0								
Benzene	U	1.0								
Carbon tetrachloride	U	1.0								
Chlorobenzene	U	1.0								
Chloroform	U	1.0								
Tetrachloroethene	U	1.0								
Trichloroethene	U	1.0								
Vinyl chloride	U	1.0								
Surr: 1,2-Dichloroethane-d4	*19.57*	0	*20*	0	*97.8*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.23*	0	*20*	0	*96.2*	*80-110*	0			
Surr: Dibromofluoromethane	*19.38*	0	*20*	0	*96.9*	*85-115*	0			
Surr: Toluene-d8	*18.48*	0	*20*	0	*92.4*	*85-110*	0			

LCS Sample ID: **VLCSW1-170419-R210106a** Units: **µg/L** Analysis Date: **4/19/2017 11:38 AM**
Client ID: Run ID: **VMS5_170419A** SeqNo: **4386740** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	19.49	1.0	20	0	97.4	70-145	0			
1,2-Dichloroethane	19.73	1.0	20	0	98.6	78-125	0			
2-Butanone	22.74	5.0	20	0	114	55-150	0			
Benzene	20.89	1.0	20	0	104	85-125	0			
Carbon tetrachloride	19.18	1.0	20	0	95.9	65-140	0			
Chlorobenzene	18.08	1.0	20	0	90.4	80-120	0			
Chloroform	20.3	1.0	20	0	102	80-130	0			
Tetrachloroethene	19.72	1.0	20	0	98.6	68-166	0			
Trichloroethene	19.85	1.0	20	0	99.2	84-130	0			
Vinyl chloride	13.24	1.0	20	0	66.2	50-136	0			
Surr: 1,2-Dichloroethane-d4	*18.01*	0	*20*	0	*90*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*20.46*	0	*20*	0	*102*	*80-110*	0			
Surr: Dibromofluoromethane	*19.56*	0	*20*	0	*97.8*	*85-115*	0			
Surr: Toluene-d8	*19.43*	0	*20*	0	*97.2*	*85-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Sigma Group
Work Order: 1704959
Project: Irgens - BMO (16722)

QC BATCH REPORT

Batch ID: **R210106a** Instrument ID **VMS5** Method: **SW8260B**

MS Sample ID: **1704933-31B MS** Units: **µg/L** Analysis Date: **4/19/2017 09:17 PM**
Client ID: Run ID: **VMS5_170419A** SeqNo: **4386769** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	20.94	1.0	20	0	105	70-145	0			
1,2-Dichloroethane	19.6	1.0	20	0	98	78-125	0			
2-Butanone	22.22	5.0	20	0	111	55-150	0			
Benzene	38.04	1.0	20	16.63	107	85-125	0			
Carbon tetrachloride	20.82	1.0	20	0	104	65-140	0			
Chlorobenzene	18.74	1.0	20	0	93.7	80-120	0			
Chloroform	20.56	1.0	20	0	103	80-130	0			
Tetrachloroethene	20.15	1.0	20	0	101	68-166	0			
Trichloroethene	19.89	1.0	20	0	99.4	84-130	0			
Vinyl chloride	13.78	1.0	20	0	68.9	50-136	0			
Surr: 1,2-Dichloroethane-d4	*18.62*	0	*20*	0	*93.1*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*21.27*	0	*20*	0	*106*	*80-110*	0			
Surr: Dibromofluoromethane	*19.34*	0	*20*	0	*96.7*	*85-115*	0			
Surr: Toluene-d8	*19.42*	0	*20*	0	*97.1*	*85-110*	0			

MSD Sample ID: **1704933-31B MSD** Units: **µg/L** Analysis Date: **4/19/2017 09:43 PM**
Client ID: Run ID: **VMS5_170419A** SeqNo: **4386770** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	21.42	1.0	20	0	107	70-145	20.94	2.27	30	
1,2-Dichloroethane	20.09	1.0	20	0	100	78-125	19.6	2.47	30	
2-Butanone	22.49	5.0	20	0	112	55-150	22.22	1.21	30	
Benzene	38.12	1.0	20	16.63	107	85-125	38.04	0.21	30	
Carbon tetrachloride	21.71	1.0	20	0	109	65-140	20.82	4.19	30	
Chlorobenzene	19.23	1.0	20	0	96.2	80-120	18.74	2.58	30	
Chloroform	20.69	1.0	20	0	103	80-130	20.56	0.63	30	
Tetrachloroethene	20.88	1.0	20	0	104	68-166	20.15	3.56	30	
Trichloroethene	20.51	1.0	20	0	103	84-130	19.89	3.07	30	
Vinyl chloride	13.93	1.0	20	0	69.6	50-136	13.78	1.08	30	
Surr: 1,2-Dichloroethane-d4	*18.61*	0	*20*	0	*93*	*75-120*	18.62	*0.0537*	*30*	
Surr: 4-Bromofluorobenzene	*20.76*	0	*20*	0	*104*	*80-110*	21.27	*2.43*	*30*	
Surr: Dibromofluoromethane	*19.45*	0	*20*	0	*97.2*	*85-115*	19.34	*0.567*	*30*	
Surr: Toluene-d8	*19.12*	0	*20*	0	*95.6*	*85-110*	19.42	*1.56*	*30*	

The following samples were analyzed in this batch: 1704959-07A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Sigma Group
Work Order: 1704959
Project: Irgens - BMO (16722)

QC BATCH REPORT

Batch ID: **100827** Instrument ID **WETCHEM** Method: **SW9045D**

LCS Sample ID: **LCS-100827-100827** Units: **s.u.** Analysis Date: **4/20/2017 10:00 AM**
Client ID: Run ID: **WETCHEM_170420A** SeqNo: **4387471** Prep Date: **4/19/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	4.02	0.10	4	0	100	90-110	0			

DUP Sample ID: **1704959-06A DUP** Units: **s.u.** Analysis Date: **4/20/2017 10:00 AM**
Client ID: **Comp Indoor** Run ID: **WETCHEM_170420A** SeqNo: **4387477** Prep Date: **4/19/2017** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.62	0.10	0	0	0	0-0	8.33	3.42	20	

The following samples were analyzed in this batch: 1704959-06A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Sigma Group
Work Order: 1704959
Project: Irgens - BMO (16722)

QC BATCH REPORT

Batch ID: **R210077** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R210077** Units: **% of sample** Analysis Date: **4/18/2017 02:35 PM**
Client ID: Run ID: **MOIST_170418B** SeqNo: **4384191** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	U	0.050								

LCS Sample ID: **LCS-R210077** Units: **% of sample** Analysis Date: **4/18/2017 02:35 PM**
Client ID: Run ID: **MOIST_170418B** SeqNo: **4384190** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

DUP Sample ID: **1704781-28B DUP** Units: **% of sample** Analysis Date: **4/18/2017 02:35 PM**
Client ID: Run ID: **MOIST_170418B** SeqNo: **4384172** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	15.2	0.050	0	0	0		14.38	5.54	5	R

DUP Sample ID: **1704838-01A DUP** Units: **% of sample** Analysis Date: **4/18/2017 02:35 PM**
Client ID: Run ID: **MOIST_170418B** SeqNo: **4384183** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	76.3	0.050	0	0	0		76.16	0.184	5	

The following samples were analyzed in this batch:

1704959-01A	1704959-02A	1704959-03A
1704959-04A	1704959-05A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Sigma Group
Work Order: 1704959
Project: Irgens - BMO (16722)

QC BATCH REPORT

Batch ID: **R210080** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R210080** Units: **% of sample** Analysis Date: **4/18/2017 04:28 PM**
Client ID: Run ID: **MOIST_170418C** SeqNo: **4384244** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	U	0.050								

LCS Sample ID: **LCS-R210080** Units: **% of sample** Analysis Date: **4/18/2017 04:28 PM**
Client ID: Run ID: **MOIST_170418C** SeqNo: **4384243** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

DUP Sample ID: **1704884-01A DUP** Units: **% of sample** Analysis Date: **4/18/2017 04:28 PM**
Client ID: Run ID: **MOIST_170418C** SeqNo: **4384229** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	6.66	0.050	0	0	0		6.72	0.897	5	

DUP Sample ID: **1704962-01B DUP** Units: **% of sample** Analysis Date: **4/18/2017 04:28 PM**
Client ID: Run ID: **MOIST_170418C** SeqNo: **4384241** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	16.28	0.050	0	0	0		16.77	2.97	5	

The following samples were analyzed in this batch: 1704959-06A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Sigma Group
Work Order: 1704959
Project: Irgens - BMO (16722)

QC BATCH REPORT

Batch ID: **R210207** Instrument ID **WETCHEM** Method: **SW1010A**

LCS Sample ID: **LCS-R210207-R210207** Units: **°F** Analysis Date: **4/20/2017 09:25 AM**
Client ID: Run ID: **WETCHEM_170420K** SeqNo: **4388039** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Flashpoint/Ignitability	83	1.0	81	0	102	97-103	0			

DUP Sample ID: **1704936-01A DUP** Units: **°F** Analysis Date: **4/20/2017 09:25 AM**
Client ID: Run ID: **WETCHEM_170420K** SeqNo: **4388043** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Flashpoint/Ignitability	U	1.0	0	0	0	0-0	0	0	10	

The following samples were analyzed in this batch: 1704959-06A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Sigma Group
Work Order: 1704959
Project: Irgens - BMO (16722)

QC BATCH REPORT

Batch ID: **R210209** Instrument ID **WETCHEM** Method: **SW7.3.4.2**

MBLK	Sample ID: **MB-R210209-R210209**			Units: **mg/Kg**			Analysis Date: **4/20/2017 02:00 PM**			
Client ID:	Run ID: **WETCHEM_170420L**			SeqNo: **4388063**			Prep Date:		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide, Reactive	U	100								

LCS	Sample ID: **LCS-R210209-R210209**			Units: **mg/Kg**			Analysis Date: **4/20/2017 02:00 PM**			
Client ID:	Run ID: **WETCHEM_170420L**			SeqNo: **4388064**			Prep Date:		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide, Reactive	1896	100	2149	0	88.2	60-120	0			

The following samples were analyzed in this batch: 1704959-06A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: The Sigma Group
Work Order: 1704959
Project: Irgens - BMO (16722)

QC BATCH REPORT

Batch ID: **R210210** Instrument ID **WETCHEM** Method: **SW7.3.3.2**

MBLK Sample ID: **MB-R210210-R210210** Units: **mg/Kg** Analysis Date: **4/20/2017 02:00 PM**
Client ID: Run ID: **WETCHEM_170420M** SeqNo: **4388070** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	U	100								

LCS Sample ID: **LCS-R210210-R210210** Units: **mg/Kg** Analysis Date: **4/20/2017 02:00 PM**
Client ID: Run ID: **WETCHEM_170420M** SeqNo: **4388071** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	117.4	100	125	0	94	84-112	0			

MS Sample ID: **1704766-01D MS** Units: **mg/Kg** Analysis Date: **4/20/2017 02:00 PM**
Client ID: Run ID: **WETCHEM_170420M** SeqNo: **4388073** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	235.4	100	250	0	94.1	84-112	0			

MSD Sample ID: **1704766-01D MSD** Units: **mg/Kg** Analysis Date: **4/20/2017 02:00 PM**
Client ID: Run ID: **WETCHEM_170420M** SeqNo: **4388074** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	235.4	100	250	0	94.1	84-112	235.4	0	8	

The following samples were analyzed in this batch: 1704959-06A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Cincinnati, OH +1 513 733 5336
Fort Collins, CO +1 970 490 1511
Everett, WA +1 425 356 2600
Holland, MI +1 616 399 6070
Houston, TX +1 281 530 5656
Spring City, PA +1 610 948 4903
South Charleston, WV +1 304 356 3168
Middletown, PA +1 717 944 5541
Salt Lake City, UT +1 801 266 7700
York, PA +1 717 505 5280

Chain of Custody Form

Page 1 of 1

COC ID: 42735

ALS Project Manager:

ALS Work Order #: 1704959

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Ergens - BMO	A	Ethylene Glycol
Work Order		Project Number	18722	B	RCRA Metals
Company Name	The Sigma Group	Bill To Company	The Sigma Group	C	Waste Characterization - Normal TAT
Send Report To	Cory Katzban	Invoice Attn	Accounts Payable	D	
Address	1300 W. Canal Street	Address	1300 W. Canal Street	E	
				F	
City/State/Zip	Milwaukee, WI 53233	City/State/Zip	Milwaukee, WI 53233	G	
Phone	(414) 643-4124 4200	Phone	(414) 643-4124 4200	H	
Fax	(414) 643-4210	Fax	(414) 643-4210	I	
e-Mail Address	ckatzban@thesigmagroup.com	e-Mail Address	ckatzban@thesigmagroup.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	SB-2-9 (2-4')	4/13/17	11:08	SOIL	None	1	X										
2	SB-2-10 (2-4')	↓	11:38	↓	↓	↓	X										
3	SB-2-11 (2-4')		12:05				X										
4	SB-2-12 (2-4')		12:34				X										
5	Comp Outdoor		2:00					X									
6	Comp Indoor	4/14/17	4:00	↓	↓	6			X								
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Steven Kikkert Steven Kikkert

Shipment Method: Fed Ex

Turnaround Time in Business Days (BD): ☐ 10 BD ☒ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☐ Other

Results Due Date:

Relinquished by: Steven Kikkert	Date: 4/17	Time: 10:00	Received by: Fed Ex	
Relinquished by: Fed Ex	Date: 4/18/17	Time: 0900	Received by (Laboratory):	
Logged by (Laboratory): DES	Date: 4/18/17	Time: 1430	Checked by (Laboratory): TBS	

Notes: Normal Turn Around on Waste Characterization

Cooler ID	Cooler Temp
SR2	4.2°C
1	

QC Package: (Check One Box Below)
☐ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

Tom Beamish

From: Cory Katzban <ckatzban@thesigmagroup.com>
Sent: Monday, April 17, 2017 3:26 PM
To: Tom Beamish
Subject: RE: Sigma Project #16722 - Irgens BMO - Incoming Samples

For all please, assuming 3 day TAT – 1.5 x standard cost?

Cory Katzban, E.I.T.
Staff Engineer II
The Sigma Group
414.643.4138 (direct) | 414.588.8617 (cell)
1300 W Canal Street, Milwaukee, WI 53233
ckatzban@thesigmagroup.com | www.thesigmagroup.com

From: Tom Beamish [mailto:Tom.Beamish@ALSGlobal.com]
Sent: Monday, April 17, 2017 2:24 PM
To: Cory Katzban <ckatzban@thesigmagroup.com>
Subject: RE: Sigma Project #16722 - Irgens BMO - Incoming Samples

Will do, Cory - is that 3-day TAT for just the EG and RCRA metals, or for the waste characterization as well?

Regards,

Tom Beamish
Senior Project Manager, Environmental
Holland, MI Laboratory

T +1 616 399 6070 D +1 616 738 7318
F +1 616 399 6185 M +1 616 836 5844
tom.beamish@alsglobal.com
3352 128th Avenue
Holland, MI 49424 USA

From: Cory Katzban [mailto:ckatzban@thesigmagroup.com]
Sent: Monday, April 17, 2017 3:06 PM
To: Tom Beamish <Tom.Beamish@ALSGlobal.com>; Alex Csaszar <Alex.Csaszar@ALSGlobal.com>
Cc: Chad Whelton <Chad.Whelton@ALSGlobal.com>
Subject: RE: Sigma Project #16722 - Irgens BMO - Incoming Samples

Align Open End of FedEx Pouch Here

ALS
3352 128th Avenue
Holland, Michigan 49424
Tel. +1 616 399 6070
Fax. +1 616 399 6185

Chad Wheton

CUSTODY SEAL

Date: 4/27/17 Time: 10:00 am
Name: Steven Kikkert
Company: The Sigma Group

Seal Broken By:
Date:

FROM: (414) 643-4200
Steven Kikkert
The Sigma Group
1300 W CANAL ST
MILWAUKEE WI 53233
US

SHIP DATE: 17APR17
ACTWGT: 19.70 LB
CAD: 6981747/SSF01B
DIMMED: 14 X 14 X 1
BILL 3rd PARTY

TO Attn: Chad Wheton
ALS
3352 128TH AVE
HOLLAND MI 49424
(616) 399-6070
INV:
PO:
DEPT:

Fe

TRK# 7862 5968 5247

49

0417 3 (000 000 0000) 0 00 7862 5968 524

ALS Group, USA

Sample Receipt Checklist

Client Name: **SIGMAGROUP** Date/Time Received: **18-Apr-17 09:00**

Work Order: **1704959** Received by: **DS**

Checklist completed by Diane Shaw (eSignature) 18-Apr-17 (Date) Reviewed by: Tom Bramish (eSignature) 18-Apr-17 (Date)

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	4.2/4.2 c	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	4/18/2017 2:31:22 PM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction: